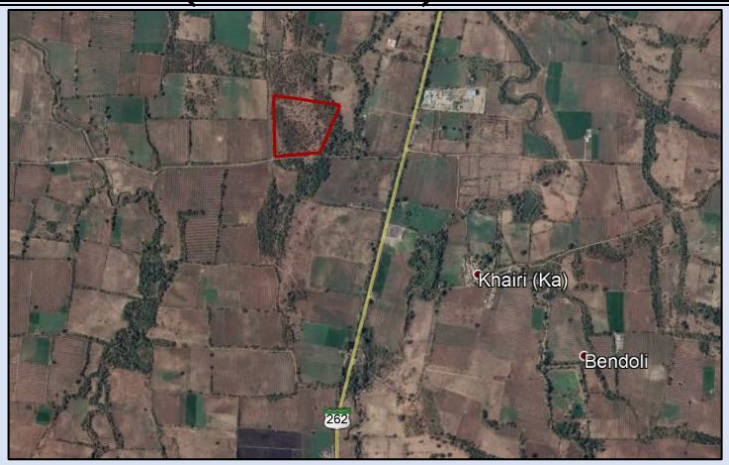
EXECUTIVE SUMMARY

for

PROPOSED SSP/FORTIFIED (ZINCATED/BORONATED) SSP, GSSP/FORTIFIED (ZINCATED/BORONATED) GSSP AND MIXED FERTILIZER (NPK/PROM) MANUFACTURING PLANT



at

KH. NO. 28 of Mouza, Marajghat, PH NO. 13, TQ.: Umred, District-Nagpur, Maharashtra-441203

Type of Project	Greenfield project
Category as per EIA notification 2006 and its amendments:	Activity 5(a) , Chemical Fertilizers Category B
Total Plot Area	44450 m^2 (4.445 ha.)
Proposed Production Capacity	Single Super Phosphate (SSP)/Zn SSP/ B SSP: 1,32,000 MT/Annum Granulated Single Super Phosphate (GSSP)/Zn GSSP/B GSSP: 1,00,000 MT/Annum Mix Fertilizer (NPK/PROM) : 25,000 MT/Annum **As per season, the demand of products pattern changes and accordingly products will be manufactured. All the products will not be manufactured at a time. The likely production capacity of the products will depend upon demand but limited to the sanctioned capacity and only interchangeability will be applicable.*
Total Cost of Project	₹ 55 Crores
TOR Letter/Proposal No.	SIA/MH/IND3/60186/2021
Baseline Monitoring Period and Laboratory	Period: December,2020 to February,2021 J. P Test House & Research Centre Shahibabad Industrial Area Shahibabad Ghaziabad (UP); NABL Accreditated- Certificate No. TC-8047 valid till 30/06/2022
NABET Acc. No.	NABET/EIA/1922/RA0197 dated 15.03.2021 valid till 23.11.2022

PROJECT PROPONENT

M/s THE VIDARBHA COOPERATIVE MARKETING FEDERATION LIMITED, NAGPUR (VCMF)

Model Mill Road,Near S.T. Stand Ganeshpeth, Nagpur – 440018

Email: vcmfhongp@gmail.com ; Phone no.: 0712-2971729

UID No.: EQMS/VCMF/EIA/PR-622/25102021

Report Release Date: 25/10/2021 Revision No: 00

ENVIRONMENTAL CONSULTANT:

(Approved Consultant)

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QCI/NABET Accredited Consultant

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1.1. INTRODUCTION

M/s The Vidarbha Co-operative Marketing Federation Limited, Nagpur (VCMF) popularly known as VCMF has been recognized under Maharashtra State Government Act. VCMF has the largest supply chain network upto village level in Vidarbha region and Marathwada regions of Maharashtra state for distribution of Agri-inputs like Fertilizers, Certified seeds, Pesticides etc. It has the largest food grains procurement agency of the state.

