EXECUTIVE SUMMARY

OF

DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT

FOR PROPOSED EXPANSION OF UNSATURATED POLYESTER RESIN &

ALKYD RESIN MANUFACTURING (FROM 1200 TPM TO 3500 TPM)

NATURAL PETROCHEMICALS PVT. LTD.

S No. 443, Village: Bhimasar, Anjar-Bhimasar Road,
Taluka: Anjar, District: Kutch, Gujarat.

Prepared By:

Envisafe
Environment Consultants

(QCI-NABET ACCREDITED EIA CONSULTANT)

3rd Floor, Akashganga Complex, B/s. Suvidha Shopping Centre,
Nr. Parimal Underpass, Paldi, AHMEDABAD-380 007, Gujarat.
Telefax: (079) 2665 0473, 2665 0878; E-mail: envisafe@gmail.com

October, 2014

EXECUTIVE SUMMARY

1. INTRODUCTION

M/s. Natural Petrochemicals Pvt. Ltd. (NPPL) is an existing large scale unit located at **S.No. 443 of Bhimasar Village on Anjar-Bhimasar Road in Anjar Taluka of District Kutch in Gujarat.** At present unit is manufacturing Synthetic Organic Resins viz. **Unsaturated Polyester Resins** and **Alkyd Resins** with the production capacity of **1,000 TPM** & **200 TPM** respectively.

Now, considering market demand, unit intends to do expansion by increasing the production capacity of existing products within the same premises by utilizing existing infrastructure facilities with the addition of new plant & machineries. Due to this proposed expansion, cumulative production capacity of both products will be increased from **1,200 TPM** to **3,500 TPM**. Hence, there will be an expansion of **2,300 TPM**.

The proposed project is covered under **Category '5(f)-A'** as per new EIA Notification of Ministry of Environment & Forest (MoEF), dated 14-Sep-06. Therefore, the unit requires to obtain Environmental Clearance (EC) from Ministry of Environment & Forest (MoEF), New Delhi. The EIA report is prepared based on the TOR issued by the MoEF. The EIA Study has been carried out by M/s. Envisafe Environment Consultants, Ahmedabad, Gujarat which is based on one season field data collected from the study area during December 2013 to February 2014 (Winter Season) and the same data has been used in assessment of impacts due to the proposed project.

2. PROJECT LOCATION & ENVIRONMENTAL SETTINGS

a.	Project Proponent	:	M/s. Natural Petrochemicals Pvt. Ltd.
b.	Project Location	:	S. No. 443 of Village: Bhimasar, On Anjar-Bhimasar Road, Taluka: Anjar, District: Kutch, Gujarat.
c.	Geographical Details	:	Altitude: 56 m above MSL Latitude: 23° 10' 29.10" N Longitude: 70° 9' 15.69" E SOI Toposheet: F42 E4

d. Land use of Plant site : 100% Industrial Land

e. Minimum Distances From Plant Site

a) City	:	Gandhidham @ 11.5 km, South Anjar @ 14.0 km, SW
b) Village	:	Bhimasar @ 2.0 km, NNE
c) Railway Station	:	Gandhidham @ 12.0 km South
d) Highway	:	NH 8A @ 0.1 km, NW SH 141 @ 4.5 Km, SE
e) Sea Coast	:	Arabian Sea @ 27.0 km, South
f) Domestic Airport	:	Kandla @ 9.0 km, SW
g) International Airport	:	Ahmedabad @ 350 km, East
h) Sea Port	:	Kandla @ 18 km, SSE & Mundra @ 60 km SSW

