

## ANNEXURE-VII

### ENVIRONMENTAL MANAGEMENT PLAN (EMP)

52MW Co-generation, 8000TCD Sugar & 54KLPD Distillery Unit at Shri Hiranyakeshi Sahakari Sakkare Karkhane Niyamit, Sankeshwar.

The industry shall a detailed Environmental management Plan and invite experts from academic and research institutes to supervise the work carried our Environmental management cell.

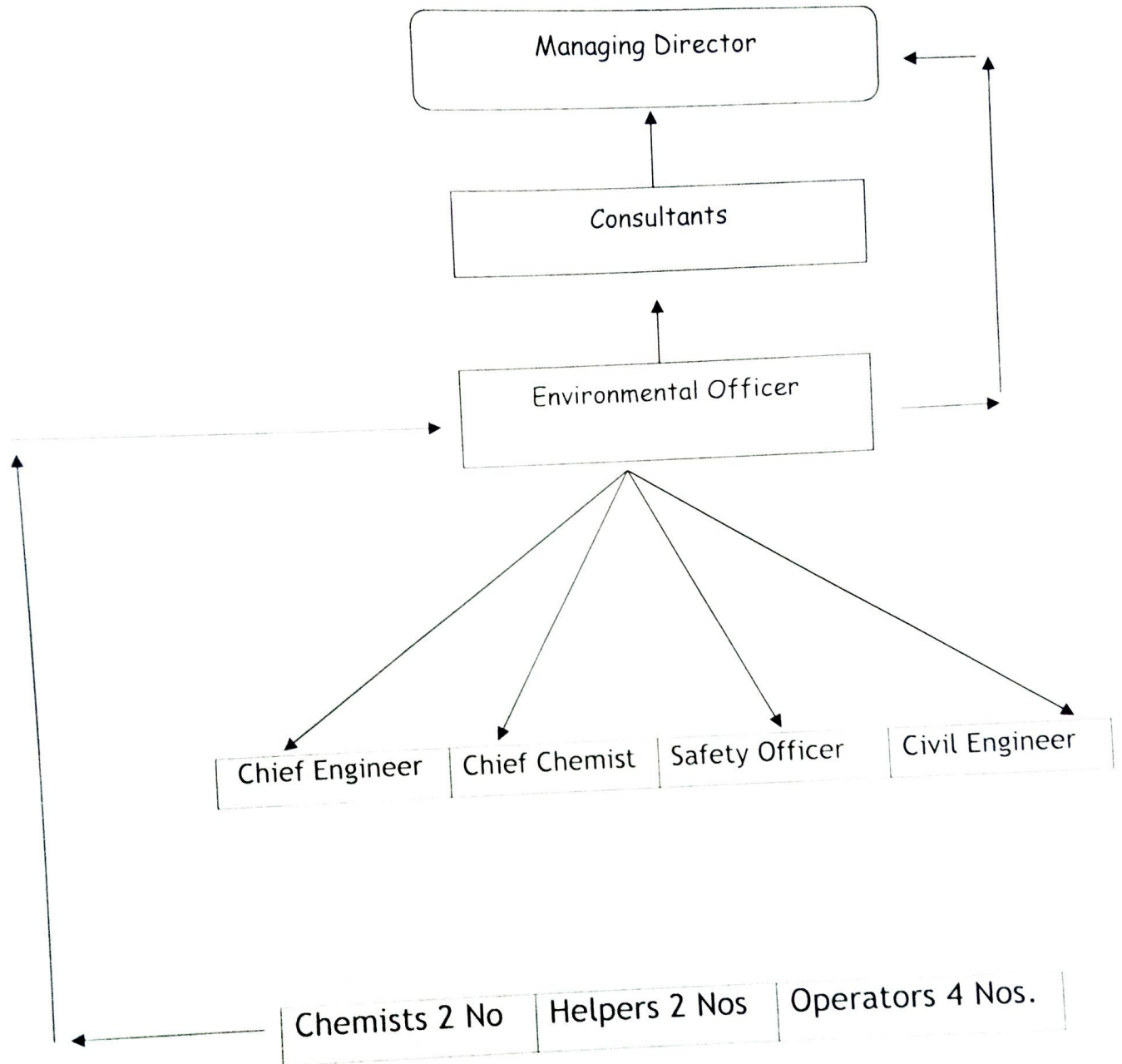
The Environmental Management Plan shall consist of the impacts and mitigatory measures during the construction and operation of the units. The impacts on Environmental components such as Air quality, Water Quality, Noise levels and soil quality shall be illustrated in detail. The methodology consists of the measures of minimization of the proposed impacts. An action sheet with environmental Component proposed impacts and measures are as below.

