Minutes of the 289th meeting of the State Level Expert Appraisal Committee held on 04/05/2016 at Committee Room, Gujarat Pollution Control Board, Gandhinagar.

The 289th meeting of the State Level Expert Appraisal Committee (SEAC) was held on 4th May, 2016 at Committee Room, Gujarat Pollution Control Board, Gandhinagar. Following members attended the meeting:

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

The agenda of TOR/Scoping/Category 8 (a) cases and appraisal cases was taken up. Thirteen (13) cases of TOR/Scoping/Category 8 (a) and Seven (07) appraisal cases 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	Happy Benchmark Textile Hub	T.P.S.No.33 (Dumbhal), F.P.No.13, O.P.No.8/1, R.S.No.8/P, Moje Dumbhal, Choryasi, Surat.	Appraisal case.

The SEIAA, Gujarat has accorded environmental clearance to M/s RRahul Raj Realtor (P) Ltd. vide order no. SEIAA/GUJ/EC/8(a)/132/2011 dated 08/08/2011 for the commercial building construction project with total built up area of 1,48,005.93 m^2 at Plot No. 8, Model Township road, Off Puna Kumbharia road, Nr. SMC Zonal Office, Opp. Fire Station, Dumbhal, Dist: Surat.

Now, the project proponent, in the name of M/s Happy Home Corporation, submitted revised Form-I & IA to this office on 13/09/2015 vide proposal no. SIA/GJ/NCP/1509/2015 and requested for amendment in the Environmental Clearance order dated 08/08/2011 for the proposed changes in the scope and planning of the project. It was stated that the built up area of the project will be 3,44,361.82 m^2 after the proposed changes in the project.

The request of amendment was taken up during the meeting of SEAC held on 16/12/2015 and it was observed that the built up area of the project after the proposed changes will be 3,44,361.82 m^2 which is more than 1,50,000 m^2 and covered under the project activity 8(b) as per the schedule of the EIA Notification-2006.

During the meeting held on 16/12/2015, it was requested to allow them to use the baseline data collected during the months of March-2015 to May-2015 for preparation of EIA report, which was agreed to by the committee as the collected baseline data are not older than 3 years.

After detailed discussion, the Terms of Reference were prescribed for the EIA study to be done

covering 5 Km radial distance from the project boundary.

Project proponent submitted the EIA report to this office on 14/03/2016.

Project proponent along with their expert consultant attended the meeting of SEAC held on 31/03/2016. During the meeting held on 31/03/2016, it was found that the EIA report has been prepared by M/s Earth Care Enviro Solutions Pvt. Ltd., who is not the Environmental consultant organisation accredited with the Quality Council of India (QCI) or National Accreditation Board for Education for category B under the project activity no. 8(b) of the schedule of the EIA Notification 2006 and hence it was decided not to consider the project for appraisal in view of the amendment of EIA Notification – 2006 dated 03/03/2016.

Project proponent vide their letter dated 06/04/2016 submitted a copy of order dated 05/04/2016 of honourable High Court of Gujarat at Ahmedabad stating that " Implementation of the impugned Notification dated 03.03.2016 shall be deferred till further orders".

The project proponent along with their expert / consultant attended the meeting. During the meeting, the project was appraised based on the EIA report submitted as well as facts presented before the committee taking into consideration the order dated 05/04/2016 from honourable High Court of Gujarat.

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>Expansion</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(b)</td></tr>
<tr><td>4.</td><td>Name of the project</td><td>Happy Benchmark Textile Hub
(Old Name - Rahulraj Textile City)</td></tr>
<tr><td>5.</td><td>Name of Developer</td><td>M/s. Happy Home Corporation.</td></tr>
<tr><td>6.</td><td>Estimated Project Cost
(Rs. In Crores)</td><td>Rs. 427 Crore</td></tr>
<tr><td>7.</td><td>Whether construction work has been initiated at site? If yes, details thereof</td><td>No.
Existing commercial building (Textile Market) "RahulRaj Textile City" for which EC was granted will be demolished.</td></tr>
<tr><td>8.</td><td>Project Details</td><td>• Land / Plot Area (m^2): 55,240.0
• FSI area (m^2): 2,18,274.48
• Total BUA (m^2) : 3,44,361.825
<table>
<tr><td></td><td>Permissible</td><td>Proposed</td></tr>
<tr><td>FSI Area (m^2)</td><td>1,24,290.0</td><td>2,18,274.48</td></tr>
<tr><td>Ground Coverage (m^2)</td><td>16,572.0</td><td>26,914.0</td></tr>
<tr><td>Common Plot Area (m^2)</td><td>5,524.0</td><td>6,338.0</td></tr>
<tr><td>Max. building height (m)</td><td>--</td><td>50.10</td></tr>
</table></td></tr>
</table>

<table>
<tr><td>9.</td><td>Building Details</td><td>• No. of Buildings: 2 Nos.
• No. of Blocks: 2 Nos.
• Scope of buildings/blocks: 2 level basement + ground floor + 8 floors.
• No. & size of Residential Units: --
• No. & type of Commercial Units: 2547 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: 7641
Expected visitors: 4500</td></tr>
<tr><td>11.</td><td>Water & waste water details during construction phase</td><td>• Water requirement (KL/day): 16.50
• Source of water: Borewell water
• Waste water generation quantity (KL/day): 3.60
• Mode of disposal: Into septic tank & 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):437.0
• Fresh water requirement (KL/day): 251.50
• Source of water: Water supply from Surat Municipal Corporation (SMC)
• Waste water generation quantity (KL/day): 357.0
• Mode of disposal: Sewage to be generated during the operation phase of the project will be treated in the proposed onsite STP. Treated sewage will be used for flushing & gardening purpose within premises and only remaining quantity of treated sewage will be discharged into the underground drainage line of SMC.
• In case of STP provision, capacity of STP: STP Capacity – 400 m3
• STP Technology: Ozonization Treatment
• Purposes for treated sewage utilization: Treated sewage will be utilized in gardening and toilet flushing.
• Quantity of treated water to be reused:1.Gardening (KL/day): 25.50
2. Flushing (KL/day): 160.0
• Provision of dual plumbing system (Yes/No): Yes
• Quantity and type (treated/untreated)of sewage to be discharged: Sewage to be generated during the operation phase of the project will be treated in the proposed onsite STP. Treated sewage will be used for flushing & gardening purpose within premises at the maximum extent possible and only remaining quantity of treated sewage will be discharged into the underground 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>Water supply & drainage lines of SMC 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>3,169</td><td>3,169</td><td>Reuse for developing garden area</td></tr>
</table></td></tr>
</table>

		Other excavated earth	3,37,048.19	3,337.67	Will be used for back filling & plinth filling. Remaining will be send to other project site in consultation with SMC.
		Construction debris	3,616	1,722	Reused as a filler up to plinth level and remaining will be reused for road development outside the premises.
		Steel scrap	138	--	Sold to local scrap vendors
		Discarded packing materials	86	--	Sold to local vendors

Operation Phase:

Type of waste	Generation Quantity (Kg/day)	Mode of waste collection	Mode of Disposal / Reuse
Dry waste	917.0	Blue colour bucket	Through S.M.C door to door waste collection system
Wet waste	611.20	Green colour bucket	Through S.M.C door to door waste collection system
STP Sludge	40.0	On SDB	Reuse as manure in gardening 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: 1.0 m3 in each building
- 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: 65,482.35 m^2 • Parking area requirement for Commercial units as per GDCR:65,482.35 m^2 • Total number of CPS requirement for the project as per NBC : 873 • Number of CPS requirement for commercial units as per NBC: 873 • Total Parking area provided (m^2) & No. of CPS: 98,146.0 m^2 & 3,160 CPS. • Parking area provided in basement (m^2) & No. of CPS: 84,512.0 m^2 & 2,828 CPS • Parking area provided as open surface (m^2) & No. of CPS: 7,634.0 m^2 & 332 CPS.

16.	Traffic Management	• Width of adjacent public roads: 18.0 m & 12.0 m wide roads. • Number of Entry & Exit provided on approach road/s: 4 gates will be provided. • Width of Entry & Exit provided on approach road/s: 7.5 m • Minimum width of open path all around the buildings for easy access of fire tender (excluding the width for the plantation): 7.5 m • Width of all internal roads: 7.5 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, solar lights for landscape lighting, reflective/ white tiles in common areas, maximum use of natural light, ground water recharge through rain water harvesting, provision of STP & reuse of treated sewage for gardening & flushing purposes within premises etc.
18.	Energy Requirement, Source and Conservation	• Power supply Maximum demand: 6000 KVA Connected load: • Source: DGVCL • Energy saving measures: Use of LED lights for common areas, solar lights for landscape lighting, reflective/ white tiles in common areas, maximum use of natural light etc. • DG Sets No. and capacity of the DG sets: 4 x 750 KVA Fuel & its quantity: Low Sulphur High speed Diesel (HSD) & Quantity – 330 L/hr in each.
19.	Fire and Life Safety Measures	Fire extinguishers, hose reel, wet riser, yard hydrant, automatic sprinkler system in passages of each floor & in basement, manually operated electric fire alarm system, underground fire water storage tanks of 150 KL × 6, terrace tanks of 15 KL × 5, automatic fire detection & alarm system, provision of pump-one electric & one diesel pump of capacity 2280 L/min. & one electric pump of capacity 180 L/min. @ 3.5 kg/cm^2 pressure connected at terrace tank level etc.
20.	Details on staircase:`	

Bldg. No.	No. of floor	Floor Area (m^2)	No. of staircase	Width of Staircase (m)	No. of Fire Lift	No. of passenger Lift	No. of Goods Lift	Maximum Travel Distance up to the Staircase (m)
A	2B+ G+8	18,279.9	15	2.0	06	30	04	<30
B	2B+ G+8	8,634.06	06	2.0	11	30	01	<30

21.	Rain Water Harvesting (RWH)	• Level of the Ground water table: 22.0 m • No. & dimensions of RWH tank(s) : 14 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: 14 nos. of percolating wells. • 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) : 1,134.0 • Area covered by shrubs and bushes (m^2): -- • Lawn covered area (m^2): 5,204.0 • Total Green Area (m^2): 6,338.0 • Green Area % of plot area: 11.47 % • No. of trees and species to be planted: 190 trees of Asopalav, Bamboo, Coconut palm, Neem, Champa, Jamun, Gulmohar etc.
23.	Budgetary allocation for Environmental Management Plan (Rs. in lacs)	Capital cost of Rs. 101.0 lacs and recurring cost of Rs. 6.35 lacs has been allocated towards purposes like rain water harvesting & ground water recharge, greenbelt development, air, water / waste water & solid waste management etc.
24.	Proposed dust control measures.	Barricading the project site, 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 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, lunch space, first aid box, free medicines, doctor service, PPEs etc.
27.	Documents related to land possession.	Copy of village form no. 7 (as on 11/08/2015) submitted by them shows that the land for commercial use is in the name of M/s Happy Home Corporation through its partners.
28.	Details of EIA report	• EIA report prepared by M/s Earthcare Enviro Solutions Pvt. Ltd. • Study period: 9th March 2015 to 9th June 2015. • Study area: 5 km radial area from the boundary of the project site. • Environmental attributes considered for EIA study: Air, water (surface & ground water), noise, land, biological environment, socio-economic study, traffic etc. • Observations: Baseline ambient air quality in terms of PM_{10}, $PM_{2.5}$, SO_x, NO_x & CO was well within the NAAQM standards. Ambient noise level was monitored at 8 locations and was found well within the Noise quality standards published by CPCB. • They have submitted a copy of permission obtained from Airports Authority of India for the building height of 75 m above ground level. • Traffic survey was carried out on 60 m wide approach road to the project site during the peak hours and it shows that the Level of Service of the road which is excellent 'A' in the present scenario will become very good 'B' after the proposed expansion of the project.

During the meeting, while discussing about the proposed fire & life safety measures, the project proponent was suggested to provide adequate open space / road in both the blocks in such a way that a fire tender access can be available to all the commercial units in the proposed project. During the meeting, after detailed discussion, it was decided to appraise the project further only after satisfactory submission of the following:

1. Copy of permission obtained from the concerned competent authority for the proposed FSI & ground coverage.

2. Copy of permission obtained from Irrigation Department with reference to distance between the proposed project site & a Khadi in the vicinity.
3. Undertaking stating that the existing borewell/s will be sealed or will be converted into the recharge well upon completion of the construction phase.
4. Undertaking stating the proposed project will comprise of textile godowns / ware houses only.
5. Revised plan showing provision of adequate open space / road in both the blocks in such a way that a fire tender can approach all the commercial units in case of emergency like fire.
6. Revised details on parking area provision (especially open surface parking) in view of the revised planning with provision of adequate open space / road in both the blocks.
7. Details & plans showing floor wise emergency evacuation for the proposed project.
8. Management plan for construction & demolition waste to be generated during the construction phase of the project.
9. Details on solar energy utilization for the proposed project and how much of the total energy requirement will be met / compensated by the proposed energy conservation measures.
10. 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.

2	Raghuvir Infra (Scralett)	Block No. 65 & 67, O.P. No. 33 & 32/2, F.P. 47&49, TPS No. 19 (Parvat-Magob), Choryasi, Surat.	TOR/ Scoping case.

This is a proposed commercial building construction project (SIA/GJ/NCP/10690/2016) comprising of 789 nos. of warehouses / textile go-downs. Plot area of the project is 24,570.0 m^2 and the proposed built up area of the project is 1,55,973.66 m^2. As the built up area of the project is > 1,50,000 m^2, it falls in the project activity 8(b) as per the schedule annexed with the EIA Notification, 2006.

The project will be comprising of one building of 2 level basement + ground floor + 8 floors housing total 789 nos. of warehouses / textile go-downs.

Technical presentation made during the meeting included details like scope of the project, water requirement & waste water generation, waste generation & management, parking area provision, energy conservation & water conservation measures etc.

During the meeting, the project proponent was suggested to revise the planning of entry / exit gates and to submit the revised plans as discussed during the meeting. After detailed discussion, the following Terms of Reference were prescribed for the EIA study to be done covering 5 Km radial distance from the project boundary.

1. Copy of permission obtained from the concerned competent authority for the proposed FSI.
2. A single layout plan showing location of buildings, roads, D.G.sets, STP, composting facility, parking provision, green belt (tree covered area), common plot, location of

percolation wells etc. with different colour codes.

3. Provision of separate entry & exit and adequate margin all around the periphery for easy unobstructed movement of fire tender without reversing.
4. Implementation schedule of the project along with the bar chart.
5. A map of the study area delineating the major topographical features such as land use, drainage, locations of habitats, environmentally sensitive areas, major constructions including roads, railways, pipelines, industries if any in the area are to be mentioned.
6. Land use map of the study area based on high resolution satellite imagery delineating the forest, agricultural land, water bodies, settlements and other cultural features. Details of change / creation in land use / land cover due to the proposed project.
7. Details of site topography along with the contour plan of the project area. Details of change in topography of the area due to the project.
8. Scope of the buildings to come up in the project as well as exact details of the commercial units, service and other amenities to come up in the project. Height of the buildings to come up in the project.
9. Proposed fixed population as well as floating population including visitors considered for the proposed project.
10. Source of water supply during the construction phase along with the expected quantity of the water requirement. Waste water disposal plan during the construction phase.
11. Detailed fresh water consumption based on activity and area of the project as per the NBC norms. Exact source of water supply during operation phase. Permission from the concerned authority for water supply.
12. Domestic waste water disposal plan during operation phase and permission of concerned authority for sewage disposal.
13. 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, for reuse of treated sewage for purposes like flushing, cooling tower make up etc.
14. Details of water conservation measures including provision of low water consuming devices.
15. Application wise break up of treated sewage utilization. Adequacy of open land area available for utilizing treated sewage for plantation / gardening. Suitability of use of treated sewage on the land with respect to the soil characteristic etc. shall be studied and a report in this regard shall be submitted.
16. Details of storm water management. Detailed plan to manage treated sewage in monsoon season. How it will be ensured that treated sewage won't flow outside the premises linked with storm water during high rainy days.
17. Details of soil excavation / filling required for the project along with its quantification based on backup calculations. Details with respect to proposed use / disposal of excavated soil. Plan for management, use and disposal of construction debris including excavated materials during the construction phase.
18. Details of top soil management plan during construction phase. If the topsoil is proposed to be preserved, the details relating to the quantity of topsoil stored, demarcated area on plan

where it is stored along with preservation plan is to be given.

19. Engineering controls proposed for dust control including barricading the site during the construction period.
20. Details on impacts of air emission from the vehicles during the construction and operation phases, emission during loading, unloading, transportation and storage of construction materials etc. and mitigation measures thereof should be incorporated in the EIA report.
21. Details of the D.G. sets including fuel, quantity, stack height, location as well as the acoustic measures proposed to abate noise pollution.
22. Map of the study area clearly delineating the location of monitoring stations for air, water, soil and noise, superimposed with location of habitats are to be shown. Primary data shall be collected for one season except rainy season.
23. Details of base line ambient air quality monitoring data of one season other than monsoon for at least five locations in 5 km study area and impact analysis due to the proposed project. Parameters namely PM_{10}, $PM_{2.5}$, NO_2, SO_x and CO shall be considered. Air quality modelling shall be carried out for prediction of impact of the project on the air quality of the area. The details of the model used and the input parameters used for modelling shall be provided. The air quality contours shall be shown on the location map clearly indicating the location of site, location of sensitive receptors, if any, and habitation. Latest available IMD data shall be utilized.
24. Details of incremental pollution load on the ambient air quality, noise and water quality due to the project.
25. Plan to curb noise likely to be generated from the use of construction equipments like mixers, vibrators etc. Impact of project construction/operation on the noise on account of construction equipment, construction/demolition activities and road traffic is to be studied.
26. Details with respect to the quantity of the generation of the garbage / Municipal Solid waste(biodegradable & recyclable waste), Bio Medical waste, electronic waste and mode of its treatment and disposal. Details of composting facility, if any proposed for composting of bio-degradable waste.
27. Detailed parking plan showing accommodation of two wheelers and four wheelers, its adequacy for the project and norms adopted for the calculations. The details shall include the parking requirement on the basis of footfalls, as per present GDCR and National Building Code (NBC) guidelines for each individual component of the project. The backup calculations showing the bifurcation of the built up area according to the activity vis-à-vis parking area required shall be furnished. Mark the area of parking on the drawing showing the parking. Also details of visitors parking, whether considered in total parking calculations / provisions or not.
28. Detailed traffic study & traffic management plan considering the floating and fixed population including visitors as well as existing traffic density on adjacent road during peak hours, projected increase in traffic density in operation phase of the project, carrying capacity of the existing roads, its adequacy during operation phase of the project and the measures to avoid the traffic congestion in the interior as well as the exterior roads.
29. Base line status of the existing traffic, impact on it due to the project activities (prior to

construction, during construction and at full site operation), carrying capacity of the existing roads and details of traffic management in and outside the project during construction and operation phase of the project.

30. Details of existing trees to be protected / preserved / transplanted / removed. Detailed green belt development plan as per the CPCB guidelines, including area of tree plantation, its demarcation on the map, number and types of trees and budget allocation thereof. Also provide the break-up of the greenbelt viz. the tree covered and lawn covered area.
31. Details of use of eco-friendly building material including fly ash bricks, fly ash paving blocks, RMC, lead free paints, use of PPC in concrete etc.
32. Perspective view of the building(s) to be constructed along with the materials used such as fibers, glass, etc. on the facades or external walls and the impacts thereof on the nearby buildings / residents due to heat island effect and emissions from the air conditioning systems.
33. Details of Green Building Concept to be adopted for the project.
34. Details of provisions to make the project energy efficient and adoption of modes of alternative eco friendly sources of energy, solar water heater, solar street lighting, LED lighting. Measures proposed to comply with the ECBC norms / other international norms proposed for energy conservation.
35. Scheme for rain water harvesting and ground water recharge with proper scientific calculations considering rainfall in the region, catchment area, land / soil characteristics, ground water recharge rate, duration of rain water harvesting etc. Details of provisions of pre-treatment of the rainwater in the case of surface run off is to be harvested. Location of recharge percolation wells on the layout plan.
36. Details of seismic zone of the project and design aspects required to be adhered to as per national standards for buildings to make it earthquake proof.
37. The details of the basic amenities and welfare facilities to be provided to the construction workers to ensure that they do not ruin the existing environment.
38. Details of safety measures proposed for the construction workers including provision of personal protection equipment. Details of registration and provisions to be made by the project proponent to follow Building and other Construction Workers Acts and Rules and undertaking for the same.
39. Plan showing emergency exits as well as location of stair cases, lifts and pathways etc. and compliance to the GDCR and NBC in this regard.
40. Details of fire fighting system including location of fire water tanks & capacity, separate power system for fire fighting, automatic sprinkler system, fire detection system with alarms & automatic fire extinguishers, location of fire lift and fire retardant staircases, details of qualified and trained fire personnel & their job specifications, nearest fire station & time required to reach the proposed site etc. Calculation and provision of minimum fire water requirement based on fire study as well as the availability of external fire fighting facility.
41. Details of first aid / fire fighting and other emergency services to be provided during construction phase and operation phase including the training to be provided to the residential staff of the project as first aid providers, fire fighters etc.

42. Details of disaster management plan during operation phase of the project should also include scenario of natural catastrophe like earth quake, cyclone and floods in addition to other disasters. The plan should include the details of (i) Emergency lighting plan (ii) details of power back up system in the case of emergency (iii) fire fighting arrangements (iv) first aid arrangement (v) Training and Mock drill (vi) Emergency announcement system (vii) Signages (viii) location of emergency stair cases and pathways etc.
43. Detailed Environment Management Plan with respect to various environmental attributes-Water, Air, Noise, Solid wastes including Hazardous Wastes, land etc. of the project both during construction and operation phase and strategy for its implementation with financial outlay. Details of monitoring / supervision cell to monitor environmental aspects during construction phase as well as operation phase including provision of qualified construction safety officer.
44. Copy of permission obtained from Aviation Authority.
45. Certificate of accreditation issued by the NABET, QCI to the environmental consultant should be incorporated in the EIA Report.
46. 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.
47. A tabular chart with index for point-wise compliance of above TORs.

The above mentioned TORs shall be considered 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 EIA report.

