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## EXECUTIVE SUMMARY

### CHAPTER 1

#### INTRODUCTION

M/s Paithan Mega Food Park Pvt. Limited (PMFPL) is a Special Purpose Vehicle (SPV) by a consortium led by Nath Biogenes Ltd, Aurangabad. The company is established leader in Agro products and has well developed network of research stations, production centers, processing plants and marketing branches spread across the country. The company pioneered the concept of contract seed production in the country and has a network of over 7,000 progressive farmers, who produce quality seeds on 25,000 acres of land annually and enjoys credibility with the farming community, built over the years by closely working with various farmer groups.

The company has national presence with a robust and ever expanding marketing network across the country. Paithan Mega Food Park Ltd will have members dealing with various aspects of Agri processing such as Cold storage, IQF, Packaging & Processing, collection, distribution and cleaning of fruits & Vegetables. The effluent generated in the processing & Utilities is proposed to be treated in Common Effluent Treatment Plant.

### CHAPTER 2

#### PROJECT DESCRIPTION

##### Location of the project

The geographical location of the project is Latitude 19°34'30" N and Longitude 75°23'6"E with an elevation of 486.76 M above Mean Sea Level (MSL).local authority has assured to provide all infrastructure like assure electrical power, continuous water supply, internal road network, external approach road etc.

##### Process Description

Vega tables collected at various centers in nearby village and transported to Mega Food Park are cleaned and stored in Freezer Room for further processing / packaging and distribution to Domestic/ International Customers.

- Collection
- Cleaning
- Cold Storage
- Processing
- Packing

**Raw materials**

**Non-perishable raw material-** Items like food grains, dals (pulses), onions, dry chillies etc are received and sent to dry warehouse for stacking.

**Perishable raw material:** Items like fresh fruits and vegetables fall in this category.

**Water**

The total water requirement is 2000 CMD /day. The water supply will be from MIDC.

**Utilities**

The potential point sources are two stacks attached to 500 KVA DG set.

Power required for the entire project will be supplied from Maharashtra State Electricity Board.

**Waste Water**

PMFPL has various units operations as under for treatment of combined effluent received from their member units.

Equalization cum neutralization and primary treatment of flash mixer and clariflocculator.

Two stage biological treatment system.

Tertiary treatment of pressure sand filter & activated carbon filter.

Final Treated effluent store in storage tank.

**Solid Waste**

The main solid waste from this factory will be of bio-degradable from process waste, spillages and flour sweepings. The organic waste being generated from the Mega Food Park activity shall be composted and utilized as manures. And Hazardous like used spent oil which will be sent to Authorized Recycler for Disposal.

Legal requirement to mitigate the adverse environmental impacts have been incorporated in the feasibility report. All the equipment required for environmental pollution control will be installed during the construction phase.

Project Cost:-12,456 Lacs, EMP Cost-250 Lacs and O&M Cost-25 Lacs

### **CHAPTER 3**

#### **DESCRIPTION OF THE ENVIRONMENT**

Environmental studies were carried out, as per TOR received from MoEFCC Delhi. The study area is defined as area within 10 km radius from proposed site of boundary.

The climate of the district is characterized by a hot summer and a general dryness throughout they are except during the south west monsoon season, which is from June to September while October and November constitute the post monsoon season.

Accordingly ambient air particularity monitoring stations were set up at 9 different locations. Parameters recorded are 1. Particulate Matter 2. Sulphur Dioxide 3. Oxides of Nitrogen. Maximum concentration of SO<sub>2</sub> was 8.5 µg/m<sup>3</sup> at Borgaon. Minimum concentration of SO<sub>2</sub> was 6.1 µg/m<sup>3</sup> at Boragaon. Maximum concentration of NO<sub>X</sub> was 9.9 µg/m<sup>3</sup> at Borgaon. Minimum concentration of NO<sub>X</sub> was 8.1 µg/m<sup>3</sup> at Boragaon. Maximum concentration of NO<sub>X</sub> was 9.9 µg/m<sup>3</sup> at project site. Minimum concentration of NO<sub>X</sub> was 8.1 µg/m<sup>3</sup> at Wahegaon. Maximum concentration of PM<sub>10</sub> was 39.84 µg/m<sup>3</sup> at Pimpalwadi. Minimum concentration of PM<sub>10</sub> was 26.18 µg/m<sup>3</sup> at Boragaon. Maximum concentration of PM<sub>2.5</sub> was 12.98 µg/m<sup>3</sup> at Isarwadi. Minimum concentration of PM<sub>2.5</sub> was 9.12 µg/m<sup>3</sup> at Isarwadi.

