Minutes of the 300th meeting of the State Level Expert Appraisal Committee held on 03/08/2016 at Committee Room, Gujarat Pollution Control Board, Gandhinagar.

The 300th meeting of the State Level Expert Appraisal Committee (SEAC) was held on 3rd August, 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 Hardik Shah, IAS, Secretary, SEAC.*

The agenda of TOR/Scoping/Category 8 (a) cases and Appraisal cases was taken up. Fifteen (15) cases of TOR/Scoping/Category 8 (a) and five (5) cases of Appraisal were taken up. The applicants made presentations on the activities to be carried out along with other details furnished in the Form-1 / Form-1A, EIA report and other reports.

1	Arvind five Homes LLP	At: Moti Devti , Sanand ,Ahmedabad.

The project was taken up in the meeting of SEAC held on 29/12/2015. During the meeting held on 29/12/2015, it was observed that the project site is at a distance of 38 km from Nalsarovar. After detailed discussion, it was decided to further appraise the project only after submission of certain additional information regarding the project.

Project proponent submitted the additional information sought during the meeting of SEAC held on 29/12/2015 vide their letter dated 14/06/2016.

Project proponent along with their expert / consultant attended the meeting for appraisal of the project.

During the meeting, it was found that village map & DILR map showing the approach road has been submitted by them. Project layout plan, implementation schedule of the project and contour plan of the project site have also been submitted. It was presented that based on the contour survey carried out it found that the slop of the site is NE to SW. There is no existing natural drain within premises. Due to construction of paved areas the quantity of runoff will increase due to reduced infiltration & the same will be collected by providing percolation wells (119 nos.) in the low lying areas based on the contour survey carried out for the project site. It was presented that from the total water requirement of 1005.92 KL/day, the fresh water requirement of 483.91 KL/day for the project during the operation phase will be met through water supply from Moti Devti Grampanchayat.. Sewage to be generated – 584.98 KL/day will be treated in the proposed onsite 7 nos. of STPs, each of 85 KL/day capacity. 522.01 KL/day of treated sewage will be used for flushing, gardening & cooling water make up and remaining quantity of treated sewage – about 62.97 KL/day will be used for outer road side tree plantation by providing drip irrigation system. Solid waste to be generated will be segregated into recyclable waste & biodegradable waste. Recyclable waste will be sold to vendors. Biodegradable waste & STP sludge will be converted into compost and will be used within premises.

Salient features of the project are as under:

<table>
<tr><td>Sr. No.</td><td>Particulars</td><td>Details</td></tr>
<tr><td>1.</td><td>Proposal is for</td><td>New Project</td></tr>
<tr><td>2.</td><td>Type of Project</td><td>Residential & commercial project</td></tr>
<tr><td>3.</td><td>Project / Activity No. [8(a) or 8(b)]</td><td>8 (a)</td></tr>
<tr><td>4.</td><td>Name of the project</td><td>Beyond Five</td></tr>
<tr><td>5.</td><td>Name of Developer</td><td>Arvind Five Homes LLP</td></tr>
<tr><td>6.</td><td>Estimated Project Cost (Rs. In Crores)</td><td>150 Crores</td></tr>
<tr><td>7.</td><td>Whether construction work has been initiated at site? If yes, details thereof</td><td>No</td></tr>
<tr><td>8.</td><td>Project Details</td><td>• Land / Plot Area (m^2): 4,75,249
• FSI area (m^2):1,30,623.0
• Non FSI area (m^2):9,713.0
• Total BUA (m^2):1,40,336.0

<table><tr><td></td><td>Permissible</td><td>Proposed</td></tr><tr><td>FSI Area (m^2)</td><td>----</td><td>1,30,623.0</td></tr><tr><td>Ground Coverage (m^2)</td><td>1,42,574.7</td><td>79,760.0</td></tr><tr><td>Common Plot Area (m^2)</td><td>47,524.9</td><td>49,933.0</td></tr><tr><td>Max. building height (m)</td><td>40</td><td>16</td></tr></table></td></tr>
<tr><td>9.</td><td>Building Details</td><td>• No. of Buildings: 386 nos. of villas, 20 residential buildings and 6 commercial buildings.
• No. of Blocks: 386 nos. of villas, 20 residential buildings and 6 commercial buildings.
• Scope of buildings/blocks: Residential buildings – Ground floor + 4 floors. Commercial buildings – Ground floor + 2 floors. Villas – Ground floor + 1 floor.
• No. of residential units: 800 flats (Size 67.26 m^2) and 386 villas.
• No. & type of Commercial Units: 71
• Details of amenities if any: No.</td></tr>
<tr><td>10.</td><td>No. of expected residents / users</td><td>5509 occupants and 100 visitors</td></tr>
<tr><td>11.</td><td>Water & waste water details during construction phase</td><td>• Water requirement (KL/day): 21.75
• Source of water: Through local water tankers .
• Waste water generation quantity (KL/day): 5.73
• Mode of disposal: Into septic tank & soak pit.
• Details of reuse of water, if any: No</td></tr>
</table>

<table>
<tr><td>12.</td><td>Water & waste water details during operation phase</td><td>
• Total water requirement (KL/day):1,005.92
• Fresh water requirement (KL/day):483.91
• Source of water: Water supply from SSNNL or local authority
• Waste water generation quantity (KL/day):584.98
• Mode of disposal: Sewage to be generated will be treated in the proposed onsite STPs. Treated sewage will be reused for gardening, flushing & cooling water make up within premises and remaining quantity of treated sewage will be utilized for road side plantation.
• In case of STP provision, capacity of STP: Yes, 3 X 200 KL/day
• STP Technology: Biological
• Purposes for treated water utilization: Gardening, flushing & cooling water make up within premises and for road side plantation outside the premises.
• Quantity of treated water to be reused:
1.Gardening (KL/day):224.69
2. Flushing (KL/day): 246.42
3. Cooling water (KL/day):50
• Provision of dual plumbing system (Yes/No): yes
• Quantity and type (treated/untreated)of water to be discharged: Sewage to be generated will be treated in the proposed onsite STPs. Treated sewage will be reused for gardening, flushing & cooling water make up within premises and remaining quantity of treated sewage will be utilized for road side plantation.
• Mode of disposal: As above.
</td></tr>
<tr><td>13.</td><td>Status of water supply and drainage line</td><td>Not present at site</td></tr>
<tr><td>14.</td><td>Solid waste Management</td><td>Construction Phase:
<table>
<tr><th></th><th>Generation (m^3)</th><th>Quantity to be reused (m^3)</th><th>Mode of Disposal / Reuse</th></tr>
<tr><td>Top Soil</td><td>7,500</td><td>7,500</td><td>Will be completely used for greenbelt development and landscaping</td></tr>
<tr><td>Other excavated earth</td><td>17,500</td><td>17,500</td><td>Will be completely reused for backfilling as filler for low lying areas.</td></tr>
<tr><td>Construction debris</td><td>1,200</td><td>1,200</td><td>Will be used in internal road development</td></tr>
<tr><td>Steel scrap</td><td>20</td><td>0</td><td>Sold to vendors</td></tr>
<tr><td>Discarded packing materials</td><td>10</td><td>0</td><td>Sold to vendors</td></tr>
</table>
Operation Phase:</td></tr>
</table>

<table>
<tr><td></td><td></td><td>
<table>
<tr><td>Type of waste</td><td>Generation Quantity (Kg/day)</td><td>Mode of waste collection</td><td>Mode of Disposal / Reuse</td></tr>
<tr><td>Dry waste</td><td>1,280.6</td><td>White bins</td><td>Sold to vendors</td></tr>
<tr><td>Wet waste</td><td>2,060</td><td>Green Bins</td><td rowspan="2">Convert into manure</td></tr>
<tr><td>STP Sludge</td><td>30</td><td>Green Bins</td></tr>
</table>
• Details of segregation if to be done: yes
• Capacity and no. of community bins to be placed within premises: 15 kg and 60 number of community bins to be placed in common areas.
• Landfill site where waste will be ultimately disposed by local authority: Organic waste will be converted into manure and recyclable waste will be sold to vendors.
</td></tr>
<tr><td>15.</td><td>Parking Details</td><td>• Total parking area requirement for the project as per GDCR:386 cars for villas and 14,291.9 m^2
• Parking area requirement for residential units as per GDCR:386 cars for villas and 10,762.4 m^2
• Parking area requirement for Commercial units as per GDCR: 3,529.5 m^2
• Total number of CPS requirement for the project as per NBC :928
• Number of CPS requirement for residential units as per NBC: 786
• Number of CPS requirement for commercial units as per NBC: 142
• Total Parking area provided (m^2) & No. of CPS:35,000 m^2 &1,521 CPS
• Parking area provided as open surface (m^2) & No. of CPS:35,000 m^2 and 1,521 CPS.</td></tr>
<tr><td>16.</td><td>Traffic Management</td><td>• Width of adjacent public roads: 12 wide proposed road.
• Number of Entry & Exit provided on approach road/s: One entry and One exist
• Width of Entry & Exit provided on approach road/s:24 m (Entry and Exist)
• Minimum width of open path all around the buildings for easy access of fire tender (excluding the width for the plantation): 5.0 m
• Width of all internal roads: 18, 12, 9 m</td></tr>
<tr><td>17.</td><td>Details of Green Building measures proposed.</td><td>Maximum use of natural lighting through architectural design, energy efficient motors & pumps, water efficient taps, water meters, maximum use of RMC & aerated blocks, use of LED lighting fixtures and low voltage lighting, solar lighting in open and landscape areas- 40 numbers of solar lighting, roof-top thermal insulation, rain water harvesting & ground water recharge through 119 nos. of percolating wells, provision of sewage treatment plants and reuse of treated sewage for gardening, flushing, cooling water make up and road side tree plantation etc.</td></tr>
<tr><td>18.</td><td>Energy Requirement, Source and Conservation</td><td>• Power supply:
Maximum demand: 6500 KVA
Connected load: 7000 KVA
Source: UGVCL
• Energy saving measures: Maximum use of natural lighting through architectural design, energy efficient motors & pumps use of LED</td></tr>
</table>

<table>
<tr><td></td><td></td><td>lighting fixtures and low voltage lighting, solar lighting in open and landscape areas- 40 numbers of solar lighting, roof-top thermal insulation
• % of saving with calculations: ~30% by use of LED, solar lights and star rated energy efficient electrical appliances.
• Compliance of the ECBC guidelines (Yes / No),if yes, compliance in tabular form: only roof area
• DG Sets:
No. and capacity of the DG sets:2 X 125 KVA
Fuel & its quantity: HSD, 50 litre/hr</td></tr>
<tr><td>19.</td><td>Fire and Life Safety Measures</td><td>• During Construction Phase: Provision of Personal Protective Equipment's (PPEs) to the construction workers and its usage shall be ensured and supervised, training to all workers on construction safety aspects, first aid room with first aid kit, doctor & ambulance service.
• During operation phase (residential and commercial buildings): Fire extinguishers, hose reel, down comer, manually operated electric fire alarm system, underground static water storage tank-300 KL capacity, terrace tank -5 KL capacity (on each residential buildings), pump near underground static water storage tank (fire pump) with minimum pressure of 3.5 kg/cm2 at terrace level.</td></tr>
<tr><td>20.</td><td colspan="2">Details on staircase
<table>
<tr><th>Type & no. of buildings</th><th>No. of floors</th><th>Floor area m^2</th><th>No. of staircase</th><th>Width of the staircase (m)</th><th>Travel distance (m)</th></tr>
<tr><td>Residential buildings.</td><td>G+ 4</td><td>627.4</td><td>2</td><td>1.5</td><td>17</td></tr>
</table></td></tr>
<tr><td>21.</td><td>Rain Water Harvesting (RWH)</td><td>• Level of the Ground water table: ---
• No. & dimensions of RWH tank(s) : 119 No and 2.0m X 2.0 m X 3.0 m
• No. and depth of percolations wells :119 nos.
• Details on Pre-treatment facilities : oil and grease removal and filter.</td></tr>
<tr><td>22.</td><td>Green area details</td><td>• Tree covered area (m2) :49,933.0
• Area covered by shrubs and bushes (m2):14,933.0
• Lawn covered area (m2):20,000.0
• Total Green Area (m2):84,866.0
• Green Area % of plot area: 10.5%
• No. of trees and species to be planted: 5000 trees of Limbdo, KaadoSiris, Jambu, Asopalav, DesiBadam and Gulmohar</td></tr>
<tr><td>23.</td><td>Dust control measures</td><td>Spraying of water, peripheral barricading, covered shed for cement loading area, covering the excavated earth with tarpaulin sheet etc.</td></tr>
<tr><td>24.</td><td>Budgetary allocation for Environmental Management Plan (Rs. in lacs)</td><td>Allocation of Rs. 210.0 lacs & Rs. 17 lacs as capital cost & recurring cost respectively has been made for EMP & EMS.</td></tr>
<tr><td>25.</td><td>Details of ecofriendly</td><td>Fly ash bricks, aerated blocks, fly ash paving blocks, maximum use</td></tr>
</table>

	building materials	of RMC, lead free paints etc.
26.	Details of amenities to be provided to construction workers.	Sanitation facilities, maintaining hygienic condition at the project site to avoid health problems, safe drinking water, PPEs, first aid room with first aid kit & welfare facilities as per the Gujarat Building & Other Construction Workers Rules.

During the meeting, the committee did not find it convincing that the water supply of the project will be met by water from Moti Devti Grampanchayat. After detailed discussion, it was decided to consider the project only after submission of the following:

1. Exact source of water supply during operation phase of the project and permission/letter of intent from the concerned competent authority for supplying water to the project.
2. Land ownership documents showing ownership of the project site by the project proponent.

2	Gujarat Housing Board	R.S. Number 230/P, 233, 234/1, 234/2, 234/3, 235 and 236, Village Gorwa, Vadodara

Details of the proposed project as presented before the committee is tabulated below:

Sr. No.	Particulars	Details
1.	Proposal is for	New Project
2.	Type of Project	Residential(LIG & MIG) & Commercial project.
3.	Project / Activity No. [8(a) or 8(b)]	8 (a)
4.	Name of the project	Residential(LIG & MIG) & Commercial project.
5.	Name of Developer	Gujarat Housing Board
6.	Estimated Project Cost (Rs. In Crores)	150 Crores
7.	Whether construction work has been initiated at site? If yes, details thereof	No

<table>
<tr><td>8.</td><td>Project Details</td><td>• Land / Plot Area (m^2): 34,859.0
• FSI area (m^2):1,00,217.75
• Total BUA (m^2):1,21,964.41
<table><tr><td></td><td>Permissible</td><td>Proposed</td></tr><tr><td>FSI Area (m^2)</td><td>1,04,577</td><td>1,00,217.75</td></tr><tr><td>Ground Coverage (m^2)</td><td>10457.7</td><td>9318.76</td></tr><tr><td>Common Plot Area (m^2)</td><td>3355.73</td><td>3355.73</td></tr><tr><td>Max. building height (m)</td><td>45</td><td>42.60</td></tr></table></td></tr>
<tr><td>9.</td><td>Building Details</td><td>• No. of Buildings:17
• No. of Blocks:17
• Scope of buildings/blocks: 8 residential & commercial buildings – ground floor + 13 floors. 9 residential buildings – Hollow plinth + 13 floors.
• No.& size of Residential Units: 1608
• No. & type of Commercial Units: 46 shops
• Details of amenities if any: one society office</td></tr>
<tr><td>10.</td><td>No. of expected residents / users</td><td>7328 occupants and 400 visitors</td></tr>
<tr><td>11.</td><td>Water & waste water details during construction phase</td><td>• Water requirement (KL/day): 19.75
• Source of water: Local water tankers
• Waste water generation quantity (KL/day): 5.73
• Mode of disposal: Into septic tank & soak pit
• Details of reuse of water, if any: No</td></tr>
<tr><td>12.</td><td>Water & waste water details during operation phase</td><td>• Fresh water requirement (KL/day): 1000.42
• Source of water: Water supply from VMSS.
• Waste water generation quantity (KL/day): 789.59
• Mode of disposal: Into drainage line of VMSS.</td></tr>
<tr><td>13.</td><td>Status of water supply and drainage line</td><td>Both water supply & drainage network are available in the area.</td></tr>
<tr><td>14.</td><td>Solid waste Management</td><td>Construction Phase:<table><tr><td></td><td>Generation (m^3)</td><td>Quantity to be reused (m^3)</td><td>Mode of Disposal / Reuse</td></tr><tr><td>Top Soil</td><td>2250</td><td>2250</td><td>For development of Landscape area</td></tr><tr><td>Other excavated earth</td><td>12750</td><td>6750 m^3 will be reused for back filling within premises.</td><td>Balance earth will be used in other project</td></tr></table></td></tr>
</table>

Construction debris	1000	600 m^3 will be used for road & plinth filling.	Balance debris will be handed over to VUDA
Steel scrap	20	0	Sold to vendors
Discarded packing materials	15	0	Sold to vendors

Operation Phase:

Type of waste	Generation Quantity (Kg/day)	Mode of waste collection	Mode of Disposal / Reuse
Dry waste	1763.68	White bins	Sold to vendors
Wet waste	2645.52	Green Bins	Municipal bins

- Details of segregation if to be done: yes
- Capacity and no. of community bins to be placed within premises: 25 kg and 10 number of community bins to be placed in common area
- Landfill site where waste will be ultimately disposed by local authority: at the nearby MSW collection point of VMSS.

15. Parking Details

- Total parking area requirement for the project as per GDCR:14,584.76 m^2
- Parking area requirement for residential units as per GDCR: 13,934.38 m^2
- Parking area requirement for Commercial units as per GDCR: 650.38 m^2
- Total number of CPS requirement for the project as per NBC :830
- Number of CPS requirement for residential units as per NBC: 804
- Number of CPS requirement for commercial units as per NBC:26
- Total Parking area provided (m^2) & No. of CPS: 15,484.97 & 630 CPS
- Parking area provided in hollow plinth (m^2) & No. of CPS:5,494.32 &196 CPS
- Parking area provided as open surface (m^2) & No. of CPS: 9,990.65 & 434 CPS

16.	Traffic Management	• Width of adjacent public roads: Two 12 m wide roads and Two 18 m wide roads • Number of Entry & Exit provided on approach road/s: Five gates will be provided. • Width of Entry & Exit provided on approach road/s: 9 m, 7.5 m & 6 m. • Minimum width of open path all around the buildings for easy access of fire tender (excluding the width for the plantation): 4 m • Width of all internal roads: 9 m, 7.5 m & 6 m.
17.	Details of Green Building measures proposed.	Maximum use of natural lighting through architectural design, energy efficient motors & pumps, water efficient taps, maximum use of RMC & aerated blocks, use of LED lighting fixtures and low voltage lighting, roof-top thermal insulation, rain water harvesting & ground water recharge through 9 nos. of percolating wells,
18.	Energy Requirement, Source and Conservation	• Power supply: Maximum demand: 5000 KVA Connected load: 5250 KVA • Source: MGVCL • % of saving with calculations: ~40% by use of LED and star rated energy efficient electronic consumer durables • DG Sets: No. and capacity of the DG sets: 1 x 62.5 KVA Fuel & its quantity: HSD, 10 litre/hr
19.	Fire and Life Safety Measures	• During Construction Phase: Provision of Personal Protective Equipment's (PPEs) to the construction workers and its usage shall be ensured and supervised, training to all workers on construction safety aspects, first aid room with first aid kit, doctor & ambulance service. • During operation phase: Fire extinguishers, hose reel, manually operated electric fire alarm system, wet riser, underground static water storage tank-300 KL capacity, terrace tank - 170 KL capacity (total capacity), pump near underground static water storage tank (fire pump) with minimum Pressure of 3.5 kg/cm2 at terrace level etc.
20.	Details on staircase	

Type & no. of buildings	No. of floors	Floor area m^2	No. of staircase	Width of the staircase (m)	Travel distance (m)
A to H	G + 13	488.93	1	2.0	22
J to M	H.P + 13	423.34	1	2.0	21
N to P	H.P + 13	694.13	2	2.0 & 1.2	25
Q to R	H.P + 13	488.93	1	2.0	22

21.	Rain Water Harvesting (RWH)	• Level of the Ground water table: 22 m • No. & dimensions of RWH tank(s) : 9 No & 2.5m X 2.0 m X 3.0 m • No. and depth of percolations wells : 9 nos and 17 m • Details on Pre-treatment facilities : oil and grease removal and filter

22.	Green area details	• Tree covered area (m^2) :1,400 • Area covered by shrubs and bushes (m^2):500 • Lawn covered area (m^2):1,455.73 • Total Green Area (m^2):3,355.73 • Green Area % of plot area: 10% • No. of trees and species to be planted: 525 number of trees and Limbdo, KaadoSiris, Jambu, Asopalav, DesiBadam and Gulmohar.
23.	Dust control measures	Spraying of water, peripheral barricading, covered shed for cement loading area, covering the excavated earth with tarpaulin sheet etc.
24.	Budgetary allocation for Environmental Management Plan (Rs. in lacs)	Allocation of Rs.28.0 lacs & Rs.10 lacs as capital cost & recurring cost respectively has been made for EMP & EMS.
25.	Details of ecofriendly building materials	Fly ash bricks, aerated blocks, fly ash paving blocks, maximum use of RMC, lead free paints etc.
26.	Details of amenities to be provided to construction workers.	Sanitation facilities, maintaining hygienic condition at the project site to avoid health problems, safe drinking water, PPEs, first aid room with first aid kit & welfare facilities as per the Gujarat Building & Other Construction Workers Rules.
27.	Documents related to land possession	Copies of village form no. 7 & 12 submitted for all the survey numbers show that the land has been allotted to Gujarat Housing Board.