The proposed project titled ***""Proposed SSP/Fortified (Zincated/Boronated) SSP, GSSP/Fortified (Zincated/Boronated) GSSP and Mixed Fertilizer (NPK/PROM) Manufacturing Plant"*** will be located at KH. NO. 28 of Mouza, Marajghat, PH NO. 13, TQ.: Umred, District-Nagpur, Maharashtra-441203. The project will be manufacturing fertilizers like *Single Super Phosphate/Zn SSP/B SSP (1,32,000 TPA)/ Granulated Single Super Phosphate/ Zn GSSP/ B GSSP (1,00,000 TPA) and Mixed Fertilizer i.e., NPK/Phosphate Rich Organic Manure k/a PROM (25,000 TPA).*

Details of total proposed production capacity is mentioned below in **Table 1.1**:

Table 1.1 : Details of Proposed Production Capacity of Project

S.No.	Particulars	Unit	Production Capacity
1.	Single Super Phosphate (SSP)/Zn SSP/ B SSP	MT/Annum	1,32,000
2.	Granulated Single Super Phosphate (GSSP)/ Zn GSSP/ B GSSP	MT/Annum	1,00,000
3.	Mixed Fertilizer (NPK/PROM)	MT/Annum	25,000

****As per season, the demand of products pattern changes and accordingly products will be manufactured. All the products will not be manufactured at a time. The likely production capacity of the products will depend upon demand but limited to the sanctioned capacity and only interchangeability will be applicable.***

Detailed statement of the project is shown below in **Table 1.2.**

Table 1.2 : Details of Proposed Project

S.No.	Particulars	Unit	Details
1.	Total Project Cost	Rs. (In Crores)	55
2.	**AREA DETAILS**		
a.	Total Plot Area	m^2	44450 (4.445 ha.)
c.	Green Area	m^2	15000 (33.7% of total plot area)
3.	**POPULATION**		
a.	Workers/Staff	No.	165
b.	Visitors	No.	10
c.	Total Population	No.	176
4.	**SERVICE DETAILS & ENVIRONMENTAL ASPECTS**		
a.	Total Water Requirement	KLD	265
b.	Fresh Water Requirement	KLD	138

S.No.	Particulars	Unit	Details
c.	Wastewater Generation (Including Domestic Sewage & Industrial Effluent)	KLD	128 Domestic Sewage- 8 KLD; Industrial (Scrubbing) Effluent- 120 KLD
d.	Wastewater Treatment Schemes/Capacity	KLD	*Domestic Sewage*: Sewage Treatment Plant- 15 KLD *Industrial Effluent*: Not Applicable Fluorine is scrubbed through their respective ducts in venturi and cyclone where water is pumped in anti-current in the scrubbers, all the gases come in contact with water where it is absorbed by the water in different stages, and it turns in to Hydro fluoro-silicic Acid H_2SiF_6. This is very dilute acid having concentration from 2 to 7%. This acidic water is reused for acidulation of rock phosphate.
e.	Recycled Water Reuse	KLD	127
f.	Power Requirement	kVA	1500
g.	DG Sets (Backup)	kVA	1x500
h.	Total Municipal Solid Waste Generation	kg/day	76

1.2. TERMS OF REFERENCE

The application for the scoping of the said project as submitted to the State Expert Appraisal Committee (SEAC)/State Environment Impact Assessment Authority (SEIAA) and Terms of Reference (TOR) was issued vide *Proposal No. SIA/MH/IND3/60186/2021 dated 28.04.2021*.

1.3. PROJECT CATEGORIZATION

As per the Government of India (Ministry of Environment, Forests & Climate Change (MoEF&CC),) EIA Notification 2006 and further amendments, the proposed project will be covered under ***Activity 5(a); Category B*** and hence requires environmental clearance from SEIAA/SEAC Maharashtra. The proposed proejct is located outside Notified Industial Area. Hence, Public Hearing is applicable for the project.

1.4. PROJECT LOCATION

The proposed project is located at KH. NO. 28 of Mouza, Marajghat, PH NO. 13, TQ.: Umred, District-Nagpur, Maharashtra-441203. The coordinates of center of site are **Latitude**: 20°54'40.41"N and **Longitude**: 79° 4'59.31"E.