3	Mayberry Villa-Phase-1	Block No. 84, Moje: Virwadi, Ta. & Dist: Navsari.	Screening / scoping.

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

Sr. No	Particulars	Details
1.	Proposal is for	New Project [SIA/GJ/NCP/52012/2016]
2.	Type of Project	Residential
3.	Project / Activity No. [8(a) or 8(b)]	8(a)
4.	Name of the project	Mayberry Villa Phase-1
5.	Name of Developer	M/s Calypso Developers
6.	Estimated Project Cost (Rs. In Crores)	Rs. 70.0 Crore
7.	Whether construction work has been initiated at	--

<table>
<tr><td></td><td>site? If yes, details thereof</td><td></td></tr>
<tr><td>8.</td><td>Project Details</td><td>• Land / Plot Area (m^2): 81,950.0
• FSI area (m^2): 39,390.60
• Total BUA (m^2) : 42,842.91
<table>
<tr><td></td><td>Permissible</td><td>Proposed</td></tr>
<tr><td>FSI Area (m^2)</td><td>83,672.81</td><td>39,390.60</td></tr>
<tr><td>Ground Coverage (m^2)</td><td>27,890.94</td><td>19,695.30</td></tr>
<tr><td>Common Plot Area (m^2)</td><td>8,195.0</td><td>24,554.00</td></tr>
<tr><td>Max. building height (m)</td><td>--</td><td>6.85</td></tr>
</table></td></tr>
<tr><td>9.</td><td>Building Details</td><td>• No. of Buildings/Raw Houses: 364 Nos.
• Scope of buildings/blocks: Row houses of ground + 1 floor.
• No. & size of Residential Units: 364 Nos.
• 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: 1820
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): 16.0
• Source of water: Bore well
• Waste water generation quantity (KL/day): 2.52
• Mode of disposal: Into septic tank & 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): 350.0
• Fresh water requirement (KL/day): 178.5
• Source of water: Borewell water
• Waste water generation quantity (KL/day): 201.50
• Mode of disposal: Sewage to be generated from the project will be treated in the proposed onsite STP and reused completely for toilet flushing and gardening purpose within premises and irrigation purpose.
• In case of STP provision, capacity of STP: 200 KL/day
• STP Technology: Conventional with primary, secondary & tertiary treatment facilities.
• Purposes for treated water utilization: Toilet Flushing and Gardening
• Quantity of treated water to be reused: 1.Gardening (KL/day): 98.5
2. Flushing (KL/day): 73.0
• Provision of dual plumbing system (Yes/No): Yes
• Quantity and type (treated/untreated) of water to be discharged: Sewage to be generated from the project will be treated in the proposed onsite STP and reused for toilet flushing and gardening purpose within premises.
• Mode of disposal: as above.</td></tr>
</table>

<table>
<tr><td></td><td></td><td>• It is proposed to store treated sewage in the storage tank of 800 KL capacity during monsoon season when treated sewage utilization for gardening purpose is not possible.</td></tr>
<tr><td>13.</td><td>Status of water supply and drainage line</td><td>During the operation phase borewell water will be used. Sewage will be treated in the proposed onsite STP & treated sewage will be completely used for gardening & flushing purpose.</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/used (m^3)</td><td>Mode of Disposal / Reuse</td></tr>
<tr><td>Top Soil</td><td>12,277.0</td><td>12,277.0</td><td>Reuse for developing garden area</td></tr>
<tr><td>Other excavated earth</td><td>--</td><td>61,462.50</td><td>Said earth will be arranged from our other site/ nearby local supplier</td></tr>
<tr><td>Construction debris</td><td>450</td><td>214</td><td>Reused as a filler up to plinth level.</td></tr>
<tr><td>Steel scrap</td><td>17</td><td>--</td><td>Sold to local scrap vendors</td></tr>
<tr><td>Discarded packing materials</td><td>11</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>655.20</td><td>Blue colour bucket</td><td>Into dustbin of nearby Gram Panchayat</td></tr>
<tr><td>Wet waste</td><td>436.80</td><td>Green colour bucket</td><td>Collected and composting within premises. Fertilizer will be used in garden as a manure</td></tr>
<tr><td>STP Sludge</td><td>20</td><td>On SDB</td><td>Reused in gardening as manure within project premises</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:
• Landfill site where waste will be ultimately disposed by local authority: MSW will be disposed to the nearest MSW dumping site of Navsari Nagarpalika.</td></tr>
<tr><td>15.</td><td>Parking Details</td><td>• Total parking area requirement for the project as per GDCR:</td></tr>
</table>

		5,908.59 m^2 • Parking area requirement for residential units as per GDCR: 5,908.59 m^2 • Total number of CPS requirement for the project as per NBC : 182 • Number of CPS requirement for residential units as per NBC: 182 • Total Parking area provided (m^2) & No. of CPS: 10,260.0 m^2 & 381 CPS • Parking area provided in hollow plinth (m^2) & No. of CPS: 8,476.0 m^2 & 303 CPS • Parking area provided as open surface (m^2) & No. of CPS: 1,784.0 m^2 & 78 CPS .
16.	Traffic Management	• Width of adjacent public roads: 12.86 m wide road in W direction • Number of Entry & Exit provided on approach road/s: One gate will be provided. • Width of Entry & Exit provided on approach road/s: 12.19 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: 7.62 m, 10.98 m & 12.19 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, solar lights for landscape lighting, reflective/ white tiles in common areas, maximum use of natural light, provision of sewage treatment plant & reuse of treated sewage etc.
18.	Energy Requirement, Source and Conservation	• Power supply Maximum demand: 2000 KVA Connected load: • Source: DGVCL • Energy saving measures: use of LED lights for common building areas, garden & basement & these LED lights will run through solar panels, reflective/ white tiles in common areas, maximum use of natural light etc. • DG Sets: Not proposed.
19.	Fire and Life Safety Measures	The nearest fire station is Navsari fire station, which is at a distance of 5.3 km from the project site. A fire tender can take 15-20 minutes to reach the project site in case of emergency.
20.	Details on staircase	One staircase will be provided in each row house.
21.	Rain Water Harvesting (RWH)	• Level of the Ground water table: 21.0 m • No. & dimensions of RWH tank(s) : 21 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: 21 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

22.	Green area details	• Tree covered area (m^2) : 2,865.0 • Area covered by shrubs and bushes (m^2): -- • Lawn covered area (m^2): 21,689.0 • Total Green Area (m^2): 24,554.0 • Green Area % of plot area: 29.96 % • No. of trees and species to be planted: 478 trees of Gulmohar, Neem tree, Coconut palm, Asopalav, Champa etc.
23.	Budgetary allocation for Environmental Management Plan (Rs. in lacs)	Capital cost of Rs. 90.8 lacs and recurring cost of Rs. 5.3 lacs has been allocated towards purposes like rain water harvesting & ground water recharge, greenbelt development, air, water / waste water & solid 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.

During the meeting, it was observed that a natural water body (Kotar) is in the vicinity of the project site. Further while asking by the committee, the project proponent presented that the previous owner had already constructed 6 row houses and these row houses will be either demolished or modified for the proposed project. After detailed discussion, it was decided to appraise the project further only after submission of the following:

1. Project plans approved by concerned authority for the proposed project and a copy of Rajachitthi obtained for the same. Date of starting the construction activity at the project site. Documents showing purchase of the project site by the applicant from the old owner.
2. Details of the construction work completed in terms of the percentage of the total construction area of the project. Justification for initiating the construction activity for the proposed project and as to why the construction activity started by them should not be considered as violation of the EIA Notification-2006.
3. Recent photographs of the project site showing the date and current status of the project site.
4. Copy of permission from Central Ground Water Authority for ground water abstraction for the proposed project.
5. Details on ground water depth & ground water quality in the area (at least 5 borewells) & map showing the sampling locations.
6. Location of the proposed STP, composting facility, treated sewage storage tank & fresh water storage tank/s on layout plan of the project.

7. Justify the parking area available in hollow plinth in the proposed building construction project comprising of row houses. Details on plot area of each individual type of row house, ground coverage, area for tree plantation and parking area available within premises of each type of row house.
8. Land possession documents showing the ownership of land by the applicant, list of partners & directors of the company, copy of permission obtained for non agricultural use of the project site or a copy of documents showing the correspondences made in this regard and a copy of agreement made between the land owners & developers (if any).
9. Exact aerial distance of the project site from the nearest water body. A copy of permission obtained from the concerned competent authority in this regard. Notarized undertaking stating that the water body in the vicinity will be not adversely affected in any case.
10. Exact aerial distance of the project site from Purna Wildlife sanctuary.
11. Detail of approach roads available to the project site.

4	Pushkar Hill	S.No.124, 125/P, T.P.S.No.1 (Khokhra), S.P.No.2 of F.P.No.100+101, Ghodasar, Ahmedabad.	Screening & scoping

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

Sr. No.	Particulars	Details
1.	Proposal is for	New Project [SIA/GJ/NCP/52233/2016]
2.	Type of Project	Residential & Commercial
3.	Project / Activity No. [8(a) or 8(b)]	8(a)
4.	Name of the project	Pushkar Hill
5.	Name of Developer	Shivam Infra.
6.	Estimated Project Cost (Rs. In Crores)	16 Crores
7.	Whether construction work has been initiated at site? If yes, details thereof	No construction activity has been started
8.	Project Details	• Land / Plot Area (m^2) : 6,924.0 • FSI area (m^2): 18,689.02 • Total BUA (m^2): 26,046.90
9.	Building Details	• No. of Buildings: 6 • No. of Blocks: 8 • Scope of buildings/blocks: 2 buildings – ground floor (parking &

	Permissible	Proposed
FSI Area (m^2)	18,694.80	18,689.02
Ground Coverage (m^2)	3,462.00 (50%)	3,311.11
Common Plot Area (m^2)	692.40	745.54
Max. building height (m)	25.0	24.85

<table>
<tr><td></td><td></td><td>shops) + 7 floors, 4 buildings – hollow plinth + 7 floors.
• No.& size of Residential Units: 224 flats.140 Units of 2 BHK Residential Flats of 71.62 m^2 & 73.44 m^2 . 84 Units of 3 BHK Residential Flats of 98.04 m^2
• No. & type of Commercial Units: 17 Shops & Offices of 9.31 m^2 – 25.08 m^2
• Details of amenities if any:---</td></tr>
<tr><td>10.</td><td>No. of expected residents / users</td><td>Fixed population – 1254
Floating population - 522</td></tr>
<tr><td>11.</td><td>Water & waste water details during construction phase</td><td>• Water requirement (KL/day): 20
• Source of water: Water supply from Ahmedabad Municipal Corporation (AMC).
• Waste water generation quantity (KL/day): 4
• Mode of disposal: Sewage will be discharged into drainage line of Ahmedabad Municipal Corporation (AMC)
• Details of reuse of water, if any:</td></tr>
<tr><td>12.</td><td>Water & waste water details during operation phase</td><td>• Fresh water requirement (KL/day): 172.03
• Source of water: Water supply from Ahmedabad Municipal Corporation (AMC).
• Waste water generation quantity (KL/day): 135.62
• Mode of disposal: Sewage will be discharged into drainage line of Ahmedabad Municipal Corporation (AMC).</td></tr>
<tr><td>13.</td><td>Status of water supply and drainage line</td><td>Water supply & drainage lines of AMC 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>3,637</td><td>3,637</td><td>Will be completely reused for greenbelt development.</td></tr>
<tr><td>Other excavated earth</td><td>1,819</td><td>1,819</td><td rowspan="2">Completely utilized for back filling, plinth filling & internal road development</td></tr>
<tr><td>Construction debris</td><td>352</td><td>352</td></tr>
<tr><td>Steel scrap</td><td>833</td><td>833</td><td rowspan="2">Will be sold to recyclers / vendors.</td></tr>
<tr><td>Discarded packing materials</td><td>1819</td><td>1819</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 & wet waste</td><td>116.25</td><td>Into bins to be provided to each individual unit and these bins will be</td><td>The common bins will be regularly emptied by</td></tr>
</table></td></tr>
</table>

		<table><tr><td></td><td></td><td>emptied into the common bins to be provided at various locations.</td><td>AMC.</td></tr></table> • Details of segregation if to be done: No • Capacity and no. of community bins to be placed within premises: 31 nos. of bins of 80 lit capacity will be provided at various locations. • Landfill site where waste will be ultimately disposed by local authority: At the nearby MSW Landfill / dumping area of AMC.
15.	Parking Details	• Total parking area requirement for the project as per GDCR: 3,842.35 m^2 • Parking area requirement for residential units as per GDCR: 3,668.11 m^2 • Parking area requirement for Commercial units as per GDCR: 174.24 m^2 • Total number of CPS requirement for the project as per NBC : 161 • Number of CPS requirement for residential units as per NBC: 154 • Number of CPS requirement for commercial units as per NBC: 07 • Total Parking area provided (m^2) & No. of CPS: 4,291.16 m^2 & 168 CPS. • Parking area provided as open surface parking (m^2) & No. of CPS: 1,834.62 m^2 & 84 CPS • Parking area provided in hollow plinth (m^2) & No. of CPS: 2,641.56 m^2 and 94 CPS.
16.	Traffic Management	• Width of adjacent public roads: 9 m & 12 m. • Number of Entry & Exit provided on approach road/s: Two gates will be provided. • Width of Entry & Exit provided on approach road/s: 7.5 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: 7.5 m.
17.	Details of Green Building measures proposed.	Solar lights in common sunlit areas, maximum use of CFL lights, use of variable frequency drive motors, rain water harvesting through ground water recharge etc.
18.	Energy Requirement, Source and Conservation	• Power supply: Maximum demand: 723 KW Connected load: --- • Source: Torrent Power Limited • Energy saving measures: Solar lights in common sunlit areas, maximum use of CFL lights, use of variable frequency drive motors, rain water harvesting through ground water recharge etc. • DG Sets: No. and capacity of the DG sets: 1 Fuel Consumption: 12 litre/hr (HSD).
19.	Fire and Life	During the operation phase: Fire extinguishers, hose reel, wet

<table>
<tr><td></td><td>Safety Measures</td><td>riser, manually operated electric fire alarm system, automatic detection & alarm system etc.</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>1 building</td><td>H.P. + 7</td><td>285.36</td><td>1</td><td>1.55</td><td><30</td></tr>
<tr><td>3 buildings</td><td>H.P. + 7</td><td>390.97</td><td>1</td><td>1.55 m</td><td><30</td></tr>
<tr><td>2 buildings</td><td>Gr. + 7</td><td>577.98</td><td>2</td><td>1.55 m</td><td><30</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) :---
• No. and depth of percolations wells : 2 Nos.
• Details on Pre-treatment facilities :---</td></tr>
<tr><td>22.</td><td>Green area details</td><td>• Tree covered area (m^2) : 387.44
• Area covered by shrubs and bushes (m^2):
• Lawn covered area (m^2): 576.81 m^2
• Total Green Area (m^2): 964.25
• Green Area 10% of plot area: 13.93 %
• No. of trees and species to be planted: 104</td></tr>
<tr><td>23.</td><td>Budgetary allocation for Environmental Management Plan (Rs. in lacs)</td><td>---</td></tr>
<tr><td>24.</td><td>Proposed dust control measures during the construction phase</td><td>Dust suppression by water sprinkling, peripheral barricading of atleast 3 m height, compaction of soil during construction phase, covering the material during transportation, PUC compulsion for all the vehicles etc.</td></tr>
<tr><td>25.</td><td>Eco friendly building material usage details.</td><td>Use of fly ash paver blocks for pavements/walkways, most of the carpentry structures will be made up of processed engineering wood/ particle board instead of wood, PVC electrical boards, maximum use of Portland Pozzolona Cement (PPC),</td></tr>
<tr><td>26.</td><td>Details on amenities to be provided to construction workers.</td><td>Sanitation facilities, drinking water, municipal solid waste collection facility, first aid facilities.</td></tr>
<tr><td>27.</td><td>Documents related to land possession.</td><td>Village form no. 7 & N.A order submitted shows that the land for residential & commercial use is in the name of applicant & others.</td></tr>
</table>

During the meeting, the project proponent was suggested to increase the parking area provision for the project by providing basement. After detailed discussion, it was decided to appraise the project further only after submission of the following:

1. Justification with supporting documents showing the availability of the proposed FSI & ground coverage to the proposed project.
2. Photographs with date & time showing the current status of the project site.

3. Explore the possibility of increasing the parking area provision by providing basement and revised details on parking area provision with complete back up calculation & parking plan considering the proposed basement & increased parking area.
4. Detailed Environment Management Plan with respect to various environmental attributes- Water, Air, Noise, Solid wastes including Hazardous Wastes, land etc. of the project both during construction and operation phase and strategy for its implementation with financial outlay.
5. Revised project plans showing provision of the basement with the approach ramps and revised built up area table with the additional built up area of the proposed basement.

5	Rasikbhai M. Patel & Arvindbhai Mohanbhai	Block No. 662+634, F.P. No. 55/B +21, O.P. No. 55+21, TPS No. 12 (Puna), Dist. Surat	Screening & scoping.

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

Sr. No.	Particulars	Details
1.	Proposal is for	New Project [SIA/GJ/NCP/52289/2016]
2.	Type of Project	Commercial
3.	Project / Activity No. [8(a) or 8(b)]	8(a)
4.	Name of the project	Commercial Project
5.	Name of Developer	Mr. Rasikbhai M. Patel & Mr. Arvindbhai Mohanbhai
6.	Estimated Project Cost (Rs. In Crores)	40 Crore
7.	Whether construction work has been initiated at site? If yes, details thereof	No
8.	Project Details	• Land / Plot Area (m^2): 9,689.0 • FSI area (m^2): 38,676.85 • Total BUA (m^2): 62,214.12
9.	Building Details	• No. of Buildings: 1 Nos. • No. of Blocks: 1 • Scope of buildings/blocks: 2 level basement + Ground floor +9 floors (1387 shops & offices)
10.	No. of expected	2900 nos. Commercial Users

	Permissible	Proposed
FSI Area (m^2)	38,756	38,676.85
Ground Coverage (m^2)	4,844.50	4,536.71
Common Plot Area (m^2)	968.90	973.95
Max. building height (m)	-	54.28

<table>
<tr><td></td><td>residents / users</td><td></td></tr>
<tr><td>11.</td><td>Water & waste water details during construction phase</td><td>• Water requirement (KL/day): 10.3
• Source of water: Water supply from Surat Municipal Corporation (S.M.C).
• Waste water generation quantity (KL/day): 1.20
• Mode of disposal: Into septic tank/ soak pit.</td></tr>
<tr><td>12.</td><td>Water & waste water details during operation phase</td><td>• Fresh water requirement (KL/day): 116.0
• Source of water: Water supply from Surat Municipal Corporation (S.M.C).
• Waste water generation quantity (KL/day): 91.0
• Mode of disposal: Into drainage line of Surat Municipal Corporation (S.M.C).</td></tr>
<tr><td>13.</td><td>Status of water supply and drainage line</td><td>Water supply and underground drainage lines are available at project site.</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 rowspan="2">1,31,000</td><td rowspan="2">1,31,000</td><td rowspan="3">Excavated surplus earth and construction debris will be refilled at low lying areas within the premises and top soil will be used for development of greenbelt.</td></tr>
<tr><td>Other excavated earth</td></tr>
<tr><td>Construction debris</td><td>85</td><td>85</td></tr>
<tr><td>Steel scrap</td><td>7.6 MT</td><td>7.6 MT</td><td>Will be sold to recycler</td></tr>
<tr><td>Discarded packing materials</td><td>1 MT</td><td>--</td><td>Will be sold to vendor.</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
Wet waste</td><td>832 Kg</td><td>Into bins to be provided to each unit.</td><td>Final disposal through agency approved by SMC.</td></tr>
</table>
• Details of segregation if to be done: The solid wastes</td></tr>
</table>

		generated will be segregated into biodegradable and non-biodegradable wastes and collected in separate bins. • Capacity and no. of community bins to be placed within premises: 140 liter each; 15 nos. of bins; • Landfill site where waste will be ultimately disposed by local authority: M.S.W Transported from transfer station reaches to the final disposal site at Khajod
15.	Parking Details	• Total parking area requirement for the project as per GDCR: 19,338.43 m^2 • Parking area requirement for commercial units as per GDCR: 19,338.43 m^2 • Total number of CPS requirement for the project as per NBC: 774 nos. • Number of CPS requirement for commercial units as per NBC: 774 nos. • Total Parking area provided (m^2) & No. of CPS: 20,426.07 m^2, 780 nos. • Parking area provided in basement (m^2) & No. of CPS: 15,088.01 m^2, 471 nos. • Parking area provided as open surface (m^2) & No. of CPS: 1,269.54 m^2, 55 nos. • Parking area provided (at any other place-specify) (m^2) & No. of CPS: Mechanical – 4,068.52 m^2, 254 nos.
16.	Traffic Management	• Width of adjacent public roads: 45.0 & 12.0 m wide road • Number of Entry & Exit provided on approach road/s: 2 nos. • Width of Entry & Exit provided on approach road/s: 9 m & 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: --
17.	Details of Green Building measures proposed.	Maximum use of natural light through architectural design, CFL lights in common areas, use of solar energy in external/landscape lighting, use of eco-friendly building materials like aerated blocks, fly ash bricks, paving blocks, RMC, lead free paints, rain water harvesting & ground water recharge, aerated coke (foam type) in wash basins, kitchen, low flush water closets in toilet, pressure reducing valves in water pipeline etc.
18.	Energy Requirement, Source and Conservation	• Power supply Maximum demand: 2500 KW Connected load: -- • Source: D.G.V.C.L • Energy saving measures: Maximum use of natural light through architectural design, CFL lights in common areas, use of solar energy in external/landscape lighting • DG Sets: No. and capacity of the DG sets: 1 x 160 KVA Fuel & its quantity: Diesel, 12 Lit./Hr.