During the meeting, the project proponent was suggested to provide Sewage Treatment Plant during the operation phase & to increase the parking area provision for the project so as to meet with the parking requirement as per the NBC norms. After detailed discussion, it was decided to consider the project only after submission of the following:

1. Revised details on parking area provision based on the parking requirement as per the NBC norms with back up calculation & parking plans.
2. Explore the possibility of providing STP for treatment of sewage to be generated during the operation phase of the project and to reuse treated sewage within premises for purposes like flushing, gardening etc. Details of the STP with size of each unit, its location on the plan and its adequacy. Measures proposed to prevent odour nuisance due to the STP operation. Provision of dual plumbing system for reuse of treated sewage for flushing. STP sludge management plan. Details on budgetary allocation for the proposed STP & dual plumbing system.

3	Shreenath Avenue	TPS No. 50, (Ved-Katargam), O.P. No. 69, FP No. 69/2, R.S. No. 204/4, Moje-Kataragam, Surat.

Details of the proposed project as presented before the committee is tabulated below:

Sr. No.	Particulars	Details

<table>
<tr><td>1.</td><td>Proposal is for</td><td>New Project</td></tr>
<tr><td>2.</td><td>Type of Project</td><td>Residential</td></tr>
<tr><td>3.</td><td>Project / Activity No. [8(a) or 8(b)]</td><td>8(a)</td></tr>
<tr><td>4.</td><td>Name of the project</td><td>Shreenath Avenue</td></tr>
<tr><td>5.</td><td>Name of Developer</td><td>M/s Shreenathji Enterprise.</td></tr>
<tr><td>6.</td><td>Estimated Project Cost (Rs. In Crores)</td><td>Rs. 70.0</td></tr>
<tr><td>7.</td><td>Whether construction work has been initiated at site? If yes, details thereof</td><td>No</td></tr>
<tr><td>8.</td><td>Project Details</td><td>• Land / Plot Area (m^2): 8,198.0
• FSI area (m^2): 18,311.52
• Total BUA (m^2) : 28,296.25
<table>
<tr><td></td><td>Permissible</td><td>Proposed</td></tr>
<tr><td>FSI Area (m^2)</td><td>18,322.52</td><td>18,311.52</td></tr>
<tr><td>Ground Coverage (m^2)</td><td>2,336.42</td><td>2,135.64</td></tr>
<tr><td>Common Plot Area (m^2)</td><td>819.80</td><td>869.0</td></tr>
<tr><td>Max. building height (m)</td><td>--</td><td>37.0</td></tr>
</table></td></tr>
<tr><td>9.</td><td>Building Details</td><td>• No. of Buildings: 04
• No. of Blocks: 04
• Scope of buildings/blocks: Basement + Hollow plinth + 10 floors.
• No. & size of Residential Units: 80 Flats
• No. & type of Commercial Units: --
• Details of amenities if any: --</td></tr>
<tr><td>10.</td><td>No. of expected residents / users</td><td>Expected residents: 400
Expected shop users: --
Expected visitors: 300</td></tr>
<tr><td>11.</td><td>Water & waste water details during construction phase</td><td>• Water requirement (KL/day): 15.00
• Source of water: Bore well
• Waste water generation quantity (KL/day): 2.40
• Mode of disposal: Soak pit
• Details of reuse of water, if any: W/W generated from washing of equipment will be reused for curing after necessary treatment.</td></tr>
<tr><td>12.</td><td>Water & waste water details during operation phase</td><td>• Fresh water requirement (KL/day): 62.0
• Source of water: Water supply from Surat Municipal Corporation (S.M.C)
• Waste water generation quantity (KL/day): 47.0</td></tr>
</table>

<table>
<tr><td></td><td></td><td>• Mode of disposal: Into underground drainage line of SMC.</td></tr>
<tr><td>13.</td><td>Status of water supply and drainage line</td><td>Applied for connection of water supply and drainage line to S.M.C. The facilities will be available to the project at the time of getting B.U permission.</td></tr>
<tr><td>14.</td><td>Solid waste Management</td><td>Construction Phase:
<table>
<tr><td></td><td>Generation (m^3)</td><td>Quantity to be reused (m^3)</td><td>Mode of Disposal / Reuse</td></tr>
<tr><td>Top Soil</td><td>434.50</td><td>434.50</td><td>Reuse for developing garden area</td></tr>
<tr><td>Other excavated earth</td><td>17,275.21</td><td>2,467.70 m^3 will be used for back filling</td><td>Remaining will be send to other project site for back filling & raising the plinth level in consultation with SMC.</td></tr>
<tr><td>Construction debris</td><td>297</td><td>141.0</td><td>Reused as a filler up to plinth level and remaining will be reused in outer road development</td></tr>
<tr><td>Steel scrap</td><td>11</td><td>--</td><td>Sold to local scrap vendors</td></tr>
<tr><td>Discarded packing materials</td><td>7</td><td>--</td><td>Sold to local vendors</td></tr>
</table>
Operation Phase:
<table>
<tr><td>Type of waste</td><td>Generation Quantity (Kg/day)</td><td>Mode of waste collection</td><td>Mode of Disposal / Reuse</td></tr>
<tr><td>Dry waste</td><td>144.0</td><td>Blue colour bucket</td><td>Through S.M.C’s door to door waste collection system</td></tr>
<tr><td>Wet waste</td><td>96.00</td><td>Green colour bucket</td><td>Through S.M.C’s door to door waste collection system</td></tr>
</table>
• Details of segregation if to be done: Separate bins will be provided to collect dry and wet waste.
• Capacity and no. of community bins to be placed within premises: 0.5 m3 in each building
• Landfill site where waste will be ultimately disposed by local authority: Khajod Landfill site of SMC.</td></tr>
<tr><td>15.</td><td>Parking Details</td><td>• Total parking area requirement for the project as per GDCR: 3,192.0 m^2
• Parking area requirement for residential units as per GDCR: 3,192.0 m^2</td></tr>
</table>

<table>
<tr><td></td><td></td><td>

- Total number of CPS requirement for the project as per NBC : 80
- Number of CPS requirement for residential units as per NBC: 80
- Total Parking area provided (m^2) & No. of CPS: 8,098.50 m^2 & 278 CPS
- Parking area provided in basement (m^2) & No. of CPS: 4,762.50 m^2 & 149 CPS
- Parking area provided in hollow plinth (m^2) & No. of CPS: 2,023.0 m^2 & 72 CPS
- Parking area provided as open surface (m^2) & No. of CPS: 1,313.0 m^2 & 57 CPS

</td></tr>
<tr><td>16.</td><td>Traffic Management</td><td>

- Width of adjacent public roads: 24 m wide road in S direction.
- Number of Entry & Exit provided on approach road/s: 2 gates will be provided.
- Width of Entry & Exit provided on approach road/s: 7.50 m
- Minimum width of open path all around the buildings for easy access of fire tender (excluding the width for the plantation): 5 m
- Width of all internal roads: 7.50 m

</td></tr>
<tr><td>17.</td><td>Details of Green Building measures proposed.</td><td>Use of fly ash based material, flush tank instead of direct flushing in toilets, foam type aerated coke, rain water harvesting, use of LED lights for common areas, use of solar energy in external lighting, reflective/ white tiles on terrace floor, maximum use of natural light etc.</td></tr>
<tr><td>18.</td><td>Energy Requirement, Source and Conservation</td><td>

- Power supply
Maximum demand: 1200 KVA
Source: D.G.V.C.L
- Energy saving measures: Use of LED lights for common areas, solar lights for landscape lighting, reflective/ white tiles on terrace floor, maximum use of natural light etc
- DG Sets
No. and capacity of the DG sets: 125 KVA x 01
Fuel & its quantity: Low Sulphur High speed Diesel (HSD) & Quantity - 55 L/hr

</td></tr>
<tr><td>19.</td><td>Fire and Life Safety Measures</td><td>Fire extinguishers at each floor, hose reel at each floor, wet riser opening at each floor, automatic sprinkler system in basement, manually operated electric fire alarm system, underground static fire water storage tank of 75 KL capacity & terrace tank of 10 KL capacity for each building, one electric & one diesel pump of capacity 1620 L/min. & one electric pump of capacity 180 L/min. having pressure 3.5 kg/cm^2 at terrace level.</td></tr>
<tr><td>20.</td><td colspan="2">Details on staircase
<table>
<tr><th>Bldg. No.</th><th>Floor No.</th><th>Floor Area (m^2)</th><th>No. of Staircase</th><th>Width of Staircase (m)</th><th>Maximum Travel Distance up to the Staircase (m)</th></tr>
<tr><td>A, B, C & D</td><td>B+H.P.+10</td><td>467.42</td><td>1</td><td>1.52</td><td>18.35</td></tr>
</table>
</td></tr>
</table>

21.	Rain Water Harvesting (RWH)	• Level of the Ground water table: 20.0 m • No. & dimensions of RWH tank(s) : 04 no. of RWH tanks; size: 4 m x 3 m x 3 m size of Bore: 350 mm dia. size of pipe: 150 mm dia. • No. and depth of percolations wells: 04 nos. of percolating well, depth will be kept 5 m above ground water table. • Details on Pre-treatment facilities: A de-silting chamber will be provided to de-silt and remove floating material through bar screen
22.	Green area details	• Tree covered area (m^2) : 350.0 • Area covered by shrubs and bushes (m^2): -- • Lawn covered area (m^2): 519.0 • Total Green Area (m^2): 869.0 • Green Area % of plot area: 10.60 % • No. of trees and species to be planted: 58 trees of of Asopalav, coconut palm, Neem, Gulmohar etc. will be planted within premises.
23.	Budgetary allocation for Environmental Management Plan (Rs. in lacs)	Capital cost of Rs. 10.0 lacs and recurring cost of Rs. 7.5 lacs has been allocated towards purposes like rain water harvesting & ground water recharge, greenbelt development, environment monitoring & management, waste management etc.
24.	Proposed dust control measures.	Water sprinkling, covered shed for cement unloading activity, tarpaulin cover on excavated earth & construction material etc.
25.	Use of Eco – friendly building materials.	Use of fly ash bricks & aerated blocks for water partition, paving blocks for parking areas & walk ways, Portland Pozzolona Cement for RCC structure, plaster & flooring etc.
26.	Details on amenities to be provided to construction workers	Drinking water & tap water, sanitation facilities, domestic waste water collection facility, lunch space, first aid box, free medicines, doctor service, PPEs etc.
27.	Documents related to land possession	Index from subregistrar's office shows that the N.A land of the project site is in the name of M/s Shreenathji Enterprise through its partners including the name of applicant.

During the meeting, it was presented that the project site was flooded up to 2.4 m above the ground level and they have proposed to raise the plinth level of the project site up to 2.55 m above ground level. Further hollow plinth of 3 m height is proposed and hence the first floor of the residential units will be 3.15 m above the flood level. After detailed discussion, it was decided to recommend the project to SEIAA Gujarat for grant of Environmental Clearance.

4	Golden Heavan	TPS No. 27, (Kosad-Utra), FP. No. 160/Paikee Sub Plot No. 2, Surat.

Details of the proposed project as presented before the committee is tabulated below:

<table>
<tr><th>Sr. No.</th><th>Particulars</th><th>Details</th></tr>
<tr><td>1.</td><td>Proposal is for</td><td>New Project</td></tr>
<tr><td>2.</td><td>Type of Project</td><td>Residential</td></tr>
<tr><td>3.</td><td>Project / Activity No. [8(a) or 8(b)]</td><td>8(a)</td></tr>
<tr><td>4.</td><td>Name of the project</td><td>Golden Heaven</td></tr>
<tr><td>5.</td><td>Name of Developer</td><td>M/s Golden Associates.</td></tr>
<tr><td>6.</td><td>Estimated Project Cost (Rs. In Crores)</td><td>Rs. 80.0 Crore</td></tr>
<tr><td>7.</td><td>Whether construction work has been initiated at site? If yes, details thereof</td><td>No</td></tr>
<tr><td>8.</td><td>Project Details</td><td>• Land / Plot Area (m^2): 5,318.0
• FSI area (m^2): 21,188.64
• Total BUA (m^2) : 33,380.73
<table><tr><th></th><th>Permissible</th><th>Proposed</th></tr><tr><td>FSI Area (m^2)</td><td>21,192.22</td><td>21,188.64</td></tr><tr><td>Ground Coverage (m^2)</td><td>1649.75</td><td>1649.75</td></tr><tr><td>Common Plot Area (m^2)</td><td>534</td><td>534.00</td></tr><tr><td>Max. building height (m)</td><td>--</td><td>44.95</td></tr></table></td></tr>
<tr><td>9.</td><td>Building Details</td><td>• No. of Buildings: 03
• No. of Blocks: 03
• Scope of buildings/blocks: 2 level basement + hollow plinth + 14 floors.
• No. & size of Residential units: 140 Flats
• No. & type of Commercial Units: --
• Details of amenities if any: --</td></tr>
<tr><td>10.</td><td>No. of expected residents / users</td><td>Expected residents: 700
Expected shop users: --
Expected visitors: 400</td></tr>
<tr><td>11.</td><td>Water & waste water details during construction phase</td><td>• Water requirement (KL/day): 15.35
• Source of water: Bore well
• Waste water generation quantity (KL/day): 2.88
• Mode of disposal: Soak pit
• Details of reuse of water, if any: W/W generated from washing of equipment will be reused for curing after necessary treatment.</td></tr>
<tr><td>12.</td><td>Water & waste water details during operation phase</td><td>• Fresh water requirement (KL/day): 103.0
• Source of water: Water supply from Surat Municipal Corporation (SMC)
• Waste water generation quantity (KL/day): 80.50</td></tr>
</table>

<table>
<tr><td></td><td></td><td>• Mode of disposal: Into underground drainage line of SMC.</td></tr>
<tr><td>13.</td><td>Status of water supply and drainage line</td><td>Applied for connection of water supply and drainage line to S.M.C. The facilities will be available to the project at the time of getting B.U permission.</td></tr>
<tr><td>14.</td><td>Solid waste Management</td><td>Construction Phase:
<table>
<tr><td></td><td>Generation (m^3)</td><td>Quantity to be reused (m^3)</td><td>Mode of Disposal / Reuse</td></tr>
<tr><td>Top Soil</td><td>267.00</td><td>267.00</td><td>Reuse for developing garden area</td></tr>
<tr><td>Other excavated earth</td><td>28,480.16</td><td>647.93 m^3 will be used for back filling</td><td>Remaining will be send to other project site for back filling & raising the plinth level in consultation with SMC.</td></tr>
<tr><td>Construction debris</td><td>350</td><td>160.00</td><td>Reused as a filler up to plinth level and remaining will be reused in outer road development</td></tr>
<tr><td>Steel scrap</td><td>13</td><td>--</td><td>Sold to local scrap vendors</td></tr>
<tr><td>Discarded packing materials</td><td>8</td><td>--</td><td>Sold to local vendors</td></tr>
</table>
Operation Phase:
<table>
<tr><td>Type of waste</td><td>Generation Quantity (Kg/day)</td><td>Mode of waste collection</td><td>Mode of Disposal / Reuse</td></tr>
<tr><td>Dry waste</td><td>252.00</td><td>Blue colour bucket</td><td>Through S.M.C’s door to door waste collection system</td></tr>
<tr><td>Wet waste</td><td>168.00</td><td>Green colour bucket</td><td>Through S.M.C’s door to door waste collection system</td></tr>
</table>
• Details of segregation if to be done: Separate bins will be provided to collect dry and wet waste.
• Capacity and no. of community bins to be placed within premises: 0.5 m3 in each building
• Landfill site where waste will be ultimately disposed by local
• authority: Khajod Landfill site of SMC</td></tr>
<tr><td>15.</td><td>Parking Details</td><td>• Total parking area requirement for the project as per GDCR: 3,178.30 m^2
• Parking area requirement for residential units as per GDCR:</td></tr>
</table>

		3,178.30 m^2 • Total number of CPS requirement for the project as per NBC : 140 • Number of CPS requirement for residential units as per NBC: 140 • Total Parking area provided (m^2) & No. of CPS: 9,634.0 m^2 & 310 CPS • Parking area provided in basement (m^2) & No. of CPS: 8,025.0 m^2 & 251 CPS • Parking area provided in hollow plinth (m^2) & No. of CPS: 1,371.0 m^2 & 49 CPS • Parking area provided as open surface (m^2) & No. of CPS: 238.0 m^2 & 10 CPS.
16.	Traffic Management	• Width of adjacent public roads: 18.0 m wide road in E direction. • Number of Entry & Exit provided on approach road/s: 2 gates will be provided. • Width of Entry & Exit provided on approach road/s: 7 m • Minimum width of open path all around the buildings for easy access of fire tender (excluding the width for the plantation): 5 m • Width of all internal roads: 7 m
17.	Details of Green Building measures proposed.	Use of fly ash based material, flush tank instead of direct flushing in toilets, foam type aerated coke, rain water harvesting, use of LED lights for common areas, use of solar energy in external lighting, reflective/ white tiles on terrace floor, maximum use of natural light etc.
18.	Energy Requirement, Source and Conservation	• Power supply Maximum demand: 1500 KVA Source: D.G.V.C.L • Energy saving measures: Use of LED lights for common areas, solar lights for landscape lighting, reflective/ white tiles on terrace floor, maximum use of natural light etc • DG Sets No. and capacity of the DG sets: 125 KVA x 01 Fuel & its quantity: Low Sulphur High speed Diesel (HSD) & Quantity - 55 L/hr
19.	Fire and Life Safety Measures	Fire extinguishers at each floor, hose reel at each floor, wet riser opening at each floor, automatic sprinkler system in basement, manually operated electric fire alarm system, underground static fire water storage tank of 75 KL capacity & terrace tank of 10 KL capacity for each building, one electric & one diesel pump of capacity 1620 L/min. & one electric pump of capacity 180 L/min. having pressure 3.5 kg/cm^2 at terrace level.
20.	Details on staircase	

Bldg. No.	Floor No.	Floor Area (m^2)	No. of Staircase	Width of Staircase (m)	Maximum Travel Distance up to the Staircase (< 30 m)
A	2B+H.P.+14	552.71	02	2.00	14.67
B	2B+H.P.+14	386.23	01	2.00	17.43
C	2B+H.P.+14	552.71	02	2.00	14.67

21.	Rain Water Harvesting (RWH)	• Level of the Ground water table: 20.0 m • No. & dimensions of RWH tank(s) : 03 no. of RWH tanks; size: 4 m x 3 m x 3 m size of Bore: 350 mm dia. size of pipe: 150 mm dia. • No. and depth of percolations wells: 03 nos. of percolating well, depth will be kept 5 m above ground water table. • Details on Pre-treatment facilities: A de-silting chamber will be provided to de-silt and remove floating material through bar screen
22.	Green area details	• Tree covered area (m^2) : 298.0 • Area covered by shrubs and bushes (m^2): -- • Lawn covered area (m^2): 236.0 • Total Green Area (m^2): 534.0 • Green Area % of plot area: 10.60 % • No. of trees and species to be planted: 50 trees of Asopalav, coconut palm, Neem, Gulmohar, Indian Champa etc. will be planted within premises.
23.	Budgetary allocation for Environmental Management Plan (Rs. in lacs)	Capital cost of Rs. 67.75 lacs and recurring cost of Rs. 14.35 lacs has been allocated towards purposes like rain water harvesting & ground water recharge, greenbelt development, environment monitoring & management, waste management etc.
24.	Proposed dust control measures.	Water sprinkling, covered shed for cement unloading activity, tarpaulin cover on excavated earth & construction material etc.
25.	Use of Eco – friendly building materials.	Use of fly ash bricks & aerated blocks for water partition, paving blocks for parking areas & walk ways, Portland Pozzolona Cement for RCC structure, plaster & flooring etc.
26.	Details on amenities to be provided to construction workers	Drinking water & tap water, sanitation facilities, domestic waste water collection facility, lunch space, first aid box, free medicines, doctor service, PPEs etc.
27.	Documents related to land possession	Copy of village form no. 7 & 12 and 8 submitted by them shows that the land for residential use is in the name of one of the partner of Golden Associates.

During the meeting it was presented that river Tapi is at distance of 900 m from the project site. They have obtained a permission from Urban Development & Urban Housing Department for the

proposed FSI. The project site was flooded up to 0.3 m above the ground level and they have proposed to raise the plinth level of the project site up to 0.6 m above ground level. Further hollow plinth of 3 m height is proposed and hence the first floor of the residential units will be 3.6 m above the ground level. Copy of permission obtained from Urban Development & Urban Housing Department for the proposed FSI and copy of index from Sub-registrar's office showing N.A land admeasuring 5,318 m^2 in the name of M/s Golden Associates, a partnership firm, were presented during the meeting. After detailed Discussion, it was decided to recommend the project to SEIAA Gujarat for grant of Environmental Clearance.