1.5. DESCRIPTION OF THE ENVIRONMENT

1.5.1. Site Characteristics

The proposed project is located at KH. NO. 28 of Mouza, Marajghat, PH NO. 13, TQ.:

Umred, District-Nagpur, Maharashtra-441203. The site lies in Nagpur District of Maharashtra. It is located 26 km from Nagpur City. The proposed site is accessible to State Highway-262 (about 0.36 km in North direction. Khairi (Ka) is the nearest village located at 0.80 km in North-east Direction. Butibori, a 5-star Industrial estate developed by Maharashtra Industrial Development Corporation (MIDC) is located at 8.38 km in North-west direction of proposed site. Nearest Railway Station is Butibori Railway Station located at 7.34 km in West direction. Nearest Airport from the project site is Dr. Babasaheb Ambedkar International Airport located at 26.8 km in North-west direction of project site.

1.5.2. Topography

Topography around 10 km area of the proposed site is undulating and varies from rather plain to high contour areas. The average elevation in 10 km study area ranges between 255 to 406 metres above mean sea level. The topography of proposed site is undulated with minor contour in the area. The elevation ranges from 262 to 290 amsl.

1.5.3. Climate and Meteorology

Temperature: December, January and February constitute winter months with daily mean minimum temperature around 7.8^{0}C and daily mean maximum temperature around 46.1^{0}C. May is the hottest month with maximum temperature at 45.6^{0}C and January is the coldest month with minimum temperature at 8.8 °C.
Relative Humidity– The air is generally moist in the region and relative humidity is high throughout the year. The lowest humidity is observed for the Month April. The humidity level ranges between 33 - 85% during morning time and in evening time humidity level is 19%-76%.
Rainfall– The annual total rainfall is 1100.3 mm. Over 83.58% of the total annual rainfall is received during the June to September.
Wind Speed & Wind Direction– The annual mean wind speed is 6 km/hr in Nagpur (Sonegaon) district. Pre-dominant wind direction in the area is N, NE.

Seismicity: Project area falls in the Seismic Zone-II (Low Damage Risk Zone).

1.5.4. Soil Environment

8 sampling locations were monitored in 10 km study area. As per the grain size distribution the percentage of sand in all sampled soil was found varied from 8.5% to 18.4%, silt varied from 31.1% to 48.3% and Clay from 42.1% to 51.4% during study season. The soil pH ranges were observed from 7.64 to 7.95 during study season. The Organic Carbon content of sampled soil during study seasons varied from 1.7% to 2.5. Based on Nutrient Index Value for N, P and K, the soils of study area fall into ***Low to Medium Fertility Status.***

1.5.5. Water Environment

Observations on Ground Water Quality: 8 samples of groundwater nearby the project site were monitored. All physical and general parameters were observed within the permissible limit as per IS10500:2012 (Second Revision). Thus, it is recommended that water be filtered and disinfected prior to be given for drinking water requirements. Groundwater Quality Index of monitoring locations were found to be good at all locations and excellent at GW-2 (Bothali).

Observations on Surface water Quality: 4 surface water samples around the project site was monitored. The pH values of all analyzed samples ranged between 7.39 – 7.48 and are within the class A limit (6.5-8.5). The TDS levels were observed to be 192-281 mg/l

i.e., below Class A limit of 500 mg/l. Total hardness levels were observed to be ranging from 118-162 mg/l (within limits of Class A i.e., 500 mg/l). Values of total dissolved oxygen were observed between 6.8 mg/l to 7.4 mg/l. Chloride levels were observed between 39-53 mg/l i.e., within limits of Class A (250 mg/l). The levels of sulphates were observed be 18-26 mg/l (within Class A limits i.e., 400 mg/l). Nitrate levels of study area were found to be ranging from 6.5 to 8.4 mg/l (within Class A1 limit i.e., 20 mg/l). Total Coliform levels were observed from $2.2x10^3$ to $3.9x10^3$ and were found within the limits specified for Class C (5000 MPN/1000 ml). Surface Water Quality Index of all surface water samples was found to be non-polluted.

