PRE-FEASIBILITY REPORT

Proposed Upgradation and Modernisation of Existing Coated Duplex Board/Kraft Board mill having 550 TPD capacity, by the way of installation of new De-Inking Machine for the Purpose of Generating Secondary Grade Fibre using waste paper. Also Proposed Usage of 100% coal as fuel in the existing 15MW Biomass based Co-gen Power Plant (CPP).

At

Senthil Papers & Boards Limited, Ikkaraithathapalli Village, at Sathyamangalam Taluk, Erode District, Tamil Nadu.

Project Consultant

Chola MS Risk Services

Accredited EIA Consulting Organization
Certificate No: NABET/EIA/1 011/011
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June 2016

Table of Contents

1. EXECUTIVE SUMMARY ........................................................................................................... 5
   1.1. MILL PROFILE .................................................................................................................. 5
   1.2. THE PROJECT AND THE PROJECT COST ....................................................................... 6
   1.3. ENVIRONMENTAL IMPACT ASSESSMENT ...................................................................... 6
       1.3.1. Construction Phase .................................................................................................... 6
       1.3.2. Operational Phase ..................................................................................................... 7
       1.3.2.1. Air Environment .................................................................................................. 7
       1.3.2.2. Water Environment ............................................................................................... 7
       1.3.2.3. Solid Waste Generation and Disposal .................................................................... 7
       1.3.2.4. Noise Environment ............................................................................................... 8
       1.3.2.5. Socio – Economics ............................................................................................... 8
       1.3.2.6. Risk Assessment & DMP ....................................................................................... 9
   1.4. ENVIRONMENTAL MANAGEMENT PLAN (EMP) .......................................................... 9
       1.4.1. Air Pollution Management ....................................................................................... 9
       1.4.2. Water Pollution Management .................................................................................. 9
       1.4.3. Solid Waste Management ....................................................................................... 10
       1.4.4. Green Cover ............................................................................................................ 10
       1.4.5. Social Infrastructure ............................................................................................... 11
   1.5. PROJECT BENEFITS ......................................................................................................... 11
       1.5.1. Employment ............................................................................................................. 11
       1.5.2. Contributions to State Exchequer ............................................................................ 12
       1.5.3. Establishment of Ancillary Business ....................................................................... 12
       1.5.4. Non Dependence of Power ..................................................................................... 12
 2. INTRODUCTION ......................................................................................................................... 13
   2.1. BACKGROUND OF THE GROUP .................................................................................... 13
   2.2. NATURE OF THE PROJECT ............................................................................................ 14
   2.3. NEED FOR THE PROJECT .............................................................................................. 14
   2.4. OVERVIEW OF INDIAN PAPER INDUSTRY .................................................................. 14
   2.5. EMPLOYMENT GENERATION ......................................................................................... 15
 3. PROJECT DESCRIPTION ............................................................................................................. 16
   3.1. PROJECT LOCATION ......................................................................................................... 16
   3.2. ALTERNATIVE SITES CONSIDERED ............................................................................. 17
   3.3. EXISTING MILL FACILITIES ........................................................................................... 17
       3.3.1. Captive Power Plant ................................................................................................. 21
       3.3.2. Boiler System ........................................................................................................... 21
       3.3.3. Fuel Feeding System ............................................................................................... 21
   3.4. PROJECTS PROPOSALS .................................................................................................... 29
   3.5. PROJECT DESCRIPTION .................................................................................................... 29
       3.5.1. Fibre Raw material Storage & Stock Preparation ....................................................... 29
       3.5.2. De-inking Plant ........................................................................................................ 30
   3.6. REJECT HANDLING SYSTEM ........................................................................................ 31
   3.7. BROKE SYSTEM ............................................................................................................. 32
3.8.  **FIBRE RECOVERY / WHITE WATER SYSTEM** .............................................................. 32
3.9.  **EFFLUENT TREATMENT PLANT (ETP)** ............................................................... 32
   3.9.1.  **Raw material** .................................................................................................. 35
   3.9.2.  **Chemicals** ...................................................................................................... 35
   3.9.3.  **Fuels** .................................................................................................................. 35
3.10. **WATER REQUIREMENT** ........................................................................................ 35
3.11. **SOURCING OF STEAM AND POWER** ................................................................. 36
3.12. **SOURCING OF WATER** ......................................................................................... 36

4.  **SITE ANALYSIS** ........................................................................................................ 37
   4.1.  **CONNECTIVITY** ................................................................................................. 37
   4.2.  **LAND FORM, LAND USE AND LAND OWNERSHIP** .......................................... 37
   4.3.  **EXISTING INFRASTRUCTURE** ........................................................................... 37
   4.4.  **SOIL CLASSIFICATION** ....................................................................................... 38
   4.5.  **CLIMATIC DATA** .................................................................................................. 38
   4.6.  **SOCIAL INFRASTRUCTURE** .................................................................................. 39

5.  **PLANNING BRIEF** ...................................................................................................... 40
   5.1.  **PLANNING CONCEPT** ....................................................................................... 40
   5.2.  **LAND USE PLANNING** ..................................................................................... 40
   5.3.  **LOCATION FOR NEW PROPOSAL** .................................................................... 40
   5.4.  **AMENITIES** ........................................................................................................ 41

6.  **PROPOSED INFRASTRUCTURE** ............................................................................... 42
   6.1.  **INDUSTRIAL, RESIDENTIAL AND GREEN COVER** ........................................... 42
   6.2.  **ENVIRONMENTAL MANAGEMENT PLAN OF THE MODERNIZATION PROJECT** 42
      6.2.1.  **Rehabilitation and Re-settlements aspects** ..................................................... 42
      6.2.2.  **Air Quality Management Plan** ....................................................................... 42
      6.2.3.  **Industrial Noise Control and Management** .................................................. 43
      6.2.4.  **Water Conservation and Wastewater Disposal Management Plan** ............... 43
      6.2.5.  **Solid and Hazardous Waste Management** .................................................. 44
      6.2.6.  **Greenbelt Development Plan** ....................................................................... 45
      6.2.7.  **Community Development Activities Undertaken by SPB Limited** ............... 46

7.  **PROJECT SCHEDULE AND COST ESTIMATES** ....................................................... 48
   7.1.  **IMPLEMENTATION SCHEDULE** .......................................................................... 48
   7.2.  **PROJECT COST** ................................................................................................ 48
   7.3.  **ENVIRONMENTAL PROTECTION AND MANAGEMENT PLAN** ....................... 48
   7.4.  **ECONOMIC VIABILITY** ...................................................................................... 49
   7.5.  **ANALYSIS OF PROPOSALS (FINAL RECOMMENDATIONS)** .............................. 50
   7.6.  **FINANCIAL ANALYSIS** ...................................................................................... 50
   7.7.  **EMPLOYMENT** ................................................................................................... 50
   7.8.  **CONTRIBUTIONS TO STATE EXCHEQUER** ..................................................... 50
   7.9.  **ESTABLISHMENT OF ANCILLARY BUSINESS** ............................................... 50
   7.10. **NON DEPENDENCE OF POWER** ....................................................................... 51
   7.11. **CORPORATE SOCIAL RESPONSIBILITY** ............................................................. 51
List of Tables

Table 1-1: Production Capacities Existing Three Paper Machines ............... 5
Table 1-2: Waste Water Discharge Standards ........................................... 10
Table 2-1: Production Capacities of Three Paper Machines ..................... 13
Table 2-2: Paper demand in 2010-11 ....................................................... 15
Table 2-3: Overall Projected Demand ....................................................... 15
Table 3-1: Longitudes & Latitudes of the Project Site ............................... 17
Table 3-2: Wastewater Generation and Discharge ............................... 32
Table 3-3: Raw Material Requirements ............................................... 35
Table 3-4: Chemicals Requirements ................................................... 35
Table 3-5: Fuel Requirements ........................................................... 35
Table 3-6: Water Requirement ........................................................... 35
Table 5-1: Land Requirement ............................................................. 40
Table 6-1: Summary Of The Emissions From the Proposed usage of 100%
Coal in 15 MW CCP ................................................................. 43
Table 6-2: Treated Wastewater Characteristics ........................................ 44
Table 6-3: Solid Waste Generation And Disposal ................................... 44
Table 7-1: Major Activities ............................................................... 48
Table 7-2: Project Cost ................................................................. 48
Table 7-3: Environmental Protection And Management Plan ..................... 49
Table 7-4: Economic Viability ............................................................ 49

List of Figures

Figure 3-1: Project Location ................................................................. 16
Figure 3-2: Existing Process Diagram ................................................... 18
Figure 3-3: Post Project Scenario of Existing Paper Mill .......................... 31
Figure 3-4: Water and Wastewater Balance after Proposed Expansion ...... 34
Figure 5-1: Project Site Premises .......................................................... 40
Figure 6-1: Green Cover around the Project Site ...................................... 45
1. Executive Summary

1.1. Mill Profile

Senthil Papers and Boards Limited, a flagship company belonging to ‘SENTHIL GROUP’, Coimbatore operates a papers & board’s mill at Sathyamangalam, Erode District, Tamil Nadu, India. Senthil group is a diversified group comprising of Mining, Agro industries, Paper Mills, Steel industries and Entertainment.