5	Ratilal V Patel	T.P.S. No. 64 (Dumbhal-Magob), Block No. 144, O.P. No. 94, F.P. No. 94, Surat.

During the meeting it was presented that they have applied for getting Environmental Clearance for the proposed project of textile houses with built up area of 72,153.88 m^2 & FSI area of 47,649.29 m^2 (FSI of 3.99)on plot area of 11,914.0 m^2. They have applied for obtaining permission from the Urban Development & Urban Housing Department for the FSI of 3.99 and same is awaited. Meanwhile they have decided to obtain Environmental Clearance for the project with the base FSI which is available to the project as per the GDCR in force. Project details as presented before the committee are mentioned below:

<table>
<tr><th>Sr. No.</th><th>Particulars</th><th>Details</th></tr>
<tr><td>1.</td><td>Proposal is for</td><td>New Project</td></tr>
<tr><td>2.</td><td>Type of Project</td><td>Commercial</td></tr>
<tr><td>3.</td><td>Project / Activity No. [8(a) or 8(b)]</td><td>8(a)</td></tr>
<tr><td>4.</td><td>Name of the project</td><td>“Shiv Shakti Textile Hub”</td></tr>
<tr><td>5.</td><td>Name of Developer</td><td>Ratilal V. Patel</td></tr>
<tr><td>6.</td><td>Estimated Project Cost (Rs. In Crores)</td><td>Rs. 45 Crore</td></tr>
<tr><td>7.</td><td>Whether construction work has been initiated at site? If yes, details thereof</td><td>No</td></tr>
<tr><td>8.</td><td>Project Details</td><td>• Land / Plot Area (m^2): 11,914.00
• FSI area (m^2): 14,680.44
• Total BUA (m^2) : 35,913.93
<table>
<tr><th></th><th>Permissible</th><th>Proposed</th></tr>
<tr><td>FSI Area (m^2)</td><td>26,210.8</td><td>14,680.44</td></tr>
<tr><td>Ground Coverage (m^2)</td><td>5,361.30</td><td>5,360.78</td></tr>
<tr><td>Common Plot Area (m^2)</td><td>1,191.40</td><td>1,307.00</td></tr>
<tr><td>Max. building height (m)</td><td>--</td><td>14.64</td></tr>
</table></td></tr>
<tr><td>9.</td><td>Building Details</td><td>• No. of Buildings: 1
• No. of Blocks: 1
• Scope of buildings/blocks: 2 level basement + ground floor + 2</td></tr>
</table>

<table>
<tr><td></td><td></td><td>floors
• No. & size of Residential Units: --
• No. & type of Commercial Units: 403 Textile Houses
• Details of amenities if any: --</td></tr>
<tr><td>10.</td><td>No. of expected residents / users</td><td>Expected residents: --
Expected shop users: 1612
Expected visitors: 900</td></tr>
<tr><td>11.</td><td>Water & waste water details during construction phase</td><td>• Water requirement (KL/day): 14.50
• Source of water: Borewell water
• Waste water generation quantity (KL/day): 2.16
• Mode of disposal: Soak pit
• Details of reuse of water, if any: W/W generated from washing of equipment will be reused for curing after necessary treatment.</td></tr>
<tr><td>12.</td><td>Water & waste water details during operation phase</td><td>• Total water requirement (KL/day): 91.50
• Fresh water requirement (KL/day): 51.50
• Source of water: Water supply from Surat Municipal Corporation.
• Waste water generation quantity (KL/day): 69.0
• Mode of disposal: Sewage to be generated will be treated in the proposed onsite STP. Treated sewage will be used for gardening & flushing purpose and only remaining quantity of treated sewage will be discharged into the drainage line of SMC.
• In case of STP provision, capacity of STP: Yes 200 KL/day
• STP Technology: Ozonization Treatment
• Purposes for treated water utilization: gardening and flushing
• Quantity of treated water to be reused: 1. Gardening (KL/day): 5.50 KL/Day, 2. Flushing (KL/day): 34.50 KL/Day
• Provision of dual plumbing system (Yes/No): Yes
• 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 used for gardening & flushing purpose and only remaining quantity of treated sewage will be discharged into the drainage line of SMC.
• Mode of disposal: As above.</td></tr>
<tr><td>13.</td><td>Status of water supply and drainage line</td><td>Applied for connection of water supply and drainage line to S.M.C. The facilities will be available to the project at the time of getting B.U permission.</td></tr>
<tr><td>14.</td><td>Solid waste Management</td><td>Construction Phase:
<table>
<tr><td></td><td>Generation (m^3)</td><td>Quantity to be reused (m^3)</td><td>Mode of Disposal / Reuse</td></tr>
<tr><td>Top Soil</td><td>653.50</td><td>653.50</td><td>Reuse for developing garden area</td></tr>
<tr><td>Other excavated earth</td><td>84,147.00</td><td>156.29 m^3 will be used for back filling</td><td>Remaining will be send to other project site for back filling & raising the plinth</td></tr>
</table></td></tr>
</table>

		level in consultation with SMC.
Construction debris	200	180	Reused as a filler up to plinth level and remaining will be reused in outer road development
Steel scrap	20	--	Sold to local scrap vendors
Discarded packing materials	08	--	Sold to local vendors

Operation Phase:

Type of waste	Generation Quantity (Kg/day)	Mode of waste collection	Mode of Disposal / Reuse
Dry waste	257.92	Blue colour bucket	Through S.M.C's door to door waste collection system
Wet waste	128.96	Green colour bucket	Through S.M.C's door to door waste collection system
STP Sludge	10	On SDB	Reused in gardening as manure within project premises

- Details of segregation if to be done: Separate bins will be provided to collect dry and wet waste.
- Capacity and no. of community bins to be placed within
- premises: Two separate community bins for the building to
- collect dry & wet waste.
- Landfill site where waste will be ultimately disposed by local authority: Khajod Landfill Site of S.M.C

15.	Parking Details	• Total parking area requirement for the project as per GDCR: 4,404.13 m^2 • Parking area requirement for Commercial units as per GDCR: 4,404.13 m^2 • Total number of CPS requirement for the project as per NBC: 294 • Number of CPS requirement for commercial units as per NBC: 294 • Total Parking area provided (m^2) & No. of ECS: 39,938.0 m^2 & 1260 ECS • Parking area provided in basement (m^2) & No. of ECS: 38,925.0 m^2 & 1216 ECS • Parking area provided as open surface (m^2) & No. of ECS: 1,013.0 m^2 & 44 ECS
16.	Traffic Management	• Width of adjacent public roads: 60.0 m wide road • Number of Entry & Exit provided on approach road/s: 3 gates will

<table>
<tr><td></td><td></td><td>be provided.
• Width of Entry & Exit provided on approach road/s: 7.50 m
• Minimum width of open path all around the buildings for easy access of fire tender (excluding the width for the plantation): 4 m
• Width of all internal roads: 7.50 m & 6 m.</td></tr>
<tr><td>17.</td><td>Details of Green Building measures proposed.</td><td>Use of fly ash based material, flush tank instead of direct flushing in toilets, foam type aerated coke, rain water harvesting, use of LED lights for common areas, use of solar energy in external lighting, reflective/ white tiles in common areas, maximum use of natural light, provision of STP & reuse of treated sewage etc.</td></tr>
<tr><td>18.</td><td>Energy Requirement, Source and Conservation</td><td>• Power supply
Maximum demand: 1500 KVA
Connected load:
• Source: DGVCL
• Energy saving measures: Use of LED lights for common areas, solar lights for landscape lighting, reflective/ white tiles on terrace floor, maximum use of natural light etc
• DG Sets
No. and capacity of the DG sets: 03x 125 KVA
Fuel & its quantity: Low Sulphur High speed Diesel (HSD) & quantity 55 L/h in each.</td></tr>
<tr><td>19.</td><td>Fire and Life Safety Measures</td><td>Fire extinguishers at each floor, hose reel at each floor, wet riser opening at each floor, yard hydrant, automatic sprinkler system in basement, manually operated electric fire alarm system, automatic fire detection & alarm system, underground static fire water storage tanks of 300 KL capacity, terrace tank of 30 KL capacity, one electric & one diesel pump of capacity 2280 L/min. & one electric pump of capacity 180 L/min. having pressure 3.5 kg/cm^2 at terrace level.</td></tr>
<tr><td>20.</td><td colspan="2">Details on staircase
<table>
<tr><th>No. of Floor</th><th>Floor Area (m^2)</th><th>No. of staircase</th><th>Width of Staircase (m)</th><th>No. of fire Lift, goods lift & passenger lift</th><th>Maximum Travel Distance up to the Staircase < 30 m</th></tr>
<tr><td>2B+G+2</td><td>4893.48</td><td>06</td><td>2.00</td><td>6,6 & 8</td><td>29.02</td></tr>
</table></td></tr>
<tr><td>21.</td><td>Rain Water Harvesting (RWH)</td><td>• Level of the Ground water table: 22.00 m
• No. & dimensions of RWH tank(s) : 06 no. of RWH tanks;
size: 4m x 3m x 3m
size of Bore: 350 mm dia.
size of pipe: 150 mm dia.
• No. and depth of percolations wells: 06 nos. of percolating well, depth will kept 5 m above ground water table.
• Details on Pre-treatment facilities: A de-silting chamber will be provided to de-silt and remove floating material through bar screen.</td></tr>
</table>

22.	Green area details	• Tree covered area (m^2) : 418.00 • Area covered by shrubs and bushes (m^2): -- • Lawn covered area (m^2): 889.00 • Total Green Area (m^2): 1307.00 • Green Area % of plot area: 10.00 % • No. of trees and species to be planted: 70 trees of Asopalav, coconut palm, Neem, Gulmohar etc. will be planted within premises.
23.	Budgetary allocation for Environmental Management Plan (Rs. in lacs)	Capital cost of Rs. 67.75 lacs and recurring cost of Rs. 14.35 lacs has been allocated towards purposes like rain water harvesting & ground water recharge, greenbelt development, environment monitoring & management, waste management etc.
24.	Proposed dust control measures.	Water sprinkling, covered shed for cement unloading activity, tarpaulin cover on excavated earth & construction material etc.
25.	Use of Eco – friendly building materials.	Use of fly ash bricks & aerated blocks for water partition, paving blocks for parking areas & walk ways, Portland Pozzolona Cement for RCC structure, plaster & flooring etc.
26.	Details on amenities to be provided to construction workers	Drinking water & tap water, sanitation facilities, domestic waste water collection facility, lunch space, first aid box, free medicines, doctor service, PPEs etc.
27.	Documents related to land possession	Village form no. 7 submitted by them shows that the agricultural land of the project site is in the name of applicant & others.

During the meeting it was found that parking area provision has been made considering the additional FSI for which they have applied to the Urban Development & Urban Housing Department. Based on the project plans submitted by them, it was found that the travel distance to the staircase from the farthest corner of the floor is less than 30 m. It was presented that the existing saw mill at the project site will be demolished for the proposed project and the demolition waste will be completely used for the back filling, plinth filling & road development, hence demolition waste will not be transported at any other place. Traffic survey carried out on the existing 60 m wide Surat-Kadodara road shows that the road, having carrying capacity of 6000 PCU/hr, is capable enough to accommodate total traffic load of 1505.2 PCU/hr. in the proposed scenario. It was presented that space will be provided for loading & unloading activity at open surface & in basements in such a way that 88 tempos & 324 tempos respectively can carry out loading & unloading activity simultaneously within every 30 minutes. Provision of DGMS approved flame proof electrical material like electric wires & switches etc. also conforming to the relevant IS standards will be made, provision of one automatic power ON/OFF switch(MCB/RCB) will be made for each textile house to avoid chances of sparkling/fire in case of fluctuation or higher power load. Power load will be considered for each individual textile house higher than the actual power load requirement. After detailed discussion, it was decided to appraise the project further only after submission of the following:

1. Revised Form 1 & Form 1A for the proposed changes in the project.

2. Project plans with built up area & FSI area table and plot area statement for the proposed changes in the project.
3. Details on provision of ventilation, lighting arrangements, CO sensors & their functioning etc. in basement.
4. Details on provisions to be made for cross ventilation in the commercial units of the project.
5. Copy of N.A. permission obtained for commercial use of the project site or copy of documents showing correspondences made with concerned competent authority in this regard.
6. Details on parking area to be provided for vehicles for loading /unloading at ground level & both the basement level, basis taken for arriving at the equivalent parking space requirement for the loading/unloading vehicles, plans showing location of spaces designated for loading / loading at ground level & basements level etc.
7. Complete construction & demolition waste management plan in view of the duties of the waste generator mentioned in the Construction & Demolition Waste Management Rules – 2016.

6	Integrated Group Housing project by AMC under scheme of Rehabilitation & Redevelopment of Slums.	T.P. Scheme Odhav-1, FP No. 199, 201, 204, 207 & 264, Odhav, Ahmedabad.

Details of the project as presented before the committee is tabulated below:

Sr. No.	Particulars	Details
1.	Proposal is for	New Project
2.	Type of Project	Residential & Commercial Building construction project
3.	Project / Activity No. [8(a) or 8(b)]	8 (a) – B
4.	Name of the project	Integrated Group Housing project by Ahmedabad Municipal Corporation under scheme of Rehabilitation & Redevelopment of Slums.
5.	Name of Developer	JP Iscon Ltd.
6.	Estimated Project Cost (Rs. In Crores)	Rs. 10.0 Crores
7.	Whether construction work has been initiated at site? If yes, details thereof	No

<table>
<tr><td>8.</td><td>Project Details</td><td>

Plot Area (m^2): 25,722.83 (Plot A – 14,436.4 m^2, Plot B – 8,369.39 m^2, Plot C – 2,917.0 m^2).
FSI area (m^2): 54,546.57 (Plot A – 29,385.20 m^2, Plot B – 19,073.54 m^2, Plot C – 6,087.83 m^2).
Total BUA (m^2): 84,796.55 (Plot A – 46,381.78 m^2, Plot B – 28,838.34 m^2, Plot C – 9,576.43 m^2).

<table>
<tr><td></td><td>Permissible</td><td>Proposed</td></tr>
<tr><td>FSI Area, m^2</td><td>77,168.49</td><td>54,546.57</td></tr>
<tr><td>Ground Coverage, m^2</td><td>--</td><td>10,396.23 (Plot A – 5,585.0 m^2, Plot B – 3,606.0 m^2, Plot C – 1,205.23 m^2).</td></tr>
<tr><td>Max. building height, m</td><td>--</td><td>25</td></tr>
</table>
</td></tr>
<tr><td>9.</td><td>Building Details</td><td>

No. of Buildings:37 (Plot A – 20, Plot B – 13, Plot C – 4).
Scope of buildings: Ground floor + 7 floors.
No. & size of Residential Units: 1,550 residential units of 1 BHK with size of 34.1 sq.m. (Plot A – 846, Plot B – 534, Plot C – 170)
No. & type of Commercial Units: 92 Shops/Offices & size 12.2 – 17.84 sq.m. (Plot A – 30, Plot B – 46, Plot C – 16)
Details of amenities if any:---

</td></tr>
<tr><td>10.</td><td>No. of expected residents / users</td><td>Residential: 3,100 nos.
Commercial: Fixed- 86 nos.
Floating: 143 nos.</td></tr>
<tr><td>11.</td><td>Water & waste water details during construction phase</td><td>

Water requirement (KL/day):80.0
Source of water: water supply from Ahmedabad Municipal Corporation (AMC)
Waste water generation quantity (KL/day):11.0
Mode of disposal: Soak pit through septic tank
Details of reuse of water, if any:Wastewater generated @ 7.0 KL/day from washing of construction equipment will be reused for concrete handling, mixing & curing after necessary treatment.

</td></tr>
<tr><td>12.</td><td>Water & waste water details during operation phase</td><td>

Fresh water requirement (KL/day):444.0
Source of water: water supply from Ahmedabad Municipal Corporation (AMC)
Waste water generation quantity (KL/day):338.0
Mode of disposal: Under drainage system of AMC.

</td></tr>
<tr><td>13.</td><td>Status of water supply and drainage line</td><td>Water supply and drainage line of AMC are available at site.</td></tr>
<tr><td>14.</td><td>Solid waste Management</td><td>Construction Phase:
<table>
<tr><td>Type of Waste</td><td>Generation</td><td>Quantity to be reused</td><td>Mode of Disposal / Reuse</td></tr>
<tr><td>Top Soil</td><td>250 m^3</td><td>250 m^3</td><td>Preserved and used for</td></tr>
</table>
</td></tr>
</table>

					developing green cover.
		Excavated Soil	3,750 m^3	3,750 m^3	Backfilled within the project site wherever required or in the nearby low laying area of AMC.
		Construction debris	750 m^3	750 m^3	
		Steel scrap	25 Ton	--	Will be sold to scrap dealers/ recyclers
		Discarded packing materials	12 Ton	--	

Operation Phase:

Type of waste	Generation Quantity	Unit	Mode of Disposal / Reuse
Domestic (Recyclable)	440	Kg/Day	Collection, Storage & sell to scrap vendors
Domestic (Non-Recyclable)	100	Kg/Day	Collection, Storage and transported to the nearest collection point of AMC
Horticulture	15	Kg/Day	
Used Oil	0.1	KL/ Annum	Collection, Storage & Sell to Registered Re-processors

- Details of segregation if to be done:No
- Landfill site where waste will be ultimately disposed by local authority: MSW site at Pirana, Ahmedabad

15.	Parking Details	• Total parking area requirement for the project as per GDCR : Residential: 8,182 m^2, Commercial: 507 m^2 • Total number of CPS requirement for the project as per NBC Residential: 775 , Commercial: 67 • Total Parking area provided (m^2) & No. of CPS: 8,853.0 m^2 & 322 CPS - Residential: 8,193 m^2 & 293 CPS, Commercial: 660 m^2 & 29 CPS • Parking area provided in hollow plinth (m^2) & No. of CPS: 8,193.0 m^2 & 293 CPS • Parking area provided as open surface (m^2) & No. of CPS: 660 m2 & 29 CPS
16.	Traffic Management	• Width of adjacent public roads:Plot A is connected by 18.28 m wide road on East. Plot B & Plot C are connected by 12 m wide road on their North & South respectively • Number of Entry & Exit provided on approach road/s: one gate for each plot. • Width of Entry & Exit provided on approach road/s: • Plot A: 9.0 m; Plot B: 7.5 m; Plot C: 6.0 m • Minimum width of open path all around the buildings for easy access of fire tender (excluding the width for the plantation): 3 m. • Width of all internal roads: Plot A: 9.0 m, 7.5 m & 6.0 m; Plot B: 7.5 m; Plot C: 6.0 m

17.	Details of Green Building measures proposed.	Rain water harvesting by recharging the ground water table with provision for percolation wells, Use of eco-friendly building materials for construction.
18.	Energy Requirement, Source and Conservation	• Power supply Maximum demand: Construction Phase: 150 KW; Operational Phase: 2,225 KW • Source: Torrent Power Ltd. • Energy saving measures: Provision of energy efficient lamps, luminaries and control devices, time switches for automatic switching off lighting of buildings and street lights, use of transformers and motors having minimum efficiency of 85%, use of light colors for the walls and ceiling to reduce the UV absorption and minimize the associated cooling requirement, use of building materials, having lower U-value and the insulating material having higher R-value for optimum energy performance. • DG Sets: No. and capacity of the DG sets: 03 nos. (Plot A: 250 KVA, Plot B: 160 KVA & Plot: 50 KVA) Fuel & its quantity: HSD -55 litre/Hr (For all three DG sets).
19.	Fire and Life Safety Measures	Fire extinguishers like DCP (Dry chemical powder) & CO_2 type extinguisher etc will be provided on alternate floor of each building. The nearest fire station of Odhav is approx 3.0 km away from the project site; fire tender will require approximately 10-15 min travel time in case of emergency.
20.	Details on staircase: one staircase of 3.10 m width will be provided in each block having floor area less than 500 m^2 on each floor.	
21.	Rain Water Harvesting (RWH)	• Level of the Ground water table: 20 to 25 m • No. and depth of percolations wells: 06Nos., upto 1stunderground aquifer • Details on Pre-treatment facilities:Catch pit with filtration media
22.	Green area details	• Tree covered area (m^2): 1,584.28 • Lawn covered area (m^2): 2,027.49 • Total Green Area (m^2): 3,611.80 • Green Area % of plot area: 14 % • No. of trees and species to be planted: 170, local species such as Asopalav, Neem Tree, Garmala, Gulmohor, Ashoka etc.
23.	Budgetary allocation for Environmental Management Plan (Rs. in lacs)	Rs. 3 lacs will be used for greenbelt development.
24.	Proposed dust control measures during the construction	Use of Ready mix concrete wherever possible, peripheral barricading sheet of minimum 5 m heights, under construction building will be covered thoroughly with jute/green PVC cloth, use of plastic cover sheet / tarpaulin while transporting raw material, storing dry, dusty materials in closed room/shed, construction materials and

	phase	debris will be properly stored and handled, sprinkling of water in vulnerable areas to suppress the dust and control fugitive emissions, roads inside the project area and roads connected to the main road will be paved and/or water sprinkled etc.
25.	Eco friendly building material usage details.	Use of earth blocks, fly ash and Fal-G (fly ash, lime and gypsum) as alternative materials for construction of wall in-place of clay bricks with cement mortar where as applicable.
26.	Details on amenities to be provided to construction workers	All the required Personal Protective Equipments, drinking water & adequate sanitation facilities.
27.	Documents related to land possession	Village form no. 7 submitted by them shows that the agricultural land of the project site is in the name of applicant & others.