1.5.6. Air Environment

The monitoring results of ambient air quality were compared with the National Ambient Air Quality Standards (NAAQS) prescribed by MoEF; GoI Notification dated 16.11.2009. The maximum concentration of PM_{10}, $PM_{2.5}$, SO_2, NO_X, CO was 98 µg/m^3, 53.80 µg/m^3, 12.40 µg/m^3, 28.10 µg/m^3 and 0.81 mg/m^3, respectively. Air Quality Index of all locations was found to be satisfactory and good at AAQ-7 (Mangrul).

1.5.7. Noise Environment

Eight locations for noise monitoring were sampled in 10 km radius study area of the project. The noise level is within the prescribed limit in all the monitoring stations as per classification of area. Higher noise levels were observed in N8 i.e., Butibori Industrial Area primarily due to industrial activities and vehicular movement.

1.5.8. Traffic

The project site is connected to SH-262 located 0.36 km, N) connecting via approach road. Traffic density on SH-262 is very low i.e., 5-6 cars/trucks per hour. There will be increment of approx. 5-7 trucks after development of proposed project. However, SH-262 connects to NH-7 & SH-3 located 8.98 km, W from the project site. NH-7/SH-3 is the primary road involved in transportation. The capacity of crossroad intersection is 5142 PCU/hr where the existing traffic density is 1680 PCU/hr with Average Baseline LOS of 0.33.

1.5.9. Biological Environment

There are few reserved forests located in the 10km radius area of the site i.e., *Protected Forests (7.88km, NE), Makardhokra Reserved Forests (7.00km, SE), Dongargaon Reserved Forest (8.45km, SW) and Indoli Reserved Forest (8.42 km, SW). Wadgaon Reservoir* is located at 2.68 km distance from project in SW direction and Vena River is flowing at distance of 7.84 km in west direction of project. There are no environmentally sensitive components within study area.

Flora: There are 40 no. of trees located in within the plot of various species like Palash, Keekar and several wild varieties. There will be no cutting/transplantation of existing trees for construction of project. During primary and secondary study carried out under present project, 55 tree species, 23 shrub species and 52 herbs/grasses/climbers were recorded from the study area. Among the enumerated flora in the study area, none of them were assigned any threat category, by RED data book of Indian Plants. (Nayar and Sastry, 1990) and red list of threatened Vascular plants (IUCN, 2010; BSI, 2003).

Fauna: The mammals in the area studied have largely the population of domestic ungulates like goats and cattle throughout the human settlements. Direct sighting and people consultation confirmed the presence of mouse, mongoose, common house rat in the study area. Among the reptiles and amphibian, 2 species of amphibians and 6 species of reptiles were recorded in study area. The listed animal all so cross checked

with IUCN red data book and found that most of the animals recorded in this study were listed as **"Least Concern"** category of IUCN Red Data Book.

Avifauna: During survey, 34 no. of species were recorded in the area. There is no endangered or Schedule-I faunal species present in the study area except Pavocristatus which is a schedule-I species. The Indian Peafowl is categorized as 'Least Concerned' in the International Union for Conservation of Nature's (IUCN) Red List.

1.5.10. Socio-economic Environment

As of the 2011 Census, Nagpur municipality has a population of 2,405,665. The total population constitute, 1,225,405 males and 1,180,270 females. The municipality has a sex ratio of 963 females per 1,000 males and child sex ratio of 926 girls per 1,000 boys. Average literacy rate of Nagpur city is 91.92%. Men are 94.44% and women are 89.31% literate.

1.6. ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

1.6.1. Air Pollution

During Construction Phase, civil construction activities and foundation development for project may lead to dust generation. Operation of construction machineries and fuel combustion will lead to air emissions. Construction activities will be short-lived and restricted within vicinity of project area. Impact generated due to construction activities will be regulated within limits by implementation of mitigation measures like Barricading will be done around the construction site to control dust dispersion into the surroundings, Dust suppression by regular water sprinkling in and around the project site, Routine preventive maintenance of construction equipments etc.