<table>
<tr><td>19.</td><td>Fire and Life Safety Measures</td><td>Fire extinguishers, hose reel, wet riser, automatic water sprinkler system, manually operated electric fire alarm system, underground static water storage tank (100 KL) & pump, terrace water tank of 25 KL etc.</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>1 Joint</td><td>2B+G + 9</td><td>3888.47</td><td>06</td><td>2.01</td><td><30</td></tr>
</table></td></tr>
<tr><td>21.</td><td>Rain Water Harvesting (RWH)</td><td>• Level of the Ground water table: 80-100 ft
• No. & dimensions of RWH tank(s) :
• No. and depth of percolations wells : 5 nos.
• Details on Pre-treatment facilities : Gravity filter, MOC: PE</td></tr>
<tr><td>22.</td><td>Green area details</td><td>• Tree covered area (m^2) : 426.23 m^2
• Total Green Area (m^2): 426.23 m^2
• Green Area % of plot area: 4.7%
• No. of trees and species to be planted: 145 nos. of trees like Asopalav, Gulamhor, Palm, Badam tree etc.</td></tr>
<tr><td>23.</td><td>Budgetary allocation for Environmental Management Plan
(Rs. in lacs)</td><td>
<table>
<tr><th>Sr. No.</th><th>Description</th><th>Capital Cost (Rs. In Lacs)</th></tr>
<tr><td>1</td><td>Landscaping</td><td>12 Lacs</td></tr>
<tr><td>2</td><td>Groundwater Recharge Structure</td><td>7 Lacs</td></tr>
<tr><td>3</td><td>Solar Energy Utilization</td><td>4 lacs</td></tr>
<tr><td>4</td><td>Energy Efficient Lighting</td><td>2 lacs</td></tr>
<tr><td>5</td><td>Solid Waste Management</td><td>2 lacs</td></tr>
<tr><td>6</td><td>Monitoring of Air, Water, Noise & Soil</td><td>0.75 lacs</td></tr>
<tr><td colspan="2">Total</td><td>27.75 Lacs</td></tr>
</table>
</td></tr>
<tr><td>24.</td><td>Proposed dust control measures during the construction phase</td><td>Vertical curtails, water sprinkling, covering the building materials with the tarpaulin etc.</td></tr>
<tr><td>25.</td><td>Eco friendly building material usage details.</td><td>Use of eco-friendly building materials like aerated blocks, fly ash bricks, paving blocks, RMC, lead free paints etc.</td></tr>
<tr><td>26.</td><td>Amenities for construction workers.</td><td>Provision of Personal Protective Equipments, safety related training, first aid facilities, along with the basic amenities like adequate sanitation facilities, drinking water facility etc.</td></tr>
<tr><td>27.</td><td>Documents related to land possession.</td><td>Order from Collector office shows that the N.A land of B.No. 662 for commercial use is in the name of applicant Mr. Rasikbhai M. Patel. Village from no. 7/12 for block no. 634 for residential use is in the name of one of the applicant Mr. Arvindbhai Mohanbhai.</td></tr>
</table>

The floor wise plans submitted by them shows that 6 nos. of staircases will be provided starting from both the level basements to 9th floor. Maximum travel distance from the staircase to the farthest corner of the floor will not be more than 30 m. Floor wise plans submitted by them show that all the commercial units will be provided with natural cross ventilation through windows on

both the sides facing roads & OTS. The project proponent was suggested to provide STP for treatment of sewage to be generated during the operation phase of the project and to reuse treated sewage within premises. During the meeting, after detailed discussion, it was decided to appraise the project further only after submission of the following:

1. Permission from the concerned competent authority for availability of the proposed FSI to the project.

2. Proposal for providing STP for treatment of sewage to be generated during operation phase and details of Sewage Treatment Plant with its capacity, size of each unit, retention time and its location on the plan. Measures proposed to avoid odour nuisance due to STP in operation phase. Revised water balance details considering the reuse of treated sewage for various purposes within premises. STP sludge management plan. Design details & drawings of dual plumbing system.

3. Explore the possibility of increasing the parking area provision for the project and revised details of the same along with back up calculation & parking plans. Details & plans showing the areas designated for loading / unloading of goods & parking of vehicles carrying goods at ground level as well as in basement.

4. Details of mechanical parking to be provided (also including its operation, maintenance, energy consumption, appointing trained personnel's etc.) in the basement along with the feasibility of providing mechanical parking considering the basement height.

5. Details on ventilation, lighting arrangements and CO sensors to be provided in the basements.

6. Type of activities to be carried out in the proposed commercial units. Undertaking stating that no any kind of manufacturing activity shall be allowed in the commercial units of the proposed project and they will not sold / allot any commercial unit for storage of chemicals, flammable substances, explosives, fire crackers or any other material of hazardous characteristics.

6	" Ashirwad River Homes"	TPS No. 6 [Piplod], R.S. No. 77+78/A (Part) +76/1 (Part), O.P. No. 1+2, F.P. No. 4+1/C Paikee, Part - A, at: Piplod, Dist. Surat.	Screening & scoping

This is a proposed residential building construction project with plot area of 10,544.15 m^2 and the proposed built up area of 37,496.39 m^2. During the presentation, it was found that the project site is at a distance of 10.51 m from river Tapi and is located within the CRZ of river Tapi. The project proponent was asked to approach Gujarat Coastal Zone Management Authority (GCZMA) for the proposed project. After detailed discussion, it was decided to reject the proposal for the following reason:

"The proposed project is located at a distance of 10.51 m from the boundary of river Tapi which is within the boundary of Coastal Regulation Zone of river Tapi and the proposed activity is not a permissible activity within the CRZ as per the CRZ Notification – 2011."

7	V Square Developers (Rio Vista)	R.S.Number:7/1/p1,7/3/2, F.P.No: 5 & 6/p, Sub Plot 1 & 2 ,O.P.No.43 & 44, T.P.S No:4(Rundh- Magdalla),Surat	Appraisal case.

The project was earlier taken up in the meeting of SEAC held on 27/01/2016. During the meeting held on 27/01/2016, it was presented that the project site is at a distance of 140 m from the boundary of river Tapi and the committee was of the view that the applicability of CRZ Notification 2011 with reference to the proposed project location should be checked and should be verified through site visit by Gujarat Pollution Control Board. After detailed discussion it was decided to appraise the project further only after submission of the following:

1. Applicability of CRZ Notification, 2011 should be checked with reference to distance of the project site from the nearest boundary of river Tapi.
2. CRZ map of Surat Municipal Corporation showing that the project site does not fall within the CRZ limits of river Tapi.
3. Projects plans with building & floor wise built up area, FSI area, Floor area table and plot area statement.
4. Land possession documents showing ownership of the applicant, copy of permission obtained for non agricultural use of the project site or a copy of documents showing the correspondences made in this regard and copy of agreement made between the land owners & developers (if any).
5. Certificate from a structural engineer with regards to the structural strength of the basement considering the close vicinity of river Tapi.

Project proponent submitted the above mentioned project plans and the details to this office on 13/04/2016. Project proponent along with their expert / consultant attended the meeting of SEAC and the project was appraised based on the details submitted as well as facts presented before the committee.

They have submitted a copy of Town Planning Scheme map of Surat Municipal Corporation showing that the project site is at more than 100 m distance from the boundary of river Tapi. Village form no. 7 & 12 submitted by them shows that the agricultural land is in the name of Sterling Adlife India Limited and they have made sale agreement with V Square Developers. They have submitted a copy of certificate from a structural engineer stating that both the towers will be designed for 2 level basement + ground floor + 15 floors based on the relevant IS Codes considering normal as well as additional loads due to earthquake, wind and the distance of river Tapi at 130 m. During the meeting, they have also submitted a copy of permission obtained for non agricultural use of the project site which is in the name of Sterling Adlife India Limited.

Salient features of the project are as under:

Sr. No.	Particulars	Details
1.	Proposal is for	New Project [SIA/GJ/NCP/3412/2015]
2.	Type of Project	Residential Project

<table>
<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>Rio Vista</td></tr>
<tr><td>5.</td><td>Name of Developer</td><td>V Square Developers</td></tr>
<tr><td>6.</td><td>Estimated Project Cost (Rs. In Crores)</td><td>60 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): 7,433.0
• FSI area (m^2):27,759.58
• Total BUA (m^2):43,175.64
<table><tr><td></td><td>Permissible</td><td>Proposed</td></tr><tr><td>FSI Area (m^2)</td><td>29,732</td><td>27,759.58</td></tr><tr><td>Ground Coverage (m^2)</td><td>3,344.85</td><td>2,381.54</td></tr><tr><td>Common Plot Area (m^2)</td><td>743.3</td><td>743.65</td></tr><tr><td>Max. building height (m)</td><td>59.85</td><td>59.85</td></tr></table></td></tr>
<tr><td>9.</td><td>Building Details</td><td>• No. of Buildings: Two
• No. of Blocks: Two
• Scope of buildings/blocks: Residential. 2 level basement + ground floor + 15 floors .
• No.& size of Residential Units: 56 Flats- Size 451.91 m2
• No. & type of Commercial Units: No
• Details of amenities if any: One Society Office.</td></tr>
<tr><td>10.</td><td>No. of expected residents / users</td><td>252 occupants and 50 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: 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</td><td>• Fresh water requirement (KL/day): 37.74
• Source of water: SMC water supply
• Waste water generation quantity (KL/day):27.81
• Mode of disposal: Into drainage line of SMC</td></tr>
</table>

<table>
<tr><td></td><td>phase</td><td></td></tr>
<tr><td>13.</td><td>Status of water supply and drainage line</td><td>Available at site</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>2,000</td><td>2000</td><td>Greenbelt development</td></tr>
<tr><td>Other excavated earth</td><td>18,000</td><td>10,000 m^3 will be used for internal roads & other paved area development</td><td>Balance earth will be used in other projects in vicinity.</td></tr>
<tr><td>Construction debris</td><td>475</td><td>220 m^3 will be used for back filling & internal road development.</td><td>Balance debris will be handed over to SMC.</td></tr>
<tr><td>Steel scrap</td><td>15</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:
<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>64.48</td><td>White bins</td><td>Sold to vendors</td></tr>
<tr><td>Wet waste</td><td>96.72</td><td>Green Bins</td><td>Municipal 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 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 SMC.</td></tr>
<tr><td>15.</td><td>Parking Details</td><td>• Total parking area requirement for the project as per GDCR:4,163.93 m^2
• Parking area requirement for residential units as per GDCR:4,163.93 m^2
• Total number of CPS requirement for the project as per NBC :56
• Number of CPS requirement for residential units as per NBC: 56
• Total Parking area provided (m^2) & No. of CPS: 12,922.1 & 409</td></tr>
</table>

		CPS • Parking area provided in basement (m^2) & No. of CPS: 11,874.38 & 371 CPS • Parking area provided in hollow plinth (m^2) & No. of CPS:863.72 & 30 CPS • Parking area provided as open surface (m^2) & No. of CPS: 184 & 8 CPS.
16.	Traffic Management	• Width of adjacent public roads: Two 18 m wide roads • Number of Entry & Exit provided on approach road/s: Two gates • Width of Entry & Exit provided on approach road/s: 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): 4.0 m • Width of all internal roads: 6.0 m & 7.5 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, use of LED lighting fixtures and low voltage lighting, solar lighting in open and landscape areas (8 nos.), roof top thermal insulation etc.
18.	Energy Requirement, Source and Conservation	• Power supply: Maximum demand: 500 KVA Connected load: 600 KVA • Source: DGVCL • % of saving with calculations: ~30% by use of LED and star rated energy efficient electronic consumer durables • Compliance of the ECBC guidelines (Yes / No),if yes, compliance in tabular form: only Glass and roof area • DG Sets: No. and capacity of the DG sets:62.5 KVA Fuel & its quantity: HSD, 12 litre/hr
19.	Fire and Life Safety Measures	• During Construction Phase: Personal Protective Equipment's (PPEs) will be provided to the construction workers and its usage shall be ensured and supervised, training will be given to all workers on construction safety aspects, first aid room with first aid kit, Doctor & ambulance service in case of emergency & injury etc. • During operation phase: Fire extinguishers, hose reel, manually operated electric fire alarm system, wet riser, underground static fire water storage tank of 100 KL capacity, automatic sprinkler system, pump near underground static water storage tank (fire pump) with minimum pressure of 3.5 kg/cm^2 at terrace level.
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	G/HP + 15	966.54	2	1.5	<30
B	G/HP + 15	966.54	2	1.5	<30

21.	Rain Water Harvesting (RWH)	• Level of the Ground water table: 10 m • No. & dimensions of RWH tank(s) : 2 Nos. and 2 m X 2 m X 3 m • No. and depth of percolations wells :2 nos • Details on Pre-treatment facilities : oil and grease removal and filter
22.	Green area details	• Tree covered area (m^2) :300 • Area covered by shrubs and bushes (m^2): 200 • Lawn covered area (m^2):243.65 • Total Green Area (m^2):743.65 • Green Area % of plot area: 10 % • No. of trees and species to be planted: 75 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)	Capital cost of Rs. 109.8 lacs and recurring cost of Rs. 5.2 lacs has been allocated towards purposes like rain water harvesting & ground water recharge, greenbelt development, environment monitoring & management, waste management etc.
25.	Details of eco friendly 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.	Village form no. 7 & 12 submitted by them shows that the agricultural land is in the name of Sterling Adlife India Limited and they have made sale agreement with V Square Developers. N.A order submitted by them shows that the land for residential use is in the name of Sterling Adlife India Limited.

During the meeting, the committee noticed that the site visit report from Regional Office, Surat of Gujarat Pollution Control Board shows that the site was visited on 14/04/2016 and the project site is at a distance of 105 m from the boundary of river Tapi. After detailed discussion, it was decided to consider the project only after submission of the following:

1. Copy of permission obtained from a concerned competent authority for availability of the proposed FSI to the project.
2. Copy of permission obtained from Airports Authority of India for the proposed building height.
3. CRZ map of river Tapi from one of the authorized agency identified by the MoEFCC for CRZ mapping showing that the project location doesn't fall within the CRZ area.

8	Shyam Sangini-2(c)	T.P.S.No.35,(Kumbharia-Saroli-Hemad-Devadh), Block No- 34/P+35,O.P.No. 178+179, F.P.No.178+179, Kumbhariya,	Appraisal case

		Surat.	

The project was earlier taken up in the meeting of SEAC held on 10/02/2016. During the meeting held on 10/02/2016, it was presented that they have obtained NOC from Airports Authority of India for building height of 80.0 m above the ground level. After discussing various aspects of the project in detail, it was decided to further appraise the project only after submission of the following:

1. Status of availability of water supply & drainage connection to the project with supporting documents. Details on source of availability of water to the gram panchayat, details of pumping station, STP, final disposal point of sewage by the gram panchayat.
2. Treated sewage management plan during the monsoon season.
3. Details on the FSI available to the project along with the copy of permission obtained from the concerned competent authority for the proposed FSI.
4. Details on provision made for natural ventilation & lighting arrangements in basement as well as in the proposed commercial units.
5. Details on provision to be made for minimum fire water storage based on the fire study.
6. Type of activities to be carried out in the proposed commercial units. Undertaking stating that no any kind of manufacturing activity shall be allowed in the commercial units of the proposed project and they will not sold / allot any commercial unit for storage of chemicals, flammable substances, explosives, fire crackers or any other material of hazardous characteristics.

Project proponent submitted the above mentioned undertaking & details vide their letter dated 04/04/2016. Project proponent along with their expert / consultant attended the meeting of SEAC and the project was appraised based on the details submitted as well as facts presented before the committee.

It was presented that the water requirement for the project during the operation phase will be met through water supply from Kumbhariya Gram Panchayat. Sewage to be generated will be treated in the proposed onsite STP and treated sewage will be completely used for flushing & gardening purpose within premises & for irrigation purpose in the farms located in the vicinity. During the monsoon season when the treated sewage utilization for gardening & irrigation purpose is not possible, the treated sewage will be stored in the fire water reservoir of 300 KL capacity. They have applied to Urban Development & Urban Housing Department, Gandhinagar for the proposed FSI and the permission is awaited. It was presented that basement ventilation fans with temperature & humidity sensors and adjusted speed level to ensure 2-3 air changes per hour will be provided in basement. It is proposed to provide underground static fire water storage tank of 300 KL capacity & terrace fire water storage tank of 25 KL capacity. The nearest fire station at Magob is at a distance of about 4 km from the project site.

Salient features of the project are as under:

Sr. No.	Particulars	Details
1.	Proposal is for	New Project [Proposal no.SIA/GJ/NCP/33073/2015]
2.	Type of Project	Commercial
3.	Project /	8(a)

<table>
<tr><td></td><td>Activity No. [8(a) or 8(b)]</td><td></td></tr>
<tr><td>4.</td><td>Name of the project</td><td>Shyam Sangini 2-C Warehouse textile market project</td></tr>
<tr><td>5.</td><td>Name of Developer</td><td>Mr. Vikas Hasmukhbhai Ahir
Mr. Dineshbhai Ranchodbhai</td></tr>
<tr><td>6.</td><td>Estimated Project Cost (Rs. In Crores)</td><td>Rs. 70 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): 15,054.0
• FSI area (m^2): 59,789.40
• Total BUA (m^2):88,768.56
<table><tr><td></td><td>Permissible</td><td>Proposed</td></tr><tr><td>FSI Area (m^2)</td><td>60,216.0</td><td>59,789.40</td></tr><tr><td>Ground Coverage (m^2)</td><td>7,527.0</td><td>6,602.14</td></tr><tr><td>Common Plot Area (m^2)</td><td>1,952.21</td><td>1,952.21</td></tr><tr><td>Max. building height (m)</td><td>65</td><td>53.6</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 + 9 floors.
• No.& size of Residential Units:---
• No. & type of Commercial Units: 812 nos. of storage type warehouses.
• Details of amenities if any:</td></tr>
<tr><td>10.</td><td>No. of expected residents / users</td><td>3654</td></tr>
<tr><td>11.</td><td>Water & waste water details during construction phase</td><td>• Water requirement (KL/day): 30.0
• Source of water: water supply from Kumbhariya Gram Panchayat
• Waste water generation quantity (KL/day): 2.28
• Mode of disposal: Details of reuse of water, if any: Soak Pit</td></tr>
<tr><td>12.</td><td>Water & waste water details during operation phase</td><td>• Total water requirement (KL/day): 165.0
• Fresh water requirement (KL/day): 65.0
• Source of water: water supply from Kumbhariya Gram Panchayat & packaged drinking water supplier.
• Waste water generation quantity (KL/day): 130.0
• Mode of disposal: Sewage to be generated will be treated in the proposed onsite STP. Treated sewage will be reused for gardening & flushing purpose within premises and it is proposed to reuse</td></tr>
</table>

<table>
<tr><td></td><td></td><td>remaining quantity of treated sewage for irrigation purpose outside the premises.
• In case of STP provision, capacity of STP: - 200 KL/day
• STP Technology: - FMR technology
• Purposes for treated sewage utilization: Flushing & gardening.
• Quantity of treated sewage to be reused:1.Gardening (KL/day): 5.0
2. Flushing (KL/day): 95.0
• Provision of dual plumbing system (Yes/No): -Yes
• Quantity and type (treated/untreated)of sewage to be discharged: Treated sewage will be reused for flushing & gardening purpose within premises after treatment in STP and excess treated sewage will be given to nearby farmers for agriculture purpose.
• Mode of disposal: as above.</td></tr>
<tr><td>13.</td><td>Status of water supply and drainage line</td><td>Water supply from Kumbhariya gram panchayat will be available to the project during the operation phase of the project.</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>5,523.5</td><td>800</td><td>800 m^3 of excavated top soil will be utilized for greenbelt development and 4,723.5 m^3 of top soil will be utilized for back filling.</td></tr>
<tr><td>Other excavated earth</td><td>88,817.88</td><td>347.7</td><td>347.7m^3 of excavated soil will be utilized for back filling within site. Excess soil of will be utilized at other project site after obtaining necessary permission, if any.</td></tr>
<tr><td>Construction debris</td><td>15kg/day</td><td rowspan="3">Nil</td><td rowspan="3">Sold off to recyclers/ vendors.</td></tr>
<tr><td>Steel scrap</td><td>15kg/day</td></tr>
<tr><td>Discarded packing materials</td><td>6kg/day</td></tr>
</table>
Operation Phase:
<table>
<tr><th>Type of waste</th><th>Generation Quantity (Kg/day)</th><th>Mode of waste collection</th><th>Mode of Disposal / Reuse</th></tr>
<tr><td>Dry waste</td><td>696 kg/day</td><td>Into separate</td><td>Final disposal at</td></tr>
</table></td></tr>
</table>

		<table><tr><td>Wet waste</td><td>400 kg/day</td><td>bins to be provided within premises.</td><td>Khajod Disposal Site</td></tr></table> • Details of segregation if to be done: Separate bins will be provided for dry and wet waste for each unit • Capacity and no. of community bins to be placed within premises:1 bin having capacity of 700 kg for dry waste and 1 bin of 400 kg for wet waste will be provided to building. • Landfill site where waste will be ultimately disposed by local authority: Khajod disposal site
15.	Parking Details	• Total parking area requirement for the project as per GDCR: 29,894.7 m^2 • Parking area requirement for Commercial units as per GDCR: 29,894.7 m^2 • Total number of CPS requirement for the project as per NBC :240 • Number of CPS requirement for commercial units as per NBC: 240 • Total Parking area provided (m^2) & No. of CPS: 30,028.09 m² and 987 CPS • Parking area provided in basement (m^2) & No. of CPS: 20,414.36 m^2 and 638 CPS • Parking area provided as open surface (m^2) & No. of CPS: 3,896.74 m^2 and 170 CPS • Parking area provided (Mechanical Parking) (m^2) & No. of CPS: 5,716.99 m^2 and 179 CPS
16.	Traffic Management	• Width of adjacent public roads: 45 m wide TP road. • Number of Entry & Exit provided on approach road/s: Two gates will be provided. • Width of Entry & Exit provided on approach road/s:7.5 m • Minimum width of open path all around the buildings for easy access of fire tender (excluding the width forthe plantation):5 m • Width of all internal roads: 7.5 m & 9.0 m.
17.	Details of Green Building measures proposed.	Provision to install aerated coke (foam type) in wash basins, kitchen, low flush water closets in toilet and pressure reducing valves in water pipeline, rain water harvesting & ground water recharge, maximum utilization of natural light, roof-top thermal insulation, CFL lighting fixtures in the common areas, appropriate design to shut out excess heat and gain loss, use of solar energy in external lighting (landscape lighting), use of aerated blocks etc.
18.	Energy Requirement, Source and Conservation	• Power supply: Maximum demand:4000 KW Connected load:4100 KW • Source: DGVCL • Energy saving measures: Maximum utilization of natural light, roof-top thermal insulation, CFL lighting fixtures in the common areas, appropriate design to shut out excess heat and gain loss, use of

<table>
<tr><td></td><td></td><td>solar energy in external lighting (landscape lighting), use of aerated blocks etc.
• DG Sets:
No. and capacity of the DG sets: 5 × 132 KVA
Fuel & its quantity: diesel (10 Litre/h)
Note : - D.G. Sets will be used in case of power failure or fire emergency</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, manually operated electric fire alarm system, terrace water storage tank of 25 KL, underground fire water storage tank of 300 KL, smoke detectors, fire sprinklers etc.
Nearest fire station at Magob is about 4 km away from the project site.</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</th><th>Travel distance (m)</th></tr>
<tr><td>1</td><td>9</td><td>5,978.94</td><td>9</td><td>2.01 m</td><td>< 30</td></tr>
</table></td></tr>
<tr><td>21.</td><td>Rain Water Harvesting (RWH)</td><td>• Level of the Ground water table: 19 m
• No. & dimensions of RWH tank(s) :-
• No. and depth of percolations wells :4
• Details on Pre-treatment facilities :only roof top rainwater harvesting is proposed</td></tr>
<tr><td>22.</td><td>Green area details</td><td>• Tree covered area (m^2) :600
• Area covered by shrubs and bushes (m^2): 250
• Lawn covered area (m^2): 400
• Total Green Area (m^2): 1,250.0
• Green Area % of plot area: 7 %
• No. of trees and species to be planted: 350</td></tr>
<tr><td>23.</td><td>Budgetary allocation for Environmental Management Plan (Rs. in lacs)</td><td>• Green belt development : 60Lacs
• Drainage and rain water harvesting: 50 lacs
• Sewage treatment plant: 200 Lacs
• Solar and energy saving: 30Lacs
• Total: 340Lacs</td></tr>
<tr><td>24.</td><td>Proposed dust control measures during the construction phase</td><td>Loading & transportation in covered trucks, covered shed provided for cement unloading activity, temporary wind screen around project site, sprinkling of water on roads and in vicinity of storage area.</td></tr>
<tr><td>25.</td><td>Eco friendly building material usage details.</td><td>Fly ash brick, aerated block, paving block, RMC (Ready Mix Concrete), lead free paints etc.</td></tr>
<tr><td>26.</td><td>Details of the amenities to be provided to the construction labours.</td><td>Sanitation facilities, tap water & drinking water, domestic sewage disposal facility, first aid box, free medicine, doctor service, adequate PPEs etc.</td></tr>
<tr><td>27.</td><td>Documents related to land ownership.</td><td>Village form no. 7/12 for both the block numbers in the name of applicants. Copy of application made for obtaining N.A permission</td></tr>
</table>

		has been submitted.