During the meeting, while discussing about the basic amenities to be provided to the construction workers, the project proponent replied that all the required Personal Protective Equipments, drinking water & adequate sanitation facilities will be provided to the construction workers. Further it was presented that the project site is at a distance of 2 km & 2.9 km from the nearest TSDF site & the nearest industrial area respectively. All the proposed residential units are of 1 BHK. It was justified that all the three plots fall under the one Ward of East zone slum of Odhav and a single work order has been issued by the Ahmedabad Municipal Corporation for the development of the proposed Slum Rehabilitation project on all the three plots and hence they have applied for obtaining Environmental Clearance on all the three plots together in one application. As the proposed project is to be developed specially for people residing in slum area, the parking area provision as per NBC norms was not insisted upon. After detailed discussion on various aspects regarding the project it was decided to recommend the project to SEIAA for grant of Environmental Clearance.

The additional information received from the project proponents, which was sought during various SEAC meetings, 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.

Sr.No.	Name and address of the project.
1.	Laxmi Film Laboratory & Studios Pvt. Ltd., S.No.380/A/2,Vill:Bapod, Vadodara.
2.	"Antica Greenwoods" at S.No.57,72,73,76,81,83,84,85,86,87,88,91,92, 94,41/A,39,35,22/2,21,665/P/1, Moje-Ankodiya, Ta & Dist: Vadodara proposed by Neptune Realty Pvt. Ltd.
3.	Nilamber Oriens, S.No.221,222,223,224,225/182,227/182,228, 229, F.P.No.53, Tandalaja, Dist: Vadodara proposed by M/s Octane Infra Space.
4.	Shree Rang Pearl, S. No. 233+234/9, F.P. No. 93, Village: Randesan, Ta & dist: Gandhinagar proposed by Shree rang Housing Corporation.

7	SIA/GJ/IND2/16171/2016	**M/s: Vijay Timber Ind Pvt Ltd.** Survey No. 515/1 P, Village: Mithi-Rohar, Ta.: Gandhidham, Dist.: Kutch.	Screening & Scoping

Project / Activity No.: 5(f)

- M/s: Vijay Timber Ind Pvt Ltd., (herein after Project Proponent – PP) has submitted application vide their proposal no. SIA/GJ/IND2/16171/2016 dated 17/06/2016.

Project status: Existing Unit.

Project / Activity Details:

This is an existing unit engaged in manufacturing of Plywood sheets & Face Veneer sheets and proposed for manufacturing of Synthetic organic chemicals as tabulated below:

Sr. No.	Name of Product, units	Capacity per Month		
		Existing	Proposed	Total
Existing products/ processes				
1	Plywood sheets	131250 m^2	Nil	131250 m^2
2	Face Veneer Sheets	4916500 m^2	Nil	4916500 m^2
Proposed products/ processes				
3.	Phenol Formaldehyde Resin	NIL	140 MT	140 MT
4.	Urea Formaldehyde Resin			
5.	Melamine Urea Formaldehyde Resin			
6.	Melamine Formaldehyde			

The location of the unit is outside the notified area. As per amendment to EIA Notification, 2006 vide SO 1599 (E) dated 25.06.2014, small units are categorized as Category "B" projects. Small units are defined as with water consumption less than 25 M3/day; Fuel consumption less than 25 TPD; and not covered in the category of MAH units as per the Management, Storage, Import of Hazardous Chemical Rules (MSIHC Rules), 1989. During presentation, PP informed that water requirement is 15.5 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 products of resin manufacturing falls under Category B of project activity 5(f) as per the EIA Notification 2006. Total plot area is 18717 sq. m & unit has proposed 700 sq mtr area for the green belt development/Tree plantation. Expected project cost is INR. 0.16 Crores. Nearest residential area of village Mithi Rohar is @ 2.3 km from the project site. Water requirement for the proposed project will be 15.5 KL/day (4.5 KL for Domestic, 3.5 KL for Gardening, 7.5 KL for Industrial Purpose) and it will be met through GWIL water supply. Industrial waste water generation will be 0.4 KL/day. This waste water generated from washing having rich glue content will be reused for Glue mixing purpose. There will be no discharge of any industrial waste water from the factory premises. Domestic waste water (1.8 KL/day) will be disposed off into septic tank/soak pit system. Briquettes of Bio-coal to the tune of 2.5 MT/day will be used as a fuel for TFH (15 Lakh Kcal/hr). Multi Cyclone dust collector will be provided as APCM for TFH. Diesel to the tune of 15 ltrs/hr will be used in the stand-by DG set (125 KVA Capacity).

No process emission is envisaged. Discarded barrels / containers / bags / liners (4.44 MT/Year) will be either reused or returned back to suppliers or sold only to the authorized vendors after decontamination. Used oil (0.34 MT/Year) will be sold only to the registered recyclers.

Observations & Discussions:

Presentation made by the proponent included the general information about the project, plant layout, raw material & resource consumption, manufacturing process, water balance diagram & waste water treatment scheme, hazardous waste generation and its disposal etc. While discussing about waste water generation and its management, PP informed that there is no generation of waste water from manufacturing process. Whatever effluent generated from the washing activity will be reused completely in process. Committee asked to submit complete details regarding reuse of industrial effluent and Zero discharge scheme. Looking to the small scale of the project, technical aspects of the project, low pollution potential and the details presented during the meeting, after detailed deliberation, the project was categorized as B2 category project. Following additional information was sought for appraisal of the project.

1. Land Possession Documents of the proposed site.
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. Project site specific details such as distance of the project site from the nearest (1) Village-Nearest residential area (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.
6. 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.
7. 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.
8. Proposed monthly production of each grade of resin and product wise monthly consumption of each raw material.
9. Manufacturing process along with chemical reactions, mass balance for each product.
10. 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 concern authority for drawl of raw water.
11. Water balance diagram (including reuse-recycle, if any) along with qualitative and quantitative analysis of each waste stream to be generated.
12. 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.

13. Action plan for 'Zero' discharge of effluent shall be included.
14. Justification and technical details regarding "No generation of industrial effluent from any stage of the proposed manufacturing activities". Ensure that there will be no discharge of waste water in any case. Submit legal undertaking in this regard.
15. Details of the collection cum reuse tank for waste water generated from the washing activity. Feasibility report with characteristics of waste water for complete reuse in glue making process.
16. Explore the possibility of reuse / recycle and other cleaner production options for reduction of wastes and to conserve fresh water.
17. Details of possibility of chemical seepage & consequent soil contamination & mitigation measure proposed for the same for the proposed project.
18. 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.
19. 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.
20. Details of measures proposed for noise pollution abatement & its monitoring.
21. 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?
22. Methodology of de-contamination and disposal of discarded containers and its record keeping.
23. Measures proposed to be taken for the work area ambient air quality monitoring as per Gujarat Factories Rules.
24. A detailed EMP including the protection and mitigation measures for preventing impacts on human health and environment as well as detailed monitoring plan with respect to various parameters and responsible head for the environmental management cell and environmental management cell proposed for implementation and monitoring of EMP.
25. Detailed socio-economic development measures including community welfare program most useful in the project area for the overall improvement of the environment.
26. 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.
27. 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.
28. 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?

29. Details of the separate isolated storage area for chemicals. Details of fire extinguishers, flame proof electrical fittings, DCP extinguishers and other safety measures proposed.
30. Specific safety details / provisions for various hazardous chemicals and detailed fire control plan for flammable substances.
31. Details of possibilities of occupational health hazards from the proposed manufacturing activities and proposed measures to prevent them.
32. 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.
33. Submit checklist in the form of Do's & Don'ts of preventive maintenance, strengthening of HSE, mfg utility staff for safety related measures.
34. Status of the existing Consent to Operate and Authorization accorded by the SPCB. Compliance status of the existing unit with respect to various conditions of CC&A order obtained from the Gujarat Pollution Control Board (GPCB).
35. 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.
36. Status of any legal case/cases pending on the existing unit.
37. A tabular chart with index for point-wise compliance of above details.

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

8	SIA/GJ/IND2/11006/2016	**M/s: Esdee Paints Limited,** Survey No. 174/P & 175/P, Vill. Vasna-Chacharwadi, Sanand, Ahmedabad.	Screening & Scoping

Project / Activity No.: 5(h)

- M/s: Esdee Paints Ltd (herein after Project Proponent – PP) has submitted application vide their proposal no. SIA/GJ/IND2/11006/2016 dated 13/04/2016.
- Project proponent was called for presentation in the SEAC meeting dated 07/05/2016.
- During the meeting, Committee noted that this proposal falls under Integrated Paint industry as their proposal is manufacturing of Various Paints including Acrylic Co-Polymer Resin. Upon asking about the reason for applying under 5(f) only, PP could not reply satisfactorily. Committee also observed that PP has mentioned that EC is not required for manufacturing of various Paints and they have applied for manufacturing of Acrylic Copolymer Resin under the 5(f) category as per the schedule of EIA Notification 2006. The Committee noted that proposal is incomplete in respect of categorization & other relevant details and is deferred. Committee unanimously decided to consider this proposal only after submission of the revised complete proposal through online web portal.

- PP has submitted revised proposal vide their letter on 09/07/2016

Project status: New

Project / Activity Details:

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

Sr. no.	Name of the products	Phase-I	Phase-II
1	Various Paints	2,673 MT/Month	--
2	Acrylic Co-Polymer Resin	--	130 MT/Month

The project falls under Category B of project activity 5(h) as per the schedule of EIA Notification 2006. Total plot area is 20036 sq. m & unit has proposed 4634.72 sq mtr area for the green belt development/Tree plantation. Expected project cost is Rs.30.35 Crores. Total water consumption for proposed project will be 32 KL/day (Industrial 23.5 KL, Domestic 8.7 KL & Gardening 5 KL). Industrial waste water generation from process will be 1.5 KL/day. Cooling blow down (1.5 KL/day) will be reused for toilet flushing. Domestic waste water (3.5 KL/day) will be disposed off into soak pit system. It is proposed to install one TFH (2 Lac Kcal/hr). HSD (0.23 MT/day or 6 MT/Month) will be used as fuel for TFH. Unit has proposed one DG set (500 KVA) in which Diesel (15 Lit./hr) will be used as fuel. No process gas emission is envisaged. Hazardous waste generated from the manufacturing activity will be Paint residue (7.5 MT/Year), Cotton waste contaminated with Paint & Oil (48 MT/Year), Discarded containers/Bags/Liners (110 no.s /Year) and used oil (0.1 KL /Year).

Observations & Discussions:

Technical presentation made during the meeting by project proponent. Committee observed that project proponent has shown that there is no generation of industrial waste water, however there is a proposal for decontamination of discarded containers to the tune of 110 MT/Annum. Upon asking about the method of decontamination and management of waste to be generated from the decontamination process, PP could not reply satisfactorily. Committee also noted that proposed site is located in a water logged area and there is no common infrastructure available for the waste treatment. Committee also asked to submit detailed manufacturing process with mass balance along with sound management for treatment of water, air and hazardous waste streams. After deliberation on various aspects, the committee unanimously decided to consider the case for TOR/Scoping only after submission of revised proposal.

9	SIA/GJ/IND2/16486/2016	**M/s: Nuchem Dyestuff Pvt Ltd.,** Plot No. C-284,285,299 & 300,GIDC-Saykha, Ta. Vagra, Dist. Bharuch.	Screening & Scoping

Project / Activity No.: 5(f)

- M/s: Nuchem dyestuff Pvt. Ltd. (herein after Project Proponent – PP) has submitted application vide their proposal no. SIA/GJ/IND2/16486/2016 dated 24/06/2016.
- Earlier PP had submitted application vide their proposal no. SIA/GJ/IND2/4850/2015 dated 04/12/2015 and they were called for presentation in the SEAC meeting dated 03/02/2016.
- During the SEAC meeting dated 03/02/2016, looking to the product profile, while concerning about the problems of treatability of concentrated effluent & its disposal issues being faced in present

scenario as well as in absence of any common infrastructure facility in Dahej Industrial estate, the committee was of the view that manufacturing of such proposals should be considered with Zero Liquid Discharge (ZLD) only. Committee emphasized on sound management of by-products and hazardous waste to be generated from the proposed activities and asked to reuse or consume entire quantity of Spent HCl and Spent sulphuric acid within premises to convert into valuable products instead of sending such spent acids to outside premises. After deliberation on various aspects, the committee unanimously decided to consider the case for TOR/Scoping only after submission of revised proposal with complete Zero Liquid Discharge.

Project status: New

Project / Activity Details:

This is a new unit proposes the manufacturing Dyes, Dye Intermediates and Pigments as tabulated below:

Sr. no.	Name of the Products	Proposed Quantity (MT/Month)
ACID DYES		100
1	ACID YELLOW	
2	ACID ORANGE	
3	ACID RED	
4	ACID GREEN	
5	ACID BROWN	
6	ACID BLACK	
7	ACID BLUE	
8	ACID VIOLET	
9	MIX DYES	
REACTIVE DYES		1000
1	REACTIVE YELLOW	
2	REACTIVE ORANGE	
3	REACTIVE RED	
4	REACTIVE GREEN	
5	REACTIVE BROWN	
6	REACTIVE BLACK	
7	REACTIVE BLUE	
8	REACTIVE VIOLET	
9	MIX DYES	
DIRECT DYES		100
1	DIRECT YELLOW	
2	DIRECT ORANGE	
3	DIRECT RED	
4	DIRECT GREEN	
5	DIRECT BROWN	
6	DIRECT BLACK	
7	DIRECT BLUE	
8	DIRECT VIOLET	
9	MIX DYES	
CPC BASE DYES		150
1	Reactive Blue 21	

2	Reactive Blue 25		
3	DIRECT BLUE 199		
4	Reactive blue 72		
5	Direct Blue 86		
ACRYLIC DYES		100	
1	YELLOW		
2	ORANGE		
3	RED		
4	BLACK		
5	BLUE		
6	VIOLET		
7	MIX. DYES		
PIGMENTS		200	
1	Azo Pigments		
2	Quinacridone Pigment		
3	Carbazole Dioxane Violet Pigment		
4	CPC Base Pigments		
5	Pigment Emulsions		
DYES INTERMEDIATES			900 MT/Month
NAPTHANLENE BASE DERIVATIVES			
1	H-Acid	300 MT/Month	
2	Vinyl Sulphone	400 MT/Month	
BETA BASE DERIVATIVES			
1	K-acid	40 MT/Month	
2	Sulfo Tobia Acid	25 MT/Month	
3	Gamma Acid	20 MT/Month	
4	Tobias Acid (SCHAEFFER'S ACID)	25 MT/Month	
5	N Methyl J Acid	10 MT/Month	
CPC BASE DERIVATIVES			
1	Amine Base	15 MT/Month	
2	Phthalimide Based	15 MT/Month	
BLUE BASE			
	Tripheno Dioxazine	50 MT/Month	
Total		2550 MT/Month	

The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006. Total plot area is 75,502.439 sq. m & unit has proposed 21,772.439 sq mtr area for the green belt development/Tree plantation. Expected project cost is Rs.140 Crores.

Water consumption and waste water details are as under:

Source of Water Supply (GIDC, Bore well, Surface water etc...)	GIDC Water Supply
Water consumption (KL/day)	Industrial: (Process, Washings, Utilities etc.) 433 KL/Day
	Domestic: 7 KL/Day
Waste water generation (KL/day)	Industrial: (Process, Washings, Utilities etc.)

	298 KL/Day
	Domestic: 7 KL/Day
Treatment facility with capacity (ETP, CETP, MEE, STP etc).	Dilute Stream ETP consisting primary , Secondary and Tertiary treatment followed by R.O. Plant Concentrated Stream High TDS stream will be treated in MEE.
Mode of Disposal & Final meeting point	Industrial: Dilute stream shall be treated in ETP consisting primary, secondary & tertiary treatment and R.O. Condensate will be reused. Concentrated stream shall be subjected to own MEE for further treatment & MEE condensate will be reused in process, Boiler, washing, Scrubbing & Cooling
	Domestic: - Domestic wastewater will be treated in Septic Tank/Soak Pit.
Reuse/Recycle details	Out of 440 KL/Day, total 293 KL/Day of water will be reused in process, boiler, washing and Scrubbing.

Details of flue gas and process gas emission is as under:

(A) Details of Flue Gas Stack; Stack Attached To Steam Boiler

SOURCES OF GASESOUS EMISSIONS	STACK		
Fuel Used	LDO/FO = 13.5 KL/Day		
Capacity	6 MT/Hr		
Type of Emissions	SO_2	NOx	SPM
Permissible Limits	262 ppm	94 ppm	150 mg/Nm^3
Stack Height	30 meters		
Stack Diameter at the Top	800 MM		
Air Pollution Control System	Scrubber System		

(B) Details of Flue Gas Stack; Stack Attached To Thermic Fluid Heater

SOURCES OF GASESOUS EMISSIONS	STACK		
Fuel Used	Natural Gas = 2200 SCM/Hr		
Capacity	2.5 MT/hour or 6 Lac Kcal		
Type of Emissions	SO_2	NOx	SPM
Permissible Limits	262 ppm	94 ppm	150 mg/Nm^3
Stack Height	30 meters		
Stack Diameter at the Top	800		

(C) Details of Flue Gas Stack; Stack Attached To D.G.Set

SOURCES OF GASESOUS EMISSIONS	STACK		
Fuel Used	HSD = 1.9 KL/Day		
Capacity	2500 KVA		
Type of Emissions	SO_2	NOx	SPM
Permissible Limits	262 mg/Nm^3	94 mg/Nm^3	150 mg/Nm^3

Stack Height	11 meters
Stack Diameter at the Top	150 MM
Air Pollution Control System	--

(D)Stack Attached To Process Vent-1

SOURCES OF PROCESS EMISSION	VENT
Source of emission	Process Vent-1
Type of Emissions	HCl
Permissible Limits	20 mg/Nm^3
Stack Height	11 meters
Stack Diameter at the Top	200 MM
Air Pollution Control System	Two stage water Scrubber

(E)Stack Attached To Process Vent-2

SOURCES OF PROCESS EMISSION	VENT
Source of emission	Process Vent-2
Type of Emissions	SO_2
Permissible Limits	40 mg/Nm^3
Stack Height	11 meters
Stack Diameter at the Top	200 MM
Air Pollution Control System	Two stage Scrubber (Water + Alkali)

(F)Stack Attached To Process Vent-3

SOURCES OF PROCESS EMISSION	VENT
Source of emission	Process Vent-3
Type of Emissions	Cl_2
Permissible Limits	20 mg/Nm^3
Stack Height	11 meters
Stack Diameter at the Top	200 MM
Air Pollution Control System	Two stage Scrubber (water + Alkali)

Details of hazardous waste generation & disposal

Sr. no..	Hazardous waste	Proposed total (MT/Month)	Method of disposal
1	Used Oil	0.2	Collection, Storage, Transportation and Sent to GPCB approved recycler
2	Discarded barrels/ containers/ liners	5	Collection, Storage, Transportation and Sent back to supplier / to GPCB approved recycler
3	ETP Sludge	40	Collection, Storage, Transportation and Sent to TSDF site for secured land filling
4	MEE Salt	140	Collection, Storage, Transportation and Sent to TSDF site for secured land filling
5	Iron Sludge	1090	Collection, Storage, Transportation and Disposal at Nearest TSDF or sell to Cement Industries

6	Gypsum	2454	Collection, Storage, Transportation and Disposal at Nearest TSDF or sell to Cement Industries
7	Distillation Residue	50	Collection, Storage, Transportation and sell to Cement Industries for Co-processing or Disposal at Common Incineration Site
8	Sulphuric Acid	2300	Collection, Storage, Transportation and Reuse in H-Acid (2300)
9	Acetic Acid	84	Collection, Storage, Transportation and Reuse in Direct Dyes, Acrylic Dyes & Azo Pigments. (84)
10	HCl (32%)	900	Collection, Storage, Transportation and Resuse in Acid Dyes, Reactive Dyes, Direct Dyes, CPC Base Dyes & Pigments. (1800)
11	Methanol (Spent Solvent)	1067	Collection, Storage & Reuse in Quinacridone Pigment and H-Acid (1067)
12	Phosphoric Acid	770	Collection, Storage, Transportation and Sell to Sodium Phosphate manufacturing unit, Detergent Industries, Fertilizer Industries & pharmaceutical Industries.
13	PPA (Poly Phosphoric Acid)	5.14	Collection, Storage, Transportation and Reuse in next batch of Quinacridone Pigment.
14	IBA	856	Collection, Storage, Transportation and Reuse in Plant premises
15	Sulphonic Acid	2610	Collection, Storage, Transportation and Sell to Detergent Industries.
16	Ammonium Bisulphate	18.6	Collection, Storage, Transportation and Sell to Fertilizer Industries & pharmaceutical Industries.
17	Recovered R-Salt	25	Collection, Storage, Transportation and sell to Dye manufacturer or captive use
18	Spent Carbon	0.5	Collection, Storage, Transportation and Disposal at Nearest TSDF

Observations / Discussion:

Technical presentation made during the meeting by project proponent. Committee observed that the proposed products contain dirty products like H-Acid, VS, K-Acid, Sulpho Tobias acid, Gamma Acid etc. and PP has proposed to achieve zero liquid discharge (ZLD) by means of ETP followed by RO and Evaporation system. Upon asking about the nearest residential area, PP informed that aerial distance of nearest residential area of village Saykha is @ 1.2 km. Committee emphasized on complete ZLD with sound environmental management system. Committee also suggested to establish piezometer wells to estimate & monitor ground water quality & its contamination status to which PP was agreed upon. While discussing about the spent acids management, PP informed that they will not send spent acids outside the premises and entire quantity of spent acids will be either reused or converted 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 Saykha.
2. Present land use pattern of the study area shall be given based on satellite imagery.
3. Layout plan of the factory premises. (Show all the production plants including Raw material & Products storage area). 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.
4. Technical details of the plant/s along with details on best available technologies (BAT), proposed technology and reasons for selecting the same.