During Operation Phase, the main types of air emission from project will be flue gas emissions, process emissions and fugitive emissions. Fugitive emissions may generate from improper handling, spills & leaks from storage tanks & drums. Air emissions could affect general ambient air quality in project site and nearby residential areas that might lead to discomfort and related respiratory & odour problems to people. Fluoride emissions will also be generated from acidulation of rock phosphate & curing of product. To control such emissions, air pollution control measures like Four-stage scrubbing system (PPGL+FRP Scrubber fan with suction duct), dust collector chamber & cyclone (Dryer cyclone & cooler cyclone) will be installed with effective efficiency. To control process emissions, four-stage venturi scrubber, cyclone & scrubbing system with anti-current will be installed. Appropriate stack height of DG Sets will be maintained as per CPCB norms. Emissions from plant stacks will be maintained within statutory limits prescribed by MPCB/CPCB.

1.6.2. Noise Pollution

During Construction Phase, main causes of noise will be operation of construction machineries & equipments like compressors, mixers, cranes, generators. Noise will also be generated from movement of vehicles carrying materials, loading & unloading activities, operation of DG Sets etc. Due to construction activities, there may be increment in noise levels in the nearest residential area that may also lead to nuisance and disturbance. However, all preventive measures will be executed to avoid noise pollution like limiting time of construction activity during daytime only, Regular noise level monitoring, provision of noise mufflers & noise suppression equipments to all machineries etc.

During Operation Phase, the most probable sources of noise generation in the project will be various instruments like blowers, vacuum pumps, process pumps, granulator dryers, coolers, crushers etc., & vehicular movement along the road around the plant. The proposed SSP project will be a smaller project with advanced technology and improved equipment both in terms of energy efficiency and less noise. Continuous noise and vibrations may cause several problems to human as well as animals. However, noise will be maintained within permissible limits by implementation of mitigative measures like use of suitable muffler system/enclosures/sound-proofing glass paneling on heavy equipment/pumps/blowers, insulation of equipments with enclosed doors, appropriate placement of equipments in such an orientation that would direct the noise away from sensitive receptors, plantation around the project etc.

1.6.3. Water Pollution

During Construction Phase, total water requirement for construction phase will be 10 KLD out of which, 7 KLD will be required by labours for domestic usage and 3 KLD will be required for construction activities. Freshwater during construction phase will be sourced by private tankers. Wastewater generated will be disposed through soak pits. Mitigation measures like dry vehicle cleaning, use of freshwater only for domestic works, no excavation during monsoon season etc. will be done to avoid negative impacts on the site.
During Operation Phase, the total water requirement of the project will be 265 KLD. Out of which, 138 KLD freshwater requirement will be sourced from Borewell, and the rest will be sufficed by re-using 127 KLD effluent generated from scrubbing of Fluorine gas. Improper disposal and handling of wastewater may lead to contamination of groundwater that could eventually lead to scarcity in the near future. However, VCMF will abide by the concept of "Zero-liquid Discharge" project. The plant will execute the mitigation measures like collection of stormwater and reuse, regular monitoring, dewatering if sludge etc., to prevent contamination and deterioration of water resources.

1.6.4. Waste Management

During Construction Phase, improper storage and disposal may increase the risk of microbial contamination that would lead to foul smell. The project being in the vicinity of residential and agricultural areas may cause pathogenic diseases among people nearby. Construction wastes like rocks, asphalt, metal, gypsum etc. will also be generated from construction activities. All these activities may lead to deterioration in aesthetics of the area, disturbance in routine activities of people in nearby residential areas if not disposed off properly. VCMF therefore has planned to abide by preventive measures like use of designated dustbins, disposal of C&D wastes to C&D disposal sites, reuse of recycling materials, reuse of excavated soil in site levelling etc. to diminish impacts from construction phase of proposed project.

During Operation Phase, there will be generation of several kinds of hazardous wastes from the project like discarded containers/barrels/liners, used/spent oil etc. Hazardous wastes may cause harm if not disposed off properly. There is potential for accidental spills while re- fueling or servicing vehicles and through the breakage due to wear and tear. Thus, proper disposal of waste is required for to maintain hygiene at site. Additionally, improper disposal of municipal waste in site could lead to pathogenic diseases and related ailments among staff and nearby people. VCMF shall comply with possible mitigation measures like disposal of industrial hazardous wastes such as discarded containers & barrels to Common Hazardous Waste Incineration Facility,

reuse of used oil for lubrication of machines etc., to avoid damage to environment from accumulation and contamination of hazardous wastes.