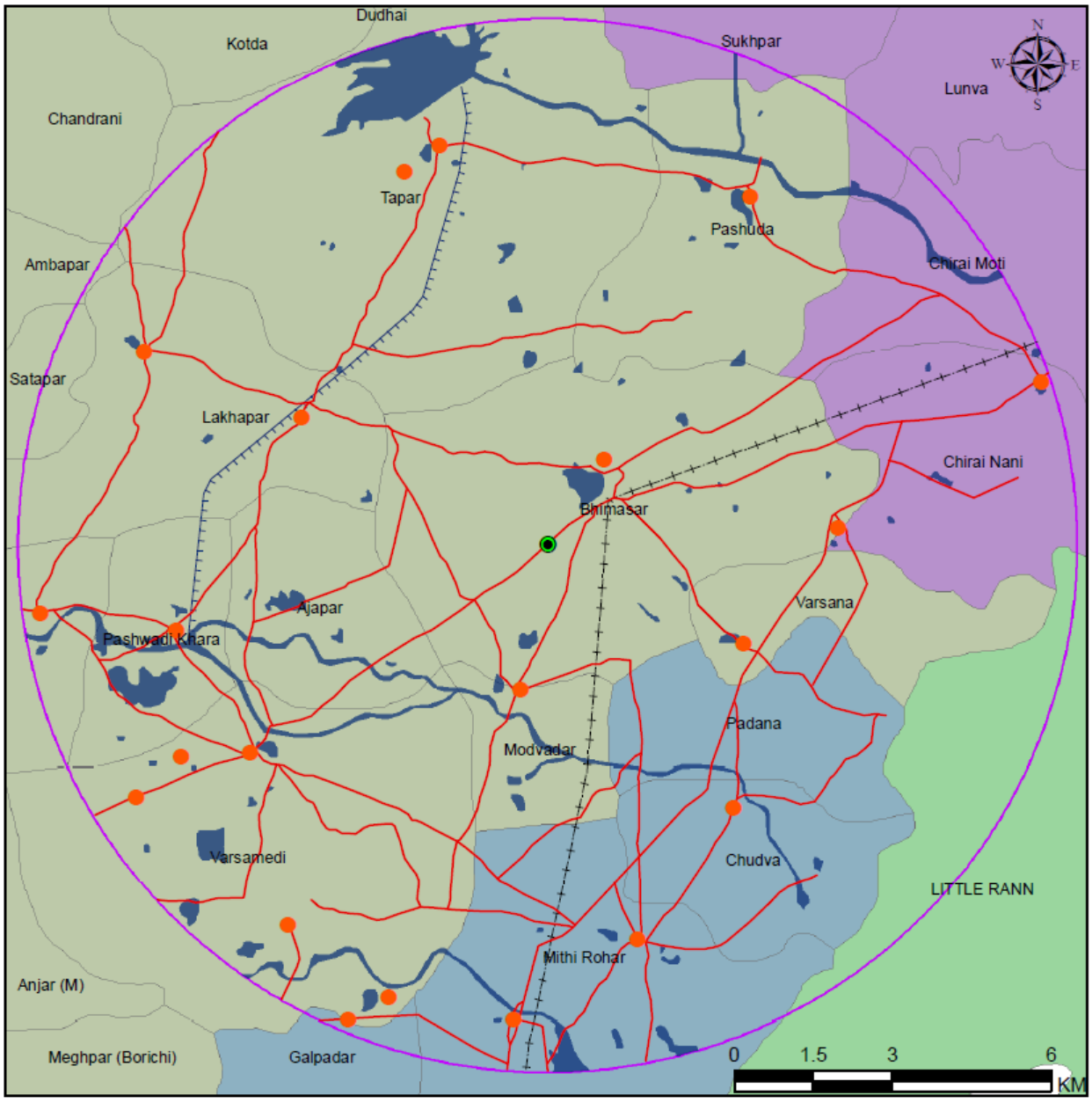
f. Places of Interest within 10 Km radius from the Plant Site (if, any):

There is no protected area notified under the Wild Life (Protection) Act (1972) & Eco - sensitive area notified under Section 3 of the Environment (Protection) Act – 1986 exists within 10 Km radius areas from the Plant Site.

g. Displacement of population : None

h. Seismic Zone : As per the earthquake sensitivity index the unit is situated in Zone-V referred as Very High Damage Risk Zone.