5. 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.
6. Full name and chemical formula of all the raw materials and products. Details on end use of each product. Name the Dyes shown as Mix Dyes.
7. 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.
8. Action plan to reuse or consume entire quantity of Spent acids/waste streams within premises to convert into valuable products instead of sending such spent acids to outside premises.
9. 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.
10. 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.
11. 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.
12. Qualitative and quantitative analysis of waste water to be generated from the manufacturing process of each product to be manufactured along with mass balance.
13. Segregation of waste streams and details on specific treatment and disposal of each stream.
14. Action plan for 'Zero' discharge of effluent shall be included. Notarized undertaking for assuring that underground drainage connection will not be taken in the unit.
15. 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.
16. 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.
17. 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.
18. Technical details of RO/NF system.
19. Undertaking stating that a separate electric meter will be provided for the ETP, RO, Incinerator/Spray Dryer & MEE.
20. Economical and technical viability of the effluent treatment system to achieve Zero Liquid Discharge (ZLD).

21. Certification of adequacy of proposed ZLD scheme through credible institutes of National repute.
22. To estimate & monitor ground water quality & its contamination status, piezometer wells, one one on up gradient of the groundwater flow and other three on the down gradient side of the ground water flow of the proposed project at different depth based on available ground water depth shall be established and all the parameters mentioned in IS 10:500 for potable water standard shall be monitored.
23. Proposal to provide and maintain separate electric meter, operational logbook for effluent treatment systems, online meters for monitoring of flow, pH, TOC/COD, etc.
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. 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. 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. 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.
36. Permission from PESO, Nagpur for storage of solvents, other toxic chemicals, if any.
37. 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.
38. Details on volatile organic compounds (VOCs) from the plant operations and occupational safety and health protection measures.
39. 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.
40. MSDS of all the products and raw materials.
41. 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.
42. 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?
43. 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.

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. 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.
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. 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.
50. 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.
51. Phase wise project implementation schedule with bar chart and time frame, in terms of site development, infrastructure provision, EMS implementation etc.
52. Certificate of accreditation issued by the NABET, QCI to the environmental consultant should be incorporated in the EIA Report.
53. 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 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.

Validity of ToR:

- The ToRs prescribed for the project will be valid for a period of three years for submission of EIA & EMP report accordingly, ToR will lapse after 02/08/2019.
- The period of validity could be extended for a maximum period of one year provided an application is made by the applicant to the Regulatory Authority, at least three months before the expiry of valid period together with an updated Form-I, based on proper justification and also recommendation of

	the SEAC.		
10	SIA/GJ/THE/16576/2016	**M/s: Saurashtra Chemicals Division of Nirma Ltd.** Multiple Survey Numbers located at Birlasagar, Chhaya, Porbendar.	Screening & Scoping

Project / Activity No.: 1(d)

- M/s: Saurashtra Chemicals (herein after Project Proponent – PP) has submitted application vide their proposal no. SIA/GJ/THE/16576/2016 dated 29/06/2016.

Project status: Expansion

Project / Activity Details:

The details of proposed as well as existing products are given in the following table.

Sr. No.	Name of Product	Existing Quantity	Proposed Additional Quantity	Total
1.	Soda Ash (Light)	28,000 MT/Month	--	28,000 MT/Month
2.	Soda Ash (Dense)	6000 MT/Month	--	6000 MT/Month
3.	Caustic Lye (100%)	620 MT/Month	--	620 MT/Month
4.	Sodium Bi-carbonate	1100 MT/Month	--	1100 MT/Month
5.	Liquid Bromine	20 MT/Month	--	20 MT/Month
6.	**Captive Power Plant**	**20 MW**	**20 MW**	**40 MW**

The project falls under the project activity 1(d) as per the schedule of EIA Notification 2006.
The proposed project is located within the existing premises of M/s: Saurashtra Chemicals Division of Nirma Limited. The site is having all required infrastructure facilities in the form of water, electricity etc. for the proposed activities. Total plot area is 517993.6 sq. m & unit has proposed 101170.6 sq m area for the green belt development/Tree plantation. Expected project cost is INR. 25 Crores. No additional raw materials will be required for the proposed project. The total steam generation capacity is 240 TPH from the existing Boilers, out of which they have about 90 TPH additional high pressure steam which will be utilised in power generation.

Water consumption (KL/day)	(A) Domestic &Gardening: 1100
	(B) Industrial: Process : 10,000 Boiler: 5000

	Cooling: 1,60,000 Washings: Nil Others :Nil Total (A+B)= 1,76,000
Waste water generation (KL/day)	(A)Domestic: 1000
	(B)Industrial: Process : 9902 Boiler: 58 Cooling: 1,60,000 Washings: Nil Others : Nil Total (A+B)= 1,69,960

The total water requirement will be remain same as the proposed project is installation of Turbine Generator only. There will be no addition in industrial effluent generation. There will be no additional fuel consumption. There will be no additional solid or hazardous waste generation. Industrial effluent after necessary treatment and after conforming the standards is discharged into Arabian sea through closed pipeline and diffuser system. Domestic effluent is presently treated through septic tank/soak pit.

Observations / Discussion:

During the meeting, Committee observed that the Porbandar Bird Sanctuary is located at a distance @ 1.113 km from the proposed project site i.e. within 5 km radius. Considering the applicability of General Condition of the EIA Notification 2006 as amended on 25/06/2014, project falls under Category A of the project / activity no. 1(d) in the schedule of the EIA Notification, 2006 and prior environmental clearance may required to be obtained from the Ministry of Environment, Forest & Climate Change (MoEF&CC), New Delhi. After detailed discussion, the project proponent was asked to approach MoEF & CC, New Delhi for obtaining Environmental Clearance for the proposed expansion in Power generation within the existing premises which is located within 5 Km radius from the Porbandar Bird Sanctuary. It was unanimously decided to delist the proposal from the list of applications pending with SEAC and to close the file of the proposal.

11	SIA/GJ/IND2/16604/2016	**M/s: Mangalam Colors,** Plot no. 2402, GIDC Estate, Sachin, Choryasi, Surat.	Screening & Scoping

Project / Activity No.: 5(f)

- M/s: Mangalam Colors, (herein after Project Proponent – **PP**) has submitted application vide their proposal no. SIA/GJ/IND2/16604/2016 dated 01/07/2016.

Project status: New

Project / Activity Details:

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

Sr. No.	Product Name	Production MT/Month
1	Acid Violet 17 Crude	10

2	Acid Violet 49 Crude	10
3	Acid Blue 15 Crude	5
4	Acid Black 194	10
5	Direct Red 239	10
6	Reactive Black 5	5
7	Reactive Black CNN	5
8	Direct Black 170	5
9	Solvent Yellow 33	2
10	Acid Green 9	2
11	Acid Blue 1	3
12	Acid Blue 9	40
13	Acid Red 52	10
14	Acid Red 33	2
15	Acid Orange 7	2
16	Acid Violet 43	2
17	Acid Blue 7	2
18	Solvent Green 7	2
	Total	127

The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006. Total plot area is 2010 sq. m & unit has proposed 350 sq m area for the green belt development/Tree plantation. Expected project cost is INR. 4.5 Crores.

Water consumption and waste water generation details is as under:

Water consumption (KL/day)	Proposed: Industrial: (Process, Cooling, Washing, Scrubber) Water consumption: 52 KL/Day, Domestic: Water consumption: 5 KL/Day, Gardening: Water consumption: 3 KL/Day, Total Water consumption: 60 KL/Day
Waste water generation (KL/day)	Proposed: Industrial: (Process, Cooling, Washing, Scrubber) Waste water Generation: 30 KL/Day, Domestic: Waste water Generation: 5 KL/Day, Total Waste water Generation: 35 KL/Day
Treatment facility with capacity (ETP, CETP, MEE, STP etc).	ETP having Primary Tertiary Treatment Facility
Mode of Disposal & Final meeting point	The industrial effluent (30 KL/Day) will be sent to propose ETP consists of primary treatment facility to treat the effluent and then treated effluent shall be sent to MEE within the factory premises.
	Domestic effluent (5 KL/Day) will be treated in septic tank or soak pit.

Reuse/Recycle details	29 KL/Day condensate water recycle into utilities & others.

Flue gas stack details is as under:

Stack no.	STACK ATTACHED TO	STACK HEIGHT & DIAMETER	FUEL CONSUMPTION	APCM
1	Thermopack Unit Capacity: 600 U	Height: 12.5 meter Diameter: 200 mm	Agro Waste / Bio Coal / Imported Coal: 3.5 MT/Day	Multi Cyclone Separator & Bag Filter
2	D. G. Set Capacity: 160 KVA	Height: 5 meter	Diesel: 25 Liters/Hr	As Diesel shall be used as a fuel, adequate stack height shall be provided.

Process gaseous emission details is as under:

Vent no.	VENT ATTACHED TO	VENT HEIGHT & DIAMETER	POLLUTANTS	APCM
1	Reaction Vessel	Height: 13 meter Dia: 10 cm	SO_2	Two Stage Alkali Scrubber
2	Spray Dryer	Height: 15 meter	PM, SO_2, NO_X	Venturi Scrubber

Hazardous waste generation and management details is as under :

Sr. no.	HAZARDOUS WASTE	SOURCE	GENERATION QUANTITY	
1	Used Oil	From plant & machinery	50 Liters/Year	Collection / Storage / Transportation / send to authorized recycler
2	Discarded barrels/ containers/ liners	From raw material packaging	100 Nos./Month	Collection / Storage / Transportation / send to authorized recycler
3	ETP Sludge	From ETP	60 MT/Month	Collection / Storage / Transportation / send to TSDF Site
4	MEE Salt	From MEE	0.5 MT/Month	Collection / Storage / Transportation / send to TSDF Site
5	Spent Solvent *(Methanol)*	From manufacturing of Solvent Yellow 33	9.6 MT/Month	Collection / Storage / reuse in to process

6	Distillation Residue	From manufacturing of Solvent Yellow 33	0.3 MT/Month	Collection / Storage / Transportation / sale to cement industries for co-processing or send to CHWIF
7	Process Sludge *(MnO_2)*	From manufacturing of Acid Blue 1 & Acid Blue 9	11.2 MT/Month	Collection / Storage / Transportation / send to TSDF Site
8	Gypsum	From manufacturing of Solvent Green 7	30 MT/Month	Collection / Storage / Transportation / send to Cement Industries
9	Sodium Sulphate	From manufacturing of Solvent Green 7 & Acid Violet 43	0.3 MT/Month	Collection / Storage / Transportation / reuse in to process
10	Lead Sulphate	From manufacturing of Acid Blue 7	0.64 MT/Month	Sell to lead peroxide manufacturer

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, proposed ToR etc. 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 the Concern Authority.
2. Present land use pattern of the study area shall be given based on satellite imagery.
3. 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.
4. Technical details of the plant/s along with details on best available technologies (BAT), proposed technology and reasons for selecting the same.
5. 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.
6. Chemical name of each proposed product to be manufactured. Details on end use of each product.
7. Give full name and chemical formula of all the raw materials and products.
8. 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.

9. 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.
10. Assessment of source of the water supply with adequacy of the same to meet with the requirements for the project. Permission obtained from the concern authority for procurement of raw water.
11. 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.
12. Qualitative and quantitative analysis of waste water to be generated from the manufacturing process of each product to be manufactured along with mass balance.
13. Segregation of waste streams and details on specific treatment and disposal of each stream.
14. Action plan for 'Zero' discharge of effluent shall be included. Legal undertaking in this regard shall be submitted.
15. 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.
16. 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.
17. Technical details of proposed MEE 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.
18. Technical details of RO/NF system.
19. Undertaking stating that a separate electric meter will be provided for the ETP, RO & MEE.
20. Economical and technical viability of the effluent treatment system to achieve Zero Liquid Discharge (ZLD).
21. Proposal to provide and maintain separate electric meter, operational logbook for effluent treatment systems etc.
22. 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.
23. 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.
24. One season Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be incorporated.

25. 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.
26. 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.
27. 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.
28. 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.
29. 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.
30. 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.
31. Membership of Common Environmental Infrastructure including the TSDF / Common Incineration Facility, if any.
32. 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.
33. 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.
34. Permission from PESO, Nagpur for storage of solvents, other toxic chemicals, if any.

35. 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.
36. Details on volatile organic compounds (VOCs) from the plant operations and occupational safety and health protection measures.
37. 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.
38. MSDS of all the products and raw materials.
39. 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.
40. 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?
41. 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.
42. Submit checklist in the form of Do's & Don'ts of preventive maintenance, strengthening of HSE, manufacturing utility staff for safety related measures.
43. 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.
44. 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.
45. (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.
46. 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.

47. 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.
48. Phase wise project implementation schedule with bar chart and time frame, in terms of site development, infrastructure provision, EMS implementation etc.
49. Certificate of accreditation issued by the NABET, QCI to the environmental consultant should be incorporated in the EIA Report.
50. A tabular chart with index for point-wise compliance of above TORs.

The above mentioned project specific TORs/additional TORs and the model TORs available in the MoEF's sector specific EIA Manual for 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.

Validity of ToR:

- The ToRs prescribed for the project will be valid for a period of three years for submission of EIA & EMP report accordingly, ToR will lapse after 02/08/2019.
- The period of validity could be extended for a maximum period of one year provided an application is made by the applicant to the Regulatory Authority, at least three months before the expiry of valid period together with an updated Form-I, based on proper justification and also recommendation of the SEAC.

12	SIA/GJ/IND2/16613/2016	**M/s: Gujarat Alkalies And Chemicals Ltd.,** Plot no.: D II/9, GIDC Dahej, Ta.: Vagra, Dist.:Bharuch	Screening & Scoping

Project / Activity No.: 5(f), 4 (d) & 1(d)

- M/s: Gujarat Alkalies And Chemicals Ltd., (herein after Project Proponent – PP) has submitted application vide their proposal no. SIA/GJ/IND2/16613/2016 dated 02/07/2016.

Project status: New

Project / Activity Details:

This is a new unit proposes the manufacturing of Synthetic organic chemicals, Chlor Alkali plant and Coal based plant in JV with NALCO as tabulated below:

S. No.	**Products**	**Quantity (MTPD / MW)**
Chlor-Alkali (800 TPD)		
1	Caustic Soda (100%) Lye/Prills/Flakes	800
2	Chlorine Gas	710
3	Hydrochloric acid	186
4	Hydrogen Gas	20
5	Sodium Hypochlorite	34
6	Dilute Sulphuric acid (78-80%)	16

Coal Based Captive Power Plant (120 MW)		
1	CPP	120
Chlorotoluene (205 TPD)		
1	Benzyl chloride	100
2	Benzyldehyde	50
3	Benzyl Alcohol	55
Other Derivatives and Bi-products are listed below		
4	Benzoyl chloride	5
5	Cinemic aldehyde	5
6	Benzyl acetate	15
7	Benzal chloride (Intermediate Product)	85
8	Sodium benzoate	4
9	Di benzyl ether	15
10	Hydrochloric acid	170
Chlorinated Paraffin Wax (100 TPD)		
1	Chlorinated Paraffin Wax	100
2	Hydrochloric Acid (33%)	180
3	Sodium hypochlorite	43

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

List of major Raw materials is as below:

S. No.	Raw Material	Proposed Quantity (MTPA)	Source	Mode of Transport
A. Chlor-Alkali Plant				
1	Salt	712800	Dahej, Jambuser and Bhavnagar	Trucks
2	Sodium Carbonate	5400	Local Market	
3	Sulphuric acid	5040	In-House	Pipeline
4	Sodium Bisulphate	172	Local Market	Trucks
5	Alpha cellulose	1150		
6	Caustic soda (internal)	432	In-House	
7	Hydrochloric acid (internal)	2160		Pipeline
8	Flocculent	5.76	Local Market	Trucks

B. Coal Based Power Plant				
1	Coal	5.4-6.0 Lac	Imported/Indigenous having low sulphur value	Trucks
C. Chlorotoluene				
1	Toluene	48180	Open market	Truck
	Chlorine	58400	In-house	Pipeline
	Soda ash	638.75	Local market	Truck
	Caustic soda lye	182.5	In-house	Pipeline
	Stabilizer	109.5	Local market	Truck
	Ferric chloride	91.25	Local market	Truck
D. Chlorinated Paraffin Wax				
1	Heavy Normal Paraffins	17885	Local market	Truck
2	Chlorine	43800	In-house	Pipeline
3	Stabiliser (Soya Epoxy)	109.5	Local market	Truck
4	Sodium Hydroxide (48%)	8318.3	In-house	Bags

Total plot area is 1020900 sq. m & unit has proposed 149932.73 sq m area for the green belt development /Tree plantation. Expected project cost is INR. 2143.871 Crores. Water requirement for the proposed project will be 24090 KL/day and it will be met through GIDC water supply. Industrial waste water generation will be 4440 KL/day, which will be treated in proposed ETP and treated waste water will be discharged into GIDC drain line for final disposal. Domestic waste water (30 KL/day) will be treated in proposed STP and treated sewage will be reused for gardening / plantation purpose within premises.

Details of emissions from proposed process stacks along with their mitigation methods

S. No.	Stack Attached to	Stack Height (m)	Stack Diameter (m)	Pollutants	Mitigation measures
Process Stacks					
1	Waste air De-Chlorination Unit at Caustic Soda Plant	30	0.4	Cl_2	3 Stage Caustic Scrubbing System
2	HCl synthesis Unit at Caustic Soda Plant	30	0.15	HCl, Cl2	Single Stage DM Water Scrubbing System
3	Scrubbing unitat Chlorotoluene Plant	33	0.4	HCl, Cl2	Caustic Soda Scrubber
Flue Gas Stacks					
1	Flue Gas Stack attached to Power Plant (2 Nos.)	120	3.25	PM	ESP
				SO2	Adequate

					Stack height
				NOx	-

Details of Proposed Hazardous Solid waste along with the Category and disposal method

S. No	Waste Name	Quantity MTPA	Source	Disposal Method
Hazardous Waste				
1	High M.P Liquid Impurities	548	Chlorotoluene Plant	Collection storage, reception within factory premises and transportation to incineration own/common incinerator of M/s BEIL
2	Used Oil	100	DG Set	Will be sent to the authorized recycler
Non-Hazardous Waste				
1	Brine Sludge	- 28,800	Caustic Soda Plant	Disposed to owned TSDF site
2	Fly ash	72,000	Coal Based Power Plant	As per Fly ash notification. Shall be used in cement manufacturing plant.

Fuel to be used is Coal: 5.4 - 6.0 Lac TPA for the proposed Coal based power plant. HSD will be used as a fuel for stand-by DG sets. The power requirement for the proposed project will be met from proposed 120 MW CPP. In case of plant start-up, emergency, schedule / unscheduled stoppages, one DG set of 225 KVA for Chlorinated paraffin wax plant and 3 no.s of DG sets [Capacity 1000 KVA each] for Caustic Soda plant will be provided.

Observations/Discussions:

Technical presentation during the meeting included Project introduction, Project pre-feasibility, Project synopsis, Site connectivity, study area sensitivity, Project description, raw material requirement, effluent generation and its management, air emissions, hazardous waste generation and its management, proposed TOR etc. While discussing about the technology of the proposed project, PP informed that membrane Cell based technology with state of the art Distributed Control System (DCS) will be used for Chlor – Alkali plant. Committee emphasized on maximum reuse / recycle of treated waste water and minimum discharge to the GIDC drainage so as to reduce fresh water requirement to which project proponent was agreed upon and informed that they will work out for the same and will submit revised water balance. 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 project should be justified in detail.
2. Demarcation of proposed activities in lay out plant.
3. Exact details about infrastructural facilities, plant machineries etc. required for the proposed project.
4. Technical details of the plant/s along with details on best available technologies (BAT), proposed technology and reasons for selecting the same.
5. Detailed manufacturing process along with chemical reactions and mass balance (including reuse-recycle, if any) for each product to be manufactured. Details on end use of each product.