1.6.5. Land Environment

Earlier, land-use of the project was agricultural. However, it has been changed to agricultural as per permission granted by District Magistrate, Nagpur.

During Construction Phase, land cover of site is vacant/undeveloped land. It will be developed into fertilizer complex. There are a few trees located in the site. However, development will be done in such a way that no tree will be transplanted or uprooted during development.

During Operation Phase, there may be decremental impacts to nearby areas as the majority of surrounding areas are agricultural and residential. Improper disposal of waste, effluent etc., may damage to land environment of project site and surroundings. Mitigation measures like proper disposal of municipal and hazardous wastes, precautions to avoid spillage etc., will be done to reduce impacts.

1.6.6. Soil Environment

During Construction Phase, soil erosion may happen if open areas are left without paving or plantation. Thus, it is required to either pave or green the open areas. Sanitation and waste management practices will be adopted, used oil will be stored and disposed responsibly, spillage will be avoided to reduce impact to soil during construction phase.
During Operation Phase, spillage of material like effluent, chemical, hazardous waste, used oil and fuel may contaminate the soil. Due to improper disposal of solid waste & liquid waste includes the leaching from biodegradable waste and effect on flora from spillage of waste on soil. Improper disposal of Effluent during shutdown may encounter soil and contaminate. As described in baseline, the soil quality of the project site has medium fertility with adequate levels of micronutrient. Similarly, soil quality of nearby monitoring stations has also been found to be in low to medium fertility status. The industry will adopt every measure to prevent oil spillage. It will be mandated that there will be no disposal of hazardous waste into the soil.

1.6.7. Ecology and Biodiversity

During Construction Phase, Due to operation of construction machineries, construction works and influx of labours, there may be disturbances experienced to local pets. Effect may also be observed to micro species in and around the project site. There will be no uprooting or transplantation of existing trees on the plant. Development will be done in such a way that all trees will get retained. Best practices will be executed during construction activities to avoid any loss of species.
During Operation Phase, the impact on the surrounding ecology of the project will mainly occur from the deposition of air pollutants. There will be minor increment anticipated in air components of environment. However, after implementation of air pollution control measures and emission control mitigation measures, the impact will be insignificant. Also, the proposed project will be Zero-liquid discharge project. Thus, no major impact is anticipated due to the proposed project. All MPCB and MoEF&CC standards shall be maintained. Beside above, dense green belt has will be developed all along the boundary premises which will act as a barrier for noise and air pollution.

1.6.8. Socio-Economic Environment

During Construction Phase, there will be development of shed, commissioning of machineries and related foundation works will be done. Approx. 100 no. of labours will be employed for construction phase. Local labours will be hired that would increase the livelihood and income generation of nearby people. The project construction activity will have positive impact on the social environment. Accident and Noise related problems in the plant are the main concerns for local labour. Measures like sanitation, drinking water facility, provision of PPE's etc., will be done at site for welfare and safety of labours.

During Operation Phase, Employment will be given to 165 no. of people (Temporary-110 no. & Permanent-55 no.). Indirect employment opportunities being generated in various activities like raw material and final products transportation, contractual manpower for non-critical activities at the plant (canteen, gardening, housekeeping etc.). The industrial growth of the region will help in infrastructure development in the area. The proposed production will increase the indigenous production of fertilizers that would help to generate income for government through Taxes. The Project shall contribute towards local training and employment programmes. CSR Activities will be undertaken by VCMF for people and communities outside the project. All staff are provided with personal protective equipment like ear plugs/mufflers, masks, gloves, etc as required. Workers medical Tests are undertaken periodically. OHSAS guidelines are followed in the plant.