During the meeting, while discussing about the water supply and availability of drainage connection to the project, the project proponent stated that the project site is covered under the draft Town Planning Scheme of SUDA but the water supply & drainage lines of SUDA are at present not available in the area. In future when water supply & drainage connection from SUDA will be available to the project, the facilities of SUDA will be used for the proposed project. After detailed discussion, it was decided to consider the project only after submission of the following:

1. Copy of permission obtained from the concerned competent authority for availability of the proposed FSI & ground coverage.
2. Details on status of availability of water supply & drainage connection of SUDA to the proposed project with supporting documents.

9	Walkway The Mall	F.P.No.127/P, Sub Plot No.2. & F.P.No.129, Final T.P.S.No.31, R.S.No.66 & R.S.No. 18, O.P.No.85 & O.P.No.26, Adajan, Surat.	Appraisal case.

The project was earlier taken up in the meeting of SEAC held on 29/12/2015. During the meeting held on 29/12/2015, the project proponent was suggested to segregate the food waste from the other waste and to convert into manure or other useful end products by installing organic waste converter. it was decided to further appraise the project only after submission of the following:

1. Explore the possibility source segregation of food waste & garden waste from the other types of wastes and providing organic waste convertor for converting food waste & garden waste into useful end product/s.
2. Explore the possibility of increasing the parking area provision for the proposed project and revised details considering the increased parking area provision with back up calculation.
3. Detailed traffic study & traffic management plan considering the floating and fixed population including visitors as well as existing traffic density on adjacent road during peak hours, projected increase in traffic density in operation phase of the project, carrying capacity of the existing roads, its adequacy during operation phase of the project and the measures to avoid the traffic congestion in the interior as well as the exterior roads.
4. Details of fire fighting system including location of fire water tanks & capacity, separate power system for fire fighting, automatic sprinkler system, fire detection system with alarms & automatic fire extinguishers, location of fire lift and fire retardant staircases, details of qualified and trained fire personnel & their job specifications, nearest fire station & time required to reach the proposed site, emergency evacuation plan etc.
5. Details on provision of natural ventilation, lighting arrangements, CO sensors etc. in basement.
6. Details on common amenities like drinking water facility, sanitary blocks, first aid facilities etc. to be provided at each floor.
7. Details on energy conservation measures and how much of the total energy requirement for the project will be compensated/reduced by the proposed energy conservation measures.

Project proponent submitted the above mentioned details to this office on 11/04/2015. Project proponent along with their expert / consultant attended the meeting of SEAC and the project was appraised based on the details submitted as well as facts presented before the committee.

It was presented that kitchen waste & horticulture waste will be processed in the Organic Waste Convertor and manure to be generated will be used for gardening. It is proposed to provide mechanical parking in the 2nd level basement and after the proposed mechanical parking, the parking space provision will be equivalent to 794 CPS. Traffic survey carried out during the peak hours on 36 m wide road, having carrying capacity of 3420.2 PCU, shows that the road will be adequate enough to cater the total traffic load of 1334.3 PCU in the proposed scenario. Fire fighting facilities like fire extinguishers, automatic water sprinkler system in basement & entire building, automatic fire detection & alarm system, auto glow signages, underground fire water storage tank of 100 KL capacity, 5 nos. of overhead water tanks each of 25 KL capacity etc. will be provided. The nearest fire station is Adajan fire station which is 1.25 km away from the project site and a fire tender will take approximately 5 minutes to reach the project site in case of emergency. They have also submitted details of emergency evacuation plan. It is proposed to provide CO sensors, mechanical ventilation system with design of 6 ACPH in normal conditions & 12 ACPH in case of fire / distress condition, natural ventilation in the form of air cut outs & natural openings etc. in the basement. It was presented that drinking water posts, toilets & WCs separate for males & females, first aid facilities etc. will be provided on each floor. Energy conservation measures like LED lighting fixtures, energy efficient lamps & lights, timer control for parking lights, occupancy sensors for passive common area lighting, power factor correction panels, solar lighting posts, use of energy efficient motors & pumps etc. will be provided.

Salient features of the project are as under:

No.	Particulars	Details
1	Proposal is for	New Project (Proposal No. SIA/GJ/NCP/2951/2015)
2	Type of Project	Commercial Building Construction Project
3	Project / Activity No. [8(a) or 8(b)]	8 (a)
4	Name of the project	Walk Way The Mall
5	Name of Developer	Panchani Associates
6	Estimated Project Cost (Rs. In Crores)	45.0
7	Whether construction work has been initiated at	No

<table>
<tr><td></td><td>site? If yes, details thereof</td><td></td></tr>
<tr><td>8</td><td>Project Details</td><td>• Land / Plot Area (m^2): 8,811.0
• FSI area (m^2): 24,385.70
• Non FSI area (m^2):
• Total BUA (m^2): 44,773.18

<table><tr><td></td><td>Permissible</td><td>Proposed</td></tr><tr><td>FSI Area (m^2)</td><td>---</td><td>24,385.70</td></tr><tr><td>Ground Coverage (m^2)</td><td>---</td><td>4,128.80</td></tr><tr><td>Common Plot Area (m^2)</td><td>881.10</td><td>918.71</td></tr><tr><td>Max. building height (m)</td><td>-</td><td>29.71</td></tr></table></td></tr>
<tr><td>9</td><td>Building Details</td><td>• No. of Buildings: 2 Commercial Buildings with 294 showrooms / offices, 10 theatres, 17 food courts, 42 rooms of hotel
• No. of Blocks: 2
• Scope of buildings/blocks: Commercial Building. 2 level basement + ground floor + 6 floors.
• No. & size of Residential Units: -
• Details of amenities if any: Proposed good sanitary facilities for the construction workers. The common sanitary facilities like, W.C., bath water supply etc. will be facilitated at site.</td></tr>
<tr><td>10</td><td>No. of expected residents / users</td><td>600 employees and 1500 visitors</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: Local water tankers.
• Waste water generation quantity (KL/day): 5.25
• Mode of disposal: Septic tank and soak pit
• Details of reuse of water, if any: --</td></tr>
<tr><td>12</td><td>Water & waste water details during operation phase</td><td>• Fresh water requirement (KL/day): 97.98
• Source of water: water supply from Surat Municipal Corporation (SMC)
• Waste water generation quantity (KL/day): 74.71
• Mode of disposal: Into drainage line of SMC.</td></tr>
<tr><td>13</td><td>Status of water supply and drainage line</td><td>Water supply & drainage line of SMC will be available to the project during the operation phase of the project.</td></tr>
<tr><td>14</td><td>Solid waste Management</td><td>Construction Phase:
<table><tr><td></td><td>Generation</td><td>Quantity to be reused</td><td>Mode of Disposal / Reuse</td></tr><tr><td>Top Soil</td><td>2,650 (m^3)</td><td>800 (m^3) will be used for green belt</td><td>Remaining quantity will be used at other projects in the</td></tr></table></td></tr>
</table>

			development	vicinity.
		Other excavated earth	88,740 (m^3)	3,570 (m^3) will be used for refilling the low lying areas within premises.	Will be supplied to other low lying areas
		Constructio n debris	28 (m^3)	28 (m^3)	Re-filling & Re-surfacing
		Steel scrap	1.1 MT	-	Sale to vendors
		Discarded packing materials		-	Sale to vendors

Operation Phase:

Type of waste	Generation Quantity (Kg/day)	Mode of waste collection	Mode of Disposal / Reuse
Dry waste	225	Into bins to be provided within premises	Through SMC approved agent for collection and final disposal
Wet waste	95	Into bins to be provided within premises	Through SMC approved agent for collection and final disposal

- Details of segregation if to be done: No.
- Capacity and no. of community bins to be placed within premises: 32 nos. of common community bins will be provided within premises.

15	Parking Details	• Total parking area requirement for the project as per GDCR: 7,522.04 m^2 • Parking area requirement for Commercial units as per GDCR:- 6,217.04 m^2 • Parking area requirement for Theatre units as per GDCR:- 1,305.0 m^2 • Total number of CPS requirement for the project as per NBC:457 • Number of CPS requirement for commercial units as per NBC:332 • Number of CPS requirement for Theatre units as per NBC: 125 • Total Parking area provided (m^2) & No. of CPS:15,081.56 & 487 CPS • Parking area provided in basement (m^2) & No. of CPS: 13,783.30 & 431 CPS • Parking area provided as open surface (m^2) & No. of CPS: 1,289.26 m^2 & 56 CPS.
16	Traffic Management	• Width of adjacent public roads: 36.0 m & 12.0 m wide roads. • Number of Entry & Exit provided on approach road/s: Two gates will be provided. • Width of Entry & Exit provided on approach road/s: 9.0 m & 6.07 m • Minimum width of open path all around the buildings for easy access of fire tender (excluding the width for the plantation): 5.0 m

<table>
<tr><td></td><td></td><td>• Width of all internal roads:- 9.0 m & 6.07 m.</td></tr>
<tr><td>17</td><td>Details of Green Building measures proposed.</td><td>Use of Autoclaved Aerated Blocks (AAC) & ash containing paver blocks, solar street lights, energy efficient LED & T5 lighting, automatic power factor controller (APFC), installing water fixtures consuming less water etc.</td></tr>
<tr><td>18</td><td>Energy Requirement Source and Conservation</td><td>• Power supply:
Maximum demand:1,076 KVA
Connected load: 1,076 KVA
• Source: DGVCL
• Energy conservation measures: solar street lights, energy efficient LED & T5 lighting, automatic power factor convroller (APFC) provision,
• DG Sets:
No. and capacity of the DG sets: 1 × 45 KVA
Fuel & its quantity: HSD, 13 lph.</td></tr>
<tr><td>19</td><td>Fire and Life Safety Measures</td><td>During the operation phase: Provision of underground water tanks (3 × 35 KL) and overhead tanks (5 × 25 KL).</td></tr>
<tr><td>20</td><td colspan="2">Details on staircase
<table>
<tr><td>Type & no. of buildings</td><td>No. of floors</td><td>Floor area m^2</td><td>No. of staircase</td><td>Width of the staircase (m)</td><td>Travel distance (m)</td><td>No. of Lift</td></tr>
<tr><td>Block A</td><td>GF to 6^{th} floor</td><td rowspan="2">3,380.56</td><td>4</td><td>1.52</td><td>30 Max</td><td>4</td></tr>
<tr><td>Block B</td><td>GF to 6^{th} floor</td><td>3</td><td>2.01</td><td>30 Max</td><td>10</td></tr>
</table></td></tr>
<tr><td>21</td><td>Rain Water Harvesting (RWH)</td><td>• Level of the Ground water table: 20
• No. & dimensions of RWH tank(s) : 3 nos.
• No. and depth of percolations wells : 2 nos. and 20 m
• Details on Pre-treatment facilities : Filtration.</td></tr>
<tr><td>22</td><td>Green area details</td><td>• Tree covered area (m^2) : 248.31
• Area covered by shrubs and bushes (m^2): -
• Lawn covered area (m^2): 918.71
• Total Green Area (m^2): 1,167.02
• Green Area % of plot area: 13.24%
• No. of trees and species to be planted: 132 number of trees like Limbdo, Asopalav, Desi Badam and Gulmohar.</td></tr>
<tr><td>23</td><td>Dust control measures</td><td>Applying water or non-toxic chemicals to minimize dust, collection of any spilled cement / fine sand & will be reused back in the construction, transportation of the construction materials form the nearest places, covering the materials during the transportation, use of well maintained vehicles with PUC certificate etc.</td></tr>
</table>

24	Budgetary allocation for Environmental Management Plan (Rs. in lacs)	Allocation of Rs. 17.7 lacs & Rs. 1.95 lacs as capital cost & recurring cost respectively has been made for EMP & EMS.
25	Details of eco-friendly building materials	Use of Autoclaved Aerated Blocks (AAC) & Paver Blocks having fly ash
26	Details about the basic amenities proposed to the construction workers	Water for domestic use like, bathing & drinking purpose, cooking purpose, sanitation facilities, bins for solid waste collection, power supply, cooking fuel etc.
27	Documents related to the Land possession	Village form no. 7 for both the F.P.numbers for commercial & residential use in the name of Panchani Associates.

Committee observed that they have not mentioned about the parking area break up to be provided in both the level basements as well as parking area to be provided as mechanical parking. After detailed discussion, it was decided to consider the project only after submission of the following:

1. Copy of permission obtained from the concerned competent authority for the proposed FSI of the project.
2. Details of the proposed parking area with complete back up calculation, area wise break up of parking area to be provided in basement & as mechanical parking etc.

10	Parklands Village	Survey No. 44/1, Village: Balitha , Ta: Pardi, Dist: Valsad.	Appraisal case.

The project was taken up in the meeting of SEAC held on 29/12/2015. During the meeting held on 29/12/2015, after detailed discussion, it was decided to further appraise the project only after submission of the following:

1. Exact source of water supply during the operation phase of the project and permission of the concerned authority in this regard.
2. Treated sewage management plan during the monsoon season when treated sewage utilization for gardening purpose is not possible.
3. Parking area provision for each individual type of bungalow with back up details like plot area of each type of bungalow, ground coverage and available open space for parking within premises of each individual type of bungalow.
4. Details on approach road to the project site.
5. Details on the number and type of trees to be planted within premises.
6. Land possession documents showing the ownership of land by the applicant, list of partners & directors of the company, copy of permission obtained for non agricultural use of the

project site or a copy of documents showing the correspondences made in this regard and copy of agreement made between the land owners & developers (if any).

Project proponent submitted the above mentioned details to this office on 17/03/2016. Project proponent along with their expert / consultant attended the meeting of SEAC and the project was appraised based on the details submitted as well as facts presented before the committee.

Fresh water requirement during the operation phase will be met from Damanganga Canal Division no. 3. They have submitted a copy of permission obtained from Office of the Executive Engineer Damanganga Canal Dn. No. 3 for withdrawal of 50.40 KL/day of water. It was presented that from the total water requirement of 105 KL/day, fresh water requirement of 50.40 KL/day will be met from Damanganga Canal and remaining water requirement of 54.6 KL/day will be initially met through water tankers. Treated sewage will be used for flushing & gardening purpose within premises. During the monsoon season, when treated sewage utilization for gardening purpose is not possible, the treated sewage will be used for car washing & floor washing purposes. It was presented that 12.35 m^2, 16.19 m^2 & 16.48 m^2 parking spaces will be available within premises of individual type of bungalows. Total parking area provision for the project will be 5,082.56 m^2 [3,124.0 m^2 as open surface parking + 1,958.56 m^2 within premises of individual bungalow] which is equivalent to 206 CPS. It was presented that the project site is 0.5 km away from the National Highway No. 8 and pakka road has already been developed from the National Highway no. 8 to the proposed project site. Photographs showing the existing road have been submitted. Total 500 nos. of trees of Vad, Sisam, Asopalav, Jambu etc. will be planted within premises. N.A order submitted by them shows that the land for residential use is in the name of Ideal Agricultural Equipments Pvt. Ltd.

Salient features of the project are as under:

Sr.no.	Particulars	Details
1.	Proposal is for	New Project [Proposal No. SIA/GJ/NCP/2786/2015]
2.	Type of Project	Residential Bungalows
3.	Project / Activity No. [8(a) or8(b)]	8(a)
4.	Name of the project	Parklands Village
5.	Name of Developer	Mr. Tushar Shah
6.	Estimated Project Cost (Rs. In Crores)	Rs. 7.27 crores
7.	Whether construction work has been initiated at site? If yes, detailsthereof	No

<table>
<tr><td>8.</td><td>Project Details</td><td>• Land / Plot Area (m^2):36,727.0
• FSI area (m^2):27,100.02
• Non FSI area (m^2):4,431.44
• Total BUA (m^2):31,531.46
<table><tr><td></td><td>Permissible</td><td>Proposed</td></tr><tr><td>FSI Area (m^2)</td><td>56,608.9</td><td>56,603.4</td></tr><tr><td>Ground Coverage (m^2)</td><td>12,171.60</td><td>11,194.25</td></tr><tr><td>Common Plot Area (m^2)</td><td>---</td><td>2,382.0</td></tr><tr><td>Max. Building Height (m)</td><td></td><td>10.51</td></tr></table></td></tr>
<tr><td>9.</td><td>Building Details</td><td>125 Bungalows of G + 2 (101 bungalows) and G + 1 (24 bungalows) structure and 1 Multipurpose Hall</td></tr>
<tr><td>10.</td><td>No. of expected residents / users</td><td>775 nos. (including visitors and guests)</td></tr>
<tr><td>11.</td><td>Water & waste water details during construction phase</td><td>• Water requirement(KL/day):9.0
• Source of water: local water tankers.
• Waste water generation quantity(KL/day):2.0
• Mode of disposal: Soak Pit</td></tr>
<tr><td>12.</td><td>Water & waste water details during operation phase</td><td>• Total water requirement (KL/day):105.0
• Fresh water requirement (KL/day): 37.0
• Source of water: Damanganga Canal
• Waste water generation quantity(KL/day):68.0
• Mode of disposal:- Sewage to be generated during the operation phase will be treated in the proposed onsite Sewage Treatment Plant. Treated sewage will be completely utilized for flushing and gardening/plantation purpose within premises.
• In case of STP provision, capacity of STP:- 100 KL/day
• Purposes for treated sewage utilization:- Treated sewage will be completely utilized for flushing and gardening/plantation purpose within premises.
• Quantity of treated water to be reused:-
1.Gardening (KL/day):51.0
2. Gardening (KL/day): 17.0
• Provision of dual plumbing system (Yes/No): Yes
• Quantity and type (treated/untreated) of water to be discharged: Treated sewage will be completely utilized for flushing and gardening/plantation purpose within premises.
• Mode of disposal: Treated sewage will be completely utilized</td></tr>
<tr><td>13.</td><td>Status of water supply and drainage line</td><td>Water supply lines exist in the area.</td></tr>
<tr><td>14.</td><td></td><td>ConstructionPhase:</td></tr>
</table>

<table>
<tr><td></td><td>Solid waste</td><td>
<table>
<tr><td>Type of waste</td><td>Generation Quantity</td><td>Mode of waste collection</td><td>Mode of Dispoal / Reuse</td></tr>
<tr><td>Municipal solid wastes</td><td>30 kg/day</td><td>Separate bins at various places</td><td>MSW disposal site of Vapi Nagarpalika.</td></tr>
<tr><td>Construction Debris</td><td>20 ton</td><td>--</td><td>Backfilling and Internal road development</td></tr>
<tr><td>Steel Scrap</td><td>5 ton</td><td>--</td><td>Sold to authorized recyclers.</td></tr>
<tr><td>Cement Bag, Packing material, etc.</td><td>3 ton</td><td>--</td><td>Sold to authorized recyclers.</td></tr>
</table>
</td></tr>
<tr><td></td><td></td><td>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>Municip al solid wastes</td><td>375.0 kg/d</td><td>Separate bin to be provided at the ground floor</td><td>MSW disposal site of Vapi Nagarpalika.</td></tr>
<tr><td>STP Sludge</td><td>1.0 MT/Year</td><td>--</td><td>Will be used as manure for greenbelt development within premises.</td></tr>
</table>
</td></tr>
<tr><td>15.</td><td>ParkingDetails</td><td>• Total parking area requirement for the project as per GDCR: 4,471.50 m^2
• Parking area proposed to be provided: 5,082.56 m^2
• Number of CPS requirement for residential units as per NBC:63
• Number of CPS proposed to be provided as per NBC: 206.</td></tr>
<tr><td>16.</td><td>Traffic Management</td><td>• Width of adjacent public roads: ---
• Number of Entry & Exit provided on approach road/s: two gates will be provided.
• Width of Entry & Exit provided on approach road/s: 12 m & 7.5 m.
• Minimum width of open path all around the buildings for easy access of fire tender (excluding the width for the plantation):</td></tr>
<tr><td>17.</td><td>Details of Green Building measures proposed.</td><td>Provision to install aerated coke (Foam Type) in wash basins, kitchen, low flush water closets in toilet and pressure reducing valves in water pipeline, rain water harvesting & ground water recharge, provision of STP & reuse of treated sewage for gardening & flushing purpose etc.</td></tr>
</table>

18.	Energy Requirement, Source and Conservation	• Power supply: • Maximum demand: During construction phase - 50 KVA & during operation phase - 1500 KVA • Connected load: • Source: M/s. Dakshin Gujarat Vij Company Limited (DGVCL) • Energy saving measures: Maximum use of natural light, wind & light through proper orientation of buildings, white tiles on terrace floor, LED/CFL lighting fixtures in common areas, appropriate design to shut out excess heat & gain loss, use of solar energy in external lighting etc. • D.G. Sets: Capacity of the D. G. Sets: 1 × 1500 KVA capacity Fuel & its quantity: HSD-300 L/hr. (The D. G. Sets will be used as emergency power back-up only).
19.	Fire and Life Safety Measures	• Fire extinguishers at various locations with clear visibility shall be installed. • Printed Board showing important telephone numbers of fire, ambulance, hospital etc. shall be maintained in the security office. • Distance of the nearest fire brigade i. e. Vapi Fire Station is @ 2.00 km in SW direction from the project site and it will take 10 minutes for a fire tender to reach the proposed project site.
20.	Details on staircase	One staircase of adequate width will be provided in each bungalow
21.	Rain Water Harvesting (RWH)	• Level of the Ground water table – 8 to 10 m • No. & dimensions of RWH tank(s) : 10 nos. of RWH tanks; • No. and depth of percolations wells: 10 nos. of percolating wells. • Details on Pre-treatment facilities: A de-silting chamber will
22.	Green area details	• Tree covered area (m^2) : 1,780.0 • Area covered by shrubs and bushes (m^2): -- • Lawn covered area (m^2): 2,382.0 • Total Green Area (m^2): 4,162.0 • Green Area % of plot area: 11.3 %
23.	Budgetary allocation for Environmental Management Plan	Rs. 70 – 90 lacs for waste water management during the construction & operation phase, noise & air pollution mitigation measures, waste management & disposal, green belt development etc.
24.	Proposed dust control measures during the construction phase.	Loading & transportation in covered trucks, covered shed provided for cement unloading activity, temporary wind screen around project site, water sprinkling on roads and in vicinity of storage area etc.
25.	Eco friendly building material usage	Fly ash bricks, aerated blocks, paving blocks, RMC, lead free paints etc.
26.	Facilities for construction workers	Drinking water, sanitation facilities, sewage disposal facility, first aid box, free medicines, PPEs etc.