6. Technical details of the proposed power plant along with details of strategy for implementation reuse / recycle and other cleaner production options for reduction of wastes. Generation of waste gases and utilization of waste heat have to be set out.
7. Explore possibilities to go for air cooled condensers instead of water cooled condensers in order to reduce the raw water requirement.
8. Assessment of source of the water supply with adequacy of the same to meet with the requirements for the proposed expansion. Copy of permission obtained from GIDC for water supply.
9. Water consumption and consumption of each raw material per MT of each product.
10. Water balance diagram (including reuse-recycle, if any) along with qualitative and quantitative analysis of the each waste stream to be generated. A detailed treatability study vis-à-vis the adequacy and efficacy of the treatment facilities proposed for the wastewater to be generated.
11. Explore the possibility to achieve minimum effluent discharge by reuse / recycle of treated effluent within the premises. Revised water balance diagram showing reduced fresh water requirement in case of reuse / recycle of treated effluent.
12. Complete waste water management plan for the proposed project. 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 and STP.
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 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. Copy of permission letter with quantity from the authority of GIDC drainage network, Dahej regarding confirmation for spare capacity available to take additional effluent load in GIDC drainage for final disposal to deep Sea.
20. One season site-specific meteorological data including temperature, relative humidity, hourly wind speed and direction and rainfall shall be provided.
21. 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.
22. One complete season AAQ data (except monsoon) to be given along with the dates of monitoring. Parameters to be considered shall be in accordance with the revised national ambient air quality standards. Project specific parameters like CS2, H2S, SO2, Cl2, HCl etc. shall be considered in

addition to general parameters. The location of the monitoring stations should be so decided so as to take into consideration the pre-dominant downwind direction, population zone and sensitive receptors. There should be at least one monitoring station in the upwind direction. There should be at least one monitoring station in the pre dominant downwind direction at a location where maximum ground level concentration is likely to occur.

23. 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.
24. 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.
25. 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.
26. Type of fuel (Quality of Imported Coal) to be used for the project and copies of confirm fuel linkage/agreement.
27. 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.
28. 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.
29. Details of possibility of chemical seepage & consequent soil contamination & mitigation measure proposed for the same for the proposed project.
30. 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.
31. 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.
32. 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.
33. 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.

34. 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.
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. Data on air emissions, wastewater generation and solid / hazardous waste generation and management for the existing plant should also be incorporated.
37. Details of measures proposed for the noise pollution abatement and its monitoring.
38. 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.
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 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.
40. MSDS of all raw materials and products.
41. 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.
42. 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.
43. 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.
44. 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.
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 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.
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.
50. (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.
51. 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.
52. 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.
53. Certificate of accreditation issued by the NABET, QCI to the environmental consultant should be incorporated in the EIA Report.
54. 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).
55. A tabular chart with index for point-wise compliance of above TORs.

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

Validity of ToR:

- The ToRs prescribed for the project will be valid for a period of three years for submission of EIA & EMP report accordingly, ToR will lapse after 02/08/2019.
- The period of validity could be extended for a maximum period of one year provided an application is made by the applicant to the Regulatory Authority, at least three months before the expiry of valid period together with an updated Form-I, based on proper justification and also recommendation of

	the SEAC.		
13	SIA/GJ/IND2/16689/2016	**M/s: Yogeshwar Tex Chem,** Plot No.: 496, GIDC Sachin, Choryasi, Surat	Screening & Scoping

Project / Activity No.: 5(f)

- M/s: Yogeshwar Tex Chem (herein after Project Proponent – **PP**) has submitted application vide their proposal no. SIA/GJ/IND2/16689/2016 dated 07/07/2016.

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 Capacity (MT/Month)	Proposed Capacity (MT/Month)
1.	Thinner	80	--
2.	Polyester Coating Film	80	--
3.	Epoxy Resin	--	150
4.	Melamine Formaldehyde Resin	--	150
5.	Urea Formaldehyde Resin	--	100

The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006. Total plot area is 703 sq. m & unit has proposed 105 sq mtr area for the green belt development/Tree plantation. Expected project cost is INR. 0.805 Crores. Water requirement for the proposed project will be 5 KL/day and it will be met through GIDC water supply. Industrial waste water generation will be 1.942 KL/day, which will be sent to Common facility MEPPL. Domestic waste water (1.6 KL/day) will be disposed off into septic tank/soak pit system. Imported Coal to the tune of 1.5 MT/day shall be used in the existing TFH (500 U). Teema Cyclone separator & Multi Cyclone dust collector shall be provided as APCM for TFH. Process residue (2.64 MT/Year) will be disposed off at the CHWIF. Discarded barrels / containers / bags / liners (600 no.s/Year) will be either reused or returned back to suppliers or sold only to the authorized vendors after decontamination. Used oil (0.05 MT/Year) will be sold only to the registered recyclers.

Observations & Discussions: Technical presentation made during the meeting by project proponent. While discussing regarding GIDC drainage connection, Committee asked to submit legal undertaking regarding “No drainage connection from the project premises” to which proponent was agreed upon. Project proponent has requested to consider the project as B2 category project. The request was considered by the committee looking to the location of the project, low pollution potential and the following additional information was sought for appraisal of the project.

1. Copy of plot holding certificate obtained from GIDC-Sachin.
2. Need for the proposed expansion should be justified in detail.
3. Demarcation of proposed expansion activities in lay out of the existing premises. Exact details about

infrastructural facilities, plant machineries etc. required for the proposed project.

4. Detailed manufacturing process along with chemical reactions and mass balance (including reuse-recycle, if any) for each product to be manufactured. Details on end use of each product. Give full name and chemical formula of all the raw materials and products.
5. Copy of permission obtained from concern authority for water supply.
6. Water consumption and consumption of each raw material per MT of each product.
7. 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.
8. Technical details of the ETP/Evaporator including size of each unit, retention time etc.
9. Action plan for 'Zero' discharge of effluent shall be included. Give qualitative and quantitative data with feasibility report for reuse of Mother Liquor in process again. Submit an undertaking in this regard.
10. Legal undertaking regarding "No GIDC drainage connection from the premises".
11. Membership of Common Environmental Infrastructure including the CETP, TSDF / Common Hazardous Waste Incineration Facility (CHWIF), Common MEE (Whichever is applicable) along with an assessment to accommodate the additional quantity of wastes to be generated. Explore the possibilities for co-processing of the Hazardous waste prior to disposal into TSDF/CHWIF.
12. Plan for management and disposal of waste streams to be generated from spillage, leakages, occasional reactor washing and exhausted media from Scrubber etc.
13. 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.
14. 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.
15. 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. Explore the possibilities for co-processing of the Hazardous waste/Solid waste prior to disposal into TSDF/CHWIF. Methodology of de-contamination and disposal of discarded containers and its record keeping.
16. Membership of Common Environmental Infrastructure including TSDF, Common Hazardous Waste Incineration Facility (CHWIF) along with an assessment to accommodate the additional quantity of wastes to be generated.
17. Complete Management plan for By-products/spent acid to be generated, (if any) from the project including their quantity, quality, characteristics, end use etc. along with the name and address of end consumers to whom the by-product will be sold. Copies of agreement / MoU / letter of intent from them, showing their willingness to purchase said by-products/spent acids from the proposed project.
18. 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.

19. Data on air emissions, wastewater generation and solid / hazardous waste generation and management for the existing plant should also be incorporated. (Comparative data in tabular format).
20. Details of measures proposed for the noise pollution abatement and its monitoring.
21. 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.
22. Occupational health impacts on the workers and mitigation measures proposed to avoid the human health hazards along with the personal protective equipment (PPE) to be provided to the workers. Provision of industrial hygienist and monitoring of the occupational injury to workers as well as impact on the workers. Plan for periodic medical check up of the workers exposed. Details of work place ambient air quality monitoring plan as per Gujarat Factories Rules.
23. Details of hazardous characteristics and toxicity of raw materials and products to be handled and the control measures proposed to ensure safety and avoid the human health impact. MSDS of all the products and raw materials to be used. Permission from PESO, Nagpur for storage of solvents, other toxic chemicals, if any.
24. Details of quantity of each hazardous chemical to be stored, material of construction of major hazardous chemical storage tanks, threshold storage quantity as per schedules of Manufacture, Storage & Import of Hazardous Chemicals (MSIHC) Rules of major hazardous chemicals.
25. 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.
26. 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.
27. 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.
28. Submit checklist in the form of Do's & Don'ts of preventive maintenance, strengthening of HSE, manufacturing utility staff for safety related measures.
29. 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.

30. 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.
31. Copies of Environmental Clearances obtained for the existing plant, its point wise compliance report.
32. Environmental audit reports for last 3 years and compliance of its recommendations/Suggestions. (Include latest audit report and its compliance.)
33. Copy of Consent to Operate (CC&A) obtained along with point wise compliance status of all the conditions stipulated therein.
34. Being an expansion project, compliance of MoEF circulars vide No: J-11011/618/2010-IAII(I) dated 30/05/2012 and J-11013/41/2006-IA-II(I) dated 20/10/2009
35. Copies of XGN generated Inspection reports with analysis reports of the water/Air/Hazardous samples collected by GPCB (Last 2 years). Copies of instructions issued by GPCB in last XX years and point wise compliance thereof.
36. A tabular chart with index for point-wise compliance of above.

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

14	SIA/GJ/IND2/16686/2016	**M/s:-Nutraplus India Limited,** Plot no. C-198, Sayakha Industrial estate, Tal: vagra, Dist. Bharuch	Screening & scoping

- M/s: Nutraplus India Limited (herein after Project Proponent – PP) has submitted application vide their proposal no. SIA/GJ/IND2/16686/2016 dated 22/09/2015.

Project status: New/Expansion

Project / Activity Details:

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

SR. NO.	PRODUCT NAME	PROPOSED CAPACITY (MT/MONTH)
BULK DRUGS AND BULK DRUG INTERMEDIATES		
1	IBUPROFEN	350 MT/Month
2	DICLOFENAC SODIUM	
3	ACECLOFENAC	
4	NIMESULIDE	
5	CHLORZOXASONE	
6	MEFENAMIC ACID	
7	MESALAMINE	
8	ALBENDAZOLE	
9	FEBENDAZOLE	
10	MEBENDAZOLE	
11	METRONIDAZOLE	
12	METRONIDAZOLE BENZOATE	

13	TINIDAZOLE		
14	ORNIDAZOLE		
15	OXYCLOZANIDE		
16	ROXARSONE		
17	CHLORPHENIRAMINE MALEATE (C.P. MALEATE)		
18	BROMHEXINE HCL		
19	AMBROXOL HCL		
20	PHENYLEFFRINE HCL		
21	DEXO METHERPHAN HBR		
22	SALBUTEMOL SULPHATE		
23	THEOPHYLLIN		
24	CAFFEIN		
25	THEOBROMINE		
26	CIPROFLOXACIN		
27	OFLAXACIN		
28	ENROFLOXACIN		
29	SILDINAFIL CITRATE		
30	TRAMADOL HCL		
31	LUMEFANTRINE		
32	ALUMINIUM HYDROXIDE GEL/POWDER		
33	AMPICILLIN		
34	AMOXICILLIN		
35	CLOXACILLON		
36	CEPHALEXIN		
DYES			
REACTIVE DYES			
1	REACTIVE YELLOW		
2	REACTIVE ORANGE		
3	REACTIVE RED		
4	REACTIVE GREEN		
5	REACTIVE BROWN		
6	REACTIVE BLACK		
7	REACTIVE BLUE		
8	REACTIVE VIOLET	50 MT/Month	
9	MIX DYES		
ACID DYES			
1	ACID YELLOW		
2	ACID ORANGE		
3	ACID RED		
4	ACID GREEN		
5	ACID BROWN		
6	ACID BLACK	50 MT/Month	

7	ACID BLUE	
8	ACID VIOLET	
9	MIX DYES	
	Total	450 MT/Month

- The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006.
- Total plot area is 16,067.36 sq. m & unit has proposed 5300 sq mtr area for the green belt development/Tree plantation.
- The capital cost of the project is INR. 50 Crores

Details of water consumption and waste water generation :

Source of Water Supply (GIDC, Bore well, Surface water etc...)	GIDC Water Supply
Water consumption (KL/day)	Industrial: (Process, Washings, Utilities etc.) 141 KL/Day
	Domestic: 20 KL/Day
Waste water generation (KL/day)	Industrial: (Process, Washings, Utilities etc.) 108 KL/Day
	Domestic: 15 KL/Day
Treatment facility with capacity (ETP, CETP, MEE, STP etc).	Dilute Stream ETP consisting primary , Secondary and Tertiary treatment followed by R.O. Plant Concentrated Stream High TDS stream will be treated in solvent stripper & distillation unit.
Mode of Disposal & Final meeting point	Industrial: Dilute stream shall be treated in ETP consisting primary, secondary & tertiary treatment and R.O. Condensate will be reused. Concentrated stream shall be subjected to Solvemt Stripper and reused or Sold outside after the distillation.
	Domestic: - Domestic wastewater will be treated in Septic Tank/Soak Pit.
Reuse/Recycle details	Out of 166 KL/Day, total 60 KL/Day of water will be reused in boiler and Cooling.

DETAILS OF STACKS & VENTS (PROPOSED)

1) FLUE GAS STACK

SR. NO.	STACKS ATTACHED TO	STACK HEIGHT (m)	FUEL	STACK DIAMETER (m)	POLLUTANTS	AIR POLLUTION CONTROL SYSTEM
1.	BOILER (6 TPH x 2 Nos.)	30	Coal/Agro Waste	0.8	SPM SO_2 NOx	Cyclone separator + Bag Filter + Scrubber
2.	Thermopack	30	Coal/Agro	0.8		

	Boiler (1 Nos.)		Waste			
3.	DG Set1	11	Diesel	0.1		--

2) PROCESS STACK

SR. NO.	PROCESS STACK ATTACHED TO	STACK HEIGHT (m)	STACK DIAMETER (m)	AIR POLLUTION CONTROL SYSTEM	POLLUTANTS
1.	Process Vent-1	20	0.3	Two Stage Scrubber (Water + Alkali)	HCl SO_2
2.	Process Vent-2	20	0.3	Two Stage Scrubber (Water + Alkali)	Cl_2
3.	Process Vent-3	20	0.3	Two Stage Scrubber (Water + HCl)	NH_3

Details of hazardous waste generation & disposal

SR. NO.	NAME OF WASTE	WASTE CATEGORY	TOTAL QTY. MT/MONTH	MODE OF DISPOSAL
1	ETP Sludge	35.3	53	Collection, Storage, Transportation and Disposal at nearest TSDF site.
2	Discarded Containers	33.1	3	Collection, Storage, Decontamination & sold to GPCB authorized vendors.
3	HDPE Bags	33.1	1	Collection, Storage, Decontamination & sold to GPCB authorized vendor.
4	Distillation Residue	36.1	23	Collection, Storage, Transportation & Sent to Cement Industry for co-processing or Sent to nearest common Incineration Site.
5	Used Oil	5.1	0.5	Collection, Storage, Transportation & Sell to registered reprocessor.
6	Process Waste	28.1	55	Collection, Storage, Transportation & Sent to Cement Industry for co-processing or Sent to nearest common Incineration Site.
7	Spent Carbon	28.3	3	Collection, Storage, Transportation & Sent to nearest TSDF.
8	Iron Sludge	--	21	Collection, Storage, Transportation & Sent to Cement Industry.
9	Spent Catalyst	28.2	2	Collection, Storage, Transportation & return back to supplier for re-generation or Sent to nearest common Incineration Site.
10	Spray Dryer Salt*	--	100	Collection, Storage, Transportation and Disposed at nearest TSDF site
** Note: In case of Industry will install spray dryer within factory premises.*				
11	HCl (32%)	26.3	15	Collection, Storage, Transportation & Reuse in process.
12	H_2SO_4 (70%)	26.3	4	Collection, Storage, Transportation & Reuse in process.

13	Inorganic Salt	--	20	Collection, Storage, Transportation and sell or Disposed at nearest common TSDF site
14	Caustic Solution	--	23	Collection, Storage, Transportation and used in plant premises or sold outside
15	Sodium Bromide	--	5	Collection, Storage, recovery and sell to end user
16	KCl Salt	--	33	
17	Sodium Carbonate	--	10	Collection, Storage, recovery and Reuse in plant premise
18	$AlCl_2$	--	8	
19	Piperazine ML	--	16	
20	Liquor Ammonia	--	12	
21	Sodium Acetate	--	5	Collection, Storage, recovery and sell to end user
Solid Waste				
1.	Fly Ash	--	30	Collection, Storage, Transportation and sell to brick manufacturer

Observations / Discussion:

Technical presentation made during the meeting by project proponent. Looking to the product profile, while concerning about the manufacturing of API drugs and Dyes manufacturing within the same premises, Project proponent could not replied satisfactorily. After detailed discussion, project proponent informed that they will remove the Dye manufacturing products from the proposed project. PP has requested to consider their project for TOR considering API drugs as products, which was not considered by the Committee and asked to submit Revised Form-1 with relevant details. After deliberation on various aspects, the committee unanimously decided to consider the case for TOR/Scoping only after submission of revised proposal.

15	SIA/GJ/IND2/11781/2016	M/s: **United Pestichem ,** Plot no. 1680, GIDC, Sarigam, Ta: Umbergaon, Dist.: Valsad.	Screening & Scoping

Project / Activity No.: 5(f)

- M/s: United Pestichem (herein after Project Proponent – PP) has submitted application vide their proposal no. SIA/GJ/IND2/11781/2016 dated 06/04/2016.

Project status: New

Project / Activity Details:

This is a new unit proposes the manufacturing of Synthetic Organic chemicals (Surfactants and Speciality Chemicals) as tabulated below:

Sr. No.	Products Name	Production Capacity (TPM)
1.	Alkoxylates Ethoxylation and/or Propoxylation of various hydrophobes such as Fatty Alcohols, Synthetic Alcohols, Fatty Amines, Alkyl Phenols, Aryl	1300.00

	Phenols, Vegetable Oils, Fatty Acids, Toluidines, Alkanolamines, Ethylene and Propylene glycols, Esters, Amides, Polymeric Resins, Imidazolines.	
2.	Quaternary Ammonium Compounds Alkyl Trimethyl ammonium chlorides, Dialkyl Dimethyl ammonium chlorides, Trialkyl methyl ammonium chlorides, Fatty amine ethoxylate methyl ammonium chlorides, Alkyl dimethyl benzyl ammonium chlorides, Tertiarty Amine methosulphates, QuaternisedImidazolines.	300.00
3.	Phosphate Esters Fatty alcohols and/or their ethoxylates, Alkyl phenols and/or their ethoxylates, Synthetic alcohols and/or their ethoxylates, other hydrophobes/alkoxylates are converted to their phosphate esters.	100.00
4.	Sulphates and/or Sulphonates Fatty Alcohols and/or their ethoxylates, Synthetic alcohols and/or their ethoxylates, Alkyl Phenols and/or their ethoxylates, Aryl Phenols and/or their ethoxylates, Imidazolines, other alkoxylates are sulphated and/or sulphonated followed by neutralization to form the respective alkali and/or alkanolamine salts.	300.00
5.	Fatty Esters Esterification/Transesterification of Fatty acids and/or Vegetable Oils and/or their ethoxylates; with Fatty Alcohols and/or Synthetic Alcohols and/or Alkyl Phenols and/or alkoxylates of the same and/or alkoxylates of other hydrophobes and/or polyols.	130.00
6.	Sulphosuccinates Mono/Di Alkyl Sulphosuccinate Alkali Salt of Alcohols, alkoxylates, polymeric resins.	40.00
7.	Blend Formulations Fatty alcohols, Synthetic Alcohols, Fatty Acids, Alkyl Phenols, Fatty Amines, Vegetable Oils and/or their alkoxylates, Sulphates, Sulphonates, Solvents, Mineral Oils, Phosphate Esters, Acids, Alkalis, alkanolamines, Hydrocarbon Waxes, Natural Waxes, Silicon Oils, Silicon Oxides, Sulphosuccinates, Quaternary ammonium compounds, Imidazolines, Fatty esters, Amine oxides, alkylates, resins etc. are blended together.	400.00
8.	Amine Oxides Tertiary Amine compounds are reacted with Hydrogen Peroxide to get corresponding Amine Oxide.	70.00
9.	Imidazolines Formed by reactions of Fatty Acids with polyamines such as Amino ethyl ethanolamine, Diethylene triamine, etc.	25.00
10.	Alkylates Alkylation of Aryl ring compounds like Diphenyl Oxide etc. with olefins of varying chains like propylene trimer etc.	30.00
11.	Resins Resins are formed by reaction of aryl ring compounds like Alkyl Phenols, aryl phenols, alkoxylates, etc. with aldehydes like paraformaldehyde etc. to form polymeric resins	5.00
	Total	2700.00

The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006. Total plot area is 5500 sq. m. Unit has proposed 825 sq. m area for green belt. Expected project cost is Rs. 12.31 Crores. Total water consumption for proposed project will be 57 KL/day which will be sourced from GIDC water supply. Industrial waste water generation will be 15 KL/day, which will be treated in

proposed ETP [Cap. 20 KL/day] comprises of Primary, Secondary & Tertiary treatment plant and treated waste water will be sent to CETP of Sarigam. Domestic waste water (4 KL/day) will be disposed off into soak pit system.