This unit has been started during the year 2004 and was operated in the name of M/s. Vaikunth Paper Boards Pvt Ltd, by the old Management with one paper board machine plant. In the year of 2006, the present Management had taken over this plant and operated in the name of M/s. Saradha Papers and Boards Pvt Limited. Subsequently in 2014, the name of the unit has been changed as Senthil Papers & Boards Pvt Ltd and has installed two new paper machines additionally.

Therefore, at present the Senthil papers and boards has three paper machines are existing. The details of the same are presented in the Table 1.1

<table>
<thead>
<tr>
<th>Paper Machine</th>
<th>Production Capacity (TPD)</th>
<th>Production Capacity (TPA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper machine-1</td>
<td>15</td>
<td>4950</td>
</tr>
<tr>
<td>Paper machine-2</td>
<td>250</td>
<td>82500</td>
</tr>
<tr>
<td>Paper machine-3</td>
<td>285</td>
<td>94050</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>550</strong></td>
<td><strong>181500</strong></td>
</tr>
</tbody>
</table>

In addition to the above, the mill has the following facilities:

- Three paper machines to produce around 181500 TPA of various products such as namely Duplex grade boards, Kraft
linen boards, Test linen board, Surya folding boards and Art board.

- Waste Paper and Finished paper storage godowns
- A Captive Co-generation Plant (CCP) with capacity of 15 MW meeting around 100% of mill’s power requirement
- Water and waste water treatment facilities
- Other infrastructure such as ETP laboratory and Product quality check laboratory, etc.

1.2. The Project and The Project Cost

Senthil Paper and Boards manufactures different grades and types of paper boards based on the availability of the raw materials. As there is a shortage in the availability of raw materials and other aspects mentioned in the below points, the company has decided to install a De-Inking Plant (120 TPD) to sustain in the market.

- Non-availability of the adequate quantity of pure white waste paper material in the market
- Exorbitant cost of the product and non-viable in the market
- The estimated project cost for installing the De-Inking plant is Rs.1.5 crores.

1.3. Environmental Impact Assessment

1.3.1. Construction Phase

The construction activities for proposed modifications will not necessitate any displacement of people, as the construction will be carried out in the existing mill premises. This phase does not involve major changes in the terrain.
1.3.2. Operational Phase

1.3.2.1. Air Environment

The major pollutants from the project are Particulate Matter (PM) and Sulphur dioxide (SO₂) will be from spreader stoker boiler. High efficiency ESP is already installed to reduce the particulate matter and an adequate stack size of 85 meters is provided for dispersion of resultant concentration of PM and SO₂ will be kept below the standards prescribed by CPCB/SPCB.

1.3.2.2. Water Environment

At present, the total water withdrawn from Bhavani River and ground water is 2375 m³/day. The facility has obtained consent from PWD to withdraw 2000 m³/day from Bhavani River and has obtained consent from CWGC to withdraw 375 m³/day of ground water. Additional water required in the tune of 500m³/day for the modernization will be sourced from Bhavani, after obtaining separate consent letter from PWD. Hence, the total water requirement after post project scenario will be 2875 m³/day.

1.3.2.3. Solid Waste Generation and Disposal

The solid waste generation will be ash from spreader stoker boiler. In addition to this, there will be sludge generation from the effluent treatment plant. The details of solid waste generation and quantities with disposal methods are presented in the following Table 1.2.

<table>
<thead>
<tr>
<th>Type of waste</th>
<th>Existing TPD</th>
<th>Post Project TPD</th>
<th>Disposal Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bottom ash from co-generation power plant</td>
<td>2.3</td>
<td>3.5</td>
<td>Will be sent to hollow blocks makers</td>
</tr>
<tr>
<td>Fly ash from co-generation power plant</td>
<td>23</td>
<td>35.5</td>
<td>Will be sent to hollow blocks makers and cement manufacturers</td>
</tr>
<tr>
<td>De-inking plant</td>
<td>Nil</td>
<td>20</td>
<td>Sludge from dissolved air</td>
</tr>
<tr>
<td>Type of waste</td>
<td>Existing TPD</td>
<td>Post Project TPD</td>
<td>Disposal Method</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------</td>
<td>------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>sludge</td>
<td></td>
<td></td>
<td>flotation units in the de-inking plant will be sent to sun dry board manufacturers</td>
</tr>
<tr>
<td>Plastic waste from waste paper sorting facilities</td>
<td>3</td>
<td>4</td>
<td>Will be collected in dedicated bins and will be disposed to Cement Industries for co-incineration.</td>
</tr>
<tr>
<td>Primary clarifier sludge in ETP</td>
<td>5</td>
<td>6</td>
<td>Will be subjected to de-watering in the existing twin wire press and will be disposed to sun dry board manufacturing</td>
</tr>
<tr>
<td>Secondary clarifier Sludge in ETP</td>
<td>0.5</td>
<td>1</td>
<td>Will be subjected to sludge dewatering press / screw press, decanter and will be used as manure in plantation and horticulture activities</td>
</tr>
<tr>
<td>Used oil</td>
<td>1.3TPA</td>
<td>1.3TPA</td>
<td>Used as lubricant by authorised recyclers.</td>
</tr>
</tbody>
</table>

### 1.3.2.4. Noise Environment

A full-fledged ear protection program is being implemented in the existing facility and similar practices will be adopted in the future also.

### 1.3.2.5. Socio – Economics

The proposed project is located at existing mill premises. Hence, there will not be any resettlement and rehabilitation. Thus, there will not be any adverse socio economic implications

The economic status of the area is likely to improve, as there will be direct/indirect employment generation during construction and operational phase.
1.3.2.6. Risk Assessment & DMP

No major hazards with potential for any emergency situation arise in these process plants. On site emergency measures shall mitigate the effect on any risk.

1.4. Environmental Management plan (EMP)

1.4.1. Air Pollution Management

- Proposed to store the coal in the existing coal stock yard
- The coal handling conveyer belts will be covered and suitable dust collection systems will be installed at all the coal transfer points and coal crusher.
- Provision of water sprinkling system at material handling and storage yard
- The ash will be transported by closed bulkers to potential users
- Asphalting of the roads within the plant area
- A continuous emission monitoring system will be installed on the stack connected to the 15 MW CCP
- Development of green cover around the plant to arrest the fugitive emissions

1.4.2. Water Pollution Management

At present, the treated waste water generated from ETP is about 1100 m³/day and is used for irrigation and green cover development, on its own land.

After the proposed project activity the treated wastewater generated from ETP for irrigation and green cover development, on its own and leased lands will be used 2350 m³/day. The characteristics of treated wastewater are as given in the following Table 1.3.
Table 1-2: Waste Water Discharge Standards

<table>
<thead>
<tr>
<th>Sl No.</th>
<th>Parameters</th>
<th>Units</th>
<th>Characteristics</th>
<th>Existing</th>
<th>SPCB norms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>pH</td>
<td>-</td>
<td></td>
<td>6.5 to 7.5</td>
<td>5.5- 9.0</td>
</tr>
<tr>
<td>2</td>
<td>TSS</td>
<td>mg/l</td>
<td>50</td>
<td>&lt;100</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>TDS</td>
<td>mg/l</td>
<td>2000</td>
<td>&lt;2100</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>BOD (3 days)</td>
<td>mg/l</td>
<td>15</td>
<td>&lt;30</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>COD</td>
<td>mg/l</td>
<td>150</td>
<td>&lt;250</td>
<td></td>
</tr>
</tbody>
</table>

1.4.3. Solid Waste Management

- The bottom ash generation will be about 3.5 TPD and will be sent to hollow block makers and fly ash 35.5 TPD will be sent to hollow block makers and cement manufacturers.

- The DIP sludge about 20 TPD will be sent to sun dry board manufacturers and out through from sorting of waste paper processing is NIL.

- ETP primary clarifier sludge 3.2 TPD will be sent to board manufactures and secondary sludge 0.5 TPD will be used as manure in plantation, green cover and horticulture activities.

- Used oil 1.3 TPA will be used as lubricant by the authorized recyclers.

1.4.4. Green Cover

In addition to existing mitigation measures on environment it is envisaged to provide an additional environmental cover to mitigate air emissions by way of planting trees with high foliage.