Key Infrastructure Map of the Study Area & Google Image of Existing Plant

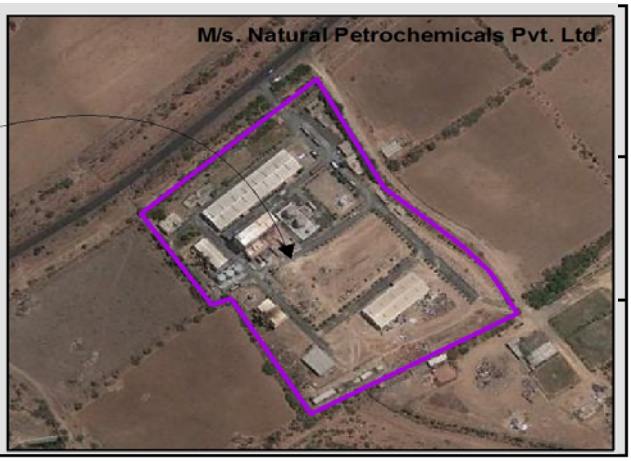


Legend :

Taluka Name

- Anjar
- Bhachau
- Bhuj
- Gandhidham
- Little Rann

- Study Area
- settlement
- Project Site
- Road
- Railway
- Canal
- Lake/Ponds
- River



3. DETAILS OF PROPOSED EXPANSION PROJECT

- Status : Large Scale Unit; Proposed expansion in manufacturing of synthetic organic resins within the existing premises
- Product & Capacity :

Sr. No.	Name of Product	Capacity, TPM		
		Existing	Proposed Expansion	Total after Expansion
1.	Unsaturated Polyester Resin	1,000	2,300	3,500
2.	Alkyd Resin	200		
Total		**1,200**	**2,300**	**3,500**

- Use of Products : Unsaturated Polyester Resin is used in FRP, Fibre Glass industry, Encapsulating electrical components, Concrete coating, Synthetic marble. Alkyd Resin is used in Paint and Coatings

General Information:

- Category As Per EIA Notification 2006 : 5(f)-A
- Land Availability : Proposed expansion will be carried out within the existing premises having an area of 42,290 sqmt and no additional land will be required for the proposed expansion.
- Land type & status : Industrial Land
- Capital Investment, in Crores : Existing: 25.28, Proposed: 14.89 & Total: 40.17
- Capital Investment for EMP, in Lacs : Existing: 32.0, Proposed: 20.0 & Total: 52.0
- Recurring Cost for EMP, in Lacs/Annum : Existing: 11.0, Proposed: 7.0 & Total: 18.0

Resources requirements:

- Raw materials : After expansion, total about 8 raw materials will be required including 2 solvents. All the raw materials will be purchased from local market or will be imported.
- Source of water supply : Surface water supplied by M/s. Gujarat Water Infrastructure Ltd. (GWIL)

- Fresh Water Requirement, KLD :

Particulars	*Existing*	*Proposed*	*Total*
Industrial	2.0	3.0	5.0
Domestic	15.0	10.0	25.0
Gardening	8.0	22.0	30.0

- Power Source : Pashchim Gujarat Vij Company Ltd. (PGVCL)
- Power Requirement : Existing: 425 KVA, Proposed: 150 KVA, Total: 575 KVA
- Fuel Requirement :

Particulars	*Existing*	*Proposed*	*Total*
Agro Waste/ Fire Wood (TPM)	150.0	300.0	450.0
Furnace Oil (TPD)	1.0	1.0	2.0
Diesel (L/Hr)	30.0	30.0	60.0

- Manpower Requirement, Nos. : Existing: 43; Proposed: 67 & Total: 110

4. POLLUTION POTENTIAL & CONTROL MEASURES

Water Pollution:

- Wastewater Generation, KLD :

Particulars	*Existing*	*Proposed*	*Total*
Industrial	2.0	3.0	5.0
Domestic	4.0	16.0	20.0

- Source of Effluent & Management :
  - Process, Cooling and Washing
  - Total industrial effluent @ 5 KLD will be collected and equalized in existing ETP and ultimately completely evaporated at controlled temperature in Thermic Fluid Evaporator. The existing Evaporator will be adequate to take proposed effluent load.
  - Same as existing scenario, unit will maintain Zero Effluent Discharge after proposed expansion also.