Stack/Vent details is as under:

No. of Boilers/ TFH/ Furnaces/ DG sets etc. with capacities	D.G. Set (Capacity:62.5 KVA) Boiler:600 kg/hr (2 nos. 1 working + 1 standby) Thermopack: 200,000kcal/hr (2 nos. 1 working + 1 standby)
Fuel consumption (MT/hr & MT/Day)	HSD: 16 lit/ hr for D.G.Set. HSD: 26 lit/hr for each Thermopack FO: 40 kg/hr for each Boiler
APCM for flue gas control	Chimney Height: 20 m & Diameter: 300 mm (for Thermo pack) Chimney Height: 20m&Diameter: 300 mm for each (for Steam Boiler) Chimney Height: 09 m Diameter: 100 mm (for D.G Set)
Process gas/Fugitive emission details	HCL & SO_3 will be generated from manufacturing process.
APCM for process gas/fugitive gaseous emission details	Alkali Scrubber attached to process reactor

Hazardous waste details:

Types of Waste& Category	Source of Generation	Quantity per Annum	Storage Method	Method of Disposal
Used oil(5.1)	Plant machineries	1.0 KL	Stored into the closed container.	Will be sent to registered recycler /Reused
ETP Waste (35.3)	ETP	12.0 MT	Will be stored at the separate area.	TSDF site
Filter cloth (33.2)	From filtering of product	0.5 MT	Will be stored at the separate area.	TSDF site
Empty bags /drums& container (33.1)	Consumed Raw materials and Product packaging.	50,000	Stored at a specify area as per the rule.	Will be sold to authorized Decontamination facility.

Observations/Discussion:

Technical presentation made during the meeting by project proponent. Issues regarding CETP performance, membership of CETP, process gaseous emission, membership of TSDF site etc. have been discussed during the meeting. PP informed that they have already applied for membership certificate of CETP-Sarigam and they will submit the same with EIA report. Upon asking about the end-use of the proposed products with regard to applicability under the category 5(b)-Pesticide Industry and Pesticide Specific Intermediates, PP confirmed that the proposed products will not be used as Pesticides

or its intermediates. However, Committee asked to submit the undertaking in this regard. After detailed discussion, the following additional Terms of Reference were prescribed for the EIA study to be done covering 5 Km radial distance from the project boundary.

1. Copy of plot holding certificate obtained from GIDC Sarigam.
2. Exact aerial distance from the CEPI area of Vapi and Inter state boundary from the project premises.
3. Present land use pattern of the study area shall be given based on satellite imagery.
4. Layout plan of the factory premises. Provision of separate entry & exit and adequate margin all round the periphery for unobstructed easy movement of the emergency vehicle / fire tenders without reversing back. Mark the same in the plant layout.
5. Undertaking regarding " None of the product is covered under the Category 5(b)-Pesticide Industry and Pesticide Specific Intermediates" as per the schedule to the EIA Notification 2006 as amended.
6. Technical details of the plant/s along with details on best available technologies (BAT), proposed technology and reasons for selecting the same.
7. 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. (Give specific details about source of effluent generation).
8. Chemical name of each proposed products to be manufactured. Details on end use of each products.
9. 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.
10. 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.
11. 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.
12. Quality and quantity of waste water to be generated from the manufacturing process of each product to be manufactured along with mass balance.
13. Stream wise qualitative & quantitative analysis of each waste stream (including process water, cooling tower blow down, boiler blow down, washing effluent etc.) to be generated. Give segregation scheme at source. Characteristics of untreated and treated wastewater. A detailed effluent treat ability study vis-à-vis the adequacy and efficacy of the treatment facilities proposed for the wastewater to be generated. The characteristic on which treatability is based shall also be stated.
14. Details of the ETP units including its capacity, size of each unit, retention time and other technical parameters. Details regarding provision of online continuous pH meter, TOC analyser and flow meter at the final outlet of the ETP.
15. Details of CETP- Sarigam including (1) Total capacity of the CETP (2) Actual load at present (Qualitative and Quantitative – per day) (3) CETP Up gradation scheme, if any (4) Last 6 analysis Reports of GPCB for Inlet and outlet of CETP (5) Spare capacity of CETP with treatability and feasibility report. (6) Recommendations and suggestions of the last two Environment Audit reports of CETP- Sarigam and its compliance report.
16. 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.

17. One season Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be incorporated.
18. 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.
19. 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.
20. Modelling indicating the likely impact on ambient air quality due to proposed activities. The details of model used and input parameters used for modelling should be provided. The air quality contours may be shown on location map clearly indicating the location of sensitive receptors, if any, and the habitation. The wind rose showing pre-dominant wind direction should also be indicated on the map. Impact due to vehicular movement shall also be included into the prediction using suitable model. Results of Air dispersion modelling should be superimposed on satellite image / geographical area map.
21. 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.
22. 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.
23. 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.
24. Membership of Common Environmental Infrastructure including the CETP, TSDF / Common Hazardous Waste Incineration Facility (CHWIF), Common MEE (Whichever is applicable) along with an assessment to accommodate the additional quantity of wastes to be generated. Explore the possibilities for co-processing of the Hazardous waste prior to disposal into TSDF/CHWIF.
25. Complete Management plan for By-products/Spent acids to be generated, (if any) from the project including their quantity, quality, characteristics, end use etc. along with the name and address of end consumers to whom the by-product will be sold. Copies of agreement / MoU / letter of intent from them, showing their willingness to purchase said by-product from the proposed project. Also give

characteristics of the by products and feasibility of their actual use in respective products as a raw material.

26. 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.
27. A detailed EMP including the protection and mitigation measures for impact on human health and environment as well as detailed monitoring plan and environmental management cell proposed for implementation and monitoring of EMP. The EMP should also include the concept of waste-minimization, recycle/reuse/recover techniques, energy conservation, and natural resource conservation. Total capital cost and recurring cost/Year earmarked for environment pollution control measures.
28. Permission from PESO, Nagpur for storage of solvents, other toxic chemicals, if any.
29. Occupational health impacts on the workers and mitigation measures proposed to avoid the human health hazards along with the personal protective equipment 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.
30. Risk assessment including prediction of the worst-case scenario and maximum credible accident scenarios should be carried out. The worst-case scenario should take into account the maximum inventory of storage at site at any point of time. The risk contours should be plotted on the 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.
31. MSDS of all the products and raw materials.
32. 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.
33. 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?
34. 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.
35. Submit checklist in the form of Do's & Don'ts of preventive maintenance, strengthening of HSE, manufacturing utility staff for safety related measures.
36. 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.
37. 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.

38. (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.
39. 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.
40. 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.
41. Compliance of the MoEF's OM dated 04/08/2009 and 05/10/2011 regarding compliance of TOR prescribed & factual correctness of the data submitted in the EIA report, the names of experts associated with / involved in the preparation of the EIA report and the ownership of the EIA report by the Project proponent.
42. Certificate of accreditation issued by the NABET, QCI to the environmental consultant should be incorporated in the EIA Report.
43. 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.

Validity of ToR:

- The ToRs prescribed for the project will be valid for a period of three years for submission of EIA & EMP report accordingly, ToR will lapse after 02/08/2019.
- The period of validity could be extended for a maximum period of one year provided an application is made by the applicant to the Regulatory Authority, at least three months before the expiry of valid period together with an updated Form-I, based on proper justification and also recommendation of the SEAC.

16	SIA/GJ/IND2/16503/2012	**M/s: Chaitanya Life Science Pvt Ltd.,** Plot No:D-2/CH/215, GIDC Industrial Estate, Dahej, Vagara, Bharuch	Appraisal

Project / Activity No.: 5(f)

Project status: New

Chronology of EC Process:

- M/s: **Chaitanya Life Science Pvt Ltd.,** (herein after Project Proponent – PP) has submitted an

application vide their online proposal no. SIA/GJ/IND2/16503/2012 dated 25/06/2016 along with final EIA report prepared by M/s: Envisafe Environment Consultants regarding grant of Environmental Clearance.

- Earlier the project was considered for TOR finalization in the meeting of the SEAC held on 31/07/2014 and TOR issued to the proposed project.
- Public Hearing was arranged by Gujarat Pollution Control Board on 10/06/2016 at project site.

This is a new project proposing to manufacture pharmaceutical bulk drugs and intermediates. Proposed total production will be carried out in 2 phases as shown below :

Sr. no.	Name of the Product	Quantity
Phase I		
1	Oxyclozanide	150 MT/Month
2	Pyroxicam	
3	Tizanidine	
4	PiperazineHexahydrate	
5	Piperazine Citrate	
6	PiperazineAdipate	
7	PiperazineDihydrochloride	
8	Piperazine Phosphate	
9	Povidone Iodine	
10	Potassium Citrate	
11	Potassium Iodide	10 MT/Month
12	Sodium Iodide	
	Total Production of Phase-I	160 MT/Month
Phase-II		
13	Carvedilol	0.1 MT/Month
14	Olanzapine	0.4 MT/Month
15	Ondansetron Hydrochloride	
16	Pregabaline	
17	Amlodipine Besylate	
18	Glimepiride	1.0 MT/Month
19	Lacidipine	
20	Venlafaxin Hydrochloride	
21	Losarton Potassium	
22	Lidocaine Hydrochloride	7.5 MT/Month
23	Glibenclamide	
24	Niclosamide	
25	Metaxalone	
26	Benzarone	
27	Benzbromarone	
28	Ethenzamide	
29	Aceclofenac	
30	Pentaprazole Sodium	
	Total Production of Phase-II	9 MT/Month
	Total Production of Phase- I & II	169 MT/Month

Plot area will be 4,842.33 m2. Unit has proposed to develop green belt in @ 1600 sq. m area. Total project cost will be Rs 250 Lacs. The capital cost for environmental protection measures is proposed as Rs. 49.4 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs.21.4 Lakhs. There will be no industrial effluent generation from the Phase-I production. Total water consumption for the proposed project will be 41 KL/day. Unit has proposed to recycle 21.1 KL/day

of waste water for various purposes. Hence, actual fresh water requirement for the proposed project will be 19.9 KL/day, which will be sourced from GIDC water supply. Industrial effluent will be treated in ETP [Capacity 35 KLD] comprising of Primary, Secondary and Tertiary treatment units and treated effluent will be taken to the RO system [Capacity 35 KL/day]. R.O. Permeate (21.1 KLD) will be reused and Reject stream (8.9 KLD) will be treated in Multiple Effect Evaporator (MEE) followed by ATFD (Capacity 37.5 Kg/hr). Highly concentrated effluent generated from process & APCE- 18.5 KLD will be sent to Stripper [Capacity 20 KLD] followed by MEE [capacity 30 KLD]. Effluent from MEE condensate along with the RO reject - 27 KLD and effluent from other streams like washing - 1.5 KLD, cooling 1.0 KLD and boiler 0.5 KLD will be sent to ETP. In a view of proposed and further expansion, if needed, ETP comprising of primary, secondary and tertiary treatment units along with MEE and RO. MEE salt 0.4 KLD will be disposed at TSDF site and final treated effluent 30.0 KLD will be sent to RO for further treatment. RO permeate 21.1 KLD will be reused in industrial activities and RO reject will be sent to MEE. Hence, unit will maintain zero liquid discharge. Entire treated effluent 21.1 KLD will be reused in Process & APCM - 7.6 KLD, Cooling - 6.5 KLD, Boiler - 5.0 KLD & Washing - 2.0 KLD. Domestic wastewater generation will be 1.5 KL/day and it will be disposed off into soak pit through septic tank. One steam boiler with cap. 0.8 TPH and one TFH with cap. 1.0 Lac Kcal/Hr are proposed. Natural gas (12000 SCM/day) or Agro waste (3.5 MT/day) will be used in Boiler and TFH. Multi cyclone separator will be provided as APCM in case of Agro waste as a fuel. One DG set with capacity 50 KVA is proposed as standby facility during power cut in which Diesel – 10 Lit./day will be used as fuel and adequate stack height will be provided. There will be process gas emissions of NH3, HCl & SO2 from the manufacturing of various products. They have proposed to provide water scrubber followed by alkali scrubber to control HCl & SO2 emission and Two Stage Water Scrubber to control NH3 gas emission. ETP sludge (24 MT/Annum), MEE Salt (187.2 MT/Annum), Organic process waste (3 MT/Annum), Spent Carbon (32.4 MT/Annum), Distillation residue (351 MT/Annum), Spent Solvent (7420 MT/Annum), Inorganic Process waste (142.5 MT/Annum), Discarded drums/bags (1000 Nos./Annum) and Used/spent oil (0.05 KL/Annum) will be generated as hazardous wastes. It is proposed to develop 500 m2 area as Green Belt. ETP waste, MEE Salt & Inorganic process waste will be disposed off at the Common TSDF site. Organic process waste, Spent carbon & Distillation residue will be disposed off at the CHWIF for incineration or sent for co-processing by Cement manufacturers. Discarded barrels / containers / bags / liners will be either reused or returned back to suppliers or sold only to the authorized vendors after decontamination. Used oil will be sold only to the registered recyclers. Spent organic solvent will be recovered in-house and reused within premises. Generated Sodium Bisulphite (135 MT/Month) will be sold out to the actual users and Liquor Ammonia (20%) (52.5 MT/Month) will be reused as raw material or sold out to the actual users.

Observations/Discussions:

Technical presentation made during the meeting by project proponent. EIA report reveals that baseline environmental study was carried out during the month of March - 2015 to May - 2015 to determine the prevailing status of ambient air, land use, noise level topography, meteorology, ecology & socioeconomic outline. Baseline ambient air quality was measured at five locations. Monitoring was carried out for PM10, PM2.5, SO2, NOx, HCl, NH3 and VOC. The maximum concentrations of PM10, PM2.5, SO2, NOx and NH3 at each ambient air monitoring locations were compared with NAAQS for

industrial, residential, rural and other areas. All the parameters are well within the NAAQS at five locations.HCL and VOC (as Isobutylene) concentrations were below detectable limit (BDL) at all locations. The incremental Ground Level Concentration (GLC) has been computed using ISCST – 3 model. The maximum 24-hourly average ground level concentration for pollutant due to proposed project calculated using mathematical model (ISCST3) for PM10, SO2,NOx, HCl and NH3 is 0.621 µg/m3, 1.039 µg/m3, 0.137 µg/m3, 0.023 µg/m3 and 0.198 µg/m3 respectively which is very negligible even for the worst case scenario. Moreover, this will occur at a distance of only 250 meter from the source, which falls within the GIDC industrial estate only where there is no permanent habitat exists. Committee observed that PP has proposed MDC only as APCM with Steam Boiler. Committee asked to provide adequate APCM for Boiler & TFH. Project proponent requested to discharge treated effluent into GIDC underground drainage as and when disposal facility is available and they will discontinue the ZLD which was not considered by the Committee and asked to maintain ZLD only. After deliberation, It was unanimously decided to consider the project for further consideration only after submission of the following:

1. Revised Form-1 considering (1) Fuel quantity (2) revised water balance (3) Management of waste items i.e. Sodium Bisulphite & Liquor Ammonia (20%) as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016. Give copy of CC&A of the actual user industry with feasibility report to reuse as a raw material for relevant product.
2. Separate quantity of fuel consumption in MT/day for Natural gas & Agro waste.
3. Specific details of ToR no. 28.

17	SIA/GJ/IND2/11228/2016	**M/s: J S Enterprise**, Block No. 12,45, 13, 14A, 14B, Plot No. 10 D Type 6 to 14, Jalbhumi Industrial estate, Vill. Atodara, Ta.: Olpad, Dist.: Surat	Screening & Scoping

Project / Activity No.: 5(f)

- M/s: **J S Enterprise**, (herein after Project Proponent – PP) has submitted application vide their proposal no. SIA/GJ/IND2/11228/2016 dated 26/04/2016.

Project status: New

Project / Activity Details:

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

Sr. no.	Name of Product	Quantity (MT/Month)
1.	Polyester Resin	60
2.	Sizing Binder	15

The location of the unit is outside the notified area. As per amendment to EIA Notification, 2006 vide SO 1599 (E) dated 25.06.2014, small units are categorized as Category “B” projects. Small units are defined as with water consumption less than 25 M3/day; Fuel consumption less than 25 TPD; and not covered in the category of MAH units as per the Management, Storage, Import of Hazardous Chemical Rules

(MSIHC Rules), 1989. During presentation, PP informed that water requirement is 5.2 KL/day. Fuel requirement is 1 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 1359 sq. m & unit has proposed 295 sq m area for the green belt development/Tree plantation. Expected project cost is INR. 40 Lacs. Water requirement for the proposed project will be 5.2 KL/day (1 KL for Domestic, 1.5 KL for Gardening, 2.07 KL for Industrial Purpose) and it will be met through Bore well. Industrial waste water generation will be 1.6 KL/day, which will be reused in process. There will be no discharge of industrial waste water from the proposed project. Domestic waste water (0.7 KL/day) will be disposed off into septic tank/soak pit system. No process gaseous emission is envisaged. Discarded barrels / containers / bags / liners (206 no.s/Month) will be either reused or returned back to suppliers or sold only to the authorized vendors after decontamination. Used oil (0.060 MT/Month) will be sold only to the registered recyclers.

Observations & Discussions:

Technical presentation made during the meeting by project proponent. 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. Technical justification for entire quantity of waste water in to process. Give characteristics of different waste water streams and its feasibility report to reuse in respective sections.
12. 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.
13. Explore the possibility of reuse / recycle and other cleaner production options for reduction of wastes and to conserve fresh water.
14. 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.
15. Details of possibility of chemical seepage & consequent soil contamination & mitigation measure proposed for the same for the proposed project.
16. 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.
17. Specific details of fugitive emission from the unit along with its quantification and proposed measures to control it along with measures proposed to monitor VOC within work area. Details of ventilation system proposed in the work area. Measures proposed to keep the work area environment as per the norms of GFR.
18. Details of measures proposed for noise pollution abatement & its monitoring.
19. Details of management of the hazardous wastes to be generated from the project stating detail of storage area for each type of waste, its handling and its disposal. How the manual handling of the hazardous wastes will be minimized?
20. Methodology of de-contamination and disposal of discarded containers and its record keeping.
21. Measures proposed to be taken for the work area ambient air quality monitoring as per Gujarat Factories Rules.
22. A detailed EMP including the protection and mitigation measures for preventing impacts on human health and environment as well as detailed monitoring plan with respect to various parameters and responsible head for the environmental management cell and environmental management cell proposed for implementation and monitoring of EMP.
23. Detailed socio-economic development measures including community welfare program most useful in the project area for the overall improvement of the environment.
24. A detailed Green Belt Development Program including annual budget, types & number of trees to be planted, area under green belt development [with map]; along with commitment of the management to carry out the tree plantation activities outside the premises at appropriate places in the GIDC area

and elsewhere.

25. Details of hazardous characteristics and toxicity of raw materials and products to be handled and the control measures proposed to ensure safety and avoid the human health impacts. This shall include the details of Antidotes also.
26. Details of quantity of each hazardous chemical to be stored, Material of Construction of major hazardous chemical storage tanks, threshold storage quantity as per schedules of the Manufacture, Storage & Import of Hazardous Chemicals Rules of major hazardous chemicals. How the manual handling of the hazardous chemicals will be minimized?
27. Details of the separate isolated storage area for chemicals. Details of fire extinguishers, flame proof electrical fittings, DCP extinguishers and other safety measures proposed.
28. Specific safety details / provisions for various hazardous chemicals and detailed fire control plan for flammable substances.
29. Details of possibilities of occupational health hazards from the proposed manufacturing activities and proposed measures to prevent them.
30. Detailed risk assessment report including prediction of the worst-case scenario and maximum credible accident scenario along with damage distances and preparedness plan to combat such situation and risk mitigation measures. Vulnerable zone demarcation.
31. Submit checklist in the form of Do's & Don'ts of preventive maintenance, strengthening of HSE, mfg utility staff for safety related measures.
32. A tabular chart with index for point-wise compliance of above details.

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

18	SIA/GJ/IND2/52018/2016	**M/s: Infinium Pharmachem Pvt Ltd.** Plot no. 37,38,39, GIDC-Sojitra, Dist.: Anand.	Appraisal

Project / Activity No.: 5(f)

- M/s: Infinium Pharmachem Pvt Ltd. (herein after Project Proponent – PP) has submitted an application vide their online proposal no. SIA/GJ/IND2/52018/2015 dated 22/06/2016 along with final EIA report regarding grant of Environmental Clearance.
- Earlier, the project was taken up in the SEAC meeting held on 17/11/2015.
- During presentation on 17/11/2016, Committee noted that unit has proposed two options for disposal of industrial waste water. Committee was of the view that unit should not be allowed to sent their effluent to common facility of SEPL which is located far away from the project site. On asking about the other options for treatment of waste water, PP could not reply satisfactorily. Looking to the location in Sojitra GIDC and type of proposed products, committee unanimously decided to consider the case for screening & scoping only after submission of the following: (1) Name of products generating waste water with quantity per month, its specific treatment option with technical details. (2) Satellite image of project site (1 KM radius from the boundary of the project site) with specific details such as distance of the project site from the nearest residential habitat. Name and type of surrounding industrial units and impact on it due to proposed project.