During the meeting, the committee noticed that the land possession documents submitted by them do not show any relevance to the proponent Mr. Tushar Shah. Further the committee was of the opinion that reusing treated sewage for car washing & floor washing is not convincing. At

this the project proponent mentioned that they will provide treated sewage storage tank with a capacity of storing treated sewage for at least 4 days. After detailed discussion, it was decided to consider the project only after submission of the following:

1. Land possession documents showing ownership of the proposed project by the project proponent.
2. Location of the proposed treated sewage storage tank on layout plan of the project.

Industrial Projects:

11	Om Sai Navigations Pvt. Ltd.	Port Victor, Existing GMB Port Premises, Vill. Victor, Ta. Rajula, Dist. Amreli	Screening & Scoping

Project / Activity No.: 7 (e)

- M/s. Om Sai Navigations Pvt. Ltd. (herein after Project Proponent – PP) has submitted application vide their proposal no. SIA/GJ/MIS/11001/2016 dated 11/04/2016.

Project status: New

Project / Activity Details:

The proposed project is to revive the existing facility of port Victor, Near Victor village in Rajula Taluka of Amreli District. Company now envisages upgrading and strengthening cargo handling facility and associated infrastructure at Victor Port to serve the purpose of handling of dry bulk, break bulk, container, offshore support facility, RO-RO cargo and other commodities as tabulated below:

Sr. no.	Commodity	Quantity
1	Food Grains & Food Products	4.5 MMTPA
2	Metals & Mineral Ores	
3	Other dry cargo	
4	Containers and Ro-Ro	
5	Other miscellaneous cargo	
	Total Cargo	4.5 MMTPA

The project falls in the project activity 7(e) and category B as per the schedule of EIA Notificaiton-2006. The existing port was established since 1973. The proposal is for up gradation and strengthening of existing Victor port for cargo handling. Total plot area is 66566 sq. m and proposed green belt area/Tree plantation area will be 7000 sq. m. Estimated cost of the proposed project will be 47.71 Crores. Nearest residential area of village Victor is @ 4.5 km from the proposed site. The proposed project requires up-gradation of water front along with necessary marine infrastructure like literage jetty, RO-RO jetty, approach channel, turning circle, berth pockets and navigational aids for further transportation by Sea. Land side infrastructure facilities will be Storage area, Internal road network, Parking area, Back-up infrastructure, electric & water supply system, storm drainage & sewage system.

Water consumption and waste water details are as under:

Water consumption will be 17 KL/day (Domestic – 7 & Gardening – 10 KL). Fresh water will be supplied through road tankers. There will be no generation waste water from washing and industrial activity. Generated domestic waste water (5 KL/day) will be disposed off into soak pit through septic tank. Two DG sets (600 KVA each) will be provided as stand-by facility. HSD (130-150 lit/hr for each unit) will be used as fuel for DG sets. As per the Port policy of Government of Gujarat, LOI was given by GMB to M/s: OM Sai Navigations Pvt. Ltd. vide dated 09/04/2015. PP reported that no reclamation work will be carried out. No Capital dredging will be required from the proposed project, only maintenance dredging will be required inside the channel, turning circle and berth area. The dredging material will be disposed as per the prevailing guidelines. Hazardous wastes to be generated are used oil and discarded containers. Used oil will be sold only to the registered recyclers. Discarded barrels / containers / bags / liners will be either reused or returned back to suppliers or sold only to the authorized recyclers.

Observations/Discussions:

Technical presentation by the project proponent also covered details like back ground details & need of the proposed project, proposed facilities, layout plan, proposed structures, dredging, general information, proposed Terms of Reference etc. On asking about the CRZ, representatives of the project informed that the proposed activity will be carried out within the CRZ area and they will obtain CRZ clearance from the concern authority. During the meeting issues related to Mangrove, dredging, Sea vessel traffic management system, EMS etc. have been discussed in detail. After detailed discussion on each and every aspect of the project, following TOR were prescribed to include them in the EIA report to be prepared for the study area covering 10 km radius from the boundary of the project site.

1. Present land use pattern within 10 km radius from the project boundary based on satellite imagery.
2. Copy of permission obtained from Revenue Department for the proposed project.
3. Land ownership documents and copy of approval obtained from Gujarat Maritime Board for the proposed project.
4. A map showing distance of the nearest fishing port, fishermen hutments, village, salt pans, mangrove patch, migratory corridors of birds, National Parks/Sanctuaries/Bio sphere Reserves, sand dune areas etc. from the project boundary. Give tabular chart with exact aerial distance with specific remarks (If any).
5. Distance of the Jetty from the Low Tide Line. Authenticated details on High Tide height, time duration of high tide availability etc.
6. Phase wise project implementation details in terms of site development, infrastructure provision, EMS implementation etc. Phase wise project implementation schedule with bar chart including resources, manpower and time frame etc.
7. Details of the activities to be undertaken in the CRZ area and their impact on marine ecosystems and mitigation measures proposed in this regard.
8. Copy of CRZ map or map prepared by one of the authorized agencies authorized by the MoEF for carrying out the CRZ demarcation, on which the project boundary / facilities are superimposed and clearly indicating the proposed project location.
9. Status of application for CRZ clearance. Recommendation from the Gujarat Coastal Zone Management Authority under the CRZ Notification.
10. Project coverage, master plan, phasing and scope. Capacity of the port, types of cargo proposed for handling, cargo handling equipments, ancillary operations, housing, truck parking details etc.
11. Assessment of source of the water supply with adequacy of the same to meet with the

requirements for the project. Copy of permission obtained from the concerned authority for water supply.

12. Detailed water balance (including reuse-recycle, if any).
13. Details of the proposed ETP and stream wise analysis of the waste water likely to be generated as well as the stream wise treatment proposed with ETP adequacy and efficacy report. Details of segregation of the wastewater stream to be carried out and plans for management and disposal of w/w streams to be generated from spillage, leakages etc. A detailed treatability study for untreated effluent & treated effluent vis-à-vis adequacy of the treatment facilities proposed for the wastewater likely to be generated. The characteristic on which treatability is based shall also be stated.
14. Action plan for Complete Zero Liquid Discharge (ZLD).
15. Finalization of the exact scope of the off shore / waterfront facilities out of various options.
16. Details of the berthing facility if any to be provided along with class of vessels envisaged. Ship simulation to be done in respect of stability. Details of handling of each cargo, its impact and management plan.
17. Detailed study for shore protection works. Details of proposed reclamation and / or dredging for protection of the water front and/or maintaining the channel depth. Details regarding dredging depth, dredge material characteristics as well as the dredged quantity, its disposal & and reclamation. The chances of erosion / accretion due to proposed dredging and/or reclamation and mitigation measures should be incorporated.
18. Measures to prevent further deterioration of the estuarine river water quality and coastal ecology due to the proposed project. Cumulative impact taking into consideration other project activities in the vicinity.
19. Number of creeks and creeklets fall in the area of project site as well as approach road. Impacts on hydrology pattern due to the proposed project and mitigation measures thereof.
20. Whether any blockage of creek is envisaged due to the proposed project and if so, remedial measures. Impact on the natural drainage system if any. It shall be ensured that free flow of water from the catchment area is not hampered due to the proposed project.
21. Hydro-dynamics of estuary / creek from shoreline erosion perspective. The hydro-dynamic studies shall be undertaken for assessing whether the proposed activities shall have any significant impact to the shoreline abutting the project as well as significant impact on the ecologically sensitive areas along the stretch or not.
22. Whether project activities will lead to any shoreline changes. Hydrodynamics of the coast abutting the project site from shoreline erosion perspective. The hydrodynamic studies for assessing whether the proposed activities shall have any significant impact on the shoreline abutting the project along the stretch or not. Details of precautions to be taken to ensure that there will be no adverse impact on the drainage of the area.
23. Comprehensive modeling study of accretion, erosion / deterioration on nearby coastline & elsewhere due to the proposed project and its mitigation measures. Submit details of stability analysis of coast. The study shall be got vetted by CWPRS.
24. Details of the sand dune areas and ecologically sensitive areas in the vicinity.
25. Anticipated environmental impacts and mitigation measures due to the ship traffic including discharges from vessels and cargo operations.
26. Details of existing sea vessel traffic management and predicted increase in vessel traffic due to the proposed project along with its impacts.
27. Details of vessel traffic management system framed for the proposed project considering the guidelines and provisions of Vessel Traffic Management System devised for the study area. Measures proposed to ensure that there will be no any hindrance to the movement of fishing

vessels or fishermen.

28. Impact of project construction/operation on the noise and vibration due to construction equipment, cargo handling equipment and road traffic. Mitigation measures for the same.
29. Impact on marine life and fishing activities in the surrounding region.
30. Impacts of the proposed activities on fishing in the surrounding region as well as on livelihood of fishermen, saltpan workers, farmers, villagers etc. How it would be ensured that fishing area will not be affected due to the project activities.
31. Commitment from the management for extensive mangrove plantation as well as mangrove associated species in the area with year wise plan. Explore co-ordination with ecology commission / social forestry division for the same.
32. Details of characteristics of materials to be handled and the control measures proposed to ensure safety and avoid the human health impact.
33. Details of possibility of occupational health hazard from the proposed activities and proposed measures to prevent it.
34. Measures proposed to arrest the micronized fine particles generated during the painting process. Disposal of waste paint / paint residue.
35. Details for the use of lead free paints in the proposed project. Undertaking for use of only lead free paints in the project.
36. Submit the details of storage yard and dust suppression measures.
37. The details with respect to number of fishermen (including the pagarias) living and / or fishing within the study area along with the exact distance of their habitation from the proposed facilities. Details of fish production in the region in last five years as per the records of fisheries department. Impacts of the proposed activities on the fishery in the region. How, it would be ensured that fishing area will not be affected due to the project activities.
38. Anticipated environmental impacts due to the proposed project 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.
39. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be incorporated.
40. 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.
41. Modelling indicating the likely impact on ambient air quality due to proposed activities. The details of model used and input parameters used for modelling should be provided. The air quality contours may be shown on location map clearly indicating the location of sensitive receptors, if any, and the habitation. The wind rose showing pre-dominant wind direction should also be indicated on the map. Impact due to vehicular movement shall also be included into the prediction using suitable model. Results of Air dispersion modelling should be superimposed on google map / geographical area map.
42. Apart from terrestrial EIA study, marine EIA study should be conducted through reputed institute in order to assess impacts of the proposed activities on the marine environment as well as fishery

and according to the same, mitigation measures shall be planned.

43. Baseline status of flora, fauna and marine biodiversity including that of phytoplankton and zooplankton in the study area shall be elaborated. Impact of the proposed activities on the marine biodiversity shall be elaborated. In case of any scheduled fauna, conservation plan should be provided.
44. Actual field survey shall be carried out for ascertaining base line status of coastal and marine flora, fauna, including that of phytoplankton and zooplankton. Impacts of the proposed activities on the marine flora, fauna; especially on endangered and rare species shall be elaborated.
45. Include coastal geo-morphology in the EIA study report.
46. 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.
47. 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 emission 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. (vi) Air pollution due to the sand /grit blasting operation.
48. Details of mangrove along with its species in the project area.
49. Measures proposed to be taken for the work area ambient air quality monitoring as per Gujarat Factories Rules.
50. Detailed greenbelt development program including annual budget, types & number of trees to be planted, area under green belt development [with map]; along with commitment of the management to carry out the tree plantation activities outside the premises at appropriate places in the nearby area and elsewhere.
51. Copy of membership certificate of Common Environmental Infrastructure like TSDF, if any taken, should be incorporated. Copies of MOU / agreements done with actual consumers regarding any wastes shall also be incorporated.
52. A detailed EMP including the protection and mitigation measures for the impacts on human health and environment as well as detailed environmental monitoring plan with respect to various parameters, environmental management cell proposed for implementation & monitoring of EMP as well as person responsible for the same. The EMP should also include the concept of waste-minimisation, energy conservation, and natural resource conservation. Plan to ensure that the existing environmental condition is not deteriorated due to discharges from the cargoes, vessels / boats, disposal of sewage, etc.
53. Lay out showing open unobstructed peripheral margin, green belt, separate gates for entry and exit, parking area for tankers / trucks / visitors etc.
54. Detail risk assessment report including prediction of the worst-case scenario and maximum credible accident scenario, catastrophic failure along with damage distances and preparedness plan to combat such situation and risk mitigation measures. This shall also include hazardous area classification & vulnerable zone demarcation. Detailed fire control plan for flammable substances and processes. Environment Management Plan and On-Site / Off-Site emergency plan for proposed plant.
55. Details of management of the solid waste and hazardous wastes to be generated from the project stating detail of storage area for each type of waste, its handling and its disposal. How the manual handling of the hazardous wastes shall be minimized.
56. Methodology of de-contamination and disposal of discarded containers and its record keeping.
57. Detailed odor management plan.
58. To explore the use of renewable energy to the maximum extent possible.

59. Submit checklist in the form of Do's & Don'ts of preventive maintenance, strengthening of HSE, utility staff for safety related measures.
60. Details of existing traffic density on main road as well as secondary road in the vicinity, prediction of impact of additional traffic from the project on those roads along with carrying capacity of the said roads.
61. Details of flood data considered to avoid flooding at the proposed site & preventive measures envisaged for the same.
62. Details of monitoring / supervision cell to monitor environmental aspects during construction and operational phases. Appointment of Construction Safety Officer during the construction phase as well as a detailed environment management plan.
63. Details of dust suppression measures proposed during the construction period. Noise mitigation measures during construction activity from the proposed activity.
64. Details of the seismic design aspects to be adhered to in the project.
65. Details on use of eco-friendly building materials including fly ash bricks, fly ash paving blocks, RMC etc.
66. Details of disaster management plan / emergency management systems during operational phase of the project should also include scenario of natural catastrophe like earth quake, floods and tsunami in addition to other disasters. The plan should include the details of (i) Emergency evacuation (ii) Emergency lighting system (iii) Details of power back up system in the case of emergency (iv) Fire fighting arrangements (v) First aid arrangement (vi) Training and Mock drill (vii) Emergency announcement or public address system (viii)Signage's including fluorescent pathways/ exit marker signs (ix)Location of emergency pathways and glow light signs. (x) Emergency response procedures.
67. Details of fire fighting system at the Port as well as associated area including provision for flame detectors, temperature actuated heat detectors, location of fire water tanks & capacity, separate power system for fire fighting, automatic sprinkler system, fire detection system with alarms & automatic fire extinguishers, location of fire lift and fire retardant staircases, details of qualified and trained fire personnel & their job specifications, nearest fire station & time required to reach the proposed site, etc. Submit line diagram of the fire hydrant line passing through the plant premises. Fire control plan for flammable substances and processes based on the flammable area classification.
68. Details of first aid, fire fighting system and other emergency services to be provided during operation phase including the training to be provided to the staff of the project as first aid facility providers, fire fighters etc. Tie up with emergency services like local fire station, provision of emergency van etc. to be made during the operational phase.
69. Details of the D.G. sets with location, fuel consumption & storage and details of the acoustic measures to abate noise pollution.
70. Details of the debris management plan along with the use/disposal of excavated soil during construction phase and top soil conservation plan.
71. The details of the basic amenities and welfare facilities to be provided to the construction workers to ensure that they do not ruin the existing environment.
72. Undertaking from the management regarding maximum employment to the local people.
73. Details of Project benefits accruing to the locality, neighbourhood, region and nation as a whole.
74. Submit a detailed plan for social corporate responsibilities, with appropriate budgetary provisions.
75. Details of registration and provisions to be made by the project proponent to follow Building and other Construction Workers Acts and Rules and undertaking for the same.
76. An action plan showing list of socio-economic upliftment activities based on socio-economic profile

of the surrounding villages and need base field assessment along with the fund allocation for the five years, shall be incorporated in the EMP.

77. 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.
78. (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.
79. Copy of EC, CC&A and point wise compliance thereof.
80. 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.
81. 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.
82. Certificate of accreditation issued by the NABET, QCI to the environmental consultant should be incorporated in the EIA Report.
83. 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).
84. A tabular chart with index for point-wise compliance of above TORs.

The above mentioned project specific TORs/additional TORs and the model TORs available in the MoEF's sector specific EIA Manual for **"Ports, Harbors"** 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 03/05/2019.
- 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	Meghaaarika Enterprises Pvt. Ltd.	Plot no: D3/11, GIDC Dahej-III, Ta.: Vagra, Dist.: Bharuch	Screening & Scoping

Project / Activity No.: 5(f)

- M/s: Meghaaarika Enterprises Pvt. Ltd (herein after Project Proponent – PP) has submitted application vide their proposal no. SIA/GJ/IND2/10865/2016 dated 26/03/2016.

Project status: New

Project / Activity Details:

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

Products	Annual capacity (MT/Year)	Total (MT/Month)
All kind of plasticizers (phthalate & phthalate free Plasticizers, trimellatetes, adipates, polymeric, sebacates, maleates, biodegradable, bioplasticizers, epoxy & other plasicizers) & polymer additives like impact modifier & processing aids	3,30,000	27,500
TOTAL	3,30,000	27,500

Group Wise Bifurcation is as tabulated below:

Sr No	Product	Qty(MT)/Year	MT/Month
	All Kind of plasticizers	3,30,000	27,500
1	Ester Plasticizers	1,98,000	16,500
1	Phthalate Plastizers		
2	Maleate Plasticizers		
3	Adipate Plasticizers		
4	Stearate Plastiiczers		
5	Terphthalate Plasticizers		
6	Citrate Plasticizers		
7	Acetyl Plasticizers		
8	Acetate Plasticizers		
9	Sebacate Plasticizers		
10	Trimeletate Plasticizers		
11	Benzoate Plasticizers		
12	Cyclo Hexane Plasticizers		
2	Transesters Plasticizers	99,000	8,250
1	Fatty Acid alkyl esters		
2	Epoxydised Fatty acid alkyl esters		
3	Ether esters Plasticizers	8,250	687.5
1	Glycol Ether Esters		
4	Epoxy Plasticizers	16,500	1,375
1	Epoxidised vegetable oils		
2	Epoxidised chlorinated plasticizers		
3	Epoxidised Ester		
5	Alkyl Pyrrolidone	8,250	687.5
Total		3,30,000	27,500
	By Products		
1	Alcohol /polyols(Technical Grade)	11,400	950
2	Organic acids/Fatty Acids	3,000	250

3	Plasticizing Carbon	960	80
4	Inorganic Salt	3,600	300

The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006. Total plot area is 50399 sq. m. & unit has proposed 16631 sq m area for the green belt development/Tree plantation. Expected project cost is Rs. 65.39 Crores. Water details are as under.

Sr. no.	Category	Water Consump. (KL/Day)	Waste Water generation (KL/Day)	Mode of Disposal
A	Domestic	15 (fresh)	10	Septic tank & Soak pit
B	Industrial			
	Boiler	75 (RO permeate)	2	Reuse in cooling tower
	RO	150 (fresh)	41	Reuse in cooling tower
	Cooling Tower	55 (fresh water) + 188 (Reuse) = 243 or 55 (fresh water) + 225 (Reuse) = 280	5	In case of Incineration: Boiler Blow Down @ 2 KLD + Process Condensate @ 145 KLD + Fresh Water @ 55 + RO Reject @ 41 = 243 KLD will be utilized in cooling tower *OR* In case of Evaporation System (MEE): Boiler Blow Down @ 2 KLD + Process Condensate @ 145 KLD + Fresh Water@ 55 + RO Reject @ 41 + MEE Condensate @ 37 KLD = 280 KLD will be utilized in cooling tower
	Processing	34 (fresh)	179	34 + 5 = 39 KLD subjected to incinetor/or MEE within factory premises
				Process condensate @ 145 KLD recycled in cooling tower
C	Gardening	20 (fresh)	0	
Industrial		202 or 239	227	Reuse or Incineration/evaporation within premises
Total (A + B + C)		237 or 274	237	

Air Details

No. of Boilers/TFH/Furnaces/DG sets etc. with capacities	4 Nos of Steam Boiler, 8 nos of TFH & DG set: 3000 KVA
Fuel consumption (MT/hr & MT/Day)	Coal@ 146 MT/Day (Boiler & TFH) HSD @ 500 Liter /Hr. (DG Set) FO/LDO/HSD/CNG @15 kg/hr.
APCM for flue gas control	Cyclone separator & Bag Filter (Boiler/TFH) Water and alkali scrubber & Venturi scrubber

No process gas emission is envisaged.