Air Pollution:

↳ Flue Gas Emissions

Sr. No.	Stack Attach to	Status		Ht. & Dia. m	Type of Fuel	Concentration of Polluants	Air Pollution Control Measures
		Existing	proposed				
1.	Thermic Fluid Heater-3 (15 Lac Kcal/Hr)	Working (at 6 Lac Kcal/Hr)	Working (at 15 Lac Kcal/Hr)	31 & 0.6	Agro Waste/ Fire Wood	PM ≤ 150 mg/Nm^3 SO_2≤ 100 ppm NO_X≤ 50 ppm	Multi Cyclone Separator
2.	Thermic Fluid Heater-1 (6 Lac Kcal/Hr)	Stand-by	Stand-by	30 & 0.55	Furnace Oil		Adequate Stack height
3.	Thermic Fluid Heater-2 (6 Lac Kcal/Hr)	Stand-by	Stand-by	30 & 0.55			
4.	D.G. Set-1 (380 KVA)	Stand-by	Stand-by	11 & 0.15	Diesel		
5.	D.G. Set-2 (250 KVA)	Stand-by	Stand-by	11 & 0.15	Diesel		

↳ Process Gas Emissions

At present there is no process gas emission from manufacturing activity or any other ancillary operations and even after proposed expansion there will not be any process gas emissions.

Hazardous Waste:

Source	Type of waste	Cat.	Quantity per Annum			Physical-Chemical Form	Management
			E*	P*	T*		
ETP	ETP sludge & Evaporation Residue	34.3	1.08 MT	2.27 MT	3.35 MT	Solid & Inorganic	Collection, Storage & Disposal by Land filling at TSDF
Plant & Machineries	Used / Spent Oil	5.1	0.15 KL	Nil	0.15 KL	Liquid & Organic	Reused as Lubricant or Sell to MoEF approved Recyclers

Source	Type of waste	Cat.	Quantity per Annum			Physical-Chemical Form	Management
			E*	P*	T*		
Raw Material Storage & Handling	Discarded Containers/ Barrels	33.3	1500 Nos.	2500 Nos.	4000 Nos.	Solid & Inorganic	Decontamination and Reuse or Sell to scrap vendors
* E-Existing, P-Proposed, T-Total After Expansion							

Noise & Vibration:

The only source of noise generation may be the D.G. Sets, which will be kept as stand-by like existing scenario and no other source of noise and vibration from the proposed manufacturing activity except plant machineries. The adequate precautions are being taken for abatement of noise pollutions.

5. BASELINE ENVIRONMENT

The baseline environmental quality of air, water, soil, noise, socioeconomic status and ecology has been assessed in the winter season (December 2013 to February 2014). For the present EIA study, the area falling within 10 km radial distance from project site has been selected for preparing the site map along with infrastructure setup and administrative map, land use/land cover map, socio-economic study as well as to monitor the base line environment quality. Baseline study was conducted as per the approved TORs issued by MoEF and guidelines of MoEF/CPCB.

5.1 Topography & Geology

In and around the study area of Bhimasar the land is mostly plain where the soil is sandy with clay and alluvial loam in some parts. The soil at this site is sandy and loamy. Geo-morphologically the study area comprises of coastal area which is characterized by sand mounds and narrow plain strip. The streams flowing in and around the study area are ephermal and in general flows from North to South. Geology in and around the study area is Alluvium.

5.2 Seismology

As per the earthquake sensitivity index, study area lies in Zone V, which is referred as Very High Damage Risk Zone (MSK $\geq$ IX).