Sr No	Environmental Component	Source	Impact	Mitigatory measures
01	Air quality	Excavation Transportation during the Construction  Emission through stack	Increased Dust levels.  Increase in the Ground level concentration due to SPM	Provide masks to the workers and spray water to suppress the dust  A wet scrubber and ESP is installed to control stack emissions.
02	Water quality	Process	Oil & grease BOD & low pH	Two stage aeration is provided & Oil & Grease Trap shall be provided at the source and also at the ETP.

	Hot water	ETP performance gets affected	The Excess quantity will be used in Distillery Boiler, in wet scrubber as makeup water, cooling tower makeup, cooled and used in process.
	Spillages & leakages	-----	Adopt dry-cleaning and collect the spillages and reprocess.
	Periodical washings	Shock loads on ETP	Provide a separate storage pond and in a controlled manner load ETP.
Noise Levels	Turbine Boiler exhausts, Exhaust cane cutter Boiler.	Affects the hearing and cause fatigue and sometimes nervous breakdown.	Provide silencer pads and barriers and give earplugs and earmuffs. Change the work schedule of the workers from high exposure places to low levels of exposure.

Annexure - VIII

**ENVIRONMENTAL MANAGEMENT CELL (PATTERN AND REPORTING.)**



04	Soil quality	Application of treated effluent.	Increased soil salinity & may cause the ground water pollution.	Effluent quality shall be maintained by operating ETP efficiently.
05.	Green belt	All around the factory and within the premises.	Helps to reduce the CO <sub>2</sub> levels.	Provide at least 2500 plants per hectare covering more than one third area of the factory premises.

II. The Records & documentation registers shall be maintained on the performance of ETP Chemical consumption. Power requirement etc and these records shall be made available to the regulatory agency, consultants and internal verifications.

### II.A) Documentations:

All the important documents such as consent letters. Environmental Clearance Water Cess returns. Environmental Statement Form V. Hazardous Waste (Management & Handling) Rules 1989 and Amended rules 2000. Compliance reports shall be exhibited for inspection by the Government agencies and public.

### II. B) Rules and regulations.

The rules and regulations published by the CPCB shall be kept in the laboratory for ready reference similarly, the testing procedures for Water, Air, Soil and wastewater shall kept in the laboratory for ready reference.

## **9. Operational and Emergency Plan;**

The factory shall prepare as Disaster Management Plan and organize regular meetings of the workers to exchange ideas on the procedures to be followed to maintain clean and healthy environment. To avoid the fire and accidents mock drills are to be organized regularly. A safety officer shall be appointed with supporting staff.

## **10. Training;**

It is planned to send the staff regularly for the training in education and R & D institutes. They shall be also deputed to workshop and seminars. The usefulness and implementation of the training shall be reviewed by the top management. In order to understand legislation and recent development in the field the management has decided to purchase all the publications of CPCB and subscribe periodicals such as "Down to Earth", Indian Association of Water Pollution Control Board etc.

## **11. Environmental Impact, Compliance and review audits.**

The environmental Management cell shall carry out environmental audit, EIA studies and compliance report. The Management shall engage an external agency to cross check the internal system and report directly to Managing Director about the discrepancies, if any.

## **12. Waste Minimization options.**

The industry has taken measures to adopt various for waste minimization.

## **13. Water Recycling;**

The water recycling approach is being conducted.

## **14. Interlocking the Process with ETP performance and Air emissions**

Even though it is advisable to stop the operation if there are upset conditions in ETP or wet scrubber performance. It is suggested to find alternative approaches such as diverting the effluent into panic ponds or "COMPOST PLANT" in case of failure of wet scrubber, the ground level concentrations do not increase more than 500 meter from the industry and the shall be advised to use masks during these short periods of failures of the control equipment.

The industry has appointed a consultant to advice on various issues related to environment.

### **7. Laboratory Facilities;**

The industry has deputed its staff for training to different research and educational industries and will continue to depute them to attend seminars and workshops.