Hazardous waste generated from the manufacturing activity will be as under.

Sr. No.	Name of Waste	Waste Category	Total qty.	Mode of disposal
1	Used/Spent oil	5.1	1500 Lit./Year	Collection, Storage, Transportation and sale to reprocessors
2	Discarded Drums Bags & Liners	33.	200 Nos./Month 50,000 No./Month	Collection, Storage, Transportation and sale to registered recyclers
3	Ash from Incineration of hazardous waste OR Evaporation Salt	36.1	50 MT/Month Or *60 MT/Month	Collection, Storage, Transportation and Disposal at nearest TSDF site
Note: * Evaporation salt will be generated in case of unit installs Evaporation System within the Factory.				

Observations / Discussion:

Technical presentation made during the meeting by project proponent. While discussing about the proposed by-products, PP could not reply satisfactorily about the characteristics of by-products/waste items and its management plan. Committee asked them to check applicability of Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016. Committee observed that PP has proposed two options for treatment of waste water i.e. Zero Liquid discharge by Incinerator and by Multiple Effect Evaporator (MEE). On asking about specific treatment option and its justification, PP could not reply satisfactorily. Details presented regarding hazardous waste generation and storage of hazardous chemicals found incomplete. Looking to the product profile, while concerning about the problems of treatability of concentrated effluent & its disposal issues as well as management of Hazardous waste & By-Products being faced in present scenario, 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 (ZLD) with specific option and sound management of Hazardous waste/By-products.

13	Heal Chem Enterprise	Plot No:8/B, Virat Industrial Estate, Chhatral-Kadi Road, Shanot, Kalol, Gandhinagar.	Appraisal

Project / Activity No.: 5(f)

Project status: New

Chronology of EC Process:

- M/s: Heal Chem Enterprise (herein after Project Proponent – PP) has submitted application vide their letter dated 18/09/2015.(Online Proposal no.SIA/GJ/IND2/2265/2015).
- 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.
- This project was considered in the meeting of the SEAC held on 27/11/2016.
- During presentation, PP informed that water requirement is 2 KL/day. Fuel requirement is 0.4 MT/day (<25 MT/day) and Chemicals to be used are not covered in MAH category. Hence, the proposed products of Resins fall under Category B of project activity 5(f) as per the EIA Notification 2006.
- 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 elaboration, the project was categorized as B2 category project and the additional information was sought for appraisal of the project.
- The project proponent submitted the additional information vide their Online Proposal no.SIA/GJ/IND2/52522/2016 dated 07/04/2016.

Project / Activity Details:

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

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

Total plot area is 735.78 sq. m & unit has proposed 220 sq mtr area for the green belt development/Tree plantation. Expected project cost is Rs. 0.15 Crores. Total water consumption for proposed project will be 2 KL/day (1 KL for Domestic, 1 KL for Gardening) which will be sourced from Bore well. Industrial waste water generation will be NIL. Domestic waste water (0.8 KL/day) will be disposed off into soak pit system. It is proposed to install one Hot air generator (1 Lac Kcal/hr). Agro waste/Bio coal (0.4 MT/day) will be used as a fuel. Cyclone separator is proposed as APCM. No

process gas emission is envisaged. Hazardous waste generated from the manufacturing activity will be Discarded containers/Bags/Liners (0.4 MT/Month). Discarded barrels / containers / bags / liners will be either reused or returned back to suppliers or sold only to the authorized vendors.

Observations & Discussions:

Technical presentation made during the meeting by project proponent. Committee observed that there is no use of water in the manufacturing process and there is no generation of waste water and gaseous emission from the process. PP has proposed to provide covered structure for storage of raw materials and close handling system for transfer of chemicals. After deliberations on various aspects, the committee decided to recommend the project to SEIAA, Gujarat for the grant of Environmental Clearance.

14	Shabnam Petrofils Pvt. Ltd.	Block No. 258, Oplad – Sayan Road, Vill. Karamala, Ta. Olpad, Dist. Surat	Screening & Scoping

Project / Activity No.: 5(d)

- M/s: Shabnam Petrofils Pvt Ltd (herein after Project Proponent – PP) has submitted application vide their proposal no. SIA/GJ/IND2/10916/2016 dated 05/04/2016.

Project status: Expansion

Project / Activity Details:

This is an existing unit engaged in manufacturing of Partially Oriented Yarn(POY) and now proposes for expansion as tabulated below:

Sr. No.	Name of Product	Existing Capacity (T/Month)	Proposed Expansion Capacity (T/Month)	Total Capacity (T/Month)
1.	Partially Oriented Yarn(POY)	3000	1500	4500
	Basic raw materials	Poly ester Chips & Spin Finish Oil (0.6 %)	PTA & MEG	PTA & MEG

The project falls under Category B of project activity 5(d) as per the schedule of EIA Notification 2006. Unit has obtained CC&A of the Board for existing activity, valid up to 11/01/2020. Total plot area is 32,679.90 sq. m & unit has proposed 3272.80 sq. m area in addition to existing 9839.1 sq. m area for the green belt development/tree plantation. The capital cost of the proposed project is Rs 50 Crores. Nearest village Karamda is located at @ 1 km in south direction. Total water consumption after proposed expansion will be 87 KL/day. Unit has proposed to recycle 32 KL/day of condensate waste water into process. Hence, fresh water requirement will be 55 KL/day, which will be sourced from Bore well. Industrial waste water generation will be 35 KL/day, which will be treated in provided Primary, Secondary & Tertiary treatment plant followed by MEE – cap. 40 KL/day (Multiple Effect Evaporator). Generated condensate water (32 KL/day) will be reused. Domestic waste water (6.5 KL/day) will be disposed off into septic tank/soak pit system. Unit uses Natural gas for existing 1.56 MW CPP. Unit has proposed one steam boiler of 3 TPH in which Imported coal (10 MT/day) will be used as fuel. This Boiler will be used for MEE only. Multi cyclone separator followed by Bag filter will be provided as APCM for Boiler. Multi Cyclone separator will be provided with Oil fired HTM heater. Waste generated

from the Polymerization process (9.270 MT/Month) will be sold out to authorised re-cyclers. Hazardous waste to be generated are tabulated as below:

	Type of waste	Quantity
1	Used Oil	25 MT/Month
2.	ETP sludge	1.075 MT/Month
3.	Waste yarn	5 MT/Month
4.	P.P Bags	80 Nos./Month
5.	Distillation Residue	3.150 MT/Month

Disposal of the hazardous waste will be carried out as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.

Observations & Discussions:

Technical presentation made during the meeting by project proponent. While discussing about the compliance of existing activity, PP informed that they are complying all the conditions stipulated in EC as well as CC&A. Committee was concerned about complete zero discharge of industrial waste water and asked to not use any waste water for irrigation/plantation purpose. After detailed deliberation the following TOR were prescribed for the EIA study to be done covering 10 km radial area surrounding the project boundary.

1. Need for the proposed expansion should be justified in detail.
2. Demarcation of proposed expansion activities in lay out of the existing premises.
3. Exact details about additional infrastructural facilities, plant machineries etc. required for the proposed expansion.
4. Detailed manufacturing process along with chemical reactions and mass balance (including reuse-recycle, if any).
5. Assessment of source of the water supply with adequacy of the same to meet with the requirements for the project expansion. Permission obtained from concerned authority for ground water withdrawal.
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 treat ability study vis-à-vis the adequacy and efficacy of the treatment facilities proposed for the wastewater to be generated.
8. Complete waste water management plan for existing as well as proposed production. Detailed effluent treatment scheme and disposal method. Technical details of the ETP including size of each unit, retention time etc. including modifications / up gradation to be done in existing ETP to take care of increased effluent quantity along with its adequacy report. Provision of online flow meter at the final outlet of the ETP.
9. Detailed scheme for complete evaporation of wastewater in Multiple Effect Evaporator (MEE) for ensuring zero discharge status all the time.
10. Technical details of Stripper and MEE.
11. Details of TDS/COD/Energy balance for stripper & multiple effect evaporator.
12. Details of provisions to be made for storage of effluent during non operation of Multiple Effect Evaporator.
13. Details of possibility of chemical seepage & consequent soil contamination & mitigation measure proposed for the same for the proposed project.

14. Action plan for 'Zero' discharge of effluent shall be included.
15. Plan for management and disposal of waste streams to be generated from spillage, leakages, occasional reactor washing and exhausted media from Scrubber etc. Measures proposed for preventing effluent discharge during unforeseen circumstances.
16. Explore the possibility of reuse / recycle and other cleaner production options for reduction of wastes. Details of methods to be adopted for the water conservation.
17. 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 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.
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. Modeling indicating the likely impact on ambient air quality due to proposed activities. The details of model used and input parameters used for modeling should be provided. The air quality contours may be shown on location map clearly indicating the location of sensitive receptors, if any, and the habitation. The wind rose showing pre-dominant wind direction should also be indicated on the map. Impact due to vehicular movement shall also be included into the prediction using suitable model. Results of Air dispersion modeling should be superimposed on google map / geographical area map.
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 of the online monitoring system for monitoring of PM with an arrangement to reflect monitored data on company's server, which can be accessed by the GPCB on real time basis.
24. Details of management of the hazardous wastes to be generated from the project stating detail of storage area for each type of waste, its handling, its utilization and disposal etc. How the manual handling of the hazardous wastes will be minimized.
25. Methodology of de-contamination and disposal of discarded containers and its record keeping.
26. 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.
27. Complete Management plan for By-products/Spent acids/Solid wastes to be generated from the

project including their quantity, quality, characteristics, end use etc. along with the name and address of end consumers to whom the by-product will be sold. Copies of agreement / MoU / letter of intent from them, showing their willingness to purchase said by-product from the proposed project. Also give characteristics of the by products and feasibility of their actual use in respective products as a raw material. Give copies of valid CC&A of actual user industry.

28. Data on air emissions, wastewater generation and solid / hazardous waste generation and management for the existing plant should also be incorporated.
29. Details of measures proposed for the noise pollution abatement and its monitoring.
30. Detailed plan for prevention and control of fugitive emission / dusting at each and every stage of coal handling including unloading / loading / stacking / conveyance / transfer at plant along with detailed specifications & schematic diagram of water sprinkler system arrangement.
31. 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.
32. 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.
33. 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.
34. 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.
35. 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.
36. 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.
37. Submit checklist in the form of Do's & Don'ts of preventive maintenance, strengthening of HSE, manufacturing utility staff for safety related measures.
38. 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.
39. Copies of analysis report of the water samples of final outlet of ETP collected by GPCB.
40. Consent to Establish, Consent to Operate orders obtained in past along with point wise compliance status of all the conditions stipulated therein.

41. Copy of Environmental Clearance obtained for the existing project and a certified report of the status of compliance of the conditions stipulated in the environmental clearance for the existing operation of the project by the Regional Office of the MoEF.
42. 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.
43. Details of fatal / non-fatal accidents, loss of life or man hours, if any, occurred in the existing unit in last three years and measures proposed to be taken for avoiding reoccurrence of such accidents in future.
44. 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 to be raised during public hearing and the necessary allocation of funds for the same should be provided.
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. Certificate of accreditation issued by the NABET, QCI to the environmental consultant should be incorporated in the EIA Report.

The above mentioned project specific TORs/additional TORs and the model TORs available in the MoEF's sector specific EIA Manual for "Man-made fibre 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 03/05/2019.
- 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.

15	Narayan Industries	Plot No.1303/1 &2,1305/6 A+B, PH-IV, GIDC-Naroda, Ahmedabad	Screening & Scoping

Project / Activity No.: 5(f)

- M/s: Narayan Industries (herein after Project Proponent – PP) has submitted application vide their proposal no. SIA/GJ/IND2/10951/2015 dated 06/04/2016.

Project status: Expansion

Project / Activity Details:

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

Sr. No.	Name of Products	Existing Quantity as per CCA-AWH-61699 (MT/Month)	Proposed Quantity (MT/Month)	Total Quantity after Expansion (MT/Month)
1.	Pigment CPC Blue	35	265	300
2.	Pigment Alpha Blue	10	80	90
3.	Cuprous Chloride	25	-25	0
4.	Ammonium Sulphate	0	100	100
	Total	70	445	490

The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006. Total plot area is 3193.92 sq. m & unit has proposed 150 sq mtr area for the green belt development/Tree plantation. Expected project cost is Rs. 2.5 Crores.

Water consumption and wastewater generation details is as tabulated below:

Details of water consumption

Sr. No.	Category	Existing Water Consumption As per CCA no. (KL/Day)	Proposed Water Consumption (KL/Day)	Total Proposed Water Consumption (KL/Day)
1	Domestic	3	5	8
2.	Industrial			
2.1	Process+ Washing	21.5	139.5(102.6 KLD recycle water+ 36.9 fresh water)	161
2.2	Scrubber	7	1	8
2.3	Floor Washing	2	0	2
2.4	Cooling Tower	1	5	6
2.5	Boiler	1	12	13
3.	Others (Gardening)	1	1	2
Total (Industrial)		33.5	158.5	192
Total (Domestic + Industrial)		36.5	163.5(102.6 KLD recycle water+	200

		60.9 KLD fresh water)	

Details of waste water generation

Sr. No.	Category	Existing Waste Water Generation (KL/Day)	Proposed Waste Water Generation (KL/Day)	Total Proposed Waste Water Generation (KL/Day)
1	Domestic	3	5	8
2.	Industrial			
2.1	Process	20.6	118.9	139.5
2.2	Floor Washing	2	0	2
2.3	Cooling	0	2	2
2.4	Boiler	0.4	3.6	4
Total (Industrial)		23	124.5	147.5
Total (Domestic + Industrial)		26	129.5	155.5

At present industrial waste water generation is 23 KLD. Existing effluent is treated in ETP having primary and secondary treatment and treated effluent is sent to CETP. Sewage is sent to soak pit/septic tank. CETP membership is for 80 KLD. Unit has proposed to send 80 KL/day of industrial effluent after improvement of CETP performance. Unit has proposed MEE for treatment of additional industrial waste water.

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

Existing Flue Gas Emission

Sr. No.	Stack attached to	Stack Height (m)	Type of fuel	Fuel consumption	Type of emission	APCM
1.	Steam Boiler (2 MT)	15 m	Imp. Coal	3 MT/Day	SPM SO_2 NOx	Bag Filter followed by adequate stack height.
2.	Thermic Fluid Heater (20 Lac Kcal)	30 m	Imp. Coal	4 MT/Day	SPM SO_2 NOx	Bag Filter followed by adequate stack height.

Proposed Flue Gas Emission

Sr. No.	Stack attached to	Stack Height (m)	Type of fuel	Fuel consumption	Type of emission	APCM

1.	Steam Boiler for MEE (2 MT) (1 No.)	18 m	Imported Coal	3 MT/Day	SPM SO_2 NOx	APH + Cyclone separator + Water Scrubber Followed by adequate stack height.
2.	D.G.Set (250 KVA) (2 Nos.)	11 m	Diesel	50 Liter/Hr	SPM SO_2 NOx	Adequate stack height

Details of process gas emission

Sr. No.	Stack Attached To	Stack Height (m)	Air Pollution Control System	Parameter	Remark
1.	Reactor Vessel	30 m	Water Scrubber	PM NOx	
2.	Cupric and Chloride reaction vessel*	30 m	Alkali Scrubber	HCl SO_2	Dismantled*
3.	Spin Flash Dryer	30 m	Bag Filter	PM	

*****The product is discontinues the unit had dismantled third process stack connected to Cupric and Chloride reaction vessel.

Proposed Process Gas Emission					
Sr. No.	Stack Attached To	Stack Height (m)	Air Pollution Control System	Parameter	Permissible Limit
1.	Reactor Vessel CPC	30 m	Two stage Water Scrubber + Acid Scrubber	NH_3	175 mg/Nm^3
2.	Spin Flash Dryer	30 m	Bag Filter	PM	150 mg/Nm^3

Hazardous waste generated from the existing as well as proposed project will be as tabulated below:

Sr. No.	Type of Waste	Existing Quality As per CCA No. AWH-61699	Proposed Quality	Method of Disposal
1.	ETP sludge/ Gypsum sludge	24 MT/Month	225 MT/Month	To Cement factory authorized by the GPCB.
2.	MEE residue	0	270 MT/Month	To TSDF site.
3.	Used oil	0.2 KG/Year	20	To registered

			KG/Month	refiners.
4.	Discarded containers/ Empty barrels	100 Nos./Month	350 Nos/Month	To authorize recycler.
5.	Empty bags / Liner	500 KG/Month	5000 KG/Month	To authorize recycler.

Discussions/Observations:

Technical presentation made during the meeting by project proponent. During the meeting, Committee discussed about the technology of the process, treatability of waste water, process emission & its control etc. At present waste water is being sent to CETP Naroda. PP has proposed to send 23 KL/day of effluent to CETP Naroda and remaining waste water to in-house MEE. Committee noted that the CETP of NEPL, Naroda is grossly non-compliant at present. Committee felt that dual mode of disposal for proposed project will create monitoring problem with respect to quantity and quality of the effluent. Looking to the product profile, while concerning about the problems of treatability of concentrated effluent & its disposal issues being faced in present scenario, Committee was of view that unit should not go for further discharge to CETP. Considering the above facts, it was unanimously decided to consider the project for TOR/Scoping only after satisfactory submission of the following:

(1) Revised proposal with sound environmental management system including Complete Zero discharge for existing as well as proposed products.

16	Maurya Enviro Project Pvt. Ltd.(Proposed TSDF site)	Block/S.No.75-A Paiki 2 paiki Khata No.125, S.No75-B Paiki, Khata no.124, Vill. Jamiyatpura, Ta. Balasinor, Dist. Mahisagar	Screening & Scoping

Project / Activity No.: 7 (d)

- M/s: Maurya Enviro Project Pvt Ltd. (herein after Project Proponent – PP) submitted Application vide online proposal no. SIA/GJ/MIS/6010/2015 dated 31/12/2015.
- The project was considered for TOR finalization in the meeting of the SEAC held on 12/01/2016.
- During the meeting, Committee noted that there are discrepancies in data submitted in Form-1 & PFR and data presented during meeting. It was observed that details presented regarding water consumption, waste water generation, leachate generation etc. are not as per the online data submitted in Form-1 & PFR. Further, Committee found that the data submitted in Form-1 & Pre feasibility report are unrealistic (Water consumption – 176 KL/day, Waste water generation – 60.9 KL/day including leachate generation – 40 KL/day etc.) PP submitted that alternative sites analysis was carried out for six sites including proposed site. Five sites namely (i) at Lal Mandva, Kapadvanj, (ii) at Bayad, (iii) Vadasinor, (iv) Vadasinor,(v) Modasa were rejected. However, the rejection of sites and site evaluation was not carried out as per the CPCB guidelines i.e. parameters such as characteristics of land, geology, hydro-geology, ground water conditions and ecological considerations etc. are not considered. Project proponent presented that the aerial distance of nearest habitat is 2 km from the proposed site. However, it was observed from the satellite image shown during presentation that there are habitats existing within 1 km area from the proposed site. Committee also found that distance of Balasinor town and Sudarshan lake from the proposed site is not correct. Upon asking about Fossil park, PP informed that the Fossil Park of

Balasinor is located at a distance 9 km from the proposed site. Considering the historical and archaeological significance of the fossil park, Committee desired to know about the possible environmental impacts of the proposed Common TSDF site on archaeological site of Balasinor. After detailed deliberations, It was unanimously decided to reconsider the project for screening / scoping in one of the upcoming meetings only after submission of the following: (1) Revised Form-1 & PFR with realistic data & correct details. (2) (i) Satellite image and map showing nearest residential area/habitats (aerial distance) from the outer periphery of the proposed site.(ii) Satellite image of project site with specific details such as aerial distance of the project site from the nearest (1) Aanganwadi/School/College/Institute (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 etc. (3) Comparative statement for selection of proposed site for common hazardous waste management facility as per Rejection or knockout criteria & site evaluation criteria prescribed in CPCB guidelines. (4) The opinion / NOC from the Archaeological Survey of India with respect to impacts of the proposed Common TSDF site on archeologically important site of Balasinor.

- PP has submitted additional details vide their letter no. NIL dated 05/04/2016.

Project status: New

Project / Activity Details:

M/s.: Maurya Enviro Project Pvt Ltd has proposed to establish a TSDF site at Block/S.No.75-A Paiki 2 paiki Khata No.125, Block/S.No72-B Paiki Khata No.124, Vill. Jamiyatpura, Ta. Balasinor, Dist. Mahisagar. PP has acquired 113817 sq. m land for the development of Common Hazardous Waste Treatent, Storage and Disposal Facility (TSDF). The total land area of the proposed site is 113817 Sq. meter. Total greenbelt proposed is 37600 sq. meter. Nearest residential area of village Bodoli is @ 600 meter from the proposed project site.