- The plantation and green cover development within the plant area not only serve as foreground and background landscape features resulting in harmonizing and amalgamating the physical structures of paper mill with surrounding environment but also
act as a carbon sink. Plantation also contributes towards environmental improvement in the following areas

- Green cover development will act as a “carbon sink” and prevent spreading of particulate and other atmospheric pollutants to the nearby areas
- Provide vegetative cover
- Increase the aesthetics of the surroundings; and
- Provide resting, feeding and breeding site for fauna
- Management practices in harmony with nature by greening of wastelands, which helps in mitigating green house gases and sequestration of carbon. Plantations for improving soil moisture conservation measures and checking soil erosion. The native species such as Subabul and Casuarina contributing to improvement of soil nutrient status of marginal lands will be planted.
- Act as a barrier to control the air pollution and noise pollution

1.4.5. Social Infrastructure

Social infrastructure such as potable water, sanitation facilities, canteen, security, first aid and fire fighting system are already available in the site location. Additional facilities such as sanitation and potable water shall be extended to project site also.

1.5. Project Benefits

1.5.1. Employment

The project will create additional direct employment to about 10 persons. In addition it would generate indirect employment to about 30 persons in the
industries and service organizations and material handling, etc., which will be supported by the operations of the mill.

1.5.2. Contributions to State Exchequer

As the proposed project does not increase the production capacity. So, the contributions to state exchequer remain the same.

1.5.3. Establishment of Ancillary Business

The project envisages additional movement of input and finished product over and above the existing operations of about 7000 TPA, benefiting the trucking industry.

Further, the project envisages procurement of 15000 TPA local waste paper and this could go up if good quality waste paper is available locally. This could promote local business opportunity for waste paper recyclers and suppliers.

1.5.4. Non Dependence of Power

At present, the mill is producing 15MW power from the CCP out of which 14 MW power is utilized for internal plant propose and 1MW power is distributed to the TNEB grid. After post project scenario, 15MW power will be utilized for internal purposes.
2. Introduction

2.1. Background of the Group

Senthil Papers and Boards Limited, a flagship company belonging to ‘SENTHIL GROUP’, Coimbatore operates a papers & board’s mill at Sathyamangalam, Erode District, Tamil Nadu, India. Senthil group is a diversified group comprising of Mining, Agro industries, Paper Mills, Steel industries and Entertainment.

This unit has been started during the year 2004 and was operated in the name of M/s. Vaikunth Paper Boards Pvt Ltd, by the old Management with one paper board machine plant. In the year of 2006, the present Management had taken over this plant and operated in the name of M/s. Saradha Papers and Boards Pvt Limited. Subsequently in 2014, the name of the unit has been changed as Senthil Papers & Boards Pvt Ltd. The name change document is attached as an Annexure-1 to this report.

Hence, at present the Senthil papers and boards have three paper machines installed. The details of the same are presented in the Table 2.1.

<table>
<thead>
<tr>
<th>Paper Machine</th>
<th>Production Capacity (TPD)</th>
<th>Production Capacity (TPA)</th>
</tr>
</thead>
<tbody>
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</tr>
<tr>
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<tr>
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<td>285</td>
<td>94050</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>550</strong></td>
<td><strong>181500</strong></td>
</tr>
</tbody>
</table>

At present, the existing facility has 15MW Captive Power Plant operated with 15% coal and 85% Biomass. The CTE (Consent To Establish) obtained from the TNPCB (Air & Water) for the 15% coal usage is attached as Annexure 2 & 3. Due to huge scarcity of biomass, the plant is not able to produce sufficient power for its needs. So, it has been decided to operate the 15MW CPP with 100% usage of coal.
Senthil Papers & Boards engaged the services of M/s Cholamandalam MS Risk Services Limited, Chennai, MoEF. An accredited environmental consultants in pulp and paper to assist in preparation of necessary documents like Pre-Feasibility Report (PFR), Form 1, Environmental Impact Assessment (EIA) report etc. and for obtaining environmental clearance for the proposed installation of 120 TPD capacity De-inking plant and 100% utilization of coal in the existing 15MW Captive Power Plant.

2.2. Nature of the Project

As stated earlier, the proposed project consists only of installing 120TPD capacity De-Inking plant and usage of 100% coal in 15 MW Captive Power Plant. There will be no increase in both the paper board and power production.

2.3. Need for the Project

Senthil Paper and Boards manufactures different grades and types of paper boards based on the availability of the raw materials. As there is a shortage in the availability of raw materials and other aspects mentioned in the below points, the company has decided to install a De-Inking Plant to sustain in the market.

- Non- availability of the adequate quantity of pure white waste paper material in the market
- Exorbitant cost of the product and non-viable in the market

2.4. Overview of Indian Paper Industry:

The Indian paper industry is broadly categorized into writing and printing paper (W&P), industrial, newsprint and specialty paper. The distribution of paper demand in 2010-11 is presented in Table 2.2
Table 2-2: Paper demand in 2010-11

<table>
<thead>
<tr>
<th>Category</th>
<th>Production</th>
<th>% of Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial paper</td>
<td>Kraft, boards etc Paper</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>Printing &amp; writing,</td>
<td></td>
</tr>
<tr>
<td>Paper</td>
<td>Copier, coated paper etc</td>
<td>32</td>
</tr>
<tr>
<td>Newsprint</td>
<td>Newsprint</td>
<td>18</td>
</tr>
<tr>
<td>Specialty paper</td>
<td>Tissue</td>
<td>4</td>
</tr>
</tbody>
</table>

While India account for nearly 15% of world population, it consumes only 3% of the global paper production. The country’s per capita paper consumption at about 9 kg is low as compared to the world average of around 55 kg. The overall projected demand for different varieties of paper is presented in Table 2.3.

Table 2-3: Overall Projected Demand

<table>
<thead>
<tr>
<th>Types of Paper</th>
<th>2015-16P</th>
<th>2016-17P</th>
<th>CAGR%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing &amp; Printing Paper</td>
<td>4958</td>
<td>8382</td>
<td>7.9</td>
</tr>
<tr>
<td>Uncoated</td>
<td>4156</td>
<td>4502</td>
<td>7.6</td>
</tr>
<tr>
<td>Cream wove</td>
<td>1972</td>
<td>2066</td>
<td>4.5</td>
</tr>
<tr>
<td>Maplitho</td>
<td>1038</td>
<td>1103</td>
<td>6.0</td>
</tr>
<tr>
<td>Branded copier</td>
<td>1145</td>
<td>1334</td>
<td>16.1</td>
</tr>
<tr>
<td>Coated Paper</td>
<td>802</td>
<td>880</td>
<td>9.2</td>
</tr>
</tbody>
</table>

Source: Crisil Research; *P* – Projected

2.5. Employment Generation

The project will provide scope for employment during construction stage to about 25 people and during operation stage to about 10 people.
3. Project Description

3.1. Project Location

The proposed project is a modernization project and hence the location will be within the existing mill premises in Ikkaraithathapalli village, at Sathyamangalam taluk, Erode District, Tamil Nadu.

Figure 3-1: Project Location
Pre-feasibility Report for Proposed Upgradation and Modernisation of Existing Coated Duplex Board/Kraft Board mill having 550 TPD capacity, by the way of installation of new De-Inking Machine for the Purpose of Generating Secondary Grade Fibre using waste paper. Also Proposed Usage of 100% coal as fuel in the existing 15MW Biomass based Co-gen Power Plant (CPP).

Table 3-1: Longitudes & Latitudes of the Project Site

<table>
<thead>
<tr>
<th>Sl No</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>11°30'11.77&quot;N</td>
<td>77° 9'37.95&quot;E</td>
</tr>
<tr>
<td>B</td>
<td>11°30'10.75&quot;N</td>
<td>77° 9'48.92&quot;E</td>
</tr>
<tr>
<td>C</td>
<td>11°29'57.15&quot;N</td>
<td>77° 9'48.42&quot;E</td>
</tr>
<tr>
<td>D</td>
<td>11°29'54.21&quot;N</td>
<td>77° 9'45.32&quot;E</td>
</tr>
<tr>
<td>E</td>
<td>11°29'54.13&quot;N</td>
<td>77° 9'32.50&quot;E</td>
</tr>
<tr>
<td>F</td>
<td>11°30'8.08&quot;N</td>
<td>77° 9'33.30&quot;E</td>
</tr>
</tbody>
</table>

3.2. Alternative Sites Considered

The proposed project is a modernization of existing operations and enough vacant spaces exist inside the mill; hence alternative sites were not studied.

3.3. Existing Mill Facilities

Raw material Preparation

Waste paper is the main source of raw material to produce paperboard. Domestically collected Note books, Printed waste, exam papers, magazines Old News paper and Used carton & kraft paper waste from the house and shopping will be used for this production. If shortage in supply of domestic waste paper of required grade, Similar material would be imported and used for this purpose. In certain grade purchased wood pulp will be used as raw material.