5.3 Micro-Meteorology

The site-specific micrometeorological data was collected continuously during the study period by installing automatic weather station at project site. During the study period wind was blowing mostly from North direction with average speed of 1.2 m/s and maximum speed of 6.8 m/s. Average temperature recorded was 19.83°C with maximum temperature of 34.22°C and minimum of 6.24°C. The average relative humidity was recorded as 44% and maximum as 85.6%.

5.4 Ambient Air Quality

The ambient air samples were collected from eight locations and analyzed for PM_{10}, $PM_{2.5}$, SO_2, NO_x & VOC. All the parameters are well within the NAAQS except PM_{10} at four locations. PM_{10} concentrations at project site, Bhimasar Village, Modvadar Village and Ajapar Village were found higher than the NAAQs. VOC concentration (as isobutylene) was below detectable limit (BDL) at all locations.

5.5 Water Quality

Ground water samples were collected from the seven locations and surface/pipe water was collected from three locations once during the study period. All the parameters of collected Pipe water, Surface (Pond) water and Ground water samples were well within the permissible limit at all locations. Considerable concentration of COD and BOD were also observed in the samples collected from ponds of Bhimasar and Modvadar Village because of anthropogenic activities. Pipe water and Ground water of all the location is fit for drinking purposes.

5.6 Background Noise Level

The monitored noise levels have been compared with the standards prescribed by MoEF which indicates that Noise levels at project site as well as near NH 8A were found well within the limit for day & night time. Noise levels at all the residential locations were found higher than the limit for day time. For night time noise levels were well within the limit at all locations except at Nandgam Village.

5.7 Soil Quality

Surface soil samples were collected from eight locations of study area once in study period. Water Holding Capacity of soil samples were in range of 28.9% (Varshamedi Village) to 59.8% (Project Site). The texture of soil is observed mainly Loam type in the

study area. The concentration of available Nitrogen, Phosphorous and Potassium were in the range of 36.2 to 66.4 mg/Kg, 12.4 to 25 mg/Kg and 5.2 to 10.4 mg/Kg respectively, which signifies that the soil of the area is not much fertile. The organic matter in the soil ranged from 2.25 to 3.84 mg/Kg.

5.8 Land Use Pattern

Classification of land use/land cover was derived using GIS software from satellite image. Based on the data it can derived that about 36% of land in the study area is agriculture land utilizing for various crops like Rai, Tuvar, Chana, Kapas, Dangar, Juwar, Makai, Gehu, etc, 7.49% land acquired for the industrial purposes, about 8% land is occupied by salt pans, only about 4% of land in covered under water portion like River, Pond/Lakes etc and only 3% land is covered under human settlements. There is no any perennial river in the study area. Also, there is no protected area notified under the Wild Life (Protection) Act (1972) & Eco - sensitive area notified under Section 3 of the Environment (Protection) Act-1986 exists within 10 Km radius areas from the Plant Site.

5.9 Socio-Economic Study

As per the 2011 census, the study area of 10 km from the project site comprises of total three Talukas of Kutch District namely Anjar, Gandhidham and Bhachau. There are 21 villages and a part of Little Rann of Kutch coming within the study area of 10 km from the project site. As per 2011 census the study area has total population of around 82,521 indicating that the area is sparsely populated with scattered settlements. Overall literacy rate in the study area is 52.1%, which show that literacy rate in the study area is comparatively low. The overall employment ratio for the 21 villages in the study area is 36.1%, which shows that employment ratio is low. Thus, the proposed project will help to improve the economical status in the study area by providing more employment opportunities. As per the 2001 census, almost all villages are having drinking water and electricity. Certain villages are having primary schools, primary health center, bus facility for transportation but for the higher education, banking facilities, railway etc almost all villagers have to travel 5-10 km upto nearest town.