Total quantity of waste to be disposed is 970912 MT. Expected waste receipt at the site will be @ 200 MT/day. (@ 54000 MT/Year). Phase wise details for proposed TSDF site is as under:

No.	Description	Phase I	Phase II
1.	Top Area in Sq. meter	16,759	16,759
2.	Bottom Area in Sq. meter	15,714	15,714
3.	Average Area in Sq. meter	16,236	16,236
4.	Total Area of Phase Including TOP Area, Bottom Area, side slope area, Top service Road and outside slopes.	26,633	26,634
5.	Height of Bund above GL, m	15.0	15.0
6.	Depth of Excavation, m	8.0	8.0
7.	Total depth of land fill Phase , m	20.0	20.0
8.	Volume upto GL of the Phase, m3.	1,29,888	1,29,888

9.	Volume of waste in heap above GL, m3	2,43,540	2,43,540
10.	Total volume of phase in m3.	3,73,428	3,73,428
11.	Density of compacted waste, Mt /CMT	1.30	1.30
12.	Weight of waste in Phase, MT	4,85,456	4,85,456
13.	Total Qty of waste in all the Phase, MT	9,70,912	
14.	Expected waste Receipt at the site, MT /day	200	
15.	No. of working days	270	
16.	Expected waste Receipt at the site, MT /Yr	54,000	
17.	Life of Phase in year	8.98	8.98
18.	Total Expected Life of the site	17.97	

Expected project cost is Rs. 55 Cr. Water requirement for construction phase will be 25 KL/day for concreting and curing purposes, which will be sourced from Bore well. Water requirement for operation phase will be 130 KLPD (Laboratory: 1 KL, Wet scrubber: 10 KL, Vehicle Wash: 10 KL, Green Belt: 100 KL, Dust suppression 4 KL & Domestic 5 KL). Source of the water will be Bore well. Total waste water generation will be 26 KL/day (Laboratory: 1 KL, Wet scrubber: 10 KL, Vehicle Wash: 10 KL, Leachate: 1 KL & Domestic 4 KL). Unit has proposed primary ETP followed by Spray dryer (Capacity 5 KL/hr) to achieve zero liquid discharge. Industrial effluent will be spray dried after primary treatment. Unit has proposed one Hot Air Generator (Capacity: 30 Lac KCal/hr) for spray dryer unit. Coal (9 MT/day) will be used as a fuel for HAG. Cyclone separator followed by Wet scrubber is proposed as APCM for Spray dryer. Wet scrubber is proposed as APCM for HAG. There will be no discharge of waste water within or outside premises. Hazardous waste suitable for landfill received will be weighed, sampled and then sent inside TSDF cell for unloading. Compaction and levelling will be carried out regularly. Leachate collection system will be provided. One D. G. Set (175 KVA) is proposed to be installed. Hazardous wastes to be generated from their own activities are ETP sludge (180 MT/Year) and Used oil (25 Lit/yr). Fly ash generation will be 270 MT/Year.

Discussions/Observations:

Technical presentation made during the meeting by project proponent. Unit has submitted Revised Form-1 & PFR with corrected data. PP has submitted copy of letter received from the Archaeological Survey of India, GoI, Vadodara. As per the opinion of Archaeological Survey of India, there are no centrally protected monuments in close proximity of site, hence, they have no objection to the proposed project of TSDF site. PP has submitted alternate site studies as per the rejection or knockout criteria & site evaluation criteria as per CPCB guidelines and as a result they have selected proposed site of Jamiyatpura. During meeting, the project proponent presented that they have started baseline environmental monitoring from March 2016 and requested to allow them to use the same for the

preparation of the EIA report which was agreed to by the committee. Committee suggested to provide GPS system on hazardous waste carrying dedicated vehicles and to provide CCTV cameras at suitable locations within the project premises. The project proponent was further asked to follow all the relavent guidelines of MoEF and CPCB for setting up and operation of the hazardous waste landfill sites. After deliberation on various issues, following additional TORs were prescribed for the EIA study to be carried out for proposed TSDF project :

1. The study area shall be up to a distance of 10 Km for air quality, soil, surface and ground water quality from the boundary of the proposed project site.
2. Project site specific details such as distance of the project site from the nearest (1) Village or human habitation (2) Water Body : Creek / Nallah / Lake / Pond / Reservoir / Canal (3) National Highway (4) State Highway (5) Railway line (6) Heritage site (7) National Park / Wild Life Sanctuary / Reserve Forest shall be included in the EIA report to be prepared covering one season (other than monsoon) data.
3. Present land use pattern of the study area shall be given based on recent satellite imagery as well as field investigation clearly indicating, residential area, industries, vegetation (agricultural land, irrigated, un-irrigated, un-cultivable land-as per the revenue records, forest land- as per the records) grazing and waste land.
4. Comparison of alternate sites considered and the reasons for selecting the proposed site. Conformity of the site with the prescribed guidelines in terms of habitation, river, highways, railways, etc.
5. Justification for selecting particular capacity of the TSDF.
6. Point wise compliance of guidelines published by MoEF & CPCB for siting and designing of the proposed TSDF.
7. Land requirement for the facility including its break up for various purposes, its availability and optimization.
8. Details of proposed layout clearly demarcating peripheral open path for unobstructed movement of fire tender as well as various activities such as security, weighbridge, laboratory facility, temporary hazardous waste storage areas, stabilization units, landfill, vehicle tyre wash areas, leachate collection pits / wells and others such as admin building, canteen, worker's room, health centers, vehicle cleaning areas/ maintenance areas, greenbelt, internal roads, etc.
9. Water requirement for the project and permission from the concern authority.
10. Undertaking regarding compliance of conditions mentioned in NOC/Opinion by Archeological Survey of India.
11. Details on proposed recovery and recycling options, if any.
12. Details on hazardous waste inventorisation, segregation at source for compatibility with transportation system and subsequent treatment.
13. Details on compliance program to the manifestation corresponding to waste transportation from source to TSDF – adequate number of trucks, authorized dealers if any, features of the vehicles, trained manpower, health and safety measures, identification of transportation routes by avoiding vulnerable installations, frequency of truck movements, etc.
14. Details on proposed protocol for waste acceptance (verifying the waste quantity through weigh bridge, frequency of calibration of weighing machine, system for sampling, testing parameters, analysis methods, time lags, criteria for identifying the wastes which require stabilization prior to the landfill, no. of people, qualifications, manifestation systems, etc.)
15. Details of the laboratory facilities and statement on adequacy including proposals for accreditation, etc.

16. Design details of hazardous waste storage facilities (capacities, protocol for storing the segregated hazardous waste, compliance to the statutory requirements and proposed safety precautions).
17. Details on proposed protocol for establishing the requirement of stabilization for various types of hazardous waste.
18. Details of stabilization process (step by step procedure, proposed structures, equipments, operations, general list of chemicals/material use, handling, personal protective equipments, occupational health and safety measurers, emergency preparedness, etc.
19. Details of the secured landfill (design, construction, operational and post closure maintenance) including waste volume, landfill capacity, phase-wise landfill capacity development and utilization plan, groundwater table, slope stability, compaction levels, liners, waste layers, capping arrangement, gas collection, leachate collection, equipments, stability considerations, trouble shooting mechanism, peizometric wells, health and safety measures, etc.
20. Specification of liners (for bottom & sides) and coveres to be used for the proposed landfill site.
21. Details on landfill gas collection / venting system and its management.
22. Details of leachate collection system – leachate generation rates, leachate collection network within the landfill, external collection tanks (if any), treatment and disposal options (recirculation, evaporation, treatment, discharge, etc.), overflow control measures during flood/heavy rains, etc.
23. Details on landfill closure and its post closure monitoring plan including leachate, landfill gas, etc.
24. Possibilities of seepage & soil contamination and mitigation measure proposed to prevent the same.
25. Technical details of proposed Spray dryer including capacity, fuel to be used, adequacy etc. Techno-economical viability of the proposed spray dryer. Control measures proposed for the spray dryer unit in order to avoid/reduce gaseous emission/VOC from spray drying of leachate & washing waste water.
26. Action plan for complete “Zero Liquid Discharge” (ZLD) system for proposed project.
27. Details of the existing access road(s)/walkways to the development site and its layout.
28. Details of vehicular traffic management within and outside the project area during waste transportation.
29. Proposed financial model, creation of fund for future liabilities till 30 years of post closure including monitoring, etc.
30. Specific details of (i) Details of the utilities required, (v) Types & quantity of fuel to be used in each of the utilities, (vi) Flue gas emission rate from each utility along with stack height, (vii) Air Pollution Control Measures proposed along with its adequacy, (viii) List the sources of fugitive emission from the unit along with its quantification and proposed measures to control it.
31. Specific details of fugitive emission from the proposed TSDF project and proposed measures to control it along with measures proposed to monitor VOC within work area.
32. Details of management of the hazardous wastes to be generated from the project stating detail of storage area for each type of waste, its handling, its utilization and disposal etc. How the manual handling of the hazardous wastes will be minimized.
33. Survey and topography details of the project area with appropriate contour interval.
34. Details of site topography along with the contour plan of the project area. Details of change in topography of the area due to the project. Details of the management of the run off / rainwater flowing through the existing natural drain / nallah / streams within the project site if any. Impacts on the surface hydrology pattern due to the proposed project. Details of measures proposed to ensure that natural drainage of the site will not be disturbed obstructed / disturbed and measures proposed to protect existing natural drain / nallah / streams within the project site.
35. Detailed plan to manage surface runoff in monsoon season. Measures proposed to avoid

contamination of surface runoff from the TSDF in monsoon season. How it will be ensured that contaminated runoff won't flow outside the premises during rainy days.

36. Baseline data to be collected from the study area w.r.t. different components of environment viz. air, noise, water, land, biology and socio-economics.
37. Soil map up to 5 feet prepared by concerned Government Authority.
38. Details on geological and hydro-geological features of the project area such as type of soil, nature of soils, soil quality, soil properties including compressive strength, soil bearing capacity, consolidation, etc.
39. One season site-specific meteorological data for temperature, relative humidity, hourly wind speed and direction, rainfall, etc.
40. 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 (SO2, NOx, PM10, PM2.5, VOC, Methane, CO2 etc.). The 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.
41. Impact of the project on the AAQ of the area. Details of the model used and the input the 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.
42. Details on noise levels at sensitive/commercial receptors.
43. Impact of the TSDF installation on the environment including the local hydrology, soil condition, floral and faunal bio-diversity of the region and the mitigation measures proposed.
44. Details of flora and fauna duly authenticated should be provided. In case of any scheduled fauna, conservation plan should be provided.
45. Demography details of all the villages falling within the study area.
46. While identifying the likely impacts, also include the following for analysis of significance and required mitigation measures:
    - impacts due to hazardous waste carrying trucks movement
    - impacts due to leachate on surface water, soil and groundwater
    - impacts due to air pollution including landfill gas
    - impacts due to odour pollution
    - impacts due to noise
    - impacts due to fugitive emissions
    - impact on health of workers due to proposed activities
47. Proposed odour control measures
48. Detailed five year greenbelt development program including types & number of trees to be planted, width of plantation, 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.
49. Details of existing trees to be protected / preserved / transplanted / removed. Permission of concerned authority for cutting the trees within the premises. Time bound action plan for compensatory tree plantation including details like number and type of trees to planted, area of tree plantation, budgetary allocation for the same etc. should also be submitted.
50. Details of top soil management plan during construction phase. If the topsoil is proposed to be

preserved, the details relating to the quantity of topsoil stored, demarcated area on plan where it is stored along with preservation & reutilization plan is to be given.

51. Monitoring of pollutants at receiving environment for all the appropriate notified parameters – air quality, groundwater, surface water, leachate, gas quality, etc. during operational phase of the project
    - Leachate within the landfill and after treatment
    - Groundwater quality around the landfill
    - Surface water quality
    - Gas quality within landfill (VOCs, H2S, etc.)
    - Air quality above landfill
52. Details on monitoring of qualitative parameters – air quality, groundwater, surface water, leachate, gas quality, etc. – location, frequency, parameters, etc. for all the appropriate notified parameters for monitoring after landfill closure
    - Leachate quality after treatment and at receiving environment
    - Groundwater quality around the capped landfill
    - Surface water quality
    - Air quality above landfill and at gas vents
53. Details of in-house monitoring capabilities and the recognized agencies if proposed for conducting monitoring.
54. 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. Plan for pre-employment and periodical medical checkup of the workers.
55. Details on landfill closure and its post closure monitoring plan including leachate, landfill gas etc.
56. Details of the proposed overall safety and health protection measures during the project design, construction and operation phases.
57. Details on surface/storm water management.
58. Risk assessment including prediction of the worst-case scenario and maximum credible accident scenario. The worst-case scenario should take into account the maximum inventory of storage at site at any point in time. The risk contours should be plotted on the plant layout map clearly showing which of the activities would be affected in case of an accident taking place. Measures to guard against fire hazards including details of fire detection and control system and fire control plan showing hydrant pipeline network, provision of DG Sets, fire pumps, jockey pump, toxic gas detectors etc.
59. Details of the emergency preparedness plan and on-site & off-site emergency management plan and disaster management plan.
60. Details of disaster management plan during operation phase of the project should include also scenario of natural catastrophe like earth quake, cyclone and floods in addition to other disasters. The plan should include the details of (i) Emergency lighting plan (ii) details of power back up system in the case of emergency (iii) fire fighting arrangements (iv) first aid arrangement (v) Training and Mock drill (vi) Emergency announcement system (vii) Signages (viii) location of emergency stair cases and pathways etc.
61. Details of seismic zone of the project site and design aspects required to be adhered to as per National standards.
62. Proposal for socio-economic development activities including community welfare program most useful in the project area for the overall improvement of the environment. Submit a detailed plan for social corporate responsibilities, with appropriate budgetary provisions for the next five years and activities proposed to be carried out; specific to the current demographic status of the area.

63. Detailed EMP including the protection and mitigation measures for impact on human health and environment as well as detailed monitoring plan and environmental management cell proposed for implementation and monitoring of EMP. The EMP should also include the concept of waste-minimisation, recycle/reuse/recover techniques, energy conservation, and natural resource conservation. Total capital cost and recurring cost/annum earmarked for environment pollution control measures.
64. Plan for reuse / recycling of gypsum sludge and iron sludge along with the agreement letters of endusers.
65. 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.
66. (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.
67. 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.
68. 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.
69. Certificate of accreditation issued by the NABET, QCI to the environmental consultant should be incorporated in the EIA Report.
70. 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 "Common Hazardous waste TSDF" 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 03/05/2019.
- 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.

17	Gujarat Narmada Valley Fertilizers & Chemicals Limited	Plot no. D-II/8, Dahej-II Industrial Estate, Vill. Rahiyad, Ta. Vagra, Dist. Bharuch	Screening & Scoping

Project / Activity No.: 1(d)

- M/s: Gujarat Narmada Valley Fertilizers & Chemicals Limited (herein after Project Proponent – PP) has submitted application vide their proposal no. SIA/GJ/THE/10867/2016 dated 26/03/2016.

Project status: Expansion

Project / Activity Details:

This is an existing unit engaged in manufacturing of Synthetic organic chemicals and now proposes for installation of co-generation power plant as tabulated below:

Name of Products	Existing Quantity	Proposed Quantity	Total Quantity
Toluene Di Isocyanate (TDI)	5170 MT/Month	---	5170 MT/Month
Meta Toluene Di Amine (MTD)	4170 MT/Month	---	4170 MT/Month
Ortho Toluene Di Amine (OTD)	140 MT/Month	---	140 MT/Month
Hydrochloric Acid (30%)	15510 MT/Month	---	15510 MT/Month
Sodium Hypo Chlorite	660 MT/Month	---	660 MT/Month
TDI:MDI Blend	1550 MT/Month		1550 MT/Month
Steam	--	133920 MT/Month	133920 MT/Month
Electricity	--	13392 MW/Month	13392 MW/Month

The project falls under Category B of project activity 1(d) as per the schedule of EIA Notification 2006. To meet the captive requirement of electricity as well as steam, GNFC has proposed to set-up 18 MW Coal based Captive Cogeneration Power Plant (CCPP); which will generate 180 TPH process steam. Total plot area is 37150 sq. m & unit has developed 67400 sq mtr green and they have 2104420 sq. m area with natural green area. Expected project cost is Rs. 332.5 Crores.

Water balance is as tabulated below:

Sr. No.	Source	Water Consumption, m^3/Day			Wastewater Generation, m^3/Day		
		Existing	Addition	Proposed Total	Existing	Addition	Proposed Total
1	Domestic	400	12	412	300	9	309
2	Industrial						
3	Process & Washing	1500	696	2196	500	-	500

4	Cooling water	10000	1128	11128	2500	-	2500
5	Boiler/DM	4000	309	4309	1200	-	1200
6	Gardening & other (civil works & Fire)	1000	1000	2000	--	-	-
7	Raw water storage & treatment plant	5000	-	5000	2500		2500
8	Total	21900	3145	25045	7000	9	7009

Industrial waste water will be treated in existing ETP and treated waste water will be discharge into GIDC drain. Unit has proposed to install Coal fired steam Boiler (Capacity: 180 MT/hr) with ESP as APCM. Unit has proposed MDC followed by Bag filter as APCM. Imported coal (26.9 MT/hr) will be used as a fuel for Boiler. Steam and power generation unit is proposed to be interconnected with the existing steam network and power network appropriately. No process gas emission is envisaged from the proposed project. Hazardous waste generated from the proposed activity in addition to existing activity will be Used oil and Discarded containers.

Observations/Discussions:

Technical presentation made during the meeting by project proponent. During the meeting Purpose of the project, CRZ applicability, reuse of waste water, green belt within premises, CSR activities etc. have been discussed in detail. After detailed discussion regarding the project, the following additional Terms of Reference were prescribed for EIA study to be done covering 10 Km radius from the project boundary.

1. Need for the proposed expansion shall be justified in detail.
2. Undertaking regarding compliance of the emission standards mentioned in the Notification by MoEF&CC vide no. S.O. 3305 (E) dated 07/12/2015.
3. Present land use pattern of the study area shall be given based on satellite imagery.
4. Demarcation of proposed activities in lay out of the existing premises. Provision of continuous unobstructed peripheral open path within the project area for unobstructed easy movement of the emergency vehicle / fire tenders without reversing back. Mark the same in the plant layout.
5. Explore feasibilities to go for air cooled condensers instead of water cooled condensers in order to reduce the raw water requirement and thus stress on ground water.
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. Details of the ETP units including its capacity, size of each unit, retention time and other technical parameters.
8. Work out the complete treated wastewater reuse plan within the existing Complex instead of discharging waste water into the existing ETP. Submit action plan for complete reuse/ recycle of treated waste water and no increase in effluent load on existing ETP. Submit undertaking in this regard.
9. Application wise break-up of treated effluent quantity to be recycled / reused in various applications like sprinkling on roads, coal storage yard and green belt development etc. Details about availability of open land for utilizing increased quantum of effluent due to the proposed power plant for plantation / gardening.
10. Assessment of source of the water supply with adequacy of the same to meet with the

requirements for the project. Copy of letter of permission obtained from the concerned authority for supply of additional raw water for the proposed activities.

11. Detailed water balance (including reuse-recycle, if any) alongwith qualitative and quantitative analysis of each waste stream to be generated from all sources including Boilers, Cooling Towers, D.M. Plant etc. Details of methods to be adopted for the water conservation.
12. Details of the treatment facilities proposed for the effluent to be generated from the power plant. Details of the ETP units including its capacity, size of each unit, retention time and other technical parameters and details about up-gradation in the existing ETP/Central ETP (if any proposed) to take care of the wastewater to be generated from the proposed activities.
13. 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 alongwith adequacy and efficacy report. The characteristic on which treatability is based shall also be stated.
14. Site-specific meteorological data including temperature, relative humidity, hourly wind speed and direction and rainfall shall be provided.
15. 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.
16. One complete season AAQ 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. The location of the monitoring stations should be so decided as to take into consideration the pre-dominant downwind direction, population zone and sensitive receptors including reserved forests. 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.
17. Impact of the project on the AAQ of the area. Details of the model used and the input parameters used for modelling should be provided. The air quality contours may be plotted on a location map showing the location of project site, habitation, sensitive receptors, if any. The wind roses should also be shown on this map. Air quality modelling to be carried out considering the partial and complete failure of the ESP.
18. Quantity of the fuel requirement, its source and transportation, storage, handling and management along with the environmental management to be adopted for this. Fuel analysis to be provided (sulphur, ash content and heavy metals including Pb, Cr, As and Hg).
19. A confirmed fuel linkage along with the supportive documents of long term supply of coal for the project requirements should be provided.
20. Specific details of (i) Details of the utilities required (ii) Quantity and characteristics of each fuel along with analysis report and its source (iii) Flue gas emission rate from each utility (iv) Air Pollution Control Measures proposed to each of the utility along with its adequacy.
21. Technical details of ESP proposed to be installed as air pollution control system along with its adequacy, details of its operational controls with DCS, system for online monitoring of the pollutants from the stack etc. Details of provisions to be kept in ESP to ensure that in any case the air emission does not cross the GPCB norms including provision of standby field in the ESP, preventive maintenance, failure / tripping control system, guarantee from the ESP supplier, alternative arrangements in case of the failure / tripping of the ESP etc. ESP should be designed to achieve GPCB norms at the outlet.

22. List of all the sources of fugitive emission. Detailed plan for prevention and control of fugitive emission / dusting at each and every stage of fuel handling including unloading / loading at port, transportation from port to plant, unloading / loading / stacking / conveyance / transfer at plant etc. Detailed specifications and schematic diagram of water sprinkling system including number of sprinklers to be installed, pipe diameter and nozzle diameter of the sprinklers, quantity of water to be consumed by sprinklers etc.
23. Impact on local transport infrastructure due to the project such as transportation of fuel, ash 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. 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.
24. 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 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.
25. Provision of Continuous Ambient Air Quality Monitoring Station within premises, with an arrangement to reflect monitored data on the company's server, which can be accessed by the GPCB on real time basis.
26. Details of measures proposed for the noise pollution abatement and its monitoring.
27. Details of management of the hazardous wastes to be generated from the project stating detail of storage area for each type of waste, its handling, its utilization and disposal etc. How the manual handling of the hazardous wastes will be minimized.
28. Detailed plan of ash evacuation, handling, 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.
29. Details of seismic design aspects to be adhered to in the project.
30. Technical details of conveyor belts and mitigation measures to ensure that there will be no dust emission from conveyor belts.
31. Details of proposed disposal of solid wastes that may generate due to spillage of materials.
32. Specific safety measures proposed at storage yard / warehouse and conveyor belts.
33. 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.
34. Copy of membership certificate of Common Environmental Infrastructure like TSDF, if any taken, should be incorporated.
35. Details of 100% fly ash utilization plan as per latest fly ash Utilization. Notification of GOI along with firm agreements / MoU with contracting parties including other usages etc. shall be submitted. The plan shall also include disposal method / mechanism of bottom ash.
36. A detailed EMP including the protection and mitigation measures for impact on human health and environment as well as detailed monitoring plan and environmental management cell proposed for implementation and monitoring of EMP. The EMP should also include the concept of waste-minimisation, recycle/reuse/recover techniques, energy conservation, and natural resource conservation. Total capital cost and recurring cost/annum earmarked for environment

pollution control measures.