As can be seen from the table below, the maximum daytime Leq of day is 62.5 dB (A ) and the Leq of night is 50.5 dB(A). The maximum values may be attributed towards the nearby

commercial activities and traffic movements. The minimum values for day & night time were found to be 50.0 and 40.5 dB(A) respectively.

Land Use- A recent satellite image for study area was collected from NRSC. The image was interpreted for identification of various land use / land cover classes. Land use of the study area has been classified into .441.Built up area-20.43% 2.Crop land-35.05% 3. Fallow land- 38% 4. Water bodies 11.12% 5. Barren land 12.74% 6. Scrub land- 0.22%.

Soil sampling was carried out at 9 locations in the study area. The soil at and around site area is dark brown to black colored cotton soil most commonly associate with Deccan plateau. The soil within study area is stiff and forms deep cracks when dried indicate its expansive nature and good water holding capacity. As per USDA Classification, the soil within study area is mostly silty clay and clay loam

The ground water quality at the site and other 8 locations within the 10 km study area was monitored during February 2015 to April 2015.

Socio-economic study: Social survey is conducted in 2015 13 villages to collect factual information by involving community. For secondary data primary census abstract Of 2011, government of India has been used.

## **CHAPTER 4**

### **ANTICIPATED ENVIRONMENTAL IMPACT IDENTIFICATION AND MITIGATION MEASURES**

#### **Air Environment**

##### **Impacts**

- Emissions from chimney of D.G. set.

##### **Mitigations**

- The chimney attached to DG set will be of at least 3.5 m above roof height i.e. 15 m above ground level.
- Trees should be planted along road sides to arrest dust particles

## **Noise Environment**

### **Impacts**

- The major noise producing centers are D. G. set.
- Noise generation from processing unit

### **Mitigation**

- Plant Operation & Administrative Zone
- Use of noise adsorbent padding in fixed plant installations to reduce generation of noise at source.
- Use of ear muffs by the employees working near plant who are exposed to high noise levels, so as to moderate actual noise level exposure by protective devices.
- Plantation of green belt and vegetation along the internal roads around offices to create a barrier so that noise is absorbed and its intensity is brought down.

## **Water environment**

### **Impacts**

- The proposed project will require 2000cum/day. The assured source of water will be from MIDC Paithan.

### **Mitigation**

- The processing unit Operations effluent is treated for removal neutralizes and then passed through settling tank to remove the suspended solids.
- The treated effluent will be meeting the discharge standards stipulated by the MPCB. It will be reused.

## **CHAPTER 5**

### **ANALYSIS OF ALTERNATIVES**

The proposed technology used by M/s Paithan Mega Food Park Ltd. for manufacturing of variety of products is one of the best proven technologies; hence no alternative technology has been analyzed.

## **CHAPTER 6**

### **ENVIRONMENTAL MONITORING PROGRAMME**

Environmental monitoring programs are prepared to ensure effectiveness of operating procedures and confirm statutory & mandatory compliance and identify unexpected change in operating conditions of the plant.

- SPM, RPM, SO<sub>2</sub> and NO<sub>x</sub> to be monitored by continuous 24 hours sampling once in a month.
- Wastewater quality is monitored for both influent and treated effluent parameters for domestic and processing unit streams. The monitoring is recommended once in a day. The parameters to be monitored in both cases are BOD/COD, Suspended Solids and Oil & Grease etc.

## **CHAPTER 7**

### **ADDITIONAL STUDIES**

Identification of hazards in the proposed plant is of primary significance in the analysis. Quantification and cost effective control of accidents involving chemicals and process have been modeled as precautionary measures.

## **CHAPTER 8**

### **PROJECT BENEFIT**

The proposed project will prove to be beneficial to state. The local area will become more popular, valued and will have a habitable environment due to increase in employment generating capability and other resources necessary to sustain life such as medical care, education, fuel, electricity, transportation, communication, entertainment, marketing etc. The proposed project

will help to improve the green cover of the region with planned green belt development. The upcoming project will lead to increase in the valuation of landed property of surrounding area.

## **CHAPTER 9**

### **ENVIRONMENTAL MANAGEMENT PLAN**

For each stage of the program, the EMP Lists all the requirements to ensure mitigation of significant impacts identifies in the EIA, energy and water conservation practices will be adopted. Green belt development plan is designed for project over 18614 sqm with variety of plants. Total rainwater generated and harvested for the sustainable development.

## **CHAPTER 10**

### **CONCLUSION**

All the possible environmental aspects adequately assessed and necessary control measures formulated to meet with statutory requirements. Thus implementing this project will minimize adverse impacts on surroundings environment. At the same time, income generation capacity will also improve in the area by direct and indirect employment leading to socio-economic development in the area. Hence proposed project will be a welcome development.