Minutes of the 205th meeting of the State Level Expert Appraisal Committee held on 20/08/2014 at Committee Room, Gujarat Pollution Control Board, Gandhinagar.

The 205th meeting of the State Level Expert Appraisal Committee (SEAC) was held on 20th August, 2014 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, Member, SEAC
3. Shri R.I.Shah, Member, SEAC.
4. Dr. V.K.Jain, Member, SEAC.
5. Shri Natarajan Pratap, Member, SEAC.
6. Dr. Mayuri H. Pandya, Member, SEAC.
7. Shri Hardik Shah, Secretary, SEAC.

The agenda of appraisal cases and EC amendment cases was taken up. Seventeen appraisal cases and eleven EC amendment cases were taken up. Total twenty eight cases were taken up during the meeting. 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	**Gujarat Chemical Port Terminal Company Ltd.**	**Plot No:6, GIDC-Dahej, Vill. Lakhigam, Tehsil:Vagra, Dist:Bharuch**	**Appraisal Case**

Gujarat Chemical Port Terminal Company Ltd. (GCPTCL) is a commercial port and storage terminal dedicated for handling of liquid and gaseous chemicals falling in “A”, “B” & General classes including petroleum products. The project proponent had earlier applied for expansion of isolated storage capacity from existing 4,84,514 m3 to 6,98,903 m3 by addition of 18 new tanks and submitted EIA report for the same as per the TOR prescribed by SEAC during the SEAC meeting held on 17/07/2013. Now they want to add one more tank of MEG in addition to the earlier proposed 18 nos. of isolated storage tanks i.e expansion in terms of total 19 nos. with storage capacity of 7,22,903 m3. Further they want modify the existing jetty and change in product slate of chemicals and petrochemicals being handled at the existing jetty. They have applied afresh separately for the proposals containing the following components.

- Modification of the existing jetty by adding two mooring dolphins, two breasting dolphins & piles for extending the pipe rack to accommodate the new pipelines to cater berthing of bigger size vessels .
- Change in product slate of the chemicals and petrochemical products with the overall product handling capacity remaining the same i.e 4.979 MMTPA. From the existing 4.979 MMTPA of cargo being handled, handling of some of the existing cargo will be reduced by 1.325 MMTPA and against it handling of some of the existing as well as new cargo will increase by 1.325 MMTPA.
- Expansion of isolated chemical storage facility from 4,84,514 m3 to 7,22,903 m3 by addition of 19 new tanks and associated facilities for receipt and dispatch of chemicals by pipeline/tankers.

It was presented during the meeting that they are withdrawing their earlier proposal of expansion in terms of additional 18 nos. of storage tanks and it was decided by the committee to delist the earlier proposal from the list of pending applications with SEAC.

The project has obtained Environmental Clearance for total of 56 storage tanks and actually constructed 35 storage tanks considering the market conditions. Now they have applied for expansion by addition of other 19

storage tanks as mentioned below.

Existing storage tanks.

S. No.	Product	Nos.	Tank Type	MOC	Safe Filling Volume of one tank (KL)	Total Safe Filling Volume(KL)	Hazardous Nature
1	Propane	1	Sphere	CS	2310	2310	Flammable gas
2	LPG	1	Sphere	CS	2310	2310	Flammable gas
3	Butadiene	1	Sphere	CS	2110	2110	Flammable gas
4		1	Sphere	CS	2110	2110	Flammable gas
5	LPG	1	Double wall	LTCS	27000	27000	Flammable gas
6	Propane	1	Double wall	LTCS	45000	45000	Flammable gas
7	Ethylene die-chloride (EDC)	2	Conical floating roof	CS	4400	8800	Flammable Liquid
8	Ethylene die-chloride (EDC)	1	Conical floating roof	CS	3100	3100	Flammable Liquid
9	Methanol	1	Conical floating roof	CS	3100	3100	Flammable Liquid
10	Octene-1/NP	2	Floating Roof	CS	2200	4400	Flammable Liquid
11	Methanol	2	Conical floating roof	CS	1400	2800	Flammable Liquid
12	DEG/MEG (Delete)	2	Conical Roof	SS	1765	3530	Deleted
13	Palm Fatty Acid Distillate (PFAD) (Veg. Oil)	2	Conical Roof	CS	3600	7200	Liquid
14	Naphtha	6	Floating Roof	CS	13350	80100	Flammable Liquid
15	Naphtha	2	floating Roof	CS	6450	12900	Flammable Liquid
16	Styrene	1	Conical Roof	CS	6480	6480	Flammable Liquid
17	Ethylene die-chloride (EDC)	1	Conical Roof	CS	5650	5650	Flammable Liquid
18	Naphtha	3	floating Roof	CS	19280	57840	Flammable Liquid
19	Propylene Oxide	1	Dome roof	CS	2970	2970	Flammable Liquid
20	Acetic Acid	1	Conical Roof	SS	8000	8000	Liquid
21	Methanol (To be converted)	1*	Conical floating roof	CS	9218	9218	* These tanks will be converted to handle MEG
22	Methyl Tertiary butyl ether (MTBE) (To be converted)	1*	Conical floating roof	CS	9215	9215	

23	Para xylene (PX) (under Const.)	2	floating Roof	CS	35550	71100	Flammable Liquid
Existing total Safe filling Volume (KL)						**373713**	**35 Nos**
Expansion/Addition of Tanks							
1	Propylene Oxide	2	Dome Roof	CS	2970	5940	Flammable Liquid
2	Acetic Acid	1	Conical Roof	SS	3240	3240	Liquid
3	Ethyl Acetate	2	Conical Roof	SS	1620	3240	Liquid
4	Toluene	1	Conical floating roof	CS	4000	4000	Flammable Liquid
5	Benzene	1	Conical floating roof	CS	4000	4000	Flammable Liquid
6	Ethanol	1	Conical floating roof	CS	3570	3570	Flammable Liquid
7	Methanol	1	Conical floating roof	CS	20000	20000	Flammable Liquid
8	Methanol	2	Conical floating roof	CS	16150	32300	Flammable Liquid
9	Cyclohexanone	1	Conical Roof	CS	2700	2700	Flammable Liquid
10	MMA	1	Conical Roof	CS	1800	1800	Flammable Liquid
11	Ammonia	2	DWST	LTCS	14700	29400	Liquid
12	Mono ethylene glycol (MEG)	2	Dome Roof	CS	28500	57000	Liquid
13	Ethane	2	DWST	LTCS	91000	182000	Flammable Liquid
14	Alcohols (iso-propyl/n-propyl, Iso-butyl), Alpha Olefins,Acetone, VAM (Vinyl Acetate Monomer), MIBK (Methyl Iso Butyl Ketone), MEK (Methyl Ethyl Ketone), Ethyl Acrylate, Ethyl Benzene, Trichloroethylene, Decene-1, N-Butanol, Nonane, Butyl Acrylate, Paraffin oil (Light & heavy), C10-12, Heavy Aromatic Oil/solvent, Oils (Furnace, base, lubricant, rubber, palm, soybean, edible), fatty acid, Glycerine/Glycerol, Phenol, Ortho toluidine, C14-17, Heavy normal paraffin (These chemicals will be handled and stored as per customer's requirement in compatible tanks)						
Total safe filling volume for expansion (KL)						**349190**	**19 Nos**
Total safe filling volume , Existing +Expansion (KL)						**722903**	**54 Nos**

Revised product slate to be handled at the jetty is tabulated below:

Sr. No.	Chemical Name	Cargo Handling Capacity in TPA			
		Existing Cargo	Proposed Addition	Deletion of Cargo	Total Cargo Handling
1	Cryogenic Products : LPG (Propane / Butane, Propylene & Ethane etc.	5,10,000	9,90,000		15,00,000
2	Butadiene / Butane - 1	25,000	5,000		30,000
3	Ethylene Dichloride	2,40,000		1,90,000	50,000
4	N – Paraffin/Light N-Paraffin	45,000		20,000	25,000
5	Alcohol group. Ethanol / Butanol / Iso Nonanol/Methanol etc.	1,14,000	1,00,000		2,14,000
6	White Petroleum Products (Naphtha/MS / HSD / SKO / LDO)	18,00,000		10,00,000	8,00,000
7	Benzene/Cumene	30,000	30,000		60,000
8	Xylenes (Meta, Ortho and Para)	8,50,000	1,50,000		10,00,000
9	Caustic Lye/Vegetable Oils/ Fatty Alcohol	1,80,000		80,000	1,00,000
10	Aniline / Glycol (DEG / MEG)	6,20,000	80,000		7,00,000
11	N-Hexane/Heptane/Butane/ Cyclohexane/2EH	61,500		50,000	11,500
12	Vinyl Chloro Monomer (VCM)	17,500		10,000	7,500
13	Styrene	1,00,000		50,000	50,000
14	Pyrolysis Gasoline	50,000		45,000	5,000
15	Propylene Oxide	30,000	20,000		50,000
16	Linear Alkyl Benzene (LAB)	45,000		35,000	10,000
17	Acetic Acid	92,000	21,000		1,13,000
18	MTBE	1,45,000		1,35,000	10,000
19	Octene-1/C9	24,000			24,000
20	Toluene		60,000		60,000
21	MMA		6,000		6,000
22	Cyclohexanone		8,000		8,000
23	Ethyl Acetate		25,000		25,000
24	Ammonia		1,00,000		1,00,000
25	Alcohols (iso-propyl/n-propyl, iso-buty), Alpha Olefins, Acetone, VAM (Vinyl Acetate Monomer), MIBK (Methyl Iso Butyl Ketone), MEK (Methyl Ethyl Ketone), Ethyl Acrylate, Ethyl Benzene, Trichloroethylene,Decene -1, N- Butanol, Nonane, Butyl Acrylate Paraffin Oil (Light & Heavy), C 10-12, Heavy Aromactic Oil/Solvent, Oils (Furnace, Base, Lubricant, Rubber, palm, soybean, Edible) Fatty acid, Glycerine/Glycerol, Phenol, Ortho toluidine, C 14-17, Heavy Normal Paraffin		20,000		20,000
	Total (MMTPA)	49,79,000	13,25,000	13,25,000	49,79,000

Berth features (after modification)will be as under

Parameters	Existing	Proposed
Berth Platform Dimensions	30m ×19m, +20.0m CD	
Vessel Handling Capacity	6,000 – 40,000 DWT	Upto 60,000 DWT
Vessel LoA (m)	111m to 215m	111m to 232m
Vessel Draft required	-14.5 m CD	-14.5 m CD
Draft available	-16.0 m CD	-16.0 m CD
Cargo handling	2.5 MMTPA	4.979 MMTPA
No. of loading arms	7 nos.	2 nos. additional
No. of pipelines	12 nos.	10 nos. additional
Navigation	Through existing navigational channel	Through existing navigational channel
Mooring and breasting dolphins	4 mooring and 4 breasting dolphins	6 mooring and 6 breasting dolphins
Pile Foot print area	915.4 sq.m.	1035.5 sq.m.

The proposed expansion in terms of isolated storage capacity of the project and the proposed modification of the existing jetty falls under the project activity 6(b) and 7(e) respectively as per the schedule of the EIA Notification-2006.

During the meeting, the project proponent presented that NEERI has carried out baseline study of this area for three seasons of winter, summer and post monsoon during December 2011 to November 2012 and requested to allow them to use the same data for EIA study to be done for the proposed project. The committee was of the view that as the baseline data collected by NEERI is not older than 3 years, the same can be used for the EIA study to done. In addition to that the project proponent was asked to carry out baseline study for one season for all the concerned environmental attributes and to incorporate the same in the EIA report to be prepared. After detailed discussion, the TOR proposed by the project proponent were accepted and following additional TOR were prescribed for the EIA study [terrestrial as well as marine] to be done covering area of 10 Km radius from the project boundary.

1. 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. Details of the activities to be undertaken in the CRZ area.
2. Details regarding status of application for the CRZ recommendation.
3. Need for the proposed expansion shall be justified in detail.
4. Project implementation schedule with bar chart and time frame, in terms of site development, infrastructure provision, EMS implementation etc.
5. Land use pattern of the study area based on satellite imagery.
6. Layout plan of the factory premises showing location of the proposed additional storage tanks. Provision of separate entry & exit and adequate margin all round the periphery for unobstructed easy movement of the emergency vehicle / fire tenders without reversing back. Mark the same in the plant layout.
7. License from Petroleum & Explosive Safety Organization (PESO) for new tanks / products.
8. Clear distance around the new proposed storage tanks and various other safety features inbuilt in the design. Design / construction aspects of the new storage tanks and its compliance with Oil Industry Safety

Directorate standards.

9. Exact cargo handling capacity for the proposed project. Scope of the project in terms of types of cargo to be handled with bifurcation of tonnage of each type of cargo based on maximum/ peak rated capacity of the project in terms of cargo handling, technology, storage capacity, manpower, resource use, etc.
10. Justify in detail that the cargo handling capacity of the project will not be more than 4.979 MMTPA even after the proposed expansion of storage facility.
11. Details of the berthing facility to be provided along with class and size of vessels envisaged. Ship simulation to be done in respect of stability.Details of handling of each cargo, its impact and management plan.
12. 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.
13. 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.
14. Details on topography and natural drainage of the project site. Whether proposed activities are likely to change existing drainage pattern of the site.
15. Measures to prevent deterioration of the marine water quality and coastal ecology due to the proposed activities.
16. Hydro-dynamics of the coast abutting the project site from shoreline erosion perspective. The hydro-dynamic studies for assessing whether the proposed activities shall have any significant impact on the shoreline abutting the project as well as on the ecologically sensitive areas along the stretch or not.
17. A map showing distance of the nearest fishing port, village, reserve forest, salt pans, mangrove patch and ecologically sensitive areas from the project boundary and impacts of project activities on the same.
18. Details on fish catch in the region during past as per authentic records. Impacts of the proposed activities on fishing in the surrounding region and marine ecology. How, it would be ensured that fishing area will not be affected due to the project activities.
19. Include coastal geo morphology in the EIA study report.
20. Details of the sand dune areas and ecologically sensitive areas in the vicinity and details of impact of the proposed expansion on the same along with mitigation measures.
21. Base line status of flora, fauna and marine biodiversity, including that of phytoplankton and zooplankton in the study area shall be elaborated. Impacts of the proposed activities on the marine biodiversity shall be elaborated.
22. Assessment of source of the water supply with adequacy of the same to meet with the requirements for the project after proposed expansion as well as likely impact on ground water in the area.
23. Plans for management and disposal of waste streams to be generated from spillage or leakage of tanks, occasional tank washing etc.
24. Characteristics of untreated and treated wastewater. A detailed effluent treat ability study vis-à-vis the adequacy and efficacy of the treatment facilities.

25. Details of the ETP units including its capacity, size of each unit, retention time, other technical parameters and its adequacy to carry additional effluent load due to proposed expansion. Mode of disposal of treated wastewater.
26. Explore the possibility of reuse / recycle and other cleaner production options for reduction of wastes. Specific measures proposed to conserve water.
27. Specific details of (i) Process emission from each unit process as well as emission from the storage tanks with its quantification, (ii) Air pollution Control Measures proposed with technical specifications (iii) Adequacy of the air pollution control measures to achieve the GPCB Norms (iv) Details of the utilities required (v) Flue gas emission rate emission from the utilities along with stack height calculation (v) Air Pollution Control Measures proposed for the utilities along with its adequacy (vi) Sources of fugitive emission from the unit along with its quantification and proposed measures to control it.(vii) Air pollution due to the sand /grit blasting operation.
28. Specific safety details / precautionary measures proposed for VOC's in the plant / storage yard / warehouse/ including ventilation aligned in the natural wind direction.
29. Details on baseline ambient air quality monitoring data to be given along with the dates of monitoring. The parameters to be covered shall also include HC & VOC in view of the revised national ambient air quality standards, in addition to the other parameters in the proposed TOR. Location of the monitoring stations should be so decided so as to take into consideration the pre-dominant downwind direction, population zone and sensitive receptors 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.
30. Impact of the proposed augmentation on the AAQ of the area. Details of the model used and the input parameters used for modeling should be provided. The air quality contours may be plotted on a location map showing the location o8f project site, habitation, sensitive receptors, if any. The wind roses should also be shown on this map.
31. List of all the sources of fugitive emission. Detailed plan for prevention and control of fugitive emission from the storage tanks and other sources.
32. Details of the D.G. sets with location, fuel consumption & storage and details of the acoustic measures to abate noise pollution.
33. Impact of the proposed expansion on local infrastructure of the area such as on road network due to transportation of chemicals. Whether any additional infrastructure is required to be constructed and the agency responsible for the same with time frame.
34. Details of management of the solid wastes and hazardous wastes to be generated from the project stating detail of generation, storage, handling, its utilization and disposal of each type of waste. How the manual handling of the hazardous wastes shall be minimized.
35. Membership of Common Environmental Infrastructure like TSDF / CHWI alongwith an assessment to accommodate the additional quantity of wastes to be generated due to proposed augmentation.
36. Details of measures proposed for the noise pollution abatement and its monitoring. 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.

37. A detailed EMP including the protection and mitigation measures for 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, recycle/reuse/recover techniques, energy conservation, and natural resource conservation. Total capital cost and recurring cost/annum earmarked for environment pollution control measures.
38. Occupational health impacts on the workers and mitigation measures proposed to avoid the human health hazards along with the personal protective equipment to be provided to the workers. Provision of industrial hygienist and monitoring of the occupational injury to workers as well as impact on the workers. Plan for periodic medical check up of the workers exposed. Details of work zone ambient air quality monitoring plan as per Gujarat Factories Rules.
39. Details of breather valves to be provided to the proposed new storage tanks. Is Nitrogen blanketing necessary? If not, why?
40. Details of engineering / management controls, if any proposed, such as: (1) Leak detection and repair (LDAR) system (2) A dedicated Fire Department with fire tenders, specialized fire fighting equipment and experienced manpower (3) Entire operation of the storage installation through Central Control System (4) Adoption of best practices for movement and decanting of tankers in co-ordination with suppliers. (5) Dyke wall provision (6) Safe / Clear distance around the tanks (7) flame proof fitting as per Indian Standards (8) Zero Tolerance policy adoption (9) Provision of On Site Emergency Control Plan with regular mock drills (10) Provision of fencing, sensors, alarms, remotely operated valves etc.
41. Fire fighting arrangement at the jetty as well as storage terminal and requirement of its strengthening due to proposed augmentation. This should include details of automatic detection and control system & detailed control plan showing hydrant pipeline network, provision of DG Sets, diesel driven fire pumps for operation during power disruption, jockey pump, fire water monitor, toxic gas detectors, fire / foam tenders etc.
42. Elaborate safety measures for chemical handling and transfer between the storage tanks and the port terminal as well as for chemical transfer f2rom storage terminal to clients.
43. Vessel Transport Management System devised for management of incoming and outgoing traffic of vessels, including details of navigational aids, communication system, deployment of trained personnel etc.
44. Details of existing sea traffic and likely increase in the same due to the proposed project. Anticipated environmental impacts and mitigation measures due to the ship traffic including discharges from vessels and cargo operations as well as capacities of larger ships due to the proposed augmentation of storage capacity and its likely impacts.
45. Anticipated environmental impacts and mitigation measures due to the ship traffic including discharges from vessels and cargo operations.
46. Plan for evacuating material and people through trained personnel during the emergency situations like ship collision / grounding.
47. Details of hazardous characteristics of materials to be handled and the control measures proposed to ensure safety and avoid the human health impact.
48. Details on quantity of each hazardous chemical to be stored, material of construction of storage tanks,

threshold storage quantity as per schedules of Manufacture, Storage & Import of Hazardous Chemicals Rules.

49. Details of hazardous processes and their engineering controls.
50. Details of the Hazop study which should include the worst-case scenario of pressure explosion.
51. Detailed risk assessment report including identification of the most hazardous activity, its sub activity, prediction of the worst-case scenario and maximum credible accident scenario related to the proposed additional storage tanks should be carried out along with damage distances and preparedness plan to combat such situation and risk mitigation measures. The worst-case scenario should take into account the maximum inventory of storage at site at any point in time. The risk contours should be plotted on the plant layout map clearly showing which of the activities would be affected in case of an accident taking place. Based on the same, proposed safeguard measures including On-Site / Off-Site Emergency Plan, updated in respect of proposed augmentation, should be provided.
52. Details of use of eco-friendly building material including fly ash bricks, fly ash paving blocks. Use of RMC in the project.
53. Details of provisions to make the project energy-efficient through of energy efficient devices and adoption of modes of alternative eco friendly sources of energy, solar water heater, solar lighting etc. Measures proposed to comply with the ECBC norms and other measures proposed for energy conservation.
54. 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.
55. 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.
56. To explore the use of renewable energy to the maximum extent possible. Details of provisions to make the project energy-efficient through use of energy efficient devices and adoption of modes of alternative eco friendly sources of energy, solar water heater, solar lighting etc. Measures proposed to comply with the ECBC norms and other measures proposed for energy conservation. Undertaking from the management for providing >10% solar lighting for external use, roads, pathways etc.
57. 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.
58. Details of fire fighting system at the jetty as well as storage unit including provision for flame detectors, temperature actuated heat detectors, location of fire water tanks & capacity, separate power system for fire fighting, automatic sprinkler system, fire detection system with alarms & automatic fire extinguishers, 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.
59. 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, emergency van etc. to be made during the operational phase.

60. OHSMS Procedure Manual updated in respect of the proposed augmentation.
61. Submit checklist in the form of Do's & Don'ts of preventive maintenance, strengthening of HSE, mfg utility staff for safety related measures.
62. Details of the seismic design aspects to be adhered to in the project.
63. Detailed disaster management plan. This should include also scenario of natural catastrophe like earth quake, cyclone and tsunami in addition to other disasters. The plan should include the details of (i) Emergency lighting plan (ii) details of power back up system in the case of emergency (iii) fire fighting arrangements (iv) first aid arrangement (v) Training and Mock drill (vi) Emergency announcement system (vii) Signages (viii) location of emergency stair cases and pathways etc.
64. Detailed greenbelt development program including annual budget, types & number of trees to be planted, area under green belt development [with map], budgetary outlay; along with commitment of the management to carry out the tree plantation activities outside the premises at appropriate places in the nearby areas and elsewhere.
65. 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 the Gujarat Ecology Commission / Social Forestry Division for the same.
66. Details of population in the study area and its breakup showing population of fishermen, salt pan workers, farmers, villagers etc. Impacts of the project activities on their livelihood.
67. 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.
68. An action plan showing list of socio-economic up-liftment 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.
69. Details of scheme for surface as well as roof top rain water harvesting and ground water recharge, with proper scientific calculations considering rainfall in the region, catchment area, land / soil characteristics, ground water recharge rate, duration of rain water harvesting etc. Details of provisions of pre-treatment of the rainwater in the case of surface run off is to be harvested. Location of recharge percolation wells on the layout plan.
70. Any litigation pending against the project and / or any direction / order passed by any Court of Law against the project, if so, details thereof.
71. Copy of Consent to Establish, Consent to Operate orders obtained in past along with point wise compliance status of all the conditions stipulated therein.
72. 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.

73. Copies of Environmental Clearances obtained for the existing plant 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.
74. A tabular chart for the issues raised and addressed during public hearing/consultation should be provided.
75. (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.
76. 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.
77. 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.
78. 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.

2	**Nasmed Adhana Townsip**	**26,27,28,55,56,574,575,576, 578,580,581,583/2,582,584 of Nasmed Village and 336,339, 346,347,347/1,347/p1, 347/p2,348, 349,350, 352/1,352/2353/1,353/2,355,355/1,356,357, 357/1p1,357/1p2, 358, 359/2,363, 364,365/1,366,367,368,369,370, 371,374,376,379/p1, 379/2,351,335,375,365/2,337,338,360,361 of Adhana Village, Vill : Nasmed and Adhana, Tehsil:Kalol, Dist:Gandhinagar**	**Appraisal Case**

This is a proposed township project with total land area of 5,37,856.0 m^2 and the proposed built up area is 6,24,438.0 m^2. The project falls under the category 8(b) of EIA Notification-2006. The project will comprise of total 3,156 residential units and 181 nos. of commercial units including restaurant having 100 seats capacity.

The project was considered for finalization TOR during the SEAC meeting held on 17/07/2013 and TOR were prescribed for the EIA study to be done covering 5 km radius from the boundary of the project site. The project proponent submitted EIA report on 17/05/2014.

Maximum building height in the project will be 12 m. During construction phase, about 73 KL/day of water to be required will be obtained through tankers and waste water to be generated will be disposed off into soak pit through septic tank. Total Water requirement during the operation phase will be 3,070.67 KL/day, out of which fresh water requirement of 1,396.18 KL/day will be met through water supply from Gujarat Water Supply and Sewerage Board (GWSSB) and remaining water requirement for flushing, gardening and cooling make up will be met though treated water-1,674.49 KL/day. Total waste water generation during the operation phase will be 1,805.81 KL/day and it will be treated in a proposed STP of 2000 KL/day capacity. The proposed STP is based on Submerged Aerated Fixed Film (SAFF) technology. Treated water will be reused for flushing, gardening and cooling water make up. 313.40 KL/day of treated water will be used for green belt area of 69,644.81 m2.

Treated water (313.40 KL/day) will be given to the nearby industries during the rainy season when treated water utilization for greenbelt development will not be feasible. Annual ground water recharge of 2,30,000 m^3 will be attained trough the proposed rain water harvesting and ground water recharge scheme. Municipal solid waste-11.0 tones/day to be generated will be segregated into biodegradable and recyclable waste. Biodegradable waste will be sent to the proposed onsite composting facility, STP sludge will be used as manure and recyclable waste will be handed over to authorized vendors. Total 1,59,469 m^2 parking area (1,44,469 m^2 in basement + 15,000 m^2 as open surface parking) equivalent to 5,166 CPS will be provided against the parking area requirement of 2,996 CPS as per NBC. Fire fighting facilities like fire extinguishers, hose reel, terrace tank of 10 KL capacity, 5 nos. of underground fire water storage tank each of 100 KL capacity, automatic sprinkler system in basement etc. has been proposed.

Excavated earth about 4,50,000 m^3 will be generated and it will be completely used in landscaping development and backfilling. Top soil will be preserved separately and used in green belt. One ONGC 12" dia crudoil (Kalol to Navagam) pipeline is passing through the project site. Necessary care and precautions will be taken during the construction phase and adequate margin will be left on both the sides. On site sanitation facilities, maintaining hygienic condition to avoid health problem, PPEs, water supply, solid waste collection and disposal facility etc. will be provided for construction workers.

Baseline study for the Environmental attributes like land use pattern, ambient air, noise, soil quality, flora & fauna, socio-economic aspects and traffic survey was carried out during the winter season of 2013-14. Ground water and ambient air quality were monitored at 5 locations and surface water quality was monitored at 2 locations. Ground water quality at all the five locations was found as per the drinking water standards except for TDS at two locations.

During the meeting, it was presented that they have applied for getting water supply from GWSSB. During the earlier SEAC meeting dated 17/07/2013 the project proponent was asked to obtain NOC from Standing Committee of National Board for Wildlife as the project site is situated at 1.4 Km distance from Thol lake. In this regard the project proponent stated that as per the draft Notification dated 18/10/2013 published in the Gazette of India, the proposed project site does not fall within the Eco Sensitive Zone of Thol Bird Sanctuary. The project proponent was asked to adopt drip irrigation system for green area development. Further they were asked to ensure that the proposed STP is regularly operated and maintained efficiently. After detailed discussion, it was decided to recommend the project to SEIAA Gujarat for grant of Environmental Clearance only after submission of the following:

1. Final Notification for Eco Sensitive Zone of Thol Bird Sanctuary showing that the proposed project site does not fall within the Eco Sensitive Zone of Thol Bird Sanctuary.
2. Copy of NOC from the ONGC with reference to crude oil pipeline passing through the project site and safety distance proposed on both sides of crude oil pipeline as per the requirements of the ONGC.
3. Copy of permission obtained from Gujarat Water Supply and Sewerage Board for surface water supply as per the requirement of the proposed project during the operation phase.
4. Details of the measures proposed to avoid negative impacts on the nearby Thol Bird Sanctuary.
5. Details of existing trees to be cut / relocated, compensatory tree plantation and permission from concerned authority for cutting the trees within the premises. 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 breakup of the greenbelt viz. the tree covered and lawn covered area.
6. Detailed survey of endangered species including their habitat, in the study area, impacts of the proposed project on the same along with mitigation measures and conservation measures like proposal for creating wetland patches, artificial nests etc. in the project.

7. Treated water management plan in monsoon season and copy of letters of agreement made with the parties for utilization of treated sewage from the proposed project during the monsoon season.			
3	**Anagha Chem Pvt. Ltd.**	**Dahej GIDC Estate, Phase-II, D/2/CH-318, Tal: Vagra, Dist: Bharuch.**	**Appraisal Case**

Project / Activity No.: 5(f)

Chronology of EC Process:

- The project was considered for TOR finalization in the meeting of the SEAC held on 17/09/2012.
- Public hearing was carried out by Gujarat Pollution Control Board on 20/12/2013.
- EIA Report was submitted on 22/05/2014.

Project / Activity Details:

It is a new unit proposing to manufacture (i) Custom Synthesis Products – 10 MT/Month (ii) Theobromine – 20 MT/Month and (iii) Acetic Acid (by-product) – 37.41 MT/Month. The proposed production falls under project activity 5(f) in the schedule of EIA Notification, 2006.

Total cost of the project will be Rs. 5 crore and plot area of the project is 4,562.53 m^2. Production of Custom Synthesis Products will include processes like nitration, hydrogenation, oxidation, cyclization, etc. as per the market companies' requirements. Total water requirement for the project will be 89 KL/day (Industrial-79 KL/day, Domestic-5 KL/day & Gardening-5 KL/day). Total industrial waste water generation will be 82 KL/day (80 KL/day industrial & 2 KL/day domestic) and it will be treated in the ETP consisting of primary & secondary treatment facilities including Fenton treatment for complex non-biodegradable compounds and Multi Effect Evaporator for high COD and high TDS effluent. The treated wastewater will be discharged into the GIDC underground drainage line. Process emission of HCl, SOx, NOx, PM has been envisaged from the manufacturing process. Water scrubber followed by caustic scrubber will be installed for control of process emissions. Natural gas to the tune of 240 Nm^3/day will be used as fuel in the proposed Boiler (300 Kg/Hr capacity). Hazardous wastes to be generated from the proposed production are ETP sludge (100 MT/Year), Process / Distillation residue (3 MT/Year), Spent carbon (75 MT/Year), Spent catalyst (2 MT/Year) & Discarded bags (300 nos/Year)/ containers (45 nos /Year). ETP sludge will be sent to nearby TSDF site, Process residue & distillation residue will be sent to Common Hazardous waste Incineration Facility (CHWIF), Discarded bags/containers will be sale out to authorized traders after decontamination, spent carbon & spent catalyst will be sent to CHWIF or sent for regeneration to approved vendor.

Observations & Discussions:

The study period considered for EIA was October to December 2012. Air quality monitoring was carried out at six stations. During the study period the average concentration of SO_2, NOx, $PM_{2.5}$, PM_{10}, and HCL were well within prescribed limit at all locations. The concentration of VOC was below detectable limit at all the stations. Estimation of emissions from the plant has been made by Industrial Source Complex – Short Term (IST-ST3) model developed by USEPA. As per dispersion modeling studies, the maximum ground level concentration will occur in the South direction. The maximum incremental increase in concentration for SO_2 & NOx will be 0.54 µg/m^3 and 0.98 µg/m^3 at a distance of about 940 m in the South. Unit has prepared Risk assessment &

Disaster management plan considering two scenarios identified for consequence analysis viz. (1) Release of Acetic Acid & (2) Release of Hydrogen.

During the meeting, issues raised in the public hearing / consultation were discussed in detail. On asking by the committee, the project proponent informed that due to variations in effluent quality they have proposed Fenton treatment for complex non-biodegradable compounds and Multi Effect Evaporator for high COD and high TDS effluent. Committee emphasized on safety issues related to storage & handling of Hydrogen. After deliberation on various aspects, it was decided to recommend the project for grant of Environmental Clearance after satisfactory submission of following:

1. Qualitative and quantitative analysis of each product and stream wise effluent to be generated.
2. Details of segregation of the wastewater streams to be carried out (including reuse-recycle), and plans for management and disposal of different waste water streams to be generated.
3. 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.
4. Details of generation of acidic effluent (spent acid) from different products, concentration and characteristics of spent acid, its disposal/management system and details of actual end users with copy of agreements.
5. Name and quantity (MT/Month) of by-products and details of actual users with copy of agreements.

4	**Indo Nippon Chemical Co.Ltd.**	**Plot No:2, K.K.Road, Vill. Old Kandla, Ta: Kandla, Dist.: Gandhidham**	**Appraisal**

This is an existing unit engaged in isolated storage, handling and transportation of Class A liquid chemicals (Acetone, Benzene, Methanol, Toluene, Hexane, Ethyl Acetate & other Class A chemicals).The unit is having 10 liquid storage tanks with storage capacity of 17,200 KL. Now they propose to increase the storage capacity of 4 storage tanks out of total 10 tanks within same premises by increasing the height of these 4 storage tanks by 7.0 meter (i.e total 16.0 m height from the existing 9.0 m height) from the bottom level. The total storage capacity will increase from 17,200 KL to 22,864.0 KL. There will not be any change in the type of cargo/chemicals to be stored. The proposal falls in the project/activity 6(b) in the Schedule of the EIA Notification, 2006.

The project was considered during the SEAC meeting held on 15/05/2013 and considering that the proposed activity involves only increasing height of 4 storage tanks from the total of 10 tanks, there will not be any additional land required for the proposed activity and there is no significant pollution potential of the proposed expansion, the committee decided to categorize the proposed expansion as B2. After deliberation on various aspects, it was decided to appraise the project after submission of certain additional information.

Total cost of the project will be Rs. 3.80 crores after the proposed expansion. Total water requirement for the project will be 4.6 KL/day after the proposed expansion and it will be met through the GWSSB water supply. Water will be required for domestic (2 KL/day), green belt development (2.5 KL/day) and very rarely for washing (about 3 KL per Tank wash). Entire quantity of wastewater from washing is taken to oil and water interceptor. The oil / chemical portion is collected in drums and rest clear water devoid of oil / chemicals is

used for gardening within the premises. There will be no increase in wastewater generation due to washing after the proposed expansion as the same practice of wastewater management will be followed even after the proposed expansion. Source of flue gas emission is from stacks attached to a standby D.G.set of 125 KVA and a fire hydrant pump. Diesel at the rate of 44 lit/day will be used as fuel. Due to the proposed expansion, generation of pigging waste will increase from 0.15 MTPA to 0.3 MTPA and ETP waste will increase from 0.3 MTPA to 0.5 MTPA. ETP sludge & pigging waste will be disposed to common solid waste disposal facility of NECL, Nandesari. They have obtained a membership of common incineration facility of NECL for 5 MT/annum of hazardous waste. They have got their plan approved through PESO for the proposed up gradations and alterations for liquid cargo storage facility.

During the meeting, it was noticed by the committee that they have submitted a map of Kandla Port Trust showing the allotment of plots and but not submitted a map prepared by one of the authorized agencies identified by the MoEF for carrying out the CRZ demarcation. Further they have submitted a Risk Assessment report considering the existing storage capacity of 17,200 KL. After detailed discussion, it was decided to further appraise the project after submission of the following:

1. Copy of CRZ map prepared by one of the authorized agencies identified by the MoEF for carrying out the CRZ demarcation showing distance of the storage terminal boundary from the CRZ boundary and that storage terminal is outside the CRZ area.
2. Risk assessment report including prediction of the worst-case scenario and maximum credible accident scenarios related to the proposed expansion of 22,864.0 KL should be carried out. The worst-case scenario should take into account the maximum inventory of storage at site at any point in time. The risk contours should be plotted on the plant layout map clearly showing which of the activities would be affected in case of an accident taking place. Based on the same, proposed safeguard measures including On-Site / Off-Site Emergency Plan, updated in respect of proposed expansion, should be provided.

5	**Panchsheel Intermediates**	**Plot No:8101, Sachin, GIDC, Dist.:Surat**	**Appraisal Case**

This is an existing unit engaged in the production of various solvent dyes & acid dyes-6 MT/month. The unit now proposes the manufacturing of additional products in addition to the existing products with ultimate production capacity of 34.5 MT/m i.e effective production increase of @ 28.5 MT/m. Details of the proposed products with their production capacity are as under.

Sr. No.	Group of Products	Product Name	Quantity (MT/month)
1	Oxidation based products	Solvent blue 35, Solvent blue 36, Solvent blue 45, Solvent violet 13, Solvent green 3, Solvent green 28, Solvent violet 37, Solvent green 5, Solvent green 7	9.0
2	Sulfonation based products	Solvent blue 70, Solvent blue 122, Solvent blue 104	5.0
3	Metallization based products	Solvent orange 114, Solvent Red 270, Solvent Red 52, Solvent Red 23, Solvent Red 24, Solvent Violet 14	7.5
4	Condensation based products	Solvent orange 63, Solvent orange 60, Solvent yellow 93, Solvent red 235, Solvent red 111, Solvent yellow 160,	7.0

		Solvent yellow 43, Solvent red 195, Solvent red 196	
TOTAL			28.5

The project was taken up during the SEAC meeting held on 27/09/2012 and TOR were prescribed for the EIA study. The project proponent submitted the EIA report on 26/05/2014.

During the meeting, the committee was of the view that the project proponent will have to carry out public hearing in view of the MoEF's O.M. No.-11013/36/2014-IA-I dated 16/05/2014. It was decided to further appraise the project only after carrying out public hearing of the project by Gujarat Pollution Control Board and submission of the following:

1. Revised EIA report incorporating 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. Commitments made by the project proponent on the same should be included.

6	**Alex Industries**	**Plot No:CH/11, GIDC-Dahej, Ta: Vagra, Dist.: Bharuch**	**Appraisal Case**

Project / Activity No.: 5(f)

Chronology of EC Process:

- The project was considered in the meeting of the SEAC held on 05/01/2012. During the SEAC meeting, the committee concerned about the disposal of spent sulphuric acid to be generated from manufacturing of Alpha Blue. Committee asked to (1) Copy of application made to GIDC for purchase of plot, showing the name of products mentioned therein. & (2) Revised list of proposed projects by dropping Alpha Blue involving spent acid generation.
- The project proponent submitted revised form-1, revised PFR Offer cum Allotment letter for plot from GIDC and revised relevant details vide their letter dated 07/06/2012.
- During SEAC meeting dated 21/07/2014, it was observed that the existing plot was obtained from GIDC Dahej for setting up of a distillation unit which was never set up by the project proponent. After that they have obtained NOC from GPCB for manufacturing of inorganic products and now approaching for getting EC for organic products. The committee decided that the manufacturing of such organic products & pigments should not be allowed in Dahej in order to avoid repetition of scenario such as of Ankleshwar & Vapi in the Dahej industrial estate.
- Later on, the project proponent vide their letter dated 27/02/2013 requested to consider their case for TOR/scoping. It was mentioned that the plot was offered by GIDC vide letter dated 29/11/2006 and possession was given by GIDC vide letter dated 14/03/2007. Diminished market for solvent recovery led them to opt for pigment manufacturing.
- TOR was issued on 12/03/2013.

- Public hearing was carried out by Gujarat Pollution Control Board on 18/12/2013.
- EIA Report was submitted on 10/01/2014.

Project / Activity Details:

This is an existing unit engaged in the manufacturing of Phthalocyanine Beta Blue, Ammonium sulphate, Magnesium carbonate, Ammonium chloride and precipitate silica for which the unit has obtained NOC from GPCB and now applied for getting Environmental Clearance for the manufacturing of Pigment alpha blue-60 MT/m, Pigment beta blue (15:3)-100 MT/m, Single Super Phosphate-692 MT/m, Pigment red 122 or Pigment violet 19 - 10 MT/m.

After revised proposal list of products and by-products along with their production capacity is given below :

Sr. No.	Name of the Product	Production (MT/Month)		
		As per NOC	Proposed	Ultimate
1.	Ammonium Sulphate	100	--	100
2.	Pigment Beta Blue (Grinding Process)	600	--	600
3.	Magnesium Carbonate	100	--	100
4	Ammonium Chloride	127	--	127
5.	Precipitated Silica	90	--	90
6.	Pigment Beta Blue	--	100	100
7.	Pigment Red 122 or Pigment Violet 19	--	10	10
8.	Pigment Green-7	--	50	50
9.	Pigment Violet-23	--	10	10
10.	Calcium Chloride (90%)	--	40	40
Total		1017	210	1227

Plot area is approx. 11,000 sq.m. Estimated cost of proposed expansion is Rs. 7.07 Crores. Fresh water requirement of 576 KL/day after the proposed expansion will be supplied by the GIDC. Wastewater generation after the expansion will be 481 KL/day [475 KL/day industrial + 6 KL/day domestic]. 3 KL/day of boiler blow down and cooling tower blow down will be treated separately and used for gardening purpose whereas rest of 478 KL/day effluent will be treated in ETP [P+S+T] and discharged into GIDC underground drain. At present Natural gas (160 SCM/Hr for each) is used in one Boiler (2 TPH) and one TFH (10 Lac Kcal/Hr). One DG set (250 KVA) is installed for emergency purpose in which Natural gas (60 SCM/Hr) is used. Unit has proposed one steam boiler of 2 TPH in which Natural gas (160 SCM/Hr) will be used as fuel. At present two spray dryers (for Ammonium Chloride and Ammonium Sulphate) having capacity 0.5 TPH (each) are provided. Cyclone separator followed by scrubber has been installed as APCM. Unit has proposed to install two spin flash dryers (for Pigment green & Pigment Beta Blue). Bag filters are proposed as APCM. Emission of HCl & Cl_2 is envisaged from the manufacturing process and water scrubbers followed by caustic scrubbers are proposed for its control. ETP Sludge (2100 MT/Year), Discarded Containers/Barrels/Liners (3 MT/Year) and Spent/Waste Oil (1 MT/Year), Iron sludge, distillation residue & Spent Acid will be generated as hazardous wastes. ETP sludge/Process sludge will be sent to TSDF site, Discarded containers/liners will be sent to authorized recyclers after decontamination, used oil will be sent to registered re-processors.

Observations & Discussions:

During the meeting, issues rose during in the public hearing / consultation were discussed in detail. EIA report reveals that the baseline study was carried out during January to March-2012 and additional baseline survey

of one month i.e April – May 2013 was carried out. Air quality monitoring was carried out at six stations. The 98 percentile values of SO_2, NOx, $PM_{2.5}$, PM_{10} and Ammonia for the period of January to March 2012 ranged from 14.8 µg/m^3- 27.1 µg/m^3, 31.1 µg/m^3 – 71.9 µg/m^3, 48.3 µg/m^3 – 61.2 µg/m^3, 72.6 µg/m^3 – 98.7 µg/m^3 and 2.04 µg/m^3 – 8.23 µg/m^3 respectively. The 98 percentile values of SO_2, NOx, $PM_{2.5}$, & PM_{10} for the period of April to May 2013 ranged from 12.34 µg/m^3- 32.19 µg/m^3, 18.31 µg/m^3 – 27.25 µg/m^3, 27.75 µg/m^3 – 47.93 µg/m^3 and 91.31 µg/m^3 – 97.68 µg/m^3 respectively. The concentration of chlorine and HCl were below detectable limits. Detailed dispersion air quality modeling study was conducted by using AEROMOD, a software package based on Gaussian Plume equation which shows that after addition of emissions from proposed plant to the ground level concentrations, the resultant values achieved will remain well below the prescribed NAAQS at all the locations. Risk assessment and disaster management plan [considering worst case scenario of release of Chlorine and Methanol] has been submitted.

During the meeting, the committee asked about the amount and effect of Volatile Organic Compounds released from the plant. Project proponent could not reply satisfactorily. Committee also noticed that project proponent has not shown the acidic streams generated from different stages of proposed products. After deliberation on various aspects, it was decided to recommend the project for grant of Environmental Clearance after satisfactory submission of following:

1. Qualitative and quantitative analysis of each product and stream wise effluent to be generated.
2. Details of segregation of the wastewater streams to be carried out (including reuse-recycle, if any), and plans for management and disposal of different waste water streams to be generated.
3. 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.
4. Details of generation of acidic effluent (spent acid) from different products, concentration and characteristics of spent acid, its storage and disposal /management system and copy of letters of agreement made with the end users
5. Name and quantity of by-products (MT/Month) and details of actual users with copy of agreements.
6. Specific details of fugitive emission from the unit along with its quantification and proposed measures to control it along with measures proposed to monitor VOC within work area. Details of ventilation system proposed in the work area. Measures proposed to keep the work area environment as per the norms of GFR.
7. Details of generation and management of each type of hazardous wastes to be generated from the project stating detail of exact quantity of waste (Mass balance), storage area for each type of waste, its handling, its utilization and disposal etc. as data given in Table no. 2.15 on page no. 2.56 of REIA report are inadequate.

7	**Bharat Petroleum Corporation Ltd. (BPCL)**	**Plot o: 333, Vill. Maliyasan, Dist.: Rajkot**	**Appraisal Case**

Project / Activity No.: 6(b)

Chronology of EC Process :

- The project was considered during the SEAC meeting held on 17/07/2013, categorized as B_2 as there is no effluent generation, no process emission, no additional fuel consumption and no increase in hazardous waste generation. Additional information was sought for appraisal of the project.
- The project proponent submitted the additional information vide their letter dated 26/05/2014.

Project / Activity Details:

This is an existing LPG bottling plant with 3000 MT/m of LPG refilling capacity and 300 MT (150 MT × 2 Nos. bullet) of LPG storage facility. They are now proposing the expansion by installation of additional mounded bullet of LPG with 300 MT capacity. Only LPG storage capacity will increase from existing 300 MT to 600 MT where as bottling capacity will remain the same as 3000 MT/Month. 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 1,37,162 m^2 area. Water requirement will remain the same as existing i.e 11.0 KL/day. There is no industrial waste water generation at present and there will be no generation of industrial w/w after proposed expansion. Domestic waste water generation will be remaining same as 2 KL/day after the proposed expansion. Used oil-0.08 MT/Year will be generated as hazardous waste from the project. Existing two nos. of D.G.sets (250 KVA & 125 KVA) using HSD at the rate of 35 lit/day and three nos. of fire water pumps will be used. There is no process emission from the existing as well as proposed expansion. There will be no increase in fuel consumption.

Observations / Discussion:

The project proponent submitted the additional information including Mutual Aid plan, Occupational Health Hazards, Safety awareness, Fire alarm/Communication system, Risk assessment report, Disaster Control Management plan, automatic fire detection and emergency fire fighting system, Green belt development and CSR activities. Unit has submitted the report on Risk Analysis, DCMP and HAZOP study of the plant. Committee discussed about safety awareness, fire detection, fire fighting system etc. Committee emphasized on use of personal protective equipments and green belt development within and outside the factory premises. After deliberation on various aspects, it was decided to recommend the project for grant of Environmental Clearance after satisfactory submission of following:

1. Submit line diagram of the fire hydrant network.
2. Number and type of plants to be planted in the premises and proposed 5 year plan for Green belt development. Details of Drip irrigation system for Green belt development.
3. Copy of Consent to Establish, Consent to Operate orders obtained in past along with point wise compliance status of all the conditions stipulated therein.

8	**Trend India**	**Plot No:K-1/21 & 22, GIDC Estate, Kalol, Dist.: Gandhinagar**	**Appraisal Case**

This is a proposed unit applied for manufacturing of Para Nitro Toluene Ortho Sulphonic Acid (PNTOSA) 100% basis-100 MT/month and a byproduct-Dilute Sulfuric Acid (60-65%)-180 MT/month. The proposed project falls in the project activity 5(f) as per the schedule of the EIA Notification-2006.

The project was taken up in the SEAC meeting held on 25/06/2013. During the meeting held on 25/06/2013, looking to the low pollution potential of the project and its location in the notified industrial estate it was decided to categorize the project as B2. Following additional information was sought from the project proponent for appraisal of the project.

Total cost of the proposed project will be Rs. 68.35 lacs. Plot admeasuring 829 m2 has been procured for the proposed production. Water consumption for the proposed project will be 11.5 KL/day and the source of the water will be GIDC water supply. Total waste water generation will be 1.35 KL/day which includes domestic waste water-0.2 KL/day, process & washing-0.5 KL/day, cooling tower-0.5 KL/day and softening regeneration plant-0.15 KL/day. 1.15 KL/day of industrial waste water to be generated will be reused back in the process after primary treatment. Domestic waste water will be disposed off through septic tank & soak pit system. It is proposed to install a steam boiler-600 Kg/hr using bio-fuel (briquettes of agro waste)-7.00 MT/month as a fuel. Process emission of SO_3/SO_2 has been envisaged and it is proposed to provide sulphuric acid tank followed by water scrubber as an APCM. Used oil-0.1 KL/month, ETP sludge (wet basis)-7.0 MT/month and discarded bags/containers-100 nos./month are the hazardous waste to be generated during the operation phase. ETP sludge will be disposed off at the nearest TSDF site. Discarded empty containers will be sold to authorized vendors after decontamination. Used oil will be disposed by selling to registered re-processor. The project proponent has submitted agreement letters from Sunflex Chemicals Industry and Vir Krupa Industries having valid consent of GPCB for purchase of total of 90 MT/m of diluted sulphuric acid from the proposed project.

During the meeting, the project proponent was asked not to use wood as a fuel for the proposed production and to carry out tree plantation in the vicinity of the project site within GIDC. After detailed deliberation, it was decided to recommend the project to SEIAA, Gujarat for grant of Environmental Clearance only after satisfactory submission of the following:

1. Quality of un-treated water going to ETP and treated effluent from ETP which is going to be reused back in the process.
2. Complete management plan of scrubbing water emerging from the APCM to be installed as a control measure of process gas emission of SO_2/SO_3.

9	**Chenitan Color Chem Pvt. Ltd.**	**Plot No:D-2/CH/124, GIDC estate, Dahej, Ta.: Vagra, Dist.: Bharuch**	**Appraisal Case**

Project / Activity No.: 5(f)

Chronology of EC Process:

- The project was considered in the meeting of the SEAC held on 27/12/2012. During the SEAC meeting, TOR was issued.
- Public hearing was carried out by Gujarat Pollution Control Board on 04/12/2013.
- Final EIA Report was submitted on 04/06/2014.

Project / Activity Details:

This is a new unit proposes the manufacturing of various types of Acid dyes with production capacity of 100 MT/Month listed as below:

Sr. no.	Name of the Product	Quantity
1 to 20	Acid Black 210, Acid Black 194, Acid Black 235, Acid Brown 75, Acid Brown 165, Acid Brown 161, Acid Brown 282, Acid Brown 355, Acid Brown 432, Acid Brown 434, Acid Brown 425, Acid Green 68, Acid Blue 113, Acid Blue 193, Acid Red 119, Acid Red 97, Acid Red 357, Acid Violet 90, Acid Yellow 42, Acid Orange 142	100 MT/Month

Total plot area of the project is 15312 m^2 and total cost of the project is Rs. 750 Lacs. Water requirement of 27.5 KLD will be obtained through GIDC water supply system. Total waste water generation will be 49 KLD from which industrial waste water -47 KLD will be treated in the ETP followed by RO and evaporation system. Domestic waste water will be disposed off through septic tank into soak pit. Natural gas will be used as fuel in the proposed 2 TPH Boiler and Hot air generator. Total use of natural gas will be 50000 SCM/day. HSD (40 lit./hr) will be used in a proposed D.G. set of 150 KVA. To control the process emissions from Spray dryer, Cyclone separator followed by water scrubber will be installed. Hazardous waste to be generated from the proposed production are ETP sludge-15 MT/Month, Used Oil- 0.2 KL/Year, Discarded containers/barrels- 100 no.s/Month & Discarded plastic liners-50 Kg/Month.

Observations & Discussions:

The study period considered for EIA was March to June 2013. The predominant wind directions are S, SW, WNW and NW during the study period. Air quality monitoring was carried out at six stations. During the study period the average concentration of SO_2, NOx, $PM_{2.5}$, and PM_{10}, were well within prescribed limit at all locations. Possible impacts of various activities of the proposed project on environmental components like air, noise, water, land and socio-economic etc has been identified. Estimation of emissions from the plant has been made by Industrial Source Complex – Short Term (IST-ST3) model developed by USEPA. As per dispersion modeling studies, the operation of proposed plant is not likely to cause any significant impact on the ambient air quality of the study area. Environment Monitoring Program, Risk Assessment & Disaster Management Plan have been submitted as a part of EIA report.

The issues rose during public hearing include effects of pollution, greenbelt development, safety issues, employment to the locals, CSR activities etc. were discussed. On asking by the committee, project proponent informed that there is no any banned product which they have proposed and assured that they will not manufacture any such product. Issues related to air pollution due to spray dryer and handling of product, work zone environment fugitive emissions etc. have been discussed. After deliberation on various aspects, it was decided to recommend the project for grant of Environmental Clearance after satisfactory submission of following:

1. Legal undertaking stating that they will not manufacture any Azo Dyes which are banned by Govt. of India.

2. Qualitative and quantitative analysis of each product and stream wise effluent to be generated.
3. Proposal for segregation of the wastewater streams (including reuse-recycle, if any), and plans for management, treatment and disposal of different waste water streams to be generated.
4. Capacity, design and technical details of Spray dryers and proposed APCM.
5. Specific details of in-plant control measures to be provided to control fugitive emissions from all the vulnerable sources. Details of ventilation system proposed in the work area. Measures proposed to keep the work area environment as per the norms of GFR.

10	**Swastik Chemicals**	**Plot No.D-2/CH/86, GIDC estate, Ta.:Dahej, Dist.: Bharuch**	**Appraisal Case**

Project / Activity No.: 5(f)

Chronology of EC Process:

- The project was considered in the meeting of the SEAC held on 09/11/2012. During the SEAC meeting, TOR was issued.
- Public hearing was carried out by Gujarat Pollution Control Board on 12/02/2014.
- Final EIA Report was submitted on 04/06/2014.

Project / Activity Details:

This is a proposed unit applied for manufacturing of Para Chloro Aniline-100 MT/m and Para Chloro Aniline Hydrochloride-100 MT/m.

Plot area of the project is 5000 m^2 and total cost of the proposed project is Rs. 400 lacs. Total raw water requirement of 15 KL/day will be met through GIDC water supply. It was presented that there will not be any water requirement for process. Total industrial waste water generation will be 10.5 KL/day (process-2 KL/day, washing-5 KL/day, utilities-3.5 KL/day) and it will be treated in the proposed ETP. After treatment entire quantity of effluent will be sent to evaporator. Condensate from the evaporator will be reused for utility purpose. Bio fuel (briquettes)-5 MT/day will be used in a proposed boiler (2 TPH) & Thermic fluid heater (2 Lac Kcal/hr). Bag filter is proposed as APCM in Boiler and TFH. No process emission has been envisaged. ETP sludge (10 MT/Month, Evaporation salt- 1.5 MT/Month, Used oil- 0.2 KL/Year & Discarded containers/barrels-20 Nos./Month & Discarded liners- 0.1 Kg/Month are the main hazardous waste to be generated from the proposed production. ETP sludge & Evaporation salt will be sent to TSDF site, Used oil will be sent to registered re-processors and Discarded containers/liners will be sent to authorized recyclers after decontamination.

EIA report shows that the baseline environmental monitoring was carried out during the summer-2013 (March-2013 to June-2013) for the environmental attributes like air, water, soil, noise, land use and socio-economic aspects to assess regional environment status. EIA report also covers Environment Monitoring plan, Risk assessment study report and Environment Management Plan. Risk assessment is carried for storage & Handling of Hydrogen and HCl.

During the meeting, issues raised during the public hearing were discussed and the project proponent was asked to fulfill all the promises and commitments made during the public hearing. Safety issues related to storage and handling of Hydrogen gas was discussed. After detailed deliberation on various aspects regarding the project it was decided to recommend the project to SEIAA Gujarat for grant of Environmental Clearance subject to the satisfactory submission of the following:

1. Mass balance for each product with exact source of effluent generation. Product and stream wise qualitative and quantitative analysis of each waste stream to be generated.
2. Design and technical details of Evaporator with schematic diagram.
3. Details regarding spent Catalyst generation, storage and disposal.

11	**Reliance Industries Limited**	**Hazira Manufacturing Division Vill. Mora, Ta.: Choryasi, Dist.:Surat**	**Appraisal Case**

The project was awarded Terms of Reference by SEAC in its meeting held on 17/01/2013. The public hearing of the project was conducted on 10/06/2014. The project proponent has submitted final comprehensive EIA report, comprehensive Marine EIA report, Risk assessment report and maps of demarcation of HTL, LTL and CRZ boundaries.

Hazira Manufacturing Division (HMD) of RIL is located at village Mora, near Hazira in Chorasi Taluka of Surat district is a multi-product, fully integrated complex manufacturing a wide range of petrochemicals, polymers, polyesters and polyester intermediates. HMD had undergone phase-wise development after obtaining necessary environmental clearances from concerned Statutory Authorities. The power and steam required for the existing process plants at RIL-HMD are produced by existing Gas based Captive Power plant. The present installed capacity of the power plant is 380 MW. But, due to uncertainty in availability and high cost of gas, it is now proposed to set up a coal based Captive Cogeneration Power Plant (CCPP) of 4 X 90 MW (360 MW) capacity to cater to the demand for power and steam for the existing plants and proposed expansion activities which are already under implementation after receipt of EC. Coal for the power plant is proposed to be imported. As RIL-HMD complex has an adjoining water front, Tapi Estuary, it is proposed to bring coal by setting up a coal jetty. The coal jetty proposed for the CCPP will have capacity of handling 3.5 MMTPA of coal and limestone.

The proposed coal based Captive Cogeneration Power Plant (CCPP) falls under the project activity no. of 1(d) and the coal handling jetty which is proposed to handle 3.5 MMTPA of coal and limestone, falls under the project activity of 7 (e) as per the schedule of EIA Notification, 2006.

Out of the total land area of 398.32 hectares, 63 hectares will be for greenbelt (including existing & proposed) and 51 hectares will be allocated for proposed CCPP inclusive of 10.5 hectares for coal storage (30 days capacity) and 4 hectares for ash storage (15 days). The sufficient land is available within the complex at HMD for the proposed expansion and associated storage facilities, so no additional land is required.

The existing gas based generators (Gas Turbine Generators) can be preserved for exigencies and future use, in case of any emergencies. However, the coal based co-generation plant will be operating for the steam and power for the complex all the time. Only one of the facilities, i.e. either coal based or gas based will be capable of being operated at any given time and the capacity will not exceed 360 MW.

The water requirement for proposed CCPP will be 12,000 m3/day of DM water and 36,000 m3/day for cooling tower make-up. Presently water is drawn from Singanpore weir and pumped to a distance of 17 km through pipeline of diameter 42″, to HMD complex and the same facility is expected to accommodate the water storage requirement of the proposed coal based CCPP.

Major sources of effluent will be from DM plant, Boiler blow down and cooling tower blow down. Boiler blow down- 700 KL/day will be recycled as cooling tower make-up water. About 100 KL/day of effluent from DM plant of the proposed CCPP will be treated in the existing ETP. Cooling tower blow down will be mixed with treated effluent and discharged into sea for marine disposal. The existing effluent discharge volume is 55,727 KL/day. With the establishment of the proposed CCPP and various proposed water conservation methods to be adopted, no increase in effluent load is anticipated and the effluent discharge quantity will come down to approximately 55,200 KL/day. The existing marine outfall system is having capacity of 90,000 KL/day. As there is no increase in effluent generation and the final treated effluent discharge quantity is within the disposal

capacity of existing outfall system, no new pipeline is proposed for effluent discharge. As no new pipeline/structure is envisaged for the present projects, it does not require clearance under the CRZ notification.

The ash to be generated from the proposed power plant will be collected in dry form only, in silos, provided in the system. The silos will have capacity to store 3 days of ash generation. Average ash generation from the proposed CCPP will be 4,50,000 tons/annum and will be sold to cement & concrete manufacturers, construction projects, brick manufacturers and similar other ash based product manufacturers / building construction agencies. Used oil to be generated will be sold to off-site recyclers/reprocessors approved by (registered with) MoEF having valid consents of Gujarat Pollution Control Board. They have produced agreement letter from Ultratech Cement Ltd. and J. K. Lakshmi Cement Ltd. for fly ash utilization in their cement manufacturing units.

EIA report prepared by NEERI reveals that the primary baseline data (terrestrial) covering three season has generated against known standards and criteria and the concentrations level of any parameter have not found to increased beyond the environmental standards mandated by the MoEF. The baseline environmental quality was assessed in three seasons such as summer, post monsoon and winter during March 2013 to February 2014 in a study area covering 10 km radial distance from the project site. AAQM was carried out at thirteen (12) locations based on the monitoring network siting criteria. Baseline concentration of Particulate Matter PM10, Sulphur dioxide (SO2), Oxides of nitrogen (NOx), Ammonia (NH3), Ozone (O3), Carbon monoxide (CO), Benzene, Lead (Pb), Arsenic (As), Nickel (Ni), Benzo(a)Pyrene (BaP) and Hydrocarbons for all the three seasons were below the stipulated standards of NAAQS, 2009. During the post monsoon season only, the concentration of PM2.5 at few places were high due to ongoing road construction activities near these locations. The predictions for the future environmental quality with the addition of the proposed power generation was carried out which shows that the baseline status will be well within the stipulated standards prescribed by CPCB with respect to air, noise, water, land, biological components, however additional benefit to people will occur due to socio-economic effect.

Risk assessment was carried out for the power plant operations under abnormal conditions. Maximum Credible Accident (MCA) analysis has been worked out at various wind velocities and atmospheric stability classes to estimate the maximum effective distances in case of critical scenarios. Mitigation measures have been recommended to tackle the emergencies. Disaster Management Plan (DMP) has been delineated including the roles and responsibilities of key persons.

Normally five steam generators would be operating and sixth will remain as standby. Capacity of each steam generating unit would be 500 TPH so as to ensure adequate supply of steam to process plants and steam turbines. The steam generating unit would be provided with electrostatic precipitator (ESP). The overall efficiency of ESP would be not be less than 99.8% and outlet emission will be maintained below 50 mg/Nm^3. The ESP will be having 2-3 passes and each pass will be provided with one spare field to ensure ash collection to meet the emission standards even in case of failure of one of the fields. In case of total failure of ESP and if ESP is not recharged within 10 minutes, the ID fan will trip and the boiler will also trip.

Particulate matter generated from the plant will be in the form of fly ash and bed ash. Bed ash will be collected in the hoppers located below the combustor and there is no possibility of emissions due to its collection in the hoppers. During handling and transportation, adequate collection systems with associated bag filters will be provided to minimize fugitive emissions, also the size of the bed ash agglomerates being large the potential of emissions arising from it is lower. In order to limit the concentration in the form of fine particulate matter as fly ash in the exit flue gas, a dust-trapping arrangement, through Electrostatic Precipitator (ESP) is proposed to be installed. PM concentration will be limited to 50 mg/Nm3.

Coal will be conveyed by piped conveyors from jetty to plant. All coal storage areas will be covered to avoid generation of fugitive emissions. Within the plant at all transfer and discharge points, bag filters will be provided for extraction of any fugitive emissions.

Continuous Emission Monitoring System (CEMS) will be installed for monitoring each individual boiler flue gas

ducts so as to continuously monitor PM, SO_2 and NO_x being emitted from the boilers. CEMS will be installed and commissioned, once steady state operation of the boiler is achieved

3.5 MMTPA of coal consumption is envisaged for 360 MW of the Power plant. A new coal jetty proposed to handle 3.5 MMTPA of coal will be located in the Tapi estuary. The proposed coal jetty will be 250 m long and 25 m wide, resting on piles. Pipe conveyor system of 650 m long has been proposed for coal transfer from jetty to project site. Coal unloading jetty will be facilitated by screw unloader of capacity 2000 TPH. The area will be dredged into a basin of dimension 2500 m long × 200 m wide. The capital dredging for maintaining the basin to –4.5 CD is estimated to be 2.6 Mm3. The dredged material will be utilized to raise the level of the project plot up to 9.2 m. Annual periodic maintenance dredging after jetty commissioning is estimated to be 1.1 Mm3. It is proposed to construct an approximately 3.2 Km long structure along the shore preventing erosion, with material such as articulating concrete blocks.

Regional marine environment was assessed through field studies of physical process like tides, currants, coastal circulation etc., water quality, sediment quality, marine flora & fauna which shows that growth and mortality of the phytoplankton are well balanced, the region supports very poor subtidal macro benthic standing stock in terms of population and biomass. The experimental trawling and other relevant information confirm that the area is not a commercial fishing zone. Though mangroves are absent at the development site, the nearest mangroves from the proposed development site are about 100 to 400 m away. A detailed mangrove assessment around the proposed development site was undertaken and the findings are described in the marine EIA report.

Field studies were conducted during pre-monsoon (February-March 2013), monsoon (October-2013) and post monsoon (January- 2014) in the Tapi estuary and the coastal waters of magdalla and Hazira channel. The prevailing marine ecological status of the coastal waters was assessed and based on that the impact on the coastal ecology due to proposed development was also assessed. Suggestions for maintaining a healthy marine environment and suitable marine environmental management plan to minimize any adverse impact were made.

Possible marine environmental impacts during construction phase associated with dredging & dredged soil disposal and during operational phase associated with ship accidents and grounding due to increase in traffic at the jetty, accidental spillage of liquid materials, accidental engine oil spills, spreading of coal, were assessed and suitable mitigation measures were suggested.

Demarcation of HTL, LTL and CRZ boundaries has been carried out by CSIR-NIO, Goa which shows that the proposed coal jetty and part of the coal conveying system are in CRZ IV. The Remainder of the coal conveying system will be in CRZ I (intertidal area) and CRZ III. The shore protection wall falls in CRZ IV, I and III areas which are permissible activities as per CRZ Notification, 2011.

Issues raised during the public hearing were discussed during the meeting and the project proponent was asked to fulfill all the promises and commitments made during the public hearing.

During the meeting, the project proponent was asked to run the ESP efficiently to achieve norms of 50 mg/Nm^3 at the final outlet, to provide online monitoring system for PM at the final stack outlet with tripping arrangement, to employ the trained personals for running the ESP and to use same quality coal for efficient working of ESP. After detailed deliberation on various aspects regarding the project it was decided to recommend the project to SEIAA Gujarat for grant of Environmental Clearance only after submission of the following:

1. Notarized undertaking stating that only one of the facilities, i.e. either coal based or gas based power plant shall be operated at any given time and the capacity shall not exceed 360 MW.

12	**Dyna Glycols Pvt. Ltd.**	**Plot No:268-B, Sector-4, Kandla Special Economic Zone, Gandhidham, Dist.: Kutch**	**Appraisal Case**

Project / Activity No.: 5(f)

Chronology of EC Process:

- The project was considered in the meeting of the SEAC held on 17/07/2013. Looking to the low

pollution potential of the project in terms of water, air & solid/hazardous waste generation as well as its location in the Kandla SEZ, the project was categorized as B_2. During meeting, the project proponent was asked to use LDO instead of FO as fuel and also suggested to mop the floor instead of floor washing in order to reduce the quantity of waste water generation. Additional information was sought for appraisal of the project.

- Additional information was submitted vide their letter no. NIL dated 29/05/2014.

Project / Activity Details:

This is an existing unit engaged in repacking of polyethylene glycols of various grads. Now the unit is proposing to manufacture additional products through ethoxylation and propoxylation etc. within the existing premises. The proposed activity falls in the project/activity 5(f) as per the schedule of the EIA Notification-2006.

Presently, the unit is engaged in repacking of Poly Ethylene Glycols-200 (460 MT/Month) and Poly Ethylene Glycols-4000 (40 MT/Month). The unit now intends to manufacture following new products:

Sr. No.	Products Name	Capacity (MT/Month)
1.	Polyethylene Glycols- Mol. Wt. 200, 300, 400 & 600	460.00
2.	Polyethylene Glycols – Flakes Mol. wt. 4000, 6000, 12,000	40.00
3.	Poly Propylene Glycol-1000	20.00
4.	Poly Propylene Glycol-2000	20.00
5.	EO/PO Block CO-Polymer- F-68	40.00
6.	Ethoxylated Lauryl Alcohol -2 Moles to 12 Moles	40.00
7.	Ethoxylated Tridecyl Alcohol - 3 Moles to 18 Moles	40.00
8.	Ethoxylated Ceto Setaryl Alcohol - 20 Mole to 80 Mole	80.00
9.	Ethoxylated Stearic Acid 10 Mole	40.00
10.	EO/PO Block CO-polymer--L61	20.00
11.	EO/PO BlockCO-polmer---L-62	20.00
12.	EO/PO BlockCO-polmer—L-64	20.00
13.	Ethoxylated NonylPhenol-4Moleto150Mole	40.00
14.	Ethoxylated CastorOil -2.5Moleto40Mole	40.00
15.	Ethoxylated OleylCetylAlcohol-5Moleto25Mole	20.00
16.	Ethoxylated Neodol91-2Mole to 9 Moles	40.00
17.	AlkoxylateofMixedLinearPrimary alcohols(rangeC9toC17)	40.00
18.	Ethoxylated Neodol1/(C11AlcholEthoxylate)	40.00
19.	Ethoxylated Neodol9/(C9AlcoholEthoxylate)	20.00
20.	Ethoxylated 2 Ethyl Hexanol	20.00
21.	Propoxylated2 Ethyl Hexanol	20.00
22.	Ethoxylated Hydrogenated CastorOil-16Moleto40Mole	20.00
23.	Ethoxylated DecylAlcohol	20.00
24.	PolyAlkyleneLaurylEther	20.00
25.	Ethoxylated TrimethylolPropane	20.00

Total	1200

The proposed expansion will be taking place within the existing premises admeasuring 8,280 m^2. Proposed project cost will be Rs. 828.82 lacs. Total water requirement after the proposed expansion will be 68.50 KL/day and source of water will be Kandla SEZ. There will be no waste water generation from manufacturing process. Industrial waste water (washing of equipments and utility section) will be 6 KLD which will be treated in the ETP and treated water will be utilized for irrigation purpose. Domestic waste water generation will be 4 KL/day which will be disposed off through septic tank into soak pit. It is proposed to use LDO 60 lit/hr in 2 nos. of steam boiler having capacity 600 Kg/hr each. One DG set (125 KVA) is proposed in which HSD-40 lit/hr will be used as fuel. ETP waste (10 MT/Year), Empty drums & containers (100 nos./Year), Empty Bags & Liners (100 nos./Year) and Used oil (100 lit/Year) are the hazardous waste to be generated from the proposed production.ETP waste will be sent to TSDF site. Discarded containers and liners/bags will be sold out to authorized dealers after decontamination. Used oil will be sold out to registered preprocessors.

Observations & Discussions:

During meeting, on asking by the committee, the project proponent informed that their sister concern unit located in Goa state is running with no environmental issues. Committee asked about compliance status of their existing unit in Goa and safety aspects related to storage and handling of Ethylene Oxide and Propylene Oxide. After deliberation on various aspects, it was decided to recommend the project for grant of Environmental Clearance after satisfactory submission of the following:

1. Compliance of the conditions stipulated in the environmental clearance for their existing operating unit located in the state of Goa.
2. Records of any legal breach of Environmental laws i.e. details of show- cause notices, closure notices etc. served by the Goa State Pollution Control Board to their existing unit in last five years and actions taken.
3. Details of fatal / non-fatal accidents, loss of life or man hours, if any, occurred in their existing unit in Goa in last three years and measures proposed to be taken for avoiding reoccurrence of such accidents in future.
4. Details of generation of effluent from decontamination facility which is proposed for discarded containers. Mode of treatment & disposal method along with treatability and feasibility report of the same.
5. Complete plan for utilization of treated waste water with schematic diagram of pipeline network within premises. Treated water management plan during the monsoon season.

13	**Sun Light Pigments**	**Plot No:48/1&48/2, GIDC-Kalol, Kalol, Dist.: Gandhinagar**	**Appraisal Case**

Project / Activity No.: 5(f)

Chronology of EC Process:

- The project was considered in the SEAC meeting held on 09/11/2012 and TOR was prescribed for the EIA study.
- The project proponent submitted the EIA Report vide their letter dated 18/07/2014.

Project / Activity Details:

This is a proposed unit applied for manufacturing of Pigment green 7 (80 MT/Month) and by products Sodium Hypo Chloride-17.60 MT/Month, Hydrochloric Acid-73.50 MT/Month & Aluminium Chloride Solution-660 MT/Month. The proposed production activity falls in the project activity 5(f) as per the schedule of EIA Notification-2006.

Total plot area of the project is 3,073.42 m^2 and total cost of the project is Rs. 296 lacs. Total water requirement of 65.5 KL/day will be met through GIDC water supply system. Total waste water generation will be 40 KL/day which includes domestic-1.2 KL/day & industrial-38.8 KL/day. Industrial waste water will be treated in the ETP and treated effluent will be sent to CETP Kalol. Domestic waste water will be disposed off through septic tank into soak pit. Natural gas or LDO will be used in a proposed steam boiler and a thermic fluid heater. Process emission of HCl & Cl_2 has been envisaged from the proposed production. ETP waste, Spent oil/used oil and discarded bags & containers will be generated as hazardous wastes.

Observations & Discussions:

During the meeting, the committee was of the view that the project proponent will have to carry out public hearing in view of the MoEF's O.M. No.-11013/36/2014-IA-I dated 16/05/2014. It was decided to further appraise the project only after carrying out public hearing of the project by Gujarat Pollution Control Board and submission of the following:

1. Revised EIA report incorporating 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. Commitments made by the project proponent on the same should be included.
2. Give details of CETP- Kalol including (1) Total capacity of the CETP, (2) Actual load at present (Qualitative and Quantitative) (3) CETP Up gradation scheme, if any. (4) Analysis Reports of GPCB for Inlet and outlet of CETP for last 6 months. (5) Spare capacity of CETP with treatability and feasibility report.
3. Give details of safety provisions in case of leakages/spillages of HCL, NaOCl & $AlCl_3$. Also give details of safety provisions for flammable raw materials.
4. 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.
5. Characteristics of by products, feasibility of their actual use as raw material, management plan for By-products to be generated, along with the name and address of end consumers to whom the by-product/s will be sold. Copies of agreement / MoU / letter of intent from them, showing their willingness to purchase said by-product/s from the proposed project.

14	**Tirupati Cement Industries**	**S.No.362,Vill:Patidad, Ta:Gondal, Dist:Rajkot**	**Appraisal Case**

Project / Activity No.: 3(b)

Chronology of EC Process:

- The project was considered in the meeting of the SEAC held on 06/02/2013. During the SEAC meeting, TOR was issued.

- The project proponent, along with the application form, submitted a notarized undertaking dated 07/08/2012 stating that the production activity is stopped and will be carried out only after obtaining Environment Clearance. Vide their letter dated 02/01/2013, they have, also submitted a copy of resolution passed by the partners of the company as per the procedure depicted in the MoEF's Office Memorandum No. J-11013/41/2006-IA.II(I) dtd. 16/11/2010.
- Public hearing was carried out by Gujarat Pollution Control Board on 18/06/2014.
- REIA Report was submitted on 18/07/2014.

Project / Activity Details:

It is a proposed VSK technology based cement plant with manufacturing capacity of 100 MT/day (3000 MT/m). The project proponent attended the SEAC meeting held on 11/10/2012, but the committee decided not to hear them in view of production started by them without obtaining Environmental Clearance.

This is a new cement manufacturing unit (VSK Technology Based) proposing to manufacture clinker-100 MT/day. Total plot area is 8,094 sq.m. Expected cost of the project is Rs 1.5 crores. Total water requirement for the proposed project will be about 44 KL/day which shall be sourced through water tanker suppliers. It was presented that there will not be any industrial waste water generation and 2.16 KL/day of domestic waste water shall be disposed off through septic tank / soak pit. The main source of dust emission is from Kiln & feeding of raw materials and it is proposed to provide Bag-filter & scrubber for control of air emission. Dust collected in the dust controlling system will be reused as a raw material in manufacturing process. 2700 sq.m. area wil be developed as greenbelt.

Observations & Discussions:

During the meeting, issues raised during the public hearing were discussed in detail. The committee was of the view that the project has violated the provisions of EIA Notification-2006 and as the MoEF's Office Memorandum No. J-11013/41/2006-IA.II(I) dtd. 12/12/2012 is now in place, a credible legal action as per the procedure depicted therein should be initiated on the violation taken place. It was decided to recommend the project for grant of Environmental Clearance only after initiation of credible legal action against the violation taken place through GPCB.

15	**Modern Petrofils**	**Modern Petrofils, NH No.8, Vill. Bamangam, Ta.:Karjan, Dist.:Baroda**	**Appraisal Case**

Project / Activity No.: 5 (d)

Chronology of EC Process:

- The project was considered in the meeting of the SEAC held on 08/07/2013. Additional information was sought for appraisal of the project.
- During the meeting on 08/07/2013, project proponent presented that the water requirement will remain within the consented quantity of 2,100 KL/day. Industrial waste water generation quantity will reduce from the existing 1,635 KL/day to 1,304 KL/day due to conversion of water cooled condenser of poly plant into air cooled condenser and less water consumption in dye house.
- Project proponent informed that as production increases due to increase in thickness of yarn, there won't be any additional water consumption and wastewater generation due to the expansion. Considering this explanation, the project was categorized as B_2 by the committee.
- The project proponent was asked to provide metering facility at the outlet of motor pump/s abstracting

ground water and to maintain the records thereof.

- The project proponent submitted the additional information vide their letter dated 14/07/2014.
- **Project / Activity Details:**

It is an existing fully integrated plant having continuous polymerization to POY and Draw Textured yarn all under one roof. The unit has now applied for capacity increase by changing product mix in existing plant. The proposed production will be taking place within the existing premises admeasuring 5,49,129 m^2. Total project cost is Rs. 90 Crore. The project falls in the project activity 5(d) as per the EIA Notification, 2006.

Sr. No.	Name of the Products	Existing Quantity (MT/Year)	Additional Quantity (MT/Year)	Total Proposed (MT/Year)
1.	Staple (PFY)	5670	+ 47600	71360
2.	Grey POY	16970		
3.	Flat Yarn	1120		
4	Nylon POY	---		
5	Dyed Weft Yarn	5670	--	16240
6	Dyed Warp Yarn	1890		
7	Grey Text	6790		
8	Grey Text Warp	1890		
9	Nylon Texture	---		
10	Power (CPP)	30960 MWH/Year	--	30960 MWH/Year
Total		40000		87600

Total water requirement for the project will be 2,100 KL/day (Industrial-2,000 KL/day + Domestic-100 KL/day). The source of water is Ground water. Total waste water generation will be 1,383 KL/day (Industrial-1,308 KL/day + Domestic-75 KL/day). Industrial waste water will be treated in the ETP comprising of primary, secondary and tertiary treatment facilities and the treated water will be reused for the gardening purpose. Briquette- 1.235 MT/Hr or FO-0.35 MT/Hr is used in 6 TPH Boiler. Coal-1.94 MT/Hr or FO- 0.84 MT/Hr is used in 3 nos. of HTM having capacity 3.5 Million Kcal/Hr (Each). FO or LDO-1.32 MT/Hr is used in CPP having 5 nos. of DG sets with capacity 2270 KVA each. There is no process emission from the manufacturing activity. ETP waste (180 MT/Year), Used Oil (25 KL/Year), Discarded Container / Bags/Carboys (55.2 MT/Year), Waste residue containing oil (50 MT/Year) and waste residues (0.5 MT/Year) are the main hazardous waste to be generated from the project.

During meeting, while discussing about the management of treated waste water, committee was in view of there should be no discharge of treated waste water outside the premises in any case. Committee also suggested that drip irrigation system should be adopted for green belt development. After detailed deliberation on various aspects regarding the project it was decided to recommend the project to SEIAA Gujarat for grant of Environmental Clearance subject to the satisfactory submission of the following:

1. Details regarding number and type of existing Trees planted in Green belt. Action plan for green belt development with drip irrigation system for 5 year.

2. Treated water management plan for the monsoon season when utilization of the same for greenbelt development is not possible. How it will be ensured that treated water won't flow outside the premises in any case.

16	**Skaps Industries India Pvt. LTd. (Mundra SEZ - Unit-II)**	**Plot no. 1, Block-C, Sector-12 S, Adani Ports and SEZ, Ta: Mundra, Dist.: Kutch.**	**Appraisal Case**

Project / Activity No.: 5(d)

Chronology of EC Process:

- The project was considered in the meeting of the SEAC held on 30/01/2012. Looking to the low pollution potential of the project, it was considered as B_2 category. Additional information was sought for appraisal of the project.
- The committee felt that applicability of the CRZ Notification should be checked with respect to the project location.
- The project proponent submitted the additional information vide their letter dated 31/07/2012.
- The project was appraised based on the additional information furnished and the details presented before the committee in the SEAC meeting held on 27/09/2012. During the meeting, the committee noticed that the MPSEZ has not yet obtained environmental clearance and felt that this proposal in question cannot be considered at present in spirit of the judgment of Hon'ble High court of Gujarat in the matter of Writ Petition (PIL) No. 194 of 2011. The project proponent was informed to approach the committee only after environmental clearance is accorded to the MPSEZ.
- Ministry of Environment & Forests, New Delhi has awarded Environment Clearance to MPSEZ vide its letter no. 10-138/2008-IA.III dated 15th July 2014 and project proponent has submitted a copy of the same on dated 30/07/2014.

Project / Activity Details:

This is a proposed unit applied for obtaining Environmental Clearance for manufacturing of Polypropylene Staple Fiber - 24,051 MT/Annum. Total land area for the proposed project is 32,954.5 m^2 and estimated cost of the project will be Rs. 159 crores. Water requirement for the project, including domestic water requirement, will be 125 KL/day and the source of water will be MPSEZ Utilities P. Ltd. From 25 KL/day of total waste water to be generated, 5 KL/day of domestic waste water will be disposed off through septic tank/soak pit, 6 KL/day from cooling tower will be reused for gardening purpose and 14.0 KL/day of waste water from DM plant and boiler blow down will be send to the CETP of MITAP. Hazardous wastes to be generated are process waste (734 MT/Annum), Discarded containers (Drums-60 nos./Annum, Jumbo Bags-50,000 nos./Annum) and

used/spent oil-3600 liters/Annum.

During meeting, after detailed deliberation on various aspects regarding the project and as Ministry of Environment & Forests awarded Environmental Clearance to MPSEZ, it was decided to recommend the project for grant of Environmental Clearance after satisfactory submission of following:

1. Give details of CETP- MITAP including (1) Total capacity of the CETP, (2) Actual hydraulic load (Qualitative and Quantitative) received at present by CETP (3) Membership certificate of CETP.
2. Type, Characteristic and exact source of process waste to be generated from the manufacturing process, plan for its storage and disposal/reuse/recycle.

17	**Shidhi Vinayak Residency**	**T.P.No.44, Block No.133, O.P.No.40, F.P.No.68, Jahangirabad, Dist:Surat proposed by M/s Shree Shidhi Vinayak Infra Developers.**	**Appraisal Case**

This is a new building construction project having plot area of 27,337.0 m^2 and the proposed built up area of the project is 77,933.15 m^2. As the built up area is >20,000 m^2 and <1,50,000 m^2, it falls in the category 8(a) of the Schedule of EIA Notification, 2006.

The project proponent was called for presentation and discussion in the meeting of SEAC held on 25/06/2013. During the meeting held on 25/06/2013, after detailed discussion regarding the various aspects of the project, it was decided to appraise the project further after submission of certain additional information / documents.

The project proponent submitted the above mentioned details vide their letter dated 31/08/2013.

The project proponent along with their expert / consultants attended the SEAC meeting for further appraisal of the project and made presentation before the committee. During the meeting, the project was further appraised based on the details submitted as well as facts presented before the committee.

Plot area of the project is 27,337.0 m^2 and the proposed built up area of the project will be 77,933.15 m^2. The project will be having total 12 buildings which include 10 residential buildings, one commercial building and one mix type building with residential & commercial units. Scope of 10 residential buildings will be hollow plinth + 13 floors, scope of one commercial building will be ground floor + 5 floors and scope of one mix type building will be ground floor (parking & shops) + 11 floors. Maximum building height in the project will be 40.0 m. The project will comprise of 656 residential units and 42 shops. Water requirement during construction phase-29.5 KL/day will be obtained through SMC and domestic waste water to be generated during construction phase will be disposed off through septic tank into soak pit. Fresh water requirement of 513.0 KL/day during the operation phase shall be met through water supply from Surat Municipal Corporation (SMC) and water requirement for gardening-10 KL/day will be met through treated grey sewage. Total waste water generation during the operation phase will be 404.0 KL/day. They have proposed to segregate grey & black water and to install STP of 210 KL capacity for treatment of grey sewage. Treated grey sewage-10.0 KL/day will be reused for gardening purpose and rest of all the quantity of treated grey sewage and black water will be discharged into the drainage line of SMC. Municipal solid waste to the tune of 1,693 Kg/day will be generated during the operation phase. 75 nos. of community bins of 80 lit capacities to be provided at various locations and these

community bins will be emptied daily by the SMC. It is proposed to provide total parking space of 15,309.65 m^2 [4,762.51 m^2 in basement + 5,701.06 m^2 in hollow plinth + 4,846.08 m^2 as open surface parking] equivalent to 564 CPS, which is more than the GDCR requirement of 10,105.73 m^2 and the NBC requirement of 459 CPS. D.G.Sets (6 × 140 KVA) capacity will be installed. Temporary wind shield barriers, regular water sprinkling, covering the construction material with tarpaulin sheet cover, uniform piling of sand & proper storage etc. has been proposed as dust control measures. The project is having direct access through 12 m, 18 m & 24 m wide roads on three sides of the project site. The nearest fire station of Rander is located at approximately 1.2 km distance from the project site and time required for a fire tender to reach the project site is approximately 5 minutes. Provision of personal protective equipments, training related to safe practices, provision of first aid facilities, concealed copper wiring, maintaining hoists & lifts, lifting machines, chains, ropes in good condition etc. are the proposed safety measures for the construction workers. Diffused water taps, twin flushing system in latrines will be provided as water conservation measures. Proposed energy conservation measures include maximum use of CFL lights/low voltage light, use of variable frequency drive motors, solar lighting in common sunlit areas etc. Excavated earth (@ 49,500 m^3) to be generated will be used for green belt development, leveling low lying areas at project site itself. Construction debris (1,400 m^3) will be used for leveling roads, pavements etc. 2,734.23 m^2 green belt area comprising of 410 nos. of trees will be developed within the project site. Rain water harvesting and ground water recharge through 9 nos. of percolation wells has been proposed. Adequate sanitation facilities, drinking water, municipal solid waste collection facility will be provided to the construction workers. Aerial distance of the project site from river Tapi is 609.9 m.

During the meeting, the project proponent was asked to install all the requisite fire fighting arrangements as per the requirement of NBC or local by-laws whichever is stringent. After detailed discussion it was decided to recommend the project only after satisfactory submission of the following:

1. Technical details of STP along with dimensions of each unit. Demarcation of STP location on layout plan.

18	**Krishak Bharati Co. Operative Ltd (KRIBHCO)**	**175,176,177,179,183,185,186, 244 of Mora Village, Kawas, Ta.: Choryasi, Dist.: Surat**	**EC Amendment**

This is an existing mega fertilizer complex at Hazira having Ammonia and urea plants with other offsite facility which was accorded Environmental Clearance vide letter no. SEIAA/GUJ/EC/ 8(a)/212/2012 dated 27/07/2012. Environmental Clearance was granted to set up a Gas Turbine based Cogeneration plant 77 MW (ISO) power and 190 MT/hour steam generation capacity with condition that after commissioning of proposed power plant, existing 30 MW steam turbine based CPP and 3 numbers of boilers each having capacity of 275 MT/hour will be kept as standby arrangement.

The project proponent vide their letter dated 09/05/2014 requested for amendment in Environmental Clearance order dated 27/07/2012 with respect to make use of one of three stand by boilers. Existing 30 MW steam turbine based CPP and two boilers each having capacity of 275 MT/hour will remain as standby facility.

The request was considered during the meeting and it was presented that earlier it was envisaged that steam requirement for urea plant will be met by Heat Recovery Steam Generator (HRSG) of new CPP and from

ammonia plants and no boiler of existing CPP will be required to run. However after implementation of fertilizer revamp they found that due to some technical reasons, steam generation in ammonia plant in safe mode is around 40-50 MT/hour instead of 100 MT/hour as estimated for fertilizer revamp. Therefore to meet the shortfall of 60 MT/hour steam on continuous basis, it is required to operate one of the boiler on continuous basis from existing three numbers of standby boilers. In the same way to meet with the short fall of power requirement, the power generatin in Gas Turbine shall be so adjusted by reducing the export of power, that the total natural gas consumption in boiler and HRSG shall not increase more than 35 MT/hr as per the condition stipulated in Environmental Clearance order. It was also presented that after this amendment 30 MW steam turbine based CPP and two boilers each having capacity of 275 MT/hour will remain as standby facility. No additional water consumption, effluent generation, numbers of stack and fuel consumption has been envisaged.

During the meeting, after detailed discussion on the matter, It was decided to recommend the project for granting amendment in Environmental clearance order dated 27/02/2012 only after submission of the following:

1. Detailed justification and technical reasons for proposed amendment with factual data of last one year.
2. Copy of Environmental Clearance obtained for the existing product and compliance of the conditions stipulated in the environmental clearance for the existing operation of the project.

19	**Trisha Specialty Chemicals Pvt. Ltd.**	**Plot No:1016,GIDC Estate, Kerala, Nr.Bavla, Ta: Dholka, Dist: Ahmedabad**	**Screening & Scoping case**

The project has obtained Environmental Clearance from SEIAA, Gujarat vide order number SEIAA/GUJ/EC/5(f)/259/2013 dated 22/07/2013 for manufacturing of Methylene Disodium Napthalene Sulphonate - 300 MT/Month at plot No.1016, GIDC Estate, Kerala, Tal. Dholka, Dist. Ahmedabad. The unit has now applied for manufacturing of Binders (type-4000, 9400 and SLN) – 200 MT/month and Di-Octyl Sulfo Succinate Sodium salt (DOSS 50) – 200 MT/month. The proposed production activity falls in the project activity 5(f) as per the schedule of EIA Notification-2006.

During the meeting the project proponent requested to consider the project as EC amendment case but the committee was of the view that the proposed additional manufacturing of two other products cannot be considered as amendment case and the project was taken up as TOR/Scoping case of expansion proposal.

Total water consumption after the proposed expansion will be 105.6 KL/day which was 59.6 KL/day for the existing production. Waste water generation will increase to 11.30 KL/day from the existing 4.10 KL/day. It was presented that there will not be any waste water generation from the process and only 10.3 KL/day of cooling tower blow down to be generated will be reused within the premises. Existing boiler will be replaced with Thermic Fluid Heater and PNG will be used as fuel in the proposed TFH. ETP sludge, Spent oil and bottom sludge of acid tank are the hazardous waste to be generated after the proposed expansion

After discussing the various aspects of the project in detail, looking to the low pollution potential of the project, use of PNG as fuel and its location in the industrial estate of Kerala, it was decided to categorize the project as B2. Following additional information was sought from the project proponent for appraisal of the project.

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) for each product to be manufactured.
5. Assessment of source of the water supply with adequacy of the same to meet with the requirements for the proposed expansion. Copy of permission obtained from GIDC for additional water supply.
6. Water consumption and consumption of each raw material per MT of each product.
7. Water balance diagram (including reuse-recycle, if any) along with qualitative and quantitative analysis of the each waste stream to be generated. A detailed treatability study vis-à-vis the adequacy and efficacy of the treatment facilities proposed for the wastewater to be generated.
8. 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.
9. Application wise breakup of treated water utilization.
10. Plan for management and disposal of waste streams to be generated from spillage, leakages, occasional reactor washing and exhausted media from Scrubber etc.
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. 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.
13. Specific details of fugitive emission from the unit along with its quantification and proposed measures to control it along with measures proposed to monitor VOC within work area. Details of ventilation system proposed in the work area. Measures proposed to keep the work area environment as per the norms of GFR.
14. Details of possibility of chemical seepage & consequent soil contamination & mitigation measure proposed for the same for the proposed project.
15. Details on management of the hazardous wastes to be generated from the project stating detail of storage area for each type of waste, its handling, its utilization and disposal etc. How the manual handling of the hazardous wastes will be minimized.
16. Methodology of de-contamination and disposal of discarded containers along with the details on its record keeping, management of effluent to be generated from decontamination of the discarded containers etc.
17. 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.
18. Name and quantity of each type of solvents to be used for proposed production. Details of solvent recovery system including mass balance, solvent loss, recovery efficiency feasibility of reusing the recovered solvents etc. for each type of solvent.
19. Data on air emissions, wastewater generation and solid / hazardous waste generation and management

for the existing plant should also be incorporated.

20. Details of measures proposed for the noise pollution abatement and its monitoring.
21. A detailed EMP including the protection and mitigation measures for impact on human health and environment as well as detailed monitoring plan and environmental management cell proposed for implementation and monitoring of EMP. The EMP should also include the concept of waste-minimization, recycle/reuse/recover techniques, energy conservation, and natural resource conservation. Total capital cost and recurring cost/annum earmarked for environment pollution control measures.
22. Occupational health impacts on the workers and mitigation measures proposed to avoid the human health hazards along with the personal protective equipment to be provided to the workers. Provision of industrial hygienist and monitoring of the occupational injury to workers as well as impact on the workers. Plan for periodic medical check up of the workers exposed. Details of work place ambient air quality monitoring plan as per Gujarat Factories Rules.
23. MSDS of all raw materials and products.
24. Details of hazardous characteristics and toxicity of raw materials and products to be handled and the control measures proposed to ensure safety and avoid the human health impact.
25. Details of quantity of each hazardous chemical to be stored, material of construction of major hazardous chemical storage tanks, threshold storage quantity as per schedules of Manufacture, Storage & Import of Hazardous Chemicals Rules of major hazardous chemicals.
26. Risk assessment including prediction of the worst-case scenario and maximum credible accident scenarios should be carried out. The worst-case scenario should take into account the maximum inventory of storage at site at any point of time. The risk contours should be plotted on the map clearly showing which of the facilities and surrounding units would be affected in case of an accident taking place. Based on the same, proposed safeguard measures including On-Site / Off-Site Emergency Plan should be provided.
27. Details of fire fighting system including provision for flame detectors, temperature actuated heat detectors with alarms, automatic sprinkler system, location of fire water tanks & capacity, separate power system for fire fighting, details of qualified and trained fire personnel & their job specifications, nearest fire station & time required to reach the proposed site. Submit line diagram of the fire hydrant network.
28. Submit checklist in the form of Do's & Don'ts of preventive maintenance, strengthening of HSE, manufacturing utility staff for safety related measures.
29. Detailed five year greenbelt development program including annual budget, types & number of trees to be planted, area under green belt development [with map], budgetary outlay; along with commitment of the management to carry out the tree plantation activities outside the premises at appropriate places in the nearby areas and elsewhere.
30. Copies of analysis report of the water samples of final outlet of ETP collected by GPCB.
31. Consent to Establish, Consent to Operate orders obtained in past along with point wise compliance status of all the conditions stipulated therein.
32. Copy of Environmental Clearance obtained for the existing product and compliance of the conditions stipulated in the environmental clearance for the existing operation of the project.
33. 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.
34. 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.

The project shall be appraised after satisfactory submission of above cited details.

20	Gala XInc	Survey No: 49/3, .F.P. No: 113, T.P.S.No. 2, Thaltej Dist :Ahemdabad	EC Amendment

The SEIAA, Gujarat has accorded environmental clearance to M/s Multimedia Technologies Pvt. Ltd. for the commercial building construction project at S.No. 49/3, F.P.No.113, T.P.S.No.1/A, Thaltej, Ahmedabad vide order no. SEIAA/GUJ/EC/8(a)/10/2013 dated 14/02/2013 for the built up area of 46,356.0 m^2

Now, the project proponent in the name of M/s Gala Projects Pvt. Ltd. vide their letter dated 09/06/2014 requested for amendment of Environmental Clearance order dated 14/02/2013. It was mentioned in the letter that they want to change the planning and scope of the project from the completely commercial building construction project to the mixed type- residential & commercial building construction project.

The request for amendment in terms of proposed expansion was considered during the meeting. The project proponent presented the details of the previous and the revised project proposals which are tabulated below:

Description	As per Environment Clearance	Expansion and Modification
Plot area (sq. m.)	11,105	11,105
Ground Coverage (sq. m.)	3,331.5	4,372.55
Built – up area (sq. m.)	46,356	76,170.28
FSI area (sq.m.)	24,986.25	44,420.0
Basement area (sq. m.)	15,372	18.352.3
Number of buildings	One	Three (2 residential + 1 commercial)
Number of Units	18 show rooms & 204 offices	75 shops, 292 offices, 220 residential units
No. of floors	G + 10	Residential -H.P.+14, Commercial-ground floor + 13
Maximum height (m)	40	45
Parking requirement as per NBC	499 ECS	700 ECS
Parking requirement as per GDR	7,495.87	16,071.01
Parking area provided (sq m)	Total Area – 16,872 Open area - 1500 (65 ECS) Basement – 15,372 (480 ECS) Total – 545 ECS	Basement -18,352.3 m^2 (573 ECs) Hollow Plinth- 2,172.14 m^2(77 ECS) Mechanical- 9176.15 m^2(286 ECS) Open Parking - 1,200 m^2(52 ECS) Total 30,900.59 m^2(988 ECS)

Total water requirement for the project after the proposed expansion will be 252.09 KL/day and out of which fresh water requirement of 127.1 KL/day will be sourced through water supply from AMC. Waste water generation during the operation phase will be 198.12 KL/day and it is proposed to treat the entire quantity of sewage to be generated during the operation phase into the onsite proposed STP. Treated sewage will be reused for gardening and flushing purpose and the remaining quantity of treated sewage will be discharged

into the municipal drainage line of AMC. Traffic study was carried out considering the proposed expansion as well which shows that existing road network is adequate enough to accommodate existing as well as proposed traffic load. Two staircases of 2.0 m width will be provided in all the three buildings.

After detailed discussion on various aspects of the project regarding the proposed amendment and looking that the proposed changes will be taken place within the existing premises, adequate parking area provision, proposed changes in the project won't have any significant environmental impact, it was decided to recommend the project for amendment of environmental clearance order dated 14/02/2013 with respect to the proposed changes in the project only after submission of the following:

1. Justification for proposed expansion along with the supporting documents.
2. Documentary evidences showing the change in project developers and NOC from M/s. Multimedia Technologies Pvt. Ltd. for transferring the Envrionmental clearance granted for the project in the name of M/s Gala Projects Pvt. Ltd.

21	**Gujarat Fluorochemicals Limited**	**Plot No : 12/A GIDC Estate Dahej Ta : Vagra, Dist : Bharuch**	**EC Amendment**

This is an existing chemical manufacturing unit which was accorded Environmental Clearance vide letter no. SEIAA/GUJ/EC/5(f)/45/2012 dated 27/02/2012. Environmental Clearance was granted with a condition to use Natural gas to the tune of 7,19,128 SCM/day as a fuel in utilities like boiler, Rotary Kiln, Steam Heater, Furnaces, Thermal Oxidizer and gas base power plant.

The project proponent vide their letter dated 23/06/2014 requested for amendment in Environmental Clearance order dated 27/02/2012 with respect to the change in fuel from natural gas to Coal to generate steam from 90 TPH boiler and additional installation of 5 numbers of D.G. sets having total capacity of 4030 KVA [3 X 1010 KVA and 2 X 500 KVA].

The request was considered during the meeting and it was presented that initially it was planned to generate steam from waste heat recovery boiler of gas based power plant and project proponent expanded capacities of the plant according to the permissions granted to them. But due to unavailability of gas supply, gas based power plant of 37 MW cannot be run which was a source of power and steam for their TFE, PTFE & two of its intermediate plants. The power requirement which was planned to obtain through 37 MW gas based power plant will now be met through their group company or through other sources but to meet with the steam requirement they are now proposing to install 90 TPH coal based boiler. The proposed boiler of 90 TPH capacity will be using coal [21 MT/hr in addition to existing permitted quantity] with 70 meter stack height and they will install ESP as APCM. This additional boiler will be installed only to meet requirements of process steam without any associated power generation. It was also presented that additional 5 numbers of D.G. sets having total capacity of 4030 KVA as standby facility to support their continuous manufacturing process in case of emergency and non availability of power from grid have been proposed.

During the meeting, after detailed discussion on the matter, It was decided to further appraise the project only after submission of the following:

1. Detailed justification for proposed change in fuel along with the supporting documents showing non availability of natural gas.

2. Is natural gas available for other utilities using natural gas as per the Environmental Clearance granted?
3. Specific details on (i) Type, quantity and quality (CV, Sulphur content, Ash content, etc,) of coal to be used (iii) Flue gas emission details (iv) Air pollution Control Measures along with its adequacy to achieve the GPCB Norms. (v) List the sources of fugitive emission from the unit along with its quantification and proposed measures to control it.
4. Base line status of ambient air quality and its comparison with ambient air quality results mentioned in previous EIA Report for assessing change in ambient air quality.
5. Prediction of likely impacts on ambient air quality due to change of fuel by use of modeling. Air quality modeling to be carried out considering the worst case scenario partial and complete failure of the ESP. 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.
6. Technical details of ESP 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.
7. Plan for compliance to coal handling guidelines of the GPCB. Detailed plan for prevention and control of fugitive emission / dusting at each and every stage of coal handling including unloading / loading, transportation, stacking/storage/conveyance/ transfer within the plant along with detailed specifications & schematic diagram of water sprinkler system arrangement.
8. A detailed EMP including the protection and mitigation measures for the impacts on human health and environment due to this proposed change as well as detailed monitoring plan.
9. A confirmed coal linkage along with the supportive documents of long term supply of coal for the project requirements should be provided.
10. Fly ash management plan and copies of MOU / agreements done with actual consumers regarding utilization of fly ash & bottom ash etc. should also be incorporated.

22	**Torrent Pharmaceuticals Ltd.**	**Plot No:- Z 104,105 & 106, Special Economic Zone-SEZ-II, GIDC Dahej, Ta.:Vagra, Dist: Bharuch**	**EC Amendment**

Project / Activity No.: 5(f)

Chronology of EC Process :

- EC issued by SEIAA vide letter no. SEIAA/GUJ/EC/5(f)/45/2010 dated 20/02/2010 for the product and activity mentioned in the order.
- Amendments of the Environmental Clearance were issiued by SEIAA vide orders dated 17/01/2011, 13/04/2011 and 04/03/2013
- Proponent submitted request letter for required amendment on 13/06/2014.

Observations / Discussion:

The SEIAA, Gujarat has accorded environmental clearance to the project vide order no. SEIAA/GUJ/EC/5(f)/45/2010 dated 20/02/2010 for product mentioned in the order with condition no.13 as stated below :

Condition no. 13: "Natural gas @ 8500 m^3/day / FO @ 7200 Kg/day shall be used as fuel in the boiler. Adequate stack height as per the GPCB norms/requirements shall be provided. "

Now, the project proponent vide their letter dated 13/06/2014 requested to amend environmental clearance order dated 20/02/2010 to change condition no. 13 as shown below:

Condition no. 13: "Natural gas @ 8500 m^3/day / LDO @ 7200 Kg/day shall be used as fuel in the boiler. Adequate stack height as per the GPCB norms/requirements shall be provided."

During the meeting, the project proponent presented that due to less sulfur content by mass in LDO, total SO2 emission will be reduced up to 48.6 %.. Looking to the less negative impact on the environment, it was decided to recommend the case for amendment of EC as requested.

23	**River View Heights (Shree Infra)**	**Block No:53+59+60+62+63, O.P. 137, F.P.N.137, T.P.S .No .25, Varachha, Ta.: Choryasi, Dist.; Surat**	**EC Amendment**

The SEIAA, Gujarat has accorded environmental clearance to the residential project vide order no. SEIAA/GUJ/EC/8(b)/116/2013 dated 18/05/2013 for total built up area of 1,43,449.68 m^2 at B.No: 53+59 +60+62+63, O.P.137, F.P.No.137, T.P.S.No.25, Vill:Varachha, Ta:Choryasi, Dist:Surat.

Now, the project proponent vide their letter dated 01/07/2014 requested for amendment in the Environmental Clearance order dated 18/05/2013 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 1,70,026.30 m2 after the proposed changes in the project.

The request of amendment was taken up during the meeting and it was observed that the built up area of the project after the proposed changes will be 1,70,026.30 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.

Presentation made before the committee included the details like location of the project site, details of the building & units, water requirement & waste water requirement, MSW generation, parking area provision etc.

After detailed discussion, the following additional Term of Reference were prescribed for the EIA study to be done covering 5 Km radial distance from the project boundary.

1. Comparative statement for the project details as per the EC granted and proposed changes in terms of plot area, built up area, FSI area, number of buildings & units, scope & floors of the buildings, parking area requirement & provision, water requirement, waste water generation, municipal solid waste generation, D.G.set details, green belt development etc.
2. Justification for the proposed expansion of the project along with the supporting documents.
3. Details of final approved, allotted land for the project with exact survey numbers.
4. Status of ownership of land. Copy of N.A order for using the area for non agricultural purpose.
5. Copy of all conceptual project plans [full size] submitted to the competent authority for approval.
6. 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.

7. Provision of separate entry & exit and adequate margin all round the periphery for easy unobstructed movement of fire tender without reversing.
8. Implementation schedule of the project along with the bar chart.
9. A map of the study area delineating the major topographical features such as land use, drainage, locations of habitats, environmental sensitive areas, major constructions including roads, railways, pipelines, industries if any in the area are to be mentioned.
10. 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.
11. 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.
12. Scope of the buildings to come up in the project as well as exact details of the residential units, service and commercial units as well as other amenities (like clinic, club house, swimming pool etc.) to come up in the project.
13. Height of the buildings to come up in the project. Break up of FSI, built up area plot wise, block wise plan & area statement.
14. Proposed fixed population as well as floating population including visitors considered for the proposed project.
15. Study on geo-hydrology of the area and subsoil characteristics.
16. 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.
17. 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.
18. 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.
19. Domestic waste water disposal plan during operation phase and permission of concerned authority for sewage disposal.
20. 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, if any, for reuse of treated sewage for purposes like flushing, cooling tower make up etc.
21. Details of water conservation measures including provision of low water consuming devices.
22. Application wise break up of treated water utilization. Adequacy of open land area available for utilizing of 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.
23. Details of storm water management. Detailed plan to manage treated wastewater 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.

24. 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.
25. 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.
26. Engineering controls proposed for dust control including barricading the site during the construction period.
27. 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.
28. Details of the D.G. sets including fuel, quantity, stack height, location as well as the acoustic measures proposed to abate noise pollution.
29. 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.
30. 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 modeling 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 modeling 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.
31. Details of incremental pollution load on the ambient air quality, noise and water quality due to the project.
32. 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.
33. 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.
34. Details of authorized municipal solid waste facilities, biomedical treatment facilities and hazardous waste disposal facilities in the area should be included. Copy of permission obtained from concerned authority/ies should be submitted. Management and disposal of temporary structures, made during construction phase are to be addressed.
35. Details of hazardous wastes likely to be generated and its storage & mode of disposal.
36. 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 township. 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.

37. 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.
38. 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.
39. Base line ecological status. In case of any scheduled fauna, conservation plan should be provided.
40. 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.
41. 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.
42. 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.
43. Details of Green Building Concept to be adopted for the project.
44. 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.
45. 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.
46. 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.
47. 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.
48. 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.
49. 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.
50. 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.

51. 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.
52. Historical data on climate conditions such as wind pattern, history of cyclones, storm surges, earth quake, flood etc., are to be given.
53. 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.
54. 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.
55. Copy of permission obtained from Aviation Authority.
56. A tabular chart with index for point-wise compliance of above TORs.
57. The above mentioned TORs shall be considered for the 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.

24	**Saffron Hights (Raghuvir Saffron-New Name)**	**F.P.No.60, (as per Draft) F.P.No 20(as per Preliminary), O.P.No.60, Block No.118, D.T.P. Scheme No.43 (Bhimarad), Surat**	**EC Amendment**

The SEIAA, Gujarat has accorded environmental clearance to M/S Raghuvir Developers and Builders for the building construction project at F.P.No: 60(as per draft), F.P.No:20(as per preliminary), O.P.No.:60, Block No.:118, D.T.P. scheme No.:43, Bhimrad, Surat. vide order no. SEIAA/GUJ/EC/8(a)/58/2012 dated 12/03/2012 for built up area of 30,471.97 m^2

Now, M/s Raghuvir Developers and Builders vide their letter dated 09/07/2014 requested for amendment in Environmental Clearance order dated 12/03/2012 for the proposed changes in the project for which Environmental Clearance was granted by SEIAA,Gujarat.

The request for amendment in terms of proposed changes was considered during the meeting. The project proponent presented the details of the previous and the revised project proposals which are tabulated below:

Description	As per Environment Clearance	Expansion and Modification
Name of the project	Saffron Heights	Raghuvir Saffron.
Plot area (sq. m.)	10,370	10,370

Ground Coverage (sq. m.)	1,955.83	2,018.0
Built – up area (sq. m.)	30,471.97	32,759.93
FSI area (sq.m.)	23,165.41	23,310.55
Basement area (sq. m.)	3,844.24	4,460.97
Number of buildings	Four	Six
Number of Units	208 flats, 35 shops	312 flats, 13 shops
No. of floors	Basement +Ground floor + 13	Basement +ground floor (H.P & shops) + 13 floors
Maximum height (m)	39.48	39.48
Parking requirement as per NBC	120 ECS	163 ECS
Parking requirement as per GDR	3,601.8	3,529.23
Parking area provided (sq. m.)	Total Area – 6,506.64 sq. m. (223 ECS) Open area - 1,155.66 sq. m. (50 ECS) Basement – 3,844.24 sq. m. (120 ECS) Hollow plinth – 1,506.74 sq. m. (53 ECS)	Total – 6,606.28 sq. m. (230 ECS) Basement – 3,758.14 sq. m. (117 ECs) Hollow Plinth- 1,416.67 sq. m. (52 ECS) Open Parking – 1,306.74 sq. m. (52 ECS)
Water requirement (KL/day) & Source	140 & water supply from SMC	198.91 & water supply from SMC
Waste water generation & mode of disposal	127.5 & sewer line of SMC	154.44 & sewer line of SMC.
Municipal Solid Waste generation (Kg/day)	575	842
Tree covered area	404.44	404.44

During the meeting, the committee observed that they have proposed to provide only one ramp for basement parking. They were suggested to provide two separate ramps for basement parking. After detailed discussion on various aspects of the project regarding the proposed amendment and looking that the proposed changes will be taken place within the existing premises, adequate parking area provision, proposed changes in the project won't have any significant environmental impact, it was decided to recommend the project for amendment of environmental clearance order dated 12/03/2012 with respect to the proposed changes in the project only after satisfactory submission of the following:

1. Justification for proposed expansion along with the supporting documents.
2. Revised layout plan showing the provision of two separate ramps for basement.

25	**Madhav Platina**	**Block No.121, O.P.No.50, F.P. No.69, T.P.S.No.46, Jahangirpura, Surat Proposed by Madhav Enterprise.**	**EC Amendment**

The SEIAA, Gujarat has accorded environmental clearance to M/S Madhav Enterprise for the residential building construction project at Block No.121, O.P.No.50, F.P. No.69, T.P.S.No.46, Jahangirpura, Surat. vide order no. SEIAA/GUJ/EC/8(a)/161/2013 dated 12/07/2013 for built up area of 53,607.08 m^2

Now, M/s Madhav Enterprise vide their letter dated 09/07/2014 requested for amendment in Environmental Clearance order dated 12/07/2013 for the proposed changes in the project for which Environmental Clearance was granted by SEIAA, Gujarat.

The request for amendment in terms of proposed changes was considered during the meeting. The project proponent presented the details of the previous and the revised project proposals which are tabulated below:

Sr No.	Description	Details as per environmental clearance	Revised details
1	Plot / Land Area	17544 m^2	17544 m^2
2	Built-Up Area	53607.08 m^2	57983.75 m^2
3	F.S.I. Area	39416.28 m^2	39205.15 m^2
4	Ground Coverage	3651.47 m^2	3710.90 m^2
5	Basement Area	7297.29 m^2	9922.81 m^2
6	Hollow Plinth Area	3,651.47 m^2	3,710.90 m^2
7	Parking Area requirement as per NBC	306	348
8	Parking area provided and number of CPS	12,513.05 m2 and 432 CPS	13,945.61 m2 and 463 CPS
9	Common Plot Area	1754.54 m^2	1754.54 m^2
10	Tree Cover Area	1400 m^2	1400 m^2
11	Lawn Covered Area	700 m^2	700 m^2
12	Total no. of Blocks/Building	8 Nos.	8 Nos.
13	Scope and Height of Each Building	5 buildings – B + H.P.+12 floors & 3 buildings – B+H.P.+11 floors	5 buildings – B + H.P.+12 floors & 3 buildings – B+H.P.+11 floors
14	Total number of units	306 residential units	348 residential units
15	Water requirement (KL/day) and source of water supply	140 & SMC	140 & SMC
16	Total waste water generation	148.7	168.7
17	Quantity of Treated water to be reused	53.25 for flushing & gardening	78.35 for flushing and gardening
18	Quantity of treated water to be discharged into SMC drainage line	95.45	90.35
19	Municipal solid waste generation (Kg/day)	826	939

During the meeting, looking to the adequate parking area provision, reuse/recycle of treated water and subsequent reduced water requirement, no additional land requirement, after detailed discussion, it was decided to recommend the project for amendment of environmental clearance order dated 12/07/2013 with respect to the proposed changes in the project only after satisfactory submission of the following:

1. Justification for the proposed changes in the project along with the supporting documents.

26	**OPG Power Gujarat Pvt Ltd.**	**Vill- Bhadreshwar, Tal- Mundra, Dist- Kutch**	**EC Amendment**

M/s. OPG Power Gujarat Pvt. Ltd. has obtained environmental clearance for setting up of the proposed 300 MW (2 x 150 MW) coal based Thermal Power Plant (TPP) at Village Bhadreshwar, Tal. Mundra, Dist. Kutch,

Gujarat, from the SEIAA, Gujarat vide letter no. SEIAA/GUJ/ EC/1(d)/114 / 2009 dated 11/06/2010 and its subsequent amendment order no. SEIAA/GUJ/EC/1(d)/130/2012 dated 15/05/2012 in respect of adoption of air cooling system instead of water cooling system for exhaust steam condenser cooling . Now, the company has applied for amendment of the environmental clearance order dated 11/06/2010 in respect of utilization of ground water for their 300 MW Thermal Power Plant vide their letter dated 28/07/2014.

The request of amendment was considered during the meeting. As per the Environmental Clearance granted to the OPG Power Gujarat Pvt. Ltd., water requirement for the project is 1115.0 KL/day, including 626 KL/day of fresh water requirement to be obtained through water supply from the Gujarat Water Infrastructure Ltd. (GWIL) and 489 KL/day of recycled water. The GWIL has also allocated water supply to the power plant project of 300 MW. The project proponent presented that due to some unavoidable circumstances they now require to use ground water for their 300 MW power plant. They have approached the Central Ground Water Authority (CGWA) for permission of ground water withdrawal and they have got NOC from Central Ground Water Authority for abstraction of 1950 m^3/day of ground water through proposed 3 tubewells / dugwells with horizontal bores only.

After detailed deliberation, on various aspects regarding the project, it was decided to reconsider the proposal of the amendment in one of the upcoming meetings of SEAC only after submission of the following:

1. Detailed justification for utilization of ground water for the proposed Thermal Power Plant of 300 MW when they are having permission from GWIL for surface water supply.
2. Justification for obtaining permission for ground water withdrawal of 1950 m^3/day from CGWA as the total water requirement for the proposed TPP is only 1,115.0 KL/day, including 626 KL/day of fresh water requirement and 489 KL/day of recycled water.
3. Detailed scheme of ground water recharge showing details on ground water recharge structures within & outside the premises and revealing that total quantity of ground water abstraction shall be compensated by the ground water recharge, along 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 and area map. Time bound action plan for the same.
4. Detailed study on geo-hydrology of the area. Impact of proposed ground water extraction on the ground water table & ground water quality of the area, salinity ingress, its impact on other competitive users & borewells in the surrounding area.
5. Categorization of the area from the ground water resource point of view based on the latest ground water resource estimation carried out by Central Ground Water Board

27	**NCPL Buildcon**	**S.No.4/2,15,16/7,16/13,16/33,17 on F.P. no.4/1/2,12,19,18/4,35, T.P.S. no.84/A, Vill : Moje Makarba, Ta : City Dist : Ahmedabad**	**EC Amendment**

The SEIAA, Gujarat has accorded environmental clearance to M/s NCPL Buildcon for the residential cum commercial building construction project at S.No.4/2,15,16/7,16/13,16/33,17 on F.P.No. 4/1/2, 12,19,18/4,35, T.P.S. No.84/A, Moje Makarba, Dist:Ahmedabad vide order no. SEIAA/GUJ/EC/8(a)/ 113/2013 dated 17/06/2011 for built up area of 48,264.27 m^2

Now, M/s NCPL Buildcon vide their letter dated 21/07/2014 requested for amendment in Environmental Clearance order dated 17/06/2011 for the proposed changes in the project for which Environmental Clearance was granted by SEIAA,Gujarat.

The request for amendment in terms of proposed changes was considered during the meeting. The project proponent presented the details of the previous and the revised project proposals which are tabulated below:

Subject	EC Approved Parameters	Proposed Parameters
Plot Area (sq.m.)	12,829.00	12,829.00
Built-up Area (sq.m.)	46,576.65	57,499.81
FSI Area (sq.m.)	28,864.04	33,947.57
Ground Coverage Area (sq.m.)	3,848.70	3,335.72
Basement Area (first) (sq.m.)	7,818.75	8,751.81
Basement Area(Second) (sq.m.)	-	1,536.98
Total basement area (sq.m.)	7,818.75	10,288.79
Hollow Plinth Area (sq.m.)	3,298.98	3,681.21
Common Plot Area (sq.m.)	1,345.77	2,118.92
Trees Covered Area (sq.m.)	154.40	953.43
Lawn covered Area (sq.m.)	1,345.77	1,366.81
Parking Area (sq.m.)	12,807.68	13,867.87
Residential Units	336 No	378 no.
Commercial Units	25 No.	20 no.
Water requirement	270.15 KL/day	322.48 KL/day
Sewage Estimation	234.48 KL/day	277.64 KL/day
Total Height of each Building	Blocks A, B, C, & D : 39.94 m Block E : 14.95	Blocks A, B, C, & D : 39.94 m Block E : 48.05 m
Internal Road Width	7.50 m (min.)	9.00 m wide+ 6.00 m wide periphery road
Margin	7.47 m (min)	7.50 m
No. of Percolating Wells	4 No.(as per GDCR)	4 No.(as per GDCR)
No. of trees Proposed	193 No.	193 No.
Residential Block Details	Total 5 buildings 4 residential buildings-B+H.P+11 floors 1 commercial building-B+G+2	Total 5 buildings 2 buildings-B+H.P.+11 floors 2 buildings-B+H.P.+10 floors 1 building0-B+H.P.+14 floors

During the meeting, the project proponent was suggested to provide Sewage Treatment Plant for treatment of domestic waste water to be generated during the operation phase to which the project proponent was agreed upon. After detailed discussion on various aspects regarding the proposed changes in the project, it was decided to recommend the project for amendment of environmental clearance order dated 17/06/2011 with respect to the proposed changes in the project only after satisfactory submission of the following:

1. 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 the STP in operation phase.

2. Revised water balance details considering the reuse of treated water after provision of STP in operation phase.
3. Complete treated water management plan along with the application wise breakup of treated water utilization. Management plan of treated sewage during rainy season when utilization of treated water for gardening/plantation purpose is not possible.
4. Detail & design of dual plumbing system to be provided for reuse of treated waste water.
5. STP sludge management plan.
6. Justification for the proposed expansion along with the supporting documents.

28	**Transstadia PVt. Ltd.**	**Formerly A'bad Dairy Premises Near Kankaria A'bad F.P.No : 178,179,180,181 Dist : Ahmedabad**	**EC Amendment**

The SEIAA, Gujarat has accorded environmental clearance to M/S SE TransStadia Pvt. Ltd. for the Integrated Sports & Entertainment Complex project vide order No. SEIAA/GUJ/EC/8(a)/248/2011 dated 20/12/2011. The Environmental Clearance was granted for the built up area of 1,47,500 m^2.

The project proponent vide their letter dated 18/07/2014, requested for amendment in the Environmental Clearance order dated 20/12/2011 and the same was considered during the meeting.

During the meeting, it was presented that in order to making the project viable and affordable, they had to prune the project to an affordable level keeping the basic character of the project intact i.e priority for sports related facilities. This downward revision of certain aspects of the project resulted in reduction in the total built up area and consequential reduction in various facilities. As a result some of the parameters such as built up area, water requirement, waste water generation, parking requirement, solid waste generation etc. which were originally reported and sanctioned in the EC order stand reduced. The project proponent presented the component wise reduction in built up area which is tabulated below:

Description	As per Environment Clearance (m^2)	As per modification and amendment (m^2)
Stadium	34,020	35,591.50
StadiArena-Convertible stadium with arena	13,380	7,486.74
Sport academy	12,080	3,061.76
Sport medicine	6,510	393.81
Hospitality area	14,660	4,389.44
Hotel	Included in tem No. 5	11,678.58
Sports club	13,650	24,306.76
Commercial	15,940	7,543.02
Basement (parking + MEP)	37,260	33,261.0
Total	1,47,500	1,27,712.61

The above table shows that the built up area of the project which was 1,47,500 m2 as per the Environmental Clearance granted will be now 1,27,712.61 m2. There will be maximum 16 storied building in the project. Total water requirement of 1074 KL/day, fresh water requirement-490 KL/day & recycled water usage-584 KL/day will be reduced to 523 KL/day, 244 KL/day and 279 KL/day respectively. The additional water requirement of 121 KL/day during the event days will be met through tankers. Sewage generation will be reduced to 306

KL/day from 672 KL/day and it will be treated in the proposed STP. Total parking area provided for parking in the basement is 28,864.0 m^2, which can comfortably accommodate 656 cars and in addition to that emergency vehicles, media vehicles, VIP/guests' vehicles, vehicles of players, match officials, event organizers & related staff will be allowed within the premises during the event days. Further it was presented that they have applied for obtaining Green building rating for their entire structure under the category of LEED-Gold and it is expected to get pre-certificate of the same by October-2014.

During the meeting, the committee was of the view that the proposed changes in terms of reduction in scope of the project will not aggravate the environmental impact of the project and hence after detailed discussion it was decided to recommend the project to SEIAA, Gujarat for grant of amendment of Environmental Clearance order dated 20/12/2011 for the proposed changes only after submission of the following:

1. Copy of permission obtained from Airports Authority of India for the proposed high rise building.

The following proponents did not remain present during the meeting:

1. Glenmark Generics ltd., Plot No. Z/103/1, Vill : Dahej, Ta : Vagra, Dist : Bharuch.
2. RJD Buildcon Ltd., Survey No : 57+58/P, FP No : 57+58/2, TPS No : 66, Vill : Kali, Ta : City, Dist : Ahmedabad

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

Minutes approved by :

1.	Shri T.P.Singh, Chairman, SEAC	
2.	Shri V. C. Soni, Member, SEAC	
3.	Shri R.I.Shah, Member, SEAC.	
4.	Dr. V.K.Jain, Member, SEAC.	
5.	Shri Natarajan Pratap, Member, SEAC.	
6.	Dr. Mayuri H. Pandya, Member, SEAC.	
7.	Shri Hardik Shah, Secretary, SEAC	