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 to the workers. Provision of industrial hygienist and monitoring of the occupational injury to workers as well as impact on the workers. Plan for periodic medical check up of the workers exposed. Details of work zone ambient air quality monitoring plan as per Gujarat Factories Rules.
38. Risk assessment including prediction of the worst-case scenario and maximum credible accident scenario related to fire and explosion issues due to storage and use of fuel should be carried out. The worst-case scenario should take into account the maximum inventory of storage at site at any point in time. The risk contours should be plotted on the plant layout map clearly showing which of the activities would be affected in case of an accident taking place. Based on the same, proposed safeguard measures including On-Site / Off-Site emergency plan should be provided. Measures to guard against fire hazards including details of automatic fire detection and control system & detailed fire control plan showing hydrant pipeline network, provision of DG Sets, fire pumps, jockey pump, toxic gas detectors etc. should also be provided.
39. Provisions for water supply, fuel (kerosene or cooking gas), lighting, sanitation etc. to the construction work force so as to avoid felling of trees/mangroves and pollution of water and the surroundings. Details of personal protective equipments to be provided to construction workers at the site.
40. Submit checklist in the form of Do's & Don'ts of preventive maintenance, strengthening of HSE, manufacturing utility staff for safety related measures.
41. 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.
42. Proposal for socio-economic development activities including community welfare program most useful in the project area for the overall improvement of the environment. Submit a detailed plan for social corporate responsibilities, with appropriate budgetary provisions for the next five years and activities proposed to be carried out; specific to the current demographic status of the area.
43. Plan for compliance of the EP Rules and CREP guidelines for the proposed power plant.
44. Compliance status of the existing unit with respect to various conditions given in the Environmental Clearance and CC&A orders obtained for the existing plants. 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 three years and actions taken then after for prevention of pollution.
45. Copy of Environmental Clearance obtained for the existing project and a certified report of the status of compliance of the conditions stipulated in the environmental clearance for the existing operation of the project by the Regional Office of the MoEF.
46. Details of fatal / non-fatal accidents, loss of life or man hours, if any, occurred in the existing unit in last three years and measures proposed to be taken for avoiding reoccurrence of such accidents in future.
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. Any litigation pending against the project and / or any direction / order passed by any Court of Law against the project, if so, details thereof.

49. 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. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions ? If so, it may be detailed in the EIA.
50. 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.
51. 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.
52. Certificate of accreditation issued by the NABET, QCI to the environmental consultant should be incorporated in the EIA Report.

These additional TORs shall be considered for the preparation of the draft 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 03/05/2019.
- 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.

18	Nebula Pharma Llp	S. no. 60, Vill. Ankhol, Ta. Kadi, Dist. Mehsana	Screening & Scoping

Project / Activity No.: 5(f)

- M/s: Nebula Pharma Llp (herein after Project Proponent – PP) has submitted application vide their proposal no. SIA/GJ/IND2/10624/2016 dated 26/03/2016.

Project status: New

Project / Activity Details:

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

Sr. no.	Product Name	Quantity MT/Month
1.	Propyl Paraben	25
2.	Methyl Paraben	50
3.	Sodium Propyl Paraben	50
4.	Sodium Methyl Paraben	100
	Total	225

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

The project proponent has applied for manufacturing of API drugs. 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 consumption is 19.2 KL/day. Fuel consumption is 2 MT/day and Chemicals to be used are not covered in MAH category. Hence, this project falls under Category B of project activity 5(f) as per the EIA Notification 2006.

A plot of 12486 sq.m area has been acquired for this new project. Unit has proposed 4120.38sq. meter of green belt development. Total cost of the project is Rs. 2 Crores. Total fresh water consumption for the proposed project will be 19.2 KL/day. Unit has proposed recycling of 7 KL/day of treated water. Hence fresh water requirement will be 12.2 KL/day, which will be sourced from Bore well. Source of waste water generation is mainly from process, water treatment & utilities. Total industrial waste water generation will be 8.4 KL/day, which will be evaporated after primary treatment. Domestic waste water (0.8 KL/day) discharged into soak pit through septic tank. Unit has proposed one Boiler (cap.: 1 TPH) and one HAG in which Agro waste briquettes (10 MT/Month & 40 MT/Month respectively) will be used as fuel. Multi Cyclone separator followed by Bag filter is proposed as APCM. Two spray dryers (200 Kg/hr each) and one spin flash dryer is proposed. Cyclone separator followed by water scrubber and bag filter will be facilitated as APCM with Spray dryer and Spin splash dryer respectively. One DG set (75 KVA) is proposed as stand-by facility. Hazardous waste generated from the manufacturing activity will be ETP sludge & Evaporation residue (3 MT/Month), Discarded containers/liners (0.2 MT/Month) and Used oil (200 Liter/Yr.)

Observations/Discussions:

Technical presentation made during the meeting by project proponent. While discussing about the treatability of the waste water to be generated from the proposed products, PP informed that the entire quantity of effluent will be evaporated after primary treatment. However, PP could not reply satisfactorily regarding characteristics of the effluent stream and VOC management during w/w treatment. Committee desired to know about the exact quality and quantity of the waste water and its treatability. Committee observed that at present there is no common facility available for waste water treatment in the vicinity of the proposed site. Committee also discussed about the proposed evaporation system and its efficacy. Considering the above facts, it was unanimously decided to consider the project for TOR/Scoping only after satisfactory submission of the following:

(1) Revised proposal with sound environmental management system including (i) Product wise quality & quantity of waste water to be generated.(ii) Technical details of ETP & Evaporation system.

19	S G Pharmaceuticals Pvt. Ltd.	Survey No. 591, 592, 953, 594, 595/A, 596, 597, 598, 606, 607, 608, 609/A, 610/A, 611/A, 612/A, 613, Opp. Ranoli Railway Station , Village: Ranoli, Ta. Vadodara	Screening & Scoping

Project / Activity No.: 5(f**)**

- M/s: S G Pharmaceuticals Pvt. Ltd. (herein after Project Proponent – PP) has submitted application vide their proposal no. SIA/GJ/IND2/10799/2016 dated 23/03/2016.

Project status: New

Project / Activity Details:

This is a new unit proposes the manufacturing of Synthetic organic chemicals (Bulk Drugs & Pharma Chemicals) as tabulated below:

SR. NO.	Name of the product	Capacity (MT / Annum)
1	CROTAMITON	14.4
2	ACENOCOUMAROL (NICOUMALONE)	1.2
3	FLUPHENAZINE DECANAOTE	0.24
4	BUPIVACAINE HCL	1.2
5	L-BUPIVACAINE HCL	1.2
6	ROPIVACAINE HCL	1.2
7	HYDROXY UREA	12
8	FLUCANAZOLE	4.8
9	CERIUM CHLORIDE HEPTAHYDRATE	10.8
10	CERIUM CHLORIDE ANYDROUS	12.00
11	CHROMIUM PICOLINATE	0.3
12	ASCORBYL PALMITATE	0.3

The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006. Total plot area is 48800 sq. m & unit has proposed 20000 sq m area for the green belt development/ Tree plantation. Expected project cost is Rs. 20 Crores. The proponent has mentioned that there is no court case to the project or related activity. Total water consumption for proposed project will be 128 KL/day (10 KL for Domestic, 118 KL for Industrial) which will be sourced from their own Bore well. Industrial waste water generation will be 43 KL/day. Unit has proposed Effluent treatment plant with RO system and Multiple Effect Evaporator (MEE).

Raw effluent from process & washing (@11 KLD) will be collected separately & subjected to neutralization & filtration. Effluent from utility (i.e. boiler blow down, cooling bleed off) not having significant organic load (@32 KLD) will be subjected to RO and permeate will be reuse. RO Reject(@11-12 KLD) along with primary treated wastewater(@11 KLD) will be subjected to MEE with solvent stripper. MEE condensate (@20 KLD) will be reuse and salts of MEE will be sent to authorized TSDF site. RO permeate and MEE Condensate will be reused back as cooling make up and Boiler make up. Domestic waste water (8 KL/day) will be disposed off into soak pit system. Unit has proposed two Boilers (1 TPH each) and one HAG (2 Lac Kcal/hr). Briquetted coal (210 Kg/hr for each Boiler) will be used as a fuel for Boilers. Diesel (50 Lit./hr) will be used as a fuel for HAG. One DG set (150 KVA) will be installed as stand-by facility. Diesel (50 Lit./hr) will be used as a fuel for DG set. Water scrubber followed by alkali scrubber will be provided with Reaction vessel of Crotonic Acid and Reaction Vessel of Decanoic Acid for control of HCl & CO2. Hazardous waste generated from the

manufacturing activity will be ETP sludge, Residue from MEE, Discarded containers/Bags/Liners, Distillation residue, Cotton waste & rags and used oil. Disposal of hazardous waste will be carried out as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016

Observations / Discussion:

Technical presentation by the PP included general information, details of products and raw materials, Waste generation, hazards & control, analysis of pollution parameters before and after treatment, resource consumption and conservation, Risk estimation etc. While discussing about the location of the proposed site, PP informed that the site is located within the notified area of petrochemical complex which was established before 14.09.2009 and they have furnished supportive documents in this regard. After deliberation on various aspects, following additional TOR was prescribed for the EIA study covering 5 km radius of the project boundary.

1. Copy of plot holding certificate obtained from 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 03/05/2019.
- 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.

20	Indian Oil Corporation Ltd.	S.No.207 P1, Village: Navagam, NH 8B, Rajkot	Appraisal

Project / Activity No.: 6(b)

Chronology of EC Process :M/s: Indian Oil Corporation Ltd. (herein after Project Proponent – PP) submitted Application vide their letter dated 12/12/2014.

- The project was considered during the SEAC meeting held on 24/02/2015.
- Looking to the low pollution potential of the unit and only LPG storage capacity will increase from existing 1000 MT to 2800 MT where as bottling capacity will remain the same as 12000 MT/month, the project was considered as B2 project by the committee.
- The project proponent submitted the additional information vide their Online Proposal no.SIA/GJ/MIS/51911/2016 dated 28/03/2016

Project status: Expansion

Project / Activity Details:

This is an existing LPG bottling plant with 12000 MT/month of LPG refilling capacity and 1000 MT of LPG storage facility. They are now proposing the expansion by installation of additional mounded bullets of LPG as tabulated below:

Sr. no.	Product	Existing	Proposed	Total
1	Distribution of LPG (LPG Bottling)	12000 MT/Month	------	12000 MT/Month
2	Storage of LPG	1000 MT (100 MT x 4 no.s – Mounded Bullets) (600 MT X 1 no.s- - Horton sphere)	1800 MT (600 MT x 3 no.s – Mounded Bullets)	2800 MT

The proposed expansion falls in the project/ activity 6(b) as per the schedule of the EIA Notification-2006. The proposed expansion will be taking place within the existing premises of 183425 sq. m area. IOCL has already developed greenbelt on 39828.73 sq. m area in the existing premises. PP has proposed to plan further enhancement of existing greenbelt area with 1000 sq. mtr. Area. Total cost for the proposed project is 31.30 Crores. The existing plant has valid CC&A vide no. AWH-69632 valid up to 31/12/2019. Water requirement will remain the same as existing i.e 7 KL/day. No industrial waste water generation, only domestic waste water generation will be there and will remain the same as 4 KL/day after the proposed expansion. Used oil- 0.120 MT/Year will be generated as hazardous waste from the project. Existing three nos. of D.G. sets and six nos. of fire water pumps will be used after the proposed expansion. There will be no effluent generation, no process gas emission from the existing as well as proposed project. There will be no additional fuel and additional vent/ stacks. There will be no increase in hazardous waste.

Observations / Discussion:

Technical presentation made during the meeting by project proponent. Committee noted that there is a discrepancy in water & waste water generation details between Form-1 and additional information submitted. Committee also observed that the data presented during meeting are not matching with the Form-1 and additional details submitted vide letter dated 17/02/2016. The project proponent submitted the additional information including Risk assessment report, Disaster Control Management plan Mutual Aid plan, Occupational Health Hazards, Safety awareness, Fire alarm system, automatic fire detection and emergency fire fighting system, Green belt development and CSR activities. Unit has submitted the HAZOP study report. During meeting, Committee discussed about safety awareness, fire detection, fire

fighting system etc. Committee emphasized on use of personal protective equipments (PPEs) and engineering control for safety and green belt development within & outside the factory premises. After deliberation, It was unanimously decided to consider the project for further consideration only after submission of the following:

1. Revised Form-1 with actual water balance with its complete management. Water to be used for fire hydrant system shall be included.
2. Copy of Consent to Establish, Consent to Operate orders obtained in past along with point wise compliance status of all the conditions stipulated therein.
3. 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.
4. Details of fatal / non-fatal accidents, loss of life or man hours, if any, occurred in the existing unit in last three years and measures proposed to be taken for avoiding reoccurrence of such accidents in future.

During the meeting it was brought to the notice of the committee that many building construction projects falling under the limits of Surat Municipal Corporation & Surat Urban Development Authority are applying for obtaining Environmental Clearance with the additional FSI (i.e more than 2.25 to 4.0) which is not as per the provisions of existing General Development Control Regulation (GDCR) of Surat Urban Development Authority (SUDA) & Surat Municipal Corporation (SMC) and require to obtain permission from Urban Development & Urban Housing Department, Gandhinagar for the additional FSI with associated additional ground coverage, building height, relaxation in margin etc. The matter was discussed during the meeting and it was decided to seek opinion from SMC & SUDA for processing of applications of such projects which require to obtain permission from Urban Development & Urban Housing Department, Gandhinagar for the FSI which is more than the provisions of existing GDCR of SUDA & SMC.

List of such cases applied for obtaining Environmental Clearance with additional FSI is as under:

Sr.No.	Project Details
1.	**Alpine Moonlight** proposed by Mr. Bhaveshbhai Arvindbhai Buha, At Block No. 149/P, T. P. S. No. 22 [Sarthana - Valak], F. P. No. 02, O.P. No. 02, At: Sarthana, Dist: Surat.
2.	**Hard Rock** proposed by Mr. Ankit. S. Shah, At. T. P. No: - 2 (Vesu-Bharthana-Vesu), R. S. No: - 417, O. P. No: - 103, F. P. No: - 121, At - Surat.
3.	**Kasha Rivera,** proposed by Mr. Pareshbhai B. Panchani, At: T.P.S. No. 14 [PAL], Block No. 343, O.P. No. 70, F.P. No: 134, Paikee Sub Plot No. B, At: Pal, Dist: Surat
4.	**The Polaris Textile City** proposed by Mr. Kantibhai Khimjibhai Bhalala, At: T. P. S. No. - 19 (Parvat-Magob), Block No. - 77, F. P. 63 (As Draft), F. P. No. – 82 (As T.R.), O. P. No – 58, Moje – Parvat, Tal – Choryasi, Surat.
5.	**Ambika Dreams** proposed by Mr. Vinit R. Desai, At: T. P. S. No: - 69 (Godadra - Dindoli), Block No: - 139, F. P. No: - 124/C/Paikey, Sub Plot No: - 2 & 3, O. P. No: - 124, Moje: -Dindoli, Tal: - Choryasi, Dist: - Surat.
6.	**Ambika Solitaire** proposed by Ms. Sonalben Ghanshyambhai Kalsariya, At: Block No. 125, T. P. S. No. 27 [Utran-Kosad], F. P. No. 27, O.P. No. 27, At: Utran, Dist: Surat.
7.	**Happy Benchmark Textile Hub** proposed by Mr. Mukeshbhai B. Patel, At: T.P.S. – 33 (Dumbhal), F.P. 13, O.P.NO-8/1, R.S.NO-8/P, Moje – Dumbhal, Tal – Choryasi, Surat.

8.	**Landmark Superstar** proposed by Mr. Madhavjibhai D. Patel, At: Block No. - 709, O. P. No. - 134, F. P. No. - 142, T.P.S. No. - 17 (Puna), Moje - Puna, Dist – Surat.
9.	**Palladium Pride** proposed by Mr. Dolatbhai Jivenbhai Patel, At: T.P.S No.-50 (Ved-Katargam), O.P No.-70, F.P No.-69/2, R.S.No-204/4 , Moje-Katargam, Surat.
10.	**Raj Textile Market** proposed by Arihant Associates, At: Block No: 87, O.P No: 49, F.P. 54 (As Per Draft), Block No: 87/A, O.P No: 49/1, F.P. 69 (As Per Preli.), T.P.S. No: 19 (Parvat - Magob), Tal – Choryasi, Dist: Surat.
11.	**Rajhans Montessa** proposed by Mr. Sunilbhai Shivlalbhai Jain, At: R.S. No.- 83/p, O.P. No.- 99 + 100 + 101 + 102 + 103 + 104 + 105, + 106/1 + 106/2 + 106/3 + 106/4, F.P. No.- 113 + 114 + 115, T.P.S. No.- 7 (Vesu - Magdalla) Vill - Vesu , Tal - Majura, Dist - Surat.
12.	**Rajhans Synfonia** proposed by Mr.Sunilbhai Shivlal Jain, At: T. P. S. No.: 26 (Abhava), Block No.: 399/P-2, O. P. No.: 99, F. P. No.: 99, Moje-Abhava, Surat.
13.	**Swastik Textile Market** proposed by Mr. Rameshbhai Rasikbhai Patel, At: Block No: 102, O. P. No: 14, F. P. 21/1, T. P. S. No: 19 (Parvat - Magob), Tal – Choryasi, Dist: Surat.
14.	**Swagat Clifton**, At: T.P. Scheme No.: 43 (Bhimrad), R.S. No.: 71/2,73/1, Block No.: 125+129, O.P. No.: 64, F.P. No.: 36, Moje: Bhimrad, Surat
15.	**Amitbhai Gorasiya**, At: Block No.: 107+108, O.P. No.: 53+54, F.P. No.: 56+57, T.P. Scheme No.: 18, Vill.: Mota Varachha, Dist.: Surat
16.	**Celebration Homes**, At: Block No.: 43, O.P. No.: 15, F.P. No.: 15, T.P. Scheme No.: 21 (Sarthana – Simada), Surat
17.	**Scarlett**, At: Block No.: 65+67, O.P. No.: 33+32/2, F.P. No.: 47+49, T.P. Scheme No.: 19 (Parvat – Magob), Surat
18.	**Star Ayodhya** proposed by Mr. Sunnybhai R. Laheri ,At: Block No 59/p/2,60,61, O.P No 27/1,28,29, F.P.No. 37,41,42, R.S No ,49/2 ,49/3 ,T.P No 19 (Parvat- Magob), Dist :Surat.
19.	**Commercial Building Construction Project** proposed by Mr. Sunnybhai R. Laheri, At: Block No. 68, T.P.-19 (Parvat-Magob), Surat.
20.	**Rasikbhai M. Patel**, At: Block No. 662+634, F.P. No. 55/B +21, O.P. No. 55+21, T.P.S.No. 12 (Puna), Dist. Surat
21.	**The Polaris Textile Market** proposed by Mr. Dilipbhai Bavchandbhai Bagat, At: T.P.S. 35 (Kumbharia – Saroli – Sania Hemad – Devadh) Block No. 225, F.P. 20, O.P.NO-20 Moje – Kumbharia, Tal – Choryasi, Surat.
22.	**Ambika Textile Hub** proposed by Mr. Chaturbhai Mohanbhai Patel, At: Block No.: 121+122, O.P. No.: 08, F.P. No. 08, T.P.S. No.: 35 (Kumbharia – Saroli – Sania Hemad – Devadh), At-Devadh, Tal – Choryasi, Dist: Surat.
23.	**Shyam Sangini- II**, At: T.P. Scheme No.:35, Block No.:31+32/P+48/B, O. P.: 176+177+ 171/B, F.P. No.: 176+177++171/2, Moje: Kumbhariya, Dist.: Surat.
24.	**Shyam Sangini 1(b)**, At: T.P. Scheme No.:35, Block No.:25+27/A, 215,48, O. P.: 102, 183, 185, F.P. No.: 102+183+185+171/1, Moje: Kumbhariya, Dist.: Surat.
25.	**Shyam Sangini 2 C,** At: T.P. Scheme No.:35, Block No.:34/P+35, O. P.: 178+179 F.P. No.: 178+179, Moje: Kumbhariya, Dist.: Surat.
26.	**Central Bazzar Veneziano** proposed By Mr. Manojbhai Arvindbhai Gandhi, At: T.P.S.No.: 1, R. S. No: 53/1, O. P. No: 71/1, F. P. No - 130, Vesu, Surat.
27.	**Shree Kuberji Textile – Deck** proposed by Shree Kuberji Builders, At: F.P.No.200,213,214/2, B.No.265,266,267,T.P.S.No.35 (Kumbharia - Saroli), Surat.
28.	**Mr. Hasmukhbhai H. Patel**, At: Block No. - 316, F.P.No. - 90, O.P.No. - 90, T.P.S.No.- 51 (Kosmada-Khadsad Pilodra Simada), At-Kosmada, Dist: Surat.
29.	**Shree Kuberji Textile World** proposed By Shree Kuberji Leisure Private Limited., At: F.P.No. 209/1, Block No. 270, T.P.S.No. 35, (Kumbharia-Saroli), Surat.

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.	**"Shree Thakornath Residency"** at Old B.No.583 & New B.No.560/p, Village: Nandol, Ta: Dehgam, Dist: Gandhinagar proposed by **M/s. Balaji Associates.**
2.	Building Construction Project at Block No: 180 paikee 21 & 180 paikee 23, Moje: Motamava, Dist: Rajkot proposed by **Gujarat Housing Board.**
3.	**"Om palace"** at Block No. 46, Moje: Navagam, Pasodara Patiya To Pasodara Road, Kamrej, Surat proposed by **M/s. M.D.Corporation.**

The additional information received from the following project proponent was not found satisfactory & it was decided to call the project proponent in one of the upcoming meetings of SEAC.

1.	Residential & commercial project at Moje –Zadeshwar, Block No. 142/1+3, Dist: Bharuch proposed by **Mr. Manilal Jesangbhai Patel**.

Meeting ended with thanks to the Chair and the Members.

Minutes approved by:

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