5.10 Biological Environment

The survey was carried out during study period to know the ecological status of the area w.r.t. flora and fauna. During the survey, a total of 142 plant species belonging to

124 genera and 59 families were noted in the study area; including 43 tree species, 22 shrubs, 63 herbs, 6 climbers, creepers and lianas, and 8 crop plants. It is observed during site visit that floral and faunal species encountered are quite common and found everywhere. A total of 72 bird species (42 terrestrial and 30 aquatic) belonging to 66 genera and 39 families were seen. 13 mammal species belonging to 12 genera and 9 families, and 9 reptile species belonging to 9 genera and 7 families were recorded. Besides, 37 species of insects and others belonging to 32 genera and 23 families were also recorded. No endangered and rare species were observed. Also, there are no zoological parks or sanctuaries or reserved forests in the study area.

6. ANTICIPATED ENVIRONMENTAL IMPACTS & MITIGATION MEASURES

6.1 Impacts During Construction Phase & Its Mitigation Measures

During construction phase of proposed expansion, the fugitive dust emission due to civil work and vehicular movement is not expected to spread too far as water spraying will be carried out to suppress the dust emission at the site and as well as on road. The increase in noise levels due to the movement of vehicles will be taken care of by regulating the movement of vehicles and the impact on the human beings will be taken care of by providing the working people with ear plugs/ear muffs. As the proposed project will be carried out within existing premises, there will not be any significant impact on the ecology of the study area.

6.2 Impact During Operation Phase & Mitigation Measures

a) Air Environment

The main source of air pollution is flue gas emission from existing as well as proposed utility operations. The significant pollutants identified due to flue gas emissions are PM, NO_x and SO_2. Adequate air pollution control unit as well as adequate stack height for proper dispersion of pollutants has been provided for the existing Thermic fluid heaters and D.G. sets which will be adequate after proposed expansion also. At present there is no process gas emission from manufacturing activity or any other ancillary operations and even after proposed expansion there will not be any process gas emissions.

The maximum 24-hourly average ground level concentration for pollutants due to proposed expansion calculated using mathematical model (ISCST3) for PM_{10}, SO_2 and NO_x is very negligible even for the worst case scenario.

There will be the fugitive dust emissions due to the manufacturing activities, raw materials handling, loading and unloading of raw materials and finished goods, conveying and feeding point, vehicular movements, etc. Adequate measures will be taken to control the fugitive emissions. Hence, there will not be any significant impact on air environment due to proposed expansion.

b) Water Environment

Additional water requirement of **35 KLD** will be met through surface water supplied by **M/s. Gujarat Water Infrastructure Ltd. (GWIL)** through pipeline same as existing practice. After the proposed expansion, total **20 KLD** domestic wastewater will be discharged to soak pit through septic tank same as current practice. From the existing plant, **2 KLD** industrial wastewater is generated from the process, cooling blow down and washing activity which will be increased upto **5 KLD** after proposed expansion. The total industrial wastewater will be collected, equalized and completely evaporated in Thermic Fluid Evaporator, same as the current practice.

Thus, unit same as current scenario, unit will maintain Zero Effluent Discharge after the proposed expansion. Thus, there will not be any impact on water environment.

c) Land Environment

As the proposed project will be carried out within the existing premises, there will not be any change in land use pattern, forest cover or vegetation in surrounding area. As far as effluent disposal is concerned, unit will maintain Zero Effluent Discharge same as current practice. Regular maintenance of plants and machineries will be carried out and proper care will be taken while loading, unloading and transfer of materials to avoid any soil/land contamination. The hazardous waste generated will be stored and handle as per the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008. Hence, there will not be any impact on land /soil environment.

d) Noise

During operational phase the impact on noise environment will be due to manufacturing activities, utilities and transportation activities (transportation of raw materials and finished products). The noise pollution management will be taken up by selecting low noise generating equipment, Isolating the noise generating equipments and working

area and by administrative & safety measures, providing noise level monitoring, remedial measures, providing noise safety appliances to the working personnel.

e) Green belt development

Unit has already developed green belt in 8,500 sqmt consisting of 350 trees/ plants and lawn cover within the premises and this will be increased up to 14,000 sqmt (33.1% of total area) consisting of additional 530 tree species after the proposed expansion. This will not only improve the soil conditioning but will also prevent soil erosion and the landscape & give slight beneficial impact on the land usage. Greenbelt will minimize the level of possible air pollutants and will also minimize noise pollution.