Name of Chemical units located within GIDC of Sojitra. (3) Documents showing GIDC-Sojitra was established before 14/09/2006.

- The project proponent submitted the additional information vide their letter on 25/02/2016.
- Project proponent was called for presentation in the SEAC meeting dated 27/04/2016.
- EIA Report is prepared by M/s: Excel Enviro Tech (NABET Accredited), Ahmedabad based on the ToR issued to the project proponent in the SEAC meeting dated 27/04/2016.

Project status: Expansion

Project / Activity Details:

This is an existing unit engaged in manufacturing of Inorganic products and now proposes to manufacture Synthetic Organic Chemicals as tabulated below:

Name of the products	Quantity (MT/Month)
Existing products	
POTASSIUM IODIDE	50 MT/MONTH
SODIUM IODIDE	
AMMONIA IODIDE, COPPER IODIDE, ZINC IODIDE, CALCIUM IODATE, POTASSIUM IODATE, SODIUM META PER IODATE	
Proposed products	
Inorganic Iodine derivatives	
SODIUM IODIDE, POTASSIUM IODIDE, AMMONIUM IODIDE, COPPER IODIDE, ZINC IODIDE, SILVER IODIDE, CALCIUM IODATE, POTTASSIUM IODATE, SOIDUM IODATE, SODIUM META PAR IODATE, LITHIUM IODIDE HYDRATE, NICKEL IODIDE, LEAD IODIDE, CADMIUM IODIDE, THALLIUM IODIDE, ANTIMONY IODIDE, HYDROIODIC ACID, CALCIUM IODIDE HYDRATE, IODINE, IODINE MONOCHLORIDE, IODINE 0.1N STANDARD SOLUTION, CESIUM IODIDE, IODINE MONOCHLORIDE 40% SOLUTION IN ACETIC ACID, IODINE MONOCHLORIDE 40% SOLUTION IN MDC,BARIUM IODIDE DIHYDRATE, IODIC ACID (SOLUTION), IODIC ACID (CRYSTAL),PER-IODIC ACID	50 MT/MONTH
Organic Iodine derivatives	
IODOBENZENE DIACETATE, BIS TRIFLUORO ACETOXY IODOBENZENE, 4-IODOBENZOICACID, 3-IODOBENZOIC ACID, METHYL TRI PHENYL PHOSPHONIUM IODIDE, ETHYL TRI PHENYL PHOSPHONIUM IODIDE, ISO PROPYL TRI PHENYL PHOSPHONIUM IODIDE, 1-IODOHEXANE, 1-IODOHEPTANE, CYCLO HEXYLIODIDE, 4-IODOANILINE, 2-FLUORO -4-IODOANILINE, 1, 4 – DIIODOBENZENE, 4 – IODOPHENOL, 2 – IODOTOLUENE, 3 , 5 – DIIODOSALICYLICACID, 1,3-DIIODO-5,5-DIMETHYL HYDANTOIN, N-IODO SUCCINIMIDE, 2 – IODOPHENOL, IODOFORM, TETRABUTYL AMMONIUM IODIDE, TRIMETHYL SULFONIUMIODIDE, CHLOROIODOMETHANE, DI IODO METHANE, ETHYL MAGNESIUM IODIDE - 1M SOLUTION IN THF, METHYL MAGNESIUM IODIDE - 1M SOLUTION IN THF, THYMOL IODIDE, 1,3 – DIIODOPROPANE, 1 , 10-DIIODODECANE, 2-IODOETHANOL, 1-BROMO 2-IODOBENZENE, 1-BROMO 4-IODOBENZENE, 3-IODO-N-PHENYL CARBAZOLE, 4-FLUORO IODOBENZENE, 2-NITRO IODOBENZENE, 2-IODO ANILINE, 2-BUTYL-3(3,5-DIIODO-4-HYDROXY BENZOYL) BENZOFURAN, METHYL AMMONIUM IODIDE, 1,3-DIIODO	50 MT/MONTH

BENZENE, 5-IODO URACIL, 1,4-DIIODO BUTANE, 2-IODOACETIC ACID, 3-IODO PYRIDINE, 4- IODO PYRIDINE, IODOPHOR, POVIDONE – IODINE POWDER, PROPIDIUM IODIDE, DIIODOETHANE, 6- IODO INDAZOLE, 4-BROMO-2-IODOANILINE, 3-IODOTRIFLUORIDE, 3-IODOANILINE, DIIODO FLURO METHANE	
TOTAL	150MT/MONTH

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

Plot area is approx. 4098 sq. m. Unit has proposed 1200 sq. m area for green belt/tree plantation. Estimated cost of proposed expansion is Rs. 0.72 Crores. Fresh water requirement after proposed expansion will be increased from 7.3 KL/day to 22 KL/day. Unit has proposed to reuse 10 KL/day of condensate water. Hence, fresh water requirement will be 10 KL/day, which will be supplied by the GIDC. Industrial wastewater generation after the proposed expansion will be increased from 3.25 KL/day to 12 KL/day. Generated industrial effluent will be treated in proposed ETP comprises of Primary & Tertiary treatment units and treated effluent will be sent to Air stripper followed by Single Effect Evaporator. Unit has proposed to install in-house Single Effect Evaporator [Cap. 600 Lit./hr] with condenser to achieve Zero Liquid Discharge. Condensate (10 KL/day) will be reused in the process (7 KL/day), Cooling (2 KL/day) and for hot water generator (1 KL/day). Domestic waste water (1.5 KL/day) will be disposed off into septic tank/soak pit system. Flue gas emission details is as below:

Sr. No.	Stacks attached to	Stack Ht.(m)	Fuel & its requirement	APCM
1	Thermic Fluid Heater (3 Lac K cal) – Existing	15	Coal – 0.5 MT/Day	None
2	Hot Water Generator (250 Lit/hr.) – Existing	9	Coal – 0.3 MT/Day	
3	Thermic Fluid Heater (6 Lac k cal) – Proposed	15	Agro waste /Coal/ Fire-Wood:0.5 MT/Day	Cyclone separator
4	Hot Water Generator (250 Lit/Hr.) – Proposed	9	Agro waste /Coal/ Fire-Wood:0.3 MT/Day	
5	D.G Set (250 KVA) (02 Nos.) (Proposed)	8	Diesel: 60 Lit/hr	-

Process gaseous emission details will be as below:

Stack attached to	Height of stack	APCM	Expected Concentration Pollutant

Reaction Vessel - 1 to 6	9 m	Scrubber	HCl < 20 mg/Nm^3
Reaction Vessel - 7 to11	9 m	Scrubber	HCl < 20 mg/Nm^3

Hazardous waste to be generated are as below:

Sr. No	Detail of Hazardous Waste	Existing Quantity	Proposed total quantity	Management of Waste
1	ETP Waste	1.2 MT/Year	2.4 MT/year	TSDF site.
2	Evaporation salt	Nil	18 MT/year	TSDF site.
3	Distillation Residue	Nil	5 MT/Year	Collection, Storage and Disposal At CHWIF
4	Used Spent Oil	0.36 KL/Year	0.5 MT/Year	Collection, Storage, transportation and disposal by selling to registered recycler.
5	Discarded Containers/ Barrels/Liners	10 MT/Year	10 MT/Year	Collection, Storage, Decontamination, disposal by reuse or returned to supplier

Unit has obtained membership certificate of M/s: MECL, Nandesari for TSDF site and CHWIF.
Used Solvent will be recovered in-house and reused within premises.

Observations & Discussions:

Technical presentation made during the meeting by project proponent. EIA report reveals that baseline environmental study was carried out during the month of December - 2015 to February - 2016 to determine the prevailing status of ambient air, land use, noise level topography, meteorology, ecology & socioeconomic outline. Baseline ambient air quality was measured at six locations and the maximum concentrations of PM10, PM2.5, SO2, NOx, HCl and VOC at all the locations were found well within the NAAQs. The incremental Ground Level Concentration (GLC) has been computed using ISCST – 3 model. The resultant concentrations are within the NAAQS. While discussing about the treatability and feasibility for reusing of treated effluent, PP informed that they have proposed Air stripper before Evaporator and condensate collected from the evaporator will have very less COD. Hence, it can be reused in process and utility section. Committee asked PP to not use treated effluent for gardening / plantation or flushing etc. to which PP was agreed upon. After detailed discussion, it was decided to recommend the project to SEIAA Gujarat for grant of Environmental Clearance.

19	SIA/GJ/IND2/16476/2015	**M/s: Chorus Pharmachem Pvt. Ltd**., Plot No.184,185 & 174, GIDC- Nandesari, Vadodara	Appraisal

Project / Activity No.: 5(f)

Project status: New

Chronology of EC Process:

- M/s: Chorus Pharmachem Pvt. Ltd., (herein after Project Proponent – PP) has submitted an application vide their online proposal no. SIA/GJ/IND2/16476/2015 dated 23/06/2016 along with final EIA report prepared by M/s: Envisafe Environment Consultants regarding grant of Environmental Clearance.
- Earlier the project was considered for TOR finalization in the meeting of the SEAC held on 12/05/2015 and TOR issued to the proposed project.

Project / Activity Details:

This unit has applied for manufacturing of Synthetic organic Chemicals. List of Products and By-products is as below:

Sr. no.	Name of Products/By-products	Capacity MT/Month
Products		
1.	Memantine-HCl	1.00
2.	Sertraline-HCl	2.00
3.	Venlafexine-HCl	1.50
4.	Glimepiride	0.50
5.	4-Hydrazinyl Benzene Sulfonamide-Hydrochloride (PHH Sulphonamide)	3.00
6.	Acetone Thio-Semi Carbazide (ATSC)	3.00
7.	Minoxdil	0.50
8.	N-Ethyl N-Methyl Carbonyl Chloride (EMCC)	1.00
9.	Piroctone-Oliamine	2.00
10.	3-[2-(3-Chlorophenyl)-Ethyl] Pyridine-2-Carbonitrile	2.00
11.	[1-Methyl-4Pipiridine]-3-(2-(3-Chlorophenyl)Ethyl)-2-Piridinyl) - MethanoneHCl	2.00
12.	8 – ChloroAzatadine	2.00
Total		20.50

The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006. Total plot area is 2700 sq. m & unit has proposed 795 sq mtr area for the green belt development/Tree plantation. Expected project cost is Rs. 12.25 Crores. Total water consumption for proposed project will be 61 KL/day (4 KL for Domestic, 2 KL for Gardening, 16 KL for Process & APCE, 25 KL for Boiler , 2 KL for Cooling, 2 KL for washing & 10 KL for Water treatment plant) which will be sourced from GIDC water supply. Total Industrial waste water generation will be 40.9 KLD. High COD/TDS concentrated

effluent generated from process & APCE @ 16.6 KLD will be sent to stripper [Capacity 20 KLD] followed by MEE [Capacity 20 KLD] & ATFD [Capacity 25 Kg/hr]. Effluent from MEE condensate @ 16.3 KLD along with low COD/TDS stream @ 7.7 KLD and other streams like boiler @ 4.5 KLD, cooling@ 0.1 KLD, washing @ 2.0 KLD and WTP Reject @ 10.0 KLD will be sent to ETP for further treatment. Total 40.6 KLD effluent will be treated in proposed ETP [Capacity 45 KLD] comprises of Primary, Secondary and Tertiary treatment units and treated waste water will be sent to CETP of Nandesari. Effluent streams having high Ammonical Nitrogen (2,122 Ltr/Batch) will be collected separately at plant in vessel and given physico-chemical treatment by breakthrough chlorination using Sodium hypochlorite. During the treatment pH between 7.0 and 8.0 will be maintained and treated effluent after removal of Ammonical Nitrogen will be sent to ETP for further treatment with other effluent. Domestic waste water (3 KL/day) will be disposed off into soak pit system.

Flue gas generation will be from Steam Boiler (5 TPH) and one D.G. sets (20 KVA). Bio fuel/Agricultural waste & Coal (5 MT/Day or 130 MT/Month) will be used as fuel. Unit has proposed MDC as APCM. Unit has proposed water scrubber followed by Alkali scrubber for control of HCl & HBr gases to be generated from reaction vessels. Unit has proposed water scrubber followed by Acid scrubber for control of NH3 gases to be generated from reaction vessels. Hazardous waste generated from the manufacturing activity will be ETP sludge (20 MT/Year), Inorganic waste (23.20 MT/Year), Distillation residue (124.26 MT/Year), Spent catalyst (4.5 MT/Year) & Spent solvent (2400 KL/Year), Ion exchange resin (1 MT/Year), Discarded containers/Bags/Liners (3300 no.s/Year) and used oil (0.5 KL/Year). ETP waste, Ion Exchange Resin, Inorganic waste & spent catalyst will be disposed off at the Common TSDF site. Distillation residue will be disposed off at the CHWIF or sent for co-processing. 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. Spent organic solvent will be recovered in-house and recovered solvent will be reused. Dilute Hydro Bromide (HBr – 30%), Dilute Hydrochloric Acid (HCl – 30%) & Dilute Ammonia (NH3 – 17.5%) will be generated from the manufacturing process.

Observations/Discussions:

Technical presentation made during the meeting by project proponent. EIA report reveals that baseline environmental study was carried out during the month of November - 2015 to January - 2016 to determine the prevailing status of ambient air, land use, noise level topography, meteorology, ecology & socioeconomic outline. Baseline ambient air quality was measured at five locations. Monitoring was carried out for PM10, PM2.5, SO2, NOx, HCl, NH3 and VOC. The maximum concentrations of PM10, PM2.5, SO2, NOx and NH3 at each ambient air monitoring locations were compared with NAAQS for industrial, residential, rural and other areas. All the parameters are well within the NAAQS except for PM10, PM2.5. PM10 concentration was found higher than NAAQS at Project site and village Karadiya since both locations are surrounded by industrial area and heavy traffic load during peak hours was observed. PM2.5 concentration was found higher than NAAQS at Project site since it is located in industrial area and heavy traffic load during peak hours was observed. HCL, NH3 and VOC (as Isobutylene) concentration were below detectable limit (BDL) at all locations. The incremental Ground Level Concentration (GLC) has been computed using ISCST – 3 model. The maximum 24-hourly average ground level concentration for pollutant due to proposed project calculated using mathematical model (ISCST3) for PM10, SO2, NO2, HBr, HCl and NH3 is 1.276 µg/m3, 3.906 µg/m3, 0.289 µg/m3,

0.050 µg/m3, 0.033 µg/m3 and 0.029 µg/m3 respectively which is very negligible even for the worst case scenario. Moreover, this will occur at a distance of only 250 meter from the source, which falls within the GIDC industrial estate only. While discussing about the higher concentration of PM2.5 and PM10 at project site and Karadiya Village, PP informed that the higher values might be due to heavy traffic. However, Committee was not satisfied with the reply and asked to submit proper justification with ground reality.

Committee observed that PP has proposed MDC only as APCM with Steam Boiler. Upon asking about the adequacy of APCM, PP informed that they will provide Bag filter as APCM in addition to MDC with Boiler. After deliberation, It was unanimously decided to consider the project for further consideration only after submission of the following:

1. Revised Form-1 considering (1) additional plot no. 174, (2) revised Waste water quantity (3) Management of waste items i.e. Dilute Hydro Bromide (HBr – 30%), Dilute Hydrochloric Acid (HCl – 30%) & Dilute Ammonia (NH3 – 17.5%) as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.
2. Seperate quantity of fuel consumption in MT/day for Bio fuel/Agricultural waste & Coal.
3. Justification for disposal of spent catalyst into TSDF site.
4. Treatability study & Adequacy report for High Ammonical waste bearing stream.
5. Justification for higher concentration of PM values at project site and Karadiya Village with specific reasons and ground reality.
6. Compliance of ToR no. 17 & 18 with respect to project specific parameter HBr.

20	SIA/GJ/IND2/56674/2016	**M/s: Bright Enterprise** , Plot No.D-2 CH/236, GIDC Estate, Dahej II, Ta – Vagra, Dist – Bharuch.	Appraisal

Project / Activity No.: 5(f)

Project status: New

Chronology of EC Process:

- M/s: Bright Enterprise (herein after Project Proponent – PP) has submitted application vide their letter dated 07/11/2014.
- The project was considered for in the meeting of the SEAC held on 09/02/2015.
- During the presentation, committee asked about discrepancy in quantity of products viz. Drying of Ketonic Resin & Ketonic Resin at sr. no. 1 & 4 respectively and Drying of Poly Vinyl Butyl Resin & Poly Vinyl Butyl Resin at sr. no. 2 & 7 respectively. Project proponent could not reply satisfactorily. Committee also noted that effluent generation quantity shown in mass balance of each product does not match the total quantity of effluent to be generated. PP has not shown evaporation residue as hazardous waste category. It was viewed seriously by the committee and asked to correct all details. During the meeting, the project proponent was asked to revise the product profile and to submit revised Form-1 with relevant documents. Committee also asked to not use wood as fuel. It

was decided to reconsider the project for screening / scoping in one of the upcoming meetings only after submission of revised proposal with corrected data.

- PP has submitted Revised Form-1 with PFR and relevant additional details on 09/09/2015.
- This project was considered in the meeting of the SEAC held on 24/02/2016.
- Looking to the small scale of the project, technical aspects of the project, low pollution potential and the details presented during the meeting, after detailed deliberation, the project was categorized as B2 category project and the additional information was sought for appraisal of the project.
- Now this project proponent has submitted Application for Environmental Clearance vide their online proposal no. SIA/GJ/IND2/56674/2016 dated 25/06/2016.

Project / Activity Details:

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

Sr. No.	**Name of Product**	**Total Quantity** MT/MONTH
1.	Polyamide Resin • Non Reactive Polyamide Resin • Reactive Polyamide Resin	50
2.	Epoxy Resin (75 % Solid)	100
3.	Alkyd Resin • Alkyd Long Oil Resin • Alkyd Medium Resin • Alkyd Short Oil Resin	150
4.	Amino Resin • Melamine Formaldehyde Resin • Urea Formaldehyde Resin	100
5.	Polyester Resin	100
Total		500

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

Total plot area is 4923.12 sq. m & unit has proposed 1200 sq mtr area for the green belt development/Tree plantation. Expected project cost is Rs. 90 Lacs. Total water consumption for proposed project will be 6.0 KL/day (1 KL for Domestic, 2 KL for Gardening, 3 KL for Industrial) which will be sourced from GIDC water supply. Industrial waste water generation will be 1.9 KL/day, which will be treated in proposed treatment plant with evaporation system to achieve zero discharge. Domestic waste water (0.7 KL/day) will be disposed off into soak pit system. It is proposed to install one TFH (3 Lac Kcal/hr). Agro waste or LDO or Lignite or FO (600 Kg/day or 200 Lit./hr or 500kg/hr or 200 Kg/hr) will be used as a fuel for TFH. Multi Cyclone Dust collector is proposed as APCM. No process gas emission is envisaged. Hazardous waste generated from the manufacturing activity will be ETP waste & evaporation residue (3 MT/M), Discarded containers/Bags/Liners (1 MT/Month) and used oil (5 Lit /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. Used oil will be sold only to the registered recyclers.

Observations & Discussions: Technical presentation made during the meeting by project proponent. While discussing about the storage of various chemicals like Xylene, Penta Erythritol, Ethyl Acrylate etc., PP informed that these raw materials will be stored in Barrels only. No storage tanks will be required to store any of the raw materials. Committee observed that there is no discharge of waste water from the premises and zero liquid discharge status will be maintained. After deliberations on various aspects, the committee decided to recommend the project to SEIAA, Gujarat for the grant of Environmental Clearance.

The following proponents did not remain present during the meeting:

1. M/s: Woodbridge Foam Pvt Ltd Plot No. PE-44, BOL, GIDC, Sanand Phase-II Industrial Estate, Sanand, Ahmedabad.
2. M/s: Shroff Oil Manufacturing Co Pvt Ltd Plot No 175, Village: Luna, Padra, Vadodara.
3. M/s: Meghrika Enterprises Pvt Ltd Plot No. D3/11, GDIC Dahej-III, Vagra, Bahruch.
4. M/s: Bellfield Power Inception Pvt Ltd Survey No. 1413/1P, Village: Naika, Kheda.
5. M/s: Jayveer Pharmachem, Survey No. 621 Jagudan, Mehsana, Mehsana

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. Ashmi Life Sciences Pvt. Ltd., Plot No:3489/172, Ph: IV, Chhatral GIDC, Ta.: Kalol, Dist.: Gandhinagar.
2. M/s: Indian Oil Corporation Ltd. (IOCL S.No.207 P1, Village: Navagam, NH 8B, Rajkot.

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 Hardik Shah, IAS, Secretary, SEAC*	