1.6.9. Conclusion

The impacts anticipated vary from moderate to low significance and magnitude. Minimal impact is anticipated during construction phase that will be recovered by following appropriate environment management control measures. However, during operation phase, impact is anticipated due to increased polluted air quality, wastewater generation and increased noise level. The project also has various positive impacts like indirect employment generation, increase in the indigenous production, and ease of the availability of chemical fertilizers to farmers emission reduction from vehicular movement. It is believed that the anticipated negative impacts can be normalized by taking the proposed mitigation measures.

1.7. ENVIRONMENTAL MONITORING PROGRAMME

Environmental monitoring plan will be implemented as per regulatory requirement to comply the necessary compliances. Environmental monitoring plan will be implemented as per regulatory requirement to comply the necessary compliances. As per the MoEF&CC guideline, Environment monitoring report and compliance of conditions mentioned in the environment clearance will be submitted to the RO-MoEF&CC, SPCB, MoEF&CC online portal i.e., parivesh and shall be uploaded on company's website. Compliances will be submitted in month of June and December for the period of April to September and October to March respectively. Third party laboratory (approved MoEF&NABL laboratory) shall be appointed for carrying out the monitoring. Also, self-environmental audit, Health & safety audit shall be conducted annually.

1.8. ADDITIONAL STUDIES

Risk assessment study has been undertaken to identify the Hazard and preparation of mitigation. On-site and Off-site Emergency plan will be adopted in the plant. Following safety measures have been recommended by the plant.

- Safe operating procedures should be available for all operations practices and equipment.
- The workers should be informed of the consequences of failure to observe the safe operating procedures.
- Electrical resistance for earthing circuits should be maintained.
- The preventive maintenance will be planned and carried out as per plan to avoid the failure of flanges, pipelines, and other component of transferring line. The leakage/spillage will be confined to the dyke area underneath the vessel.
- Acid unloading standard procedure will be in place and will be implemented for safe unloading of road tanker.
- Static earthing provision will be made for tanker unloading.
- Drum handling trolleys will be used for transportation of drums up to plant and internal handling from storage to process area.
- Fire extinguishers will be provided as required.
- First aids boxes will also be provided at different places.
- Water showering system will be provided to the flammable chemicals storage area.
- Area will be declared as "NO SMOKE ZONE".

1.9. PROJECT BENEFITS

The project will be beneficial to nearby people. Through CER/CSR/ISC activities company management will be committed to improve infrastructural facilities for the local people in field of Environmental, Medical, and Transportation etc. Based on the preliminary site visit, the infrastructure demand in the villages will be assessed based on need and priority.

- The proposed project will lead to direct and indirect employment to total 180 persons for facilities like transportation, contractual labour for loading/unloading of materials and unskilled labours.
- Training programs will be set up for the development of local community as per the work requirement.
- Induced secondary development in the area.
- Increased cash flow and stimulation of local economy within the host community and localized economic benefits from materials supplies by local contractors
- Training and skill development of the local population for their better livelihood.
- Indirect business opportunities to the local people shall be available during the construction as well as the operation phase
- Development in housing, electrification, medical, health sector will improve.
- Enhancement in infrastructure facilities and utilities further improving the living conditions in general.
- It will result in improvement in the economy of the local vendors.

1.10. ENVIRONMENT MANAGEMENT PLAN

OH&S policy and EHS policy will be adopted by the plant for sustainability. A separate EMP cell, Fire & Safety cell and Occupational Health Centre will be provided in the plant for compliance of Environmental management plan and OHSAS guideline.

The total estimated cost of the project is ***Rs. 55 Crores.*** Construction activity will start after grant of Environmental Clearance to the project and plan approval. Accordingly, the estimated time of completion of construction works will be 24 months**.** Approx. Rs. 115 Lakhs of will be contributed for implementation of Environment Management Plan.

Company will spend cost on environment management plan for compliance of standards, norms laid down by GoI and environmental sustainability.

VCMF will implement all guidelines laid down by CPCB and MoEF&CC for CREP (Corporate Responsibility for Environmental Protection) and submit the annual compliance of the same to the MPCB.

1.11. CONCLUSION

Thus, it can be concluded on a positive note that after implementation of the mitigation measures and Environment Management Plan, the operation of the project will have no major impact on environment.