The management has drawn up plan for the complete recycle and reuse of effluents.

The industry has established laboratory facilities to carryout Air, Soil and Water Analysis. The Facilities being provided by the industries shall be used for monitoring of the treatment plant efficiency and also the effect of treated effluent on land and ground surface water quality. All the instruments proposed to be used are of the specifications as required to be maintained as per the norms of the pollution control board.

The following parameters shall be monitored regularly.

Flow measurement pH value COD BOD Total suspended solids, oil and grease, stack emissions and ambient Air quality. A separate logbook shall be maintained. The samples shall also be sent every month to Private Organization as a measure a cross check.

The industry shall provide water meters as per the guidelines of the Water Cess Act (1977) for recording process water, cooling water and domestic usages.

### **8. Documentation;**

Records of Air Quality solid waste disposal and waste water treatment operations shall be maintained. It will publish the income and expenditure accounts on waste management. Air emissions and the energy conservation in the annual (Reports)

Shri Hiranyakeshi Sahakari Sakkare Karkhane Niyamit, Sankeshwar

A) Details of Land Balance for the Period from October-2021 to March-2022

Sl No.	Particulars	Area
1	Built up Area	10.00 hectares
2	Compost Area	6.50 hectares
3	Storage of Fuel & Finished product	7.35 hectares
4	Parking of vehicles	6.00 hectares
5	Waste Water Disposal	16.18 hectares
6	Green belt	30.00 hectares
7	ETP & Internal Roads	9.47 hectares
	<b>Total Area</b>	<b>85.60 hectares</b>

B) Water usage for the Period from October-2021 to March-2022

Month	Water Usage
October 2021	1060
November 2021	2060
December 2021	2010
January 2022	2070
February 2022	2020
March 2022	1650

C) Solar Power Generation

To be considered in future period.

## ANNEXURE - IX

Shri Hiranyakeshi Sahakari Sakkare Karkhane Niyamit, Sankeshwar

### List of Installations

Sl No.	Name of units	U/M	Capacity
1	Sugar Plant	TCD	8000
2	Cogeneration Power Plant	MW	52 (26x2)
3	Rectified Spirit	KLPD	54



Akash Mallige, Basavan Pada, Casia, Casurina, Feltoforam, Gulmohar, Jakaranda, Mahagani, Neem, Pongamia, Teak Berma, Silver Oak & Red Sandle

### **E) Solid Waste Management**

1	Bagasse in MT	Nil	Used as fuel in Boiler
2	Pressmud in MT	Nil	Used for Composting along with distillery
3	Bagasse Ash in MT	Nil	Used for composting along with distillery spent wash
4	ETP Sludge in MT	Nil	Used as seed for composting

### **F) Rain Water Harvesting**

50% of the rain water harvesting is completed and the entire is collected in a factory dugwell, remaining 50% of the rain water harvesting program shall be completed by beginning of Off-season 2022-23.

#### D) Green Belt

The activity of planting of sapling in the Current year.

We are extending the green belt and horticultural development and around the vacant land of our Industry. The following is the lists of Trees are plantation in rainy season 2021

Sl. No	Name of the Trees	Number of Planted.
1	Dhasaval	30
2	Ichora	60
3	Moria	50
4	Naghalinga	40
5	Tivisia	60
6	Thanabar Sia (white)	55
7	Thanabar Sia (blue)	55
8	Bottle brush	50
9	Plomalia (white)	50
10	Plomalia (yellow)	50
11	Cherry & Pongonia	50
12	Akash Mallige	30
13	Basavan Pada	30
14	Casia	30
15	Casurina	30
16	Feltoforam	30
17	Gulmohar	40
18	Jakaranda	40
19	Mahagani	50
20	Neem	50
21	Pongamia	50
22	Teak Berma	50
23	Silver Oak	50
24	Red Sandle wood	60
		1090

Shri Hiranyakeshi Sahakari Sakkare Karkhane Niyamit, Sankeshwar

Six Months Production Details for Period from Oct-2021 to March-2022

Sl No.	Name of Products	Qty Produced
1	Sugar Cane Crushed in MT	953463
2	Cogeneration Power Generated in units	117306400
3	Rectified Spirit in Ltrs	7438158

  
Managing Director