Stock preparation

Stock preparation consistent of Hydrapulper to slush the waste paper into pulp slurry to enable further process. The pulp slurry is processed in Screening equipment to remove foreign particle like plastic, pin, tape etc. The screened pulp slurry processed in cleaning equipment to remove sand and mud carried in waste paper. Cleaned pulp slurry is then thickened using a pulp thickener. The thickened pulp then processed in Hot disperser to fragmentize the ink particle and similar material into tiny size. As this process done at 105°C also give sterile effect to pulp slurry.
**Top Liner**

In duplex board the top side layer is used with selected white waste paper and purchased pulp. This manufacturing process will be similar to any waste paper production system.

**Stock Approach System**

Approach flow is a section where the prepared pulp consistency is controlled and then proportioned into the Blend Chest and mixed in the proper ratio. The functional chemical like rosin, Alum, AKD, ASA, Defoamer and retention aid is added in this section. The pulp stock will then be diluted using back water and pumped to Head box to form the paperboard web.

**Broke system**

A dedicated Broke system, with a system to handle wet end broke and a System to handle dry end broke is installed. Each system included with a storage tank, a broke thickener broke chest. Under the machine (UTM)
broke pulpers, as well as off-machine pulpers is installed to handle the broke from the paper machine and trim and cut wastes from the finishing operation.

**Fibre Recovery / White Water System**

Three numbers of dedicated Dissolved Air floatation (DAF) Save all and a white water storage tank is planned in this plan to maximize fibre recovery and White water reuse as fresh water replacement.

**Board Machine**

Board machine consist of following section:

Multiply Forming ➔ Press part ➔ Dryer part ➔ Size press

Calendar Coating

Winding

**Multiply Forming**

Three to four layers are formed according to the weight basis of the paperboard in a multi-layer forming section. Formed Wet web of different layers are combined together at a high level of moisture (90 – 92 %) to impart bonding between layers. The forming process ensures uniform fiber distribution, secure interplay consolidation, Flatness, smoothness and strength. Other benefits are uniform basis weight, caliper and good creasing and folding properties.

**Press Part**

In first press, the paperboard web, sandwiched between fabrics (felts), is passed between rubber covered steel rolls which removes water by pressure and suction. In second press the web is sandwiched between a fabric and steam heated polished steel roll, produces high level of dryness (47%) and improved smoothness on the contact surface.
Dryer part

The paperboard web is passed over a number of steam heated polished steel cylinders which progressively removes moisture by applying heat. The drying operation has proper control system to ensure optimum drying without stress on the web and to ensure a uniform moisture profile.

Size press

A starch solution, sometimes pigmented, is applied to either both sides of the paperboard at the size press. The surface sizing prevents surface fibre shedding from uncoated surfaces and improves strength, smoothness and printability.

Calendaring

In this process the paperboard is nipped between steel rollers which gives uniform thickness and surface smoothness to the base board web.

Coating

A white pigmented coating is applied in liquid form, smoothened and dried on either one or both sides depending on the product. Product benefits are whiteness, uniform ink and varnish absorption, and smoothness. The process gives surface suitable for printing and varnishing. Bar and Blade coating is installed for this purpose.

Final Reeling

The paperboard is wound onto large steel cores in batches of between 6-7 tons. Each batch of product is given a unique in house identification code (lot number). This means that the product can be traced and identified anywhere on any time.
**Finishing and Packing**

Large reels would be slitted into reels of smaller diameter and width to specific customers’ orders. Sheet cut machines are installed to cut and count the paperboard for specific customer order.

**3.3.1. Captive Power Plant**

The 15 MW biomass based Cogeneration Power plant is consist of one number of biomass fuel fired Atmospheric fluidised Bed combustion Boiler, with Single drum, natural circulation boiler of 105 TPH, 90 ata, 515°C and 1 No. Bleed, 1 no extraction cum condensing steam turbine of nominal capacity 15 MW. The steam pressure at the inlet of the turbine is 84 ata at 510°C. Apart from the above, the biomass based power plant is consist of fuel handling & feeding, firing system, Air cooled condenser, electrical system, power evacuation system and control system.

**3.3.2. Boiler System**

The boiler is designed for firing various biomass for normal running like tapioca, Julia flora, Sawdust, coconut residue, De-oiled bran, Rice husk and groundnut stalks. Along with all biomass fuels, there is a provision installed for the firing of coal also. The 105 TPH, 90 ata and 515°C boiler have systems like pressure parts consisting of superheater, economiser, de-super heater, firing system, draft system, Electrostatic precipitators and other auxiliaries.

**3.3.3. Fuel Feeding System**

The power plant is running essentially with tapioca stem, Sawdust, Julia flora wood and other woody biomass fuels which are being collected from the nearby agricultural lands and biomass fuel suppliers and dealers. The locality has large area under tapioca, Rice husk and Julia flora. Suitable fuel
storage and handling systems are installed for biomass fuels and separate coal storage shed with all sides of RCC wall and RCC floor is being constructed.

- A fuel bunker is constructed in the boiler fuel feed system. The bunker is having the storage capacity to meet the boiler MCR fuel requirement for a minimum of 4 hours. The fuel handling system is common for handling all type of biomass fuels, which are in size of less than 15 mm in size. The storage yard constructed for receiving and storing all the biomass fuels. The fuel feeding system consists of front-end loader, a storage bunker, conveyor and distributor.

- The received biomass fuels like *Tapioca* stem and *Julia* flora is converted into less than 15 mm in size by means of two stages of Chipping, which are is fed into the boiler furnace by means of bed feeding system.

- The industrial agro waste like Veneer waste, wooden blanks, wood logs from various wood based industries inside Tamil Nadu and from Kerala is brought and converted in to wood chips of less than 15 mm in size by two stage of chipping and shredding.

- The coal feeding to the boiler furnace shall be done through separate fuel feeding system, by which the coal feeding quantity can be adjusted as and when required.

- To overcome this furnace temperate dropping problem, around 15% of the coal shall be fed in to the boiler furnace continuously, so that furnace temperature can be maintained for better firing of all type of biomass fuels with high moisture also.

**3.3.4. Fuel Storage Facility**
• All the biomass fuels like tapioca stem, woody biomass, veneer waste, all type of stalks are being stored in plain surface in the open fuel yard. Proper drainage for the flow of rain water is being done, to avoid stagnation of water in fuel yard.

• Biomass fuels like sawdust, rice husk and de-oiled bran is stored in biomass fuel storage yard fully constructed with RCC floor with covered shed by roof sheeting. Proper drainage and rain water harvesting system is done for avoiding the breach of fuel from the storage yard.

• Coal is to be stored in the closed shed having RCC floor, to avoid the seepage of coal washer in to the soil. All the side walls are of the coal shed is constructed with RCC walls for the retaining of coal piles. The roofing of coal storage shed will ensure proper drainage of rain water and flow to the rain water harvesting pond. The fully covered coal shed by side cladding will ensure the avoiding the fugitive emission due to fuel spreading, due to wind flow and during the coal handling.

3.3.5. Fuel Handling & Dust Extraction Systems

• Unloading of biomass by dumpers is carried out with proper care avoiding dropping of the materials from height. Also the material is moist by sprinkling water while unloading at the project site as well as the port.

• Due to the surface wind there are fugitive emissions in the biomass storage area. The same is prevented by regular water sprinkling in the storage area. The storage area is covered from all the four sides by wind barricading, provided by sheets.

• Chipping operation of Biomass fuels are being carried out in enclosed area. Centralized de dusting facility (collection hood and suction arrangement) followed by de dusting unit like bag filter and final
discharge of emission done through a stack are being installed, in order to control fugitive particulate matter emissions. Enclosure of circular hoods are provided for belt conveyors and transfer points of all belt conveyors.

- The above enclosures are rigid and permanent and fitted with self-closing doors and close fitting entrances and exits, where conveyors pass through the enclosures. Flexible covers is installed at entry and exit of the conveyor to the enclosures, minimizing the gaps around the conveyors.

- One **dust extraction system** is installed to control air pollution while coal feeding. This system is for the collection of fines of coal liberating from the belt conveyors, transfer points like coal crusher, coal screen and transfer towers. During the coal feeding, the fines from the coal is sucked out by the dust extraction system and is collected in the hopper located above the final coal feeding conveyor. The bag filter installed above the dust extraction system will ensure the separation of air from the coal fines and these collected coal fines are re-fed in to the final coal conveyor for feeding to the bunker.

- One more **dust extraction system** is installed at the bunker top area for the collection of coal fines liberating at the bunker top to avoid air pollution. At the bunker top, the opening in the top of the bunker is provided the coal filling; with suction ports of dust extraction system. All the fines coming out from the bunker top, through the coal feeding opening are sucked out by the dust extraction system and collected in the hopper located at the top of the bunker, which is being re-fed back to the bunker.

3.3.6. **Electrostatic Precipitator**
Pre-feasibility Report for Proposed Upgradation and Modernisation of Existing Coated Duplex Board/Kraft Board mill having 550 TPD capacity, by the way of installation of new De-Inking Machine for the Purpose of Generating Secondary Grade Fibre using waste paper. Also Proposed Usage of 100% coal as fuel in the existing 15MW Biomass based Co-gen Power Plant (CPP).

Boiler flue gas system is attached with Electrostatic precipitator to collect the fly ash generated in the fuel firing process. The ESP is having the four fields design, to maintain the SPM level of less than 50 mg/Ncu.m in the flue gas leaving to the atmosphere. If anyone field went on break down, the Steam generation from the Boiler is being reduced to maintain the SPM level as less than 50 mg/Ncu.m. Under no circumstances, the SPM level is maintained higher than the stipulated level as per TNPCB norms.

**Chimney**

The RCC constructed chimney of 85 m height is constructed to exhaust the flue gas to the atmosphere. The bottom dia of the Chimney is 3600 mm and the top dia of the Chimney is 2500 mm. The RCC chimney is in straight shape.

### 3.3.7. Turbo-Generator System

**Steam Turbine**

The 15MW Biomass based Cogeneration Power plant, have one no. 15 MW turbo generator. The turbine is a single extraction, single bleed cum condensing type and running at a high speed of 8328 rpm. The generator speed is running at 1500 rpm. Hence, the turbine is coupled with the generator through a reduction gear unit.

- Steam is admitted into the turbine through an emergency stop valve actuated by hydraulic cylinders. The turbine speed is controlled by an electronic governing system. One extraction is provided at 10ata steam pressure for providing steam for De-aerator regenerative heating and steam for ejector and gland steam to Turbine.

- This steam at 10ata is taken out as extraction steam from Turbine and fed low pressure steam for the Duplex Board manufacturing plant operation also, which is located in our same Plant campus.
Air Cooled Condenser

Air cooled condensers are installed at the facility as a water conservation measure. The turbine exhausts the steam into an Air cooled condenser. The pressure of the turbine exhaust is 0.18 ata. The corresponding temperature is around 57 °C. The condenser system will consist of an air cooled condenser with tube bundles and exhaust steam duct, condensate extraction pump, gland steam condenser and ejector condenser. The condenser heat load is designed for the maximum continuous rating operating, when the steam condensed is the maximum.

3.3.8. Auxiliary Cooling Tower

- Cooling water is used for cooling turbine auxiliaries like lube oil cooler, generator air cooler and boiler auxiliaries like feed pump, ID fan etc., and as well as for bearing and gland cooling. The cooling water after cooling the equipments is cooled, so that the same water can be reused again. For this purpose, a wet cooling tower of induced draft type of suitable capacity is used. The cooling water temperature rise in the systems is limited to 9 °C. The hot return water is distributed uniformly over the cells of the cooling tower.

- Isolation valves of type gate / butterfly is provided at different locations, for easy maintenance. Similarly suitable expansion joints are provided in the piping, to facilitate dismantling and also to take care of the misalignments / thermal expansion of the pipes.

3.3.9. Water Treatment Plant for Power Plant

- The Water treatment Plant has two stream of water treatment as one for the DM water, which is used as the make up water, is produced in the DM Plant. The capacity of the plant is 2 x 48m³/hr. The DM plant consist of Multi Grade Filter, activated carbon filters, Ultra
Filtration, Reverse Osmosis system, Degasser, anion and cation exchangers and mixed bed exchangers. The DM water generated from this Plant is stored in two nos. of DM water storage tanks, having the total capacity of 300m$^3$.

- The other stream of water treatment is one Softener plant, which is used for generation of soft water, used as make up water for Auxiliary Cooling tower, due to the Blow down and drift loss in cooling tower operation.

- All the Boiler Blow down and Cooling tower basin blow down water and RO plant reject water are being collected in the Neutralisation pit, which is used for neutralisation of waste water generated from the resin beds regeneration. From this neutralised waste water, around 40 KLD is pumped for the Ash cooling, fugitive emission control and dust suppression system in fuel handling system.

- The service water is required for general wash, gardening, toilets etc., and the potable water required for the power plant is taken from the outlet of the activated carbon filter in the DM plant.

**Condensate Water System**

The condensate from the air cooled condenser is collected in the storage tank (hot well). The condensate is pumped to the de-aerator storage tank by two Condensate Extraction Pumps (CEPs). One of the pumps is working and other serving as stand by.

**Compressed Air System**

Instrument air is required for operation of various pneumatically operated control valves in the boiler and TG systems. Service air is required for transferring ash from ash collection hoppers to Ash silo pneumatically and for the cleaning of various areas of the plant. Accordingly, the service air
connections are being provided in the Boiler area, TG building, workshop, DM Plant etc.,

3.3.10. Effluent Treatment Plant (ETP)

The existing ETP capacity is 4,500m$^3$/day. The wastewater generated from the process and utilities is about 3900 m$^3$/day which is treated in ETP and after treatment about 3850 m$^3$/day is being recycled for process rest of the water 15 m$^3$/day is used for green cover development and irrigation in the mill premises and about 35 m$^3$/day is lost due to evaporation and retention moisture in the sludge. ETP flow diagram for existing and proposed is enclosed as **Annexure-4**. Brief description of the equipment is presented below

**Primary Clarifier**

The wastewater from coarse screening is collected in collection tank followed by a Flash Mixer and then led to a Primary Clarifier. The Primary Clarifier size is 15 m diameter. Removal of suspended solids will be up to the extent of 80%. The underflow sludge is pumped to drum filter and screw press to dewater the sludge.

**Activated Sludge Process**

Clarified wastewater is led to the aeration tank for BOD reduction. The Basin is provided for biological treatment of the organic matter, which is easily bio-degradable. Aeration tank is of size 37 m x 54 m x 3.1 m. Retention time in the aeration tank is about 24 hours. Six (6) High Speed fired type Surface Aerators, each of 22 kW, are installed for aeration purposes.
Extended Aeration System is practised with a Mixed Liquor Suspended Solids (MLSS) level of 3000 mg/l to 3500 mg/l. Urea and DAP are added as nutrients and the ratio of nutrients generally meets the requirement 100:5:1 (BOD: N: P). Two (2) High Speed fired type Surface Aerators, each of 22 kW, are installed for aeration purposes.

**Secondary clarifier**

The secondary clarifier size is 18 m diameter and 3.1 m SWD. Activated sludge process overflow is sent to the secondary clarifier. The secondary clarifier overflow is being used for process and irrigation purpose. 60% of under flow sludge (MLSS) is pumped back to aeration tank to maintain the desirable MLSS of 3000 ppm and 40% of sludge is wasted after biological degradation. The under flow excess sludge is pumped to sludge drying bed and used as a manure for irrigation and green cover developments.

### 3.4. Projects Proposals

- Installation of 120 TPD capacity De-Inking plant.
- 100% utilization of coal in Biomass based 15MW Captive power plant

### 3.5. Project Description

#### 3.5.1. Fibre Raw material Storage & Stock Preparation

Waste Paper & virgin pulp storage facility is being provided adjacent the paper mill stock preparation area. The storage areas are adequate for 20 days of storage.

The Plant runs 8 Fibre line to process Recycled fibre and one more white record line is proposed to cater the requirement of the third board machine. Out of which 3 lines are equipped for both Recycled fibre and Virgin pulp.
3.5.2. De-inking Plant

The Deinking line shall be installed for 120 BD TPD capacity, dedicated to white waste paper for top liner.

- **Conveyor**: To feed the waste paper to Pulper
- **HC pulper**: To slush the waste Paper
- **Pulper screen**: To remove the plastic and foreign matter after pulping
- **HD cleaner**: To remove the metal pin and small stones and glass material
- **Coarse screening**: To remove the oversized fiber bundles, glue material, thermocol particles and plastics pieces etc.
- **Deinking cell**: To detach and separate the printing inks from Fiber material.
- **Cleaners**: To remove fine sand carried in the waste paper
- **Fine screening**: To remove over sized ink dirt and fiber bundles
- **Hot dispersion**: To Fragmentize and disperse the ink and specs residual in the pulp.
- **Coloring**: For color striping the final treated pulp
- **Storage tower**: To provide sufficient storage ensure continuous supply of pulp to the Paperboard machine.

For all the streets, the equipments and operations are similar to highlighted above. The number of stages of screening and cleaning will differ according the incoming raw material quality.

**De-inking stage**

In the deinking stage the goal is to release and remove the hydrophobic contaminants from the recycled paper. The contaminants are mostly printing ink and stickies. Several processes are used, most commonly flotation.
Flotation deinking

The process temperatures are normally in the range 45 - 55 °C. Air is blown into the pulp suspension. The collector has affinity both to the ink particles and air bubbles, causing them to attach. The air bubbles lift the ink to the surface and form a thick froth that can be removed. Normally the setup is a two stage system with 5 flotation cells in series. Flotation deinking is very effective in removing ink particles larger than about 10 µm.

Figure 3-3 Post Project Scenario of Existing Paper Mill

3.6. Reject Handling system

To handle Pulper reject, 2 nos of Hydraulic compactor planned, one Compactor already put in operation another one being serviced shall be put in use from Jan-2015 The stock layout arranged in such a way to pool all the HD cleaner in one place and 2 Nos of Grit separator installed to Handle the
Heavy reject. The screen & centri cleaner reject are thickened using a set of 3 screw drainer to separate solid and water. Centrifuge is installed to handle DIP line foam reject.

### 3.7. Broke System

Machine Broke towers with 600 m³ capacity to handle 2 hours break is constructed in put in use. The Broke from tower is further screened in filler Liner Street and taken for supply. 3 nos of Under The Machine (UTM) broke pulpers, as well one finishing house installed to handle the broke from the paper machine 2 and trim and cut sheet from the finishing operation.


White water storage tower with a capacity of 600m³ is installed for each machine to store the excess water. 2 Nos of krofta sedicell with capacity of 360m³/hr is installed for white water purification to reuse the back water to machine showers.

### 3.9. Effluent Treatment Plant (ETP)

The existing capacity of ETP is around 4,500 m³/day. After the proposed project activity the treated wastewater generated from ETP will be 2350 m³/day, which will also be used for irrigation and green cover development, on its own and leased lands.

#### Table 3-2 Wastewater Generation and Discharge for Post Project Scenario

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Category</th>
<th>Post Project (m³/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Paper machine</td>
<td>5090</td>
</tr>
<tr>
<td>2</td>
<td>DIP</td>
<td>350</td>
</tr>
<tr>
<td>3</td>
<td>Power plant</td>
<td>210</td>
</tr>
<tr>
<td>4</td>
<td>Domestic and others</td>
<td>50</td>
</tr>
<tr>
<td>5</td>
<td>Total quantity of Raw Waste water generated</td>
<td>5700</td>
</tr>
<tr>
<td>6</td>
<td>Loss in ETP</td>
<td>100</td>
</tr>
</tbody>
</table>
Pre-feasibility Report for Proposed Upgradation and Modernisation of Existing Coated Duplex Board/Kraft Board mill having 550 TPD capacity, by the way of installation of new De-Inking Machine for the Purpose of Generating Secondary Grade Fibre using waste paper. Also Proposed Usage of 100% coal as fuel in the existing 15MW Biomass based Co-gen Power Plant (CPP).

<table>
<thead>
<tr>
<th></th>
<th>Total quantity of Treated waste water generated</th>
<th>5600</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Total quantity of Treated waste water discharged for irrigation</td>
<td>2350</td>
</tr>
</tbody>
</table>
**Figure 3-4 Water and Wastewater Balance after Proposed Expansion**

**Raw water**
- River Water: 2500 m³/day
- Ground water: 375 m³/day
- Total water: 2875 m³/day

**Domestic Usage**
- 25 m³/day

**Board Machine-1**
- 300 m³/day
- 2500 m³/day for reuse

**Board Machine-2**
- 1000 m³/day

**Board Machine-3**
- 350 m³/day

**DM Plant Including Power Plant**
- 700 m³/day

**STP**
- 50 m³/day

**Treated Sewage**
- 50 m³/day

**Treated Sewage used for gardening**
- 50 m³/day

**ETP-1**
- (4500 m³/day capacity)
- 2000 m³/day

**ETP-2**
- (1200 m³/day capacity)

**Treated Effluent for Irrigation of local Community**
- 350 m³/day
- 950 m³/day For Reuse

**Treated Sewage used for gardening**
- 2000 m³/day
Input Requirements and Sources

3.9.1. Raw material

Major inputs requirement during the operation will be as below

Table 3-3 Raw Material Requirements

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste paper</td>
<td>AD TPA</td>
<td>220000</td>
</tr>
</tbody>
</table>

3.9.2. Chemicals

Table 3-4 Chemicals Requirements

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen peroxide</td>
<td>TPA</td>
<td>430</td>
</tr>
<tr>
<td>Caustic soda</td>
<td>TPA</td>
<td>130</td>
</tr>
<tr>
<td>Sodium silicate</td>
<td>TPA</td>
<td>560</td>
</tr>
<tr>
<td>Sodium Hydro Sulphite</td>
<td>TPA</td>
<td>230</td>
</tr>
<tr>
<td>Surfactant</td>
<td>TPA</td>
<td>20</td>
</tr>
<tr>
<td>Chelant</td>
<td>TPA</td>
<td>130</td>
</tr>
<tr>
<td>Poly electrolytes</td>
<td>TPA</td>
<td>600</td>
</tr>
</tbody>
</table>

3.9.3. Fuels

The imported coal will be used, and will be sourced from Indonesia through Tuticorin port.

Table 3-5 Fuel Requirements

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal</td>
<td>TPD</td>
<td>630</td>
</tr>
</tbody>
</table>

3.10. Water Requirement

The mill water and waste water balance after post project scenario is given below

Table 3-6 Water Requirement

<table>
<thead>
<tr>
<th>Category</th>
<th>Average daily water requirement (m³/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Existing</td>
</tr>
<tr>
<td>Paper machine</td>
<td>1100</td>
</tr>
<tr>
<td>DIP</td>
<td>NIL</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th></th>
<th>800</th>
<th>800</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power plant</td>
<td>800</td>
<td>800</td>
</tr>
<tr>
<td>Domestic and others</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Internal recycled from paper machine for DIP</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>ETP Treated waste water recycled for paper machine</td>
<td>3800</td>
<td>3250</td>
</tr>
<tr>
<td>Total water required</td>
<td>1950</td>
<td>2875</td>
</tr>
</tbody>
</table>

### 3.11. Sourcing of Steam and Power

Steam and power requirement will be met by CCP using process steam and condensing steam.

### 3.12. Sourcing of Water

At present, the total water withdrawn from Bhavani River and ground water is 2375 m³/day. The facility has obtained consent from PWD to withdraw 2000 m³/day from Bhavani River and has obtained consent from CWGA to withdraw 375 m³/day of ground water the same are attached as Annexure-5 & 6. Additional water required in the tune of 500 m³/day for the modernization will be sourced from Bhavani, after obtaining separate consent letter from PWD. Hence, the total water requirement after post project scenario will be 2875 m³/day.
4. Site Analysis

4.1. Connectivity

The mill site is located in Ikkaithathapalli Village, at Sathyamangalam Taluk, Erode District, Tamil Nadu.

- Nearest City : Erode (≈63 km)
- Nearest Urban Town : Sathyamangalam (≈8 km)
- Nearest Airports : Coimbatore (≈52 km aerial)
  - Mettupalayam (≈34 km)
- Nearest National Highway : NH 206 (≈6 KM)
- Railway station : Erode (≈63 km)
- Nearest Port : Tuticorin (≈324 km)

4.2. Land Form, land use and land ownership

As this a modernization project there is no major land requirement. The DIP plant will be installed within the plant premises. The overall layout of the plant is attached as Annexure-7

4.3. Existing Infrastructure

The existing infrastructure to be used for the proposed project is as below:

- ETP/WTP
- Paper machine, warehouse
- Fuel storage yard
- Waste paper storage yard
- Scrap yard
- 15MW CP Power plant
• Lab with R&D
• Administration office
• Canteen
• Hostel etc

All managerial and other infrastructures required for the implementation of project are available. In addition to the above skilled labour is available in the existing factory to oversee implementation and commissioning of the project.

4.4. Soil classification

The soils of the Erode district are mostly red sand and gravel with moderate amounts of red-loam and occasional black loam tracts. Vast stretches of the upland regions are mostly and gravelly. Red-loam occurs mostly in land under Kalingarayan channel and in beds of tanks in Erode Taluk and to some lesser extent in the valleys in Perundurai taluk. It also occurs in the hilly tracts of Bhavani taluk.

Soils of Bhavani, Erode and Perundurai taluks are chiefly gravelly, stony and sandy of the red variety. Soils of Gobichettipalayam and Sathyamangalam taluks are mostly of the red sandy variety. Red loam is prevalent mostly in Gobichettipalayam and Perundurai taluks.

4.5. Climatic data

The Erode district in general is characterised with a scandy rainfall and a dry climate. Maximum rainfall is recorded in Gobichettipalayam and Bhavani taluks. The Palghat gap in the Western Ghats, which has a soothing effect in the climate of Coimbatore District, does not render much help in bringing down the dry climate in this area. The cool-wind that gushes out of the west coast through Palghat gap loses its coolness and
becomes dry by the time it crosses Coimbatore district and reaches Erode region.

Erode District has dry weather throughout except during the monsoon season. Generally the first two months of the year are pleasant, but in March, the temperature gains and an upward trend which persists till the end of May. Highest temperature is normally recorded during May. The scandy showers during this period do not provide any relief to the oppressive heat. There is a light improvement in the climate during June-August period. During this pre-monsoon period, the temperature decreases by September, the sky gets overcast heavily but the rains are meagre. North-east monsoon sets in vigorously only during October-November and by December.

4.6. Social Infrastructure

Ikkaraithathapalli Village is near the plant area, The Ikkaraithathapalli village has some basic infrastructure like school, hospital, communication, drinking water facilities, public transport facility. The nearest town/district from the plant site is Erode and Coimbatore.

Location of the paper mill is in close proximity to Coimbatore (≈52 km aerial) and Mettupalayam(≈34km) air ports and also near to the National Highway NH-206 which is just 6 Km away and connected by state high way. These facilitate convenient movement of raw materials and finished products.
5. Planning Brief

5.1. Planning Concept

The proposed project is a modernization of paper production and power generation which will consist of De-inking plant, waste paper conveyor, coal storage yard.

5.2. Land Use Planning

The land identified in the existing mill premises is 0.15 acres for the proposed facilities. The land break up is given below.

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Land Requirement</th>
<th>Area (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>De-inking plant</td>
<td>600</td>
</tr>
<tr>
<td>2</td>
<td>Storage yard for coal</td>
<td>2100</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>2700</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Acres</strong></td>
<td><strong>0.65</strong></td>
</tr>
</tbody>
</table>

5.3. Location for New Proposal

The proposed new facilities will be located in vacant spaces within the mill. The existing premises as captured in the following photographs.

Figure 5-1 Project Site Premises
5.4. Amenities

During construction phase temporary houses / sheds, drinking water facilities, drainage system septic tank etc will be provided. During operational phase workers will be accommodated in hostels.
6. Proposed infrastructure

6.1. Industrial, Residential and Green Cover

The proposed project is a modernization of paper production and power generation which will consist of De-inking plant, waste paper conveyor and coal storage shed.

6.2. Environmental Management Plan of the Modernization Project

6.2.1. Rehabilitation and Re-settlements aspects

The proposed modernization project will be developed within the existing facility; hence no additional land will be acquired for the proposed modernization scheme. Hence rehabilitation and re-settlement of people is not envisaged. In addition, cutting of trees and greenbelt in the existing plant will not be undertaken for the construction of new facilities. Therefore loss of ecology at the existing facility is not envisaged.

6.2.2. Air Quality Management Plan

At present, the existing facility has 15MW Captive Power Plant operated with 15% coal and 85% Biomass. The consent obtained from the TNPCB for the 15% coal usage is attached as Annexure 2. Due to huge scarcity of biomass, the plant is not able to produce sufficient power for its needs. So, it has been decided to operate the 15MW CCP with 100% usage of coal. The latest CTO for power plant (Air & water) is attached as an Annexure 8. The existing facility already installed with Electrostatic precipitator.
Table 6-1 Summary Of The Emissions From the Proposed usage of
100% Coal in 15 MW CCP

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak coal consumption</td>
<td>T/hr</td>
<td>23</td>
</tr>
<tr>
<td>Envisaged maximum sulphur content in the imported coal</td>
<td>%</td>
<td>0.8</td>
</tr>
<tr>
<td>SO$_2$ emission rate</td>
<td>kg/hr</td>
<td>368</td>
</tr>
<tr>
<td>NOx emission rate as per USEPA emission factors</td>
<td>kg/hr</td>
<td>-</td>
</tr>
<tr>
<td>Flue gas quantity</td>
<td>Nm$^3$/hr</td>
<td>174800</td>
</tr>
<tr>
<td>Flue gas temperature</td>
<td>°C</td>
<td>140</td>
</tr>
<tr>
<td>Minimum stack height requirement as per CPCB guidelines</td>
<td>m</td>
<td>82.32</td>
</tr>
<tr>
<td>Proposed stack height</td>
<td>m</td>
<td>85</td>
</tr>
</tbody>
</table>

6.2.3. Industrial Noise Control and Management

Based on the test results of Tamil Nadu Pollution Control Board, the noise levels at the existing facility boundary were found to be well below the stipulated noise standards for industrial areas. Noise levels at the work-zone areas are maintained below 75 dB (A).

A full-fledged ear protection program is being implemented in the existing facility and similar practice will be adopted in the modernization program.

6.2.4. Water Conservation and Wastewater Disposal Management Plan

The facility has permission to draw a maximum water quantity of 2000 m$^3$/day from Bhavani River. The current fresh water consumption in the existing facility was found to be in the order 1950 m$^3$/day with a specific water consumption of 3.54 m$^3$/t of product manufactured. Robust wastewater recycling programs are being implemented in the existing facility.

About 3900 m$^3$/day of wastewater is generated from the existing facility to the ETP. A full-fledged ETP that is capable of treating about 4500 m$^3$/day is in operation. The existing ETP consists of equalization tank, clarifier, sludge
screw press; extended aeration based biological treatment units followed by secondary clarifier, sludge drying beds. About 3800 m³/day of treated wastewater is reused in the main plant for process applications and the balance 15 m³/day of treated wastewater is discharged to the existing green-cover area (plantation and horticulture activities) of 3 acres (hydraulic loading of 35 m³/Ha per day) within the existing facility.

The total envisaged wastewater from the facility after modernization operations will be in the order of 5700 m³/day with a maximum COD (Chemical oxygen Demand) and BOD (Biochemical Oxygen Demand) of about 2000 mg/l and 400 mg/l respectively. The existing effluent treatment plant will be upgraded to meet the stipulated effluent discharge standards for on land irrigation.

**Table 6-2 Treated Wastewater Characteristics**

<table>
<thead>
<tr>
<th>SI No.</th>
<th>Parameters</th>
<th>Units</th>
<th>Characteristics</th>
<th>SPCB norms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>pH</td>
<td>-</td>
<td>6.5 to 7.5</td>
<td>5.5- 9.0</td>
</tr>
<tr>
<td>2</td>
<td>TSS</td>
<td>mg/l</td>
<td>50</td>
<td>&lt;100</td>
</tr>
<tr>
<td>3</td>
<td>TDS</td>
<td>mg/l</td>
<td>2000</td>
<td>&lt;2100</td>
</tr>
<tr>
<td>4</td>
<td>BOD (3 days)</td>
<td>mg/l</td>
<td>15</td>
<td>&lt;30</td>
</tr>
<tr>
<td>5</td>
<td>COD</td>
<td>mg/l</td>
<td>150</td>
<td>&lt;250</td>
</tr>
</tbody>
</table>

Post Modernization, ETP treated wastewater will be within SPCB norms.

**6.2.5. Solid and Hazardous Waste Management**

The following solid and hazardous waste will be generated from the facility.

**Table 6-3 Solid Waste Generation And Disposal**

<table>
<thead>
<tr>
<th>Type of waste</th>
<th>Existing tpd</th>
<th>Post MEP tpd</th>
<th>Disposal Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bottom ash from co-generation power plant</td>
<td>2.3</td>
<td>3.5</td>
<td>Will be sent to hollow block makers</td>
</tr>
<tr>
<td>Fly ash from co-generation power plant</td>
<td>23</td>
<td>35.5</td>
<td>Will be sent to hollow block makers and cement manufacturers</td>
</tr>
<tr>
<td>De-inking plant sludge</td>
<td>Nil</td>
<td>20</td>
<td>Sludge from dissolved air flotation units in the de-</td>
</tr>
</tbody>
</table>
Plastic waste from waste paper sorting facilities | 3 | 3 | Will be collected in dedicated bins and will be disposed to recyclers

Metal waste from waste sorting facilities | NIL | NIL | Will be collected in dedicated bins and will be disposed to recyclers

Primary clarifier sludge in ETP | 3 | 3.2 | Will be subjected to de-watering in the existing screw press and will be disposed to board manufacturing facilities / fired in boiler

Secondary clarifier Sludge in ETP | 0.5 | 0.5 | Will be subjected to sludge dewatering press / screw press, decanter and will be used as manure in plantation and horticulture activities

Used oil | 1.3TPA | 1.3TPA | Used as lubricant

6.2.6. Greenbelt Development Plan

Since from the inception of the facility by present management has planted more than 12000 saplings in an area of 16 acres in the existing facility. The current green cover area comprises of more than 30 % of the factory area. All the trees were found to grow to a reasonable height of 3 m.

Figure 6-1 Green Cover around the Project Site
6.2.7. Community Development Activities Undertaken by SPB Limited

Senthil Papers & Boards holds a charitable trust called ‘Shree Vijayalakshmi Charitable trust’ which has consistently granted the scholarship for Poor students in Tamilnadu. In the last 5 years more than 1.5 lakhs students have received Scholarships worth over Rs.300 crores.

**Education**

- “Every poor yet meritorious student who comes here seeking help must not return empty handed” said by our chairman.
- Shree Vijayalakshmi Matriculation Higher Secondary School (VMHSS) is being run by our group and around 2400 students right from kindergarten to higher secondary are undergoing education at free of cost every year.

**Health Measures**

- Donated One Ambulance Vehicle To Koththamangalm Panchayath, Sathyamangalam Taluk For The Benefit Of Villagers And All The Expenses Like Maintenance, Driver, Fuel Etc., Is Being Incurred By Senthil Papers & Boards.
- We Donated Rs. 50 Lakhs To Sri Kanchi Kamakoti Medical Trust For Their Programme Titled Gift Of Vision Project. Under This
Programme, 50% Of The Eye Operations Are Performed Free Of Cost.

- Initially the trust functioned as a contributor or donor to the government general hospital, Coimbatore allowing a grant of Rs. 64 lakhs for purchase of life saving medical equipment. Later the trust took over the smooth functioning of the hospital. A sum of Rs. 2.5 crore has been pumped in for its renovation. An annual amount of Rs. 1 crore goes towards the maintenance and cleanliness of the hospital till 2014.
- Conducting blood donation camp on the eve of our chairman’s birthday every year.
- Also we are conducting free medical camp for poor village people near Annur on the eve of our chairman’s father’s anniversary day.

Environment

- To protect environment for welfare of posterity we are planting many saplings in many areas in and around Coimbatore regularly.
- As a social service and to preserve the environment our trust has took much effort to clean Ukkadam, Coimbatore big tank by allocating lorries, JCBs, bulldozers and 75 personnel for the special task at Ukkadam.
- Security guards including women security guards numbering 75 have been deployed in Coimbatore Medical College Hospital (CMCH) round the clock for more than one year during 2013 – 2014 and the total expenses incurred by our trust.
7. Project schedule and cost estimates

7.1. Implementation Schedule

The major activities are highlighted below and the completion time indicated are from the “zero date” which is the date of Environment Clearance (EC).

Table 7-1  Major Activities

<table>
<thead>
<tr>
<th>START DATE</th>
<th>“ZERO DATE”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordering of long delivery plant and equipment</td>
<td>1st month</td>
</tr>
<tr>
<td>Commencement of civil construction</td>
<td>3rd month</td>
</tr>
<tr>
<td>Commencement of erection of Plant &amp; machinery</td>
<td>6th month</td>
</tr>
<tr>
<td>Commencement of start-up trial &amp; commissioning</td>
<td>9th month</td>
</tr>
<tr>
<td>Commencement of commercial production</td>
<td>12th month</td>
</tr>
</tbody>
</table>

7.2. Project Cost

Total investment envisaged for the project is Rs. 1.5 Crores as per broad break up given in the table below.

Table 7-2  Project Cost

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Description</th>
<th>Cost (Rs. in Crores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Civil Works</td>
<td>0.15</td>
</tr>
<tr>
<td>2</td>
<td>Plant &amp; Machinery Cost (including Erection and Engineering)</td>
<td>1.00</td>
</tr>
<tr>
<td>3</td>
<td>Other Capitalization Cost (pre operative expense, escalation and contingency, start up expenses and interest during construction)</td>
<td>0.35</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1.5</td>
</tr>
</tbody>
</table>

7.3. Environmental Protection and Management Plan

Environmental protection will be monitored by a centralized environmental management cell. The fiscal estimate has been arrived for the proposed project as under:
• About Rs 3.0 Crores is allocated towards pollution control equipment and implementation of environmental pollution control measures.

**Table 7-3 Environmental Protection And Management Plan**

<table>
<thead>
<tr>
<th>Section</th>
<th>Rs. Crore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power boiler stack and ESP</td>
<td>NA</td>
</tr>
<tr>
<td>DIP sludge dewatering system</td>
<td>0.50</td>
</tr>
<tr>
<td>ETP augmentation</td>
<td>0.50</td>
</tr>
<tr>
<td>Air cooled condenser</td>
<td>NA</td>
</tr>
<tr>
<td>Online environmental monitoring and protection</td>
<td>0.30</td>
</tr>
<tr>
<td>Additional Green cover development</td>
<td>0.20</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1.50</strong></td>
</tr>
</tbody>
</table>

**7.4. Economic Viability**

The economic viability of proposed project is as below:

**Table 7-4 Economic Viability**

<table>
<thead>
<tr>
<th>S.No</th>
<th>Description of data</th>
<th>UOM</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Project cost</td>
<td>In Lacs</td>
<td>150.00</td>
</tr>
<tr>
<td>2</td>
<td>Capacity of De-inking plant</td>
<td>TPD</td>
<td>120</td>
</tr>
<tr>
<td>3</td>
<td>Total production of Board with De-inking pulp per day (250+15)</td>
<td>MT/day</td>
<td>265</td>
</tr>
<tr>
<td>4</td>
<td>Cost of raw materials used (Top &amp; Under Top)</td>
<td>Rs/MT</td>
<td>55753.00</td>
</tr>
<tr>
<td>5</td>
<td>Cost of Chemical used</td>
<td>Rs/MT</td>
<td>290.00</td>
</tr>
<tr>
<td>6</td>
<td>Cost of Power consumption @ Rs 6.5/kwh</td>
<td>Rs/MT</td>
<td>225.00</td>
</tr>
<tr>
<td>7</td>
<td>Cost of steam consumption @ Rs 1000/MT</td>
<td>Rs/MT</td>
<td>72.00</td>
</tr>
<tr>
<td>8</td>
<td>Process over heads</td>
<td>Rs/MT</td>
<td>50.00</td>
</tr>
<tr>
<td>9</td>
<td>Total cost of de-inking pulp (Top &amp; Under Top)</td>
<td>Rs/MT</td>
<td>56390.00</td>
</tr>
<tr>
<td>10</td>
<td>Present cost of top &amp; Under Top layer pulp with No1 cuttings</td>
<td>Rs/MT</td>
<td>64376.00</td>
</tr>
<tr>
<td>11</td>
<td>Saving in de-inking by difference in cost</td>
<td>Rs/MT</td>
<td>7986.00</td>
</tr>
<tr>
<td>12</td>
<td>Actual Savings in Top &amp; Under Layer De-ink pulp per Ton of Board</td>
<td>Rs/MT</td>
<td>339.69</td>
</tr>
<tr>
<td>13</td>
<td>Total saving in de-inking per day production</td>
<td>Rs/day</td>
<td>90016.59</td>
</tr>
<tr>
<td>14</td>
<td>Total saving per month</td>
<td>Rs/month</td>
<td>2700497.66</td>
</tr>
<tr>
<td>15</td>
<td>Total saving per year of 330 days operation in</td>
<td>Rs/year</td>
<td>297.05</td>
</tr>
</tbody>
</table>
## 7.5. Analysis of Proposals (final recommendations)

Some of the specific benefits derived from the project are presented below:

### Financial Analysis

The financial analysis of proposal is as below

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROI</td>
<td>%</td>
<td>98.04</td>
</tr>
<tr>
<td>Payback</td>
<td>Months</td>
<td>6</td>
</tr>
</tbody>
</table>

### 7.6. Employment

The project will create additional direct employment to about 10 persons. In addition it would generate indirect employment to about 30 persons in the industries and service organizations and material handling, etc., which will be supported by the operations of the mill.

### 7.7. Contributions to State Exchequer

As the proposed project does not increase the production capacity. So, the contributions to state exchequer remain the same.

### 7.8. Establishment of Ancillary Business

The project envisages additional movement of input and finished product over and above the existing operations of about 15000 TPA, benefiting the trucking industry.

Further, the project envisages procurement of 40000 TPA local waste paper and this could go up if good quality waste paper is available locally. This could promote local business opportunity for waste paper recyclers and suppliers.
7.9. **Non Dependence of Power**

At present the Senthil paper mills & boards is not withdrawing power form the Tamil Nadu State Electricity Board. After proposed modernization there will no withdrawal of power from the board. By upgrading CCP with coal, the mill will be able to meet the entire requirement of power and thus help the State Government by not drawing power from grid.

7.10. **Corporate Social Responsibility**

By modernizing the activities in this region, SPBPL (Senthil Papers & Boards Pvt Ltd), Erode will earmark regular budget and will be spending more on CSR activities in this region, benefiting local people.
Annexure-1

Name