7. ENVIRONMENTAL MANAGEMENT PLAN

The environmental management plan is proposed with respect to the all proposed activities considering affected environmental attributes and impact zone which is summarized here under:

Sr. No.	Activity	Management Plan
1.	Manufacturing activities and operations of utilities	▪ Ensure the provision of Environmental Management system (EMS) as proposed / committed for environmental pollution control. ▪ Ensure the efficient operations of provided EMS. ▪ Ensure proper collection and handling of effluent to avoid any leakages & spillages. ▪ Ensure evaporation of equalized effluent at controlled temperature (105-110 ºC) to avoid any VOC emission. ▪ Regular monitoring w.r.t EMS, ambient air quality, work area, noise, water quality as per the monitoring program. ▪ Review the monitoring reports and take corrective measures as required. ▪ Ensure the submission of monitoring reports to the concerned authority as per the norms. ▪ Ensure compliance of stipulated conditions by concerned authorities. ▪ Ensure optimum use of resources.

Sr. No.	Activity	Management Plan
		▪ Regular monitoring of water consumption. ▪ Maintain proper record of resources utilization. ▪ Ensure the close manufacturing systems in order to minimize fugitive emissions. ▪ Ensure the regular maintenance of reactors and other process equipments. ▪ Ensure regular usage of proper PPE's by workers in the plant. ▪ Ensure the collection, storage, handling, transportation & disposal of all the hazardous wastes as per the Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 1989 as Amended in 2008. ▪ Proper and timely oiling, lubrication, preventive maintenance of all plant machinery & equipments. ▪ Explore the technology for cleaner production, waste minimization, treatment/ reuse / recycle / co-incineration of wastes.
2.	Storage & handling of hazardous chemicals and hazardous waste	▪ Ensure the storage and handling of all the chemicals in a proper manner to avoid any spillages and also to prevent runoff contamination in monsoon. ▪ Ensure collection & treatment of spillages, if any, ensure good housekeeping to maintain clean and orderly working environment. ▪ Provide training to the persons handling chemicals & hazardous wastes. ▪ Ensure the provision of designated hazardous waste storage area with proper roofing and leachate collection. ▪ Ensure the disposal of hazardous wastes at approved TSDF with manifest only. ▪ Ensure availability of MSDS of all the Hazardous materials to the on-site emergency team.
3.	Domestic	▪ Regular monitoring of water consumption and ensure optimum

Sr. No.	Activity	Management Plan
	activities	use of water. ▪ Ensure proper discharge of sewage to soak pit through septic tank.
4.	Green belt development	▪ Maintain existing green belt by regular watering, soil enrichment work (applying manure) weeding and provide proper protection. ▪ Ensure the further development of greenbelt as proposed.
5.	Rain water harvesting	▪ Ensure the maximum possible collection of rain water and recharging ground water and/or use for greenbelt development & other industrial activities to reduce fresh water requirements. ▪ Ensure good house-keeping to avoid contamination of rain water
6.	CSR activities	▪ Give preference to local people for the recruitment. ▪ Ensure to carry out CSR activities as proposed.
7.	Transportation of hazardous chemicals and hazardous waste	▪ Vehicles must be PUC certified. ▪ Ensure vehicular movement only during day time. ▪ Ensure the transportation only by covered vehicles. ▪ Ensure availability of manifest/TREM card with driver during the transportation of Hazardous Waste / hazardous chemicals. ▪ Ensure regular maintenance and optimum use of the vehicles. ▪ Educate driver about the characteristics of wastes/ chemicals and immediate actions in case of any spillage or accident. ▪ Ensure availability of MSDS of all the Hazardous materials to the Off-site Emergency team.

8. ENVIRONMENTAL MONITORING PROGRAMME

From the monitoring point of view, the important components are air, water, soil, noise and occupational health & safety. Regular monitoring is carried out in existing plant by NABL approved laboratory and will be continued as per the need after the proposed expansion also. Looking to the Zero Effluent Discharge by complete evaporation of collected and equalized effluent, there is no need to establish full fledge laboratory for ETP. However, unit will regularly check pH of the raw effluent. Flow meter will be provided at the ETP (on feed line of Evaporator) for regular monitoring of wastewater quantity. In addition to this, same as the current practice, regular monitoring will be

carried out for wastewater, gaseous emission, fugitive emission and noise by NABL approved laboratory as proposed in monitoring program. Unit has already made necessary tie-up with nearby hospitals for the medical assistance in case of any emergency. Unit has established a well organized Environmental Management Cell (EMC) which will perform all the environmental management activities.

Unit has also prepared EHS policy to comply with statutory norm with regards to the Environment, Health & Safety, to prevent pollution by adopting cleaner production techniques, identification and management of operational hazards and risks and to ensure the safety of people. Voluntary reporting of environmental performance with reference to EMP is undertaken. General Manager and Officer-EHS co-ordinate all monitoring programs at site and data generated are submitted regularly to the statutory agencies. Frequency of reporting is as per the requirement of GPCB and MoEF. This reporting schedule will remain same after proposed expansion.

9. ANALYSIS OF ALTERNATIVES (TECHNOLOGY & SITE)

The proposed expansion will take place within the existing premises having all the infrastructure facilities, land, water sources, material transportation, power etc. Unit already has sufficient land required for the proposed expansion so no additional land will be required and therefore, no need to analyze any alternate site for proposed expansion. After the proposed expansion, existing infrastructure facilities will be utilized with the addition of new machineries. Therefore, no alternative for the site was considered.

Unit intends to do expansion by increasing the production capacity of existing products viz. Unsaturated Polyester Resins and Alkyd Resins. Manufacturing of these Synthetic Organic Resins involves various chemical reactions and physical operations for which unit has adopted latest and best technology available so far in the market. Moreover, the unit is very concerns and conscious about the product quality and equally about the environmental protection and resource conservation; and hence they put their efforts for replacing/ upgrading their existing plant and machineries from time to time with the best available technology.

10. RISK AND SAFETY MANAGEMENT

The unit is very much aware of their obligation to protect all persons at work and others in the neighborhood that may be affected by an unfortunate and unforeseen incidence occurring at the works. Unit has provided all the adequate safety measures in the existing plant. After proposed expansion also, any hazard either to employees or others arising from activities at the plant site shall as far as possible, be handled by the personnel of the company and prevented from spreading any further. In the case of eventuality the on-site and off-site emergency plan proposed by the unit will be adequate and may be able to control the situation. After the proposed expansion all the required safety measures will be taken and unit will also carry out safety audit through authorized agency/organization.

11. PROJECT BENEFITS

Unit has contributed reasonably as part of their CSR and carried out various activities in nearby villages. Unit is spending annually about Rs. 1.5 Lac for such activities. In addition to this employment opportunity for 67 persons and for many other skilled-unskilled labors during construction and other ancillary activities during operation will be generated after the proposed project. Unit has planned to carry out various activities for the upliftment of poor people, welfare of women & labors, education of poor students as part of Corporate Social Responsibility (CSR) in the nearby villages and therefore unit will make additional provision of Rs. 1 Lac. Therefore, after proposed expansion, unit will spent at least Rs. 2.5 Lac every year towards CSR activities. In addition to the above, unit will earmark **Rs. 75 Lac (5.04% of the project cost)** towards the Enterprise Social Commitment. The utilization of this fund in various areas with time bound action plan will be decided based on the outcome of public hearing.

12. CONCLUSION

It can be concluded on a positive note that after the implementation of the mitigation measures and environmental management plans, the proposed project activities during the construction and operation phase would have manageable & largely have reversible impacts on the environment and on balance the project would be beneficial to surrounding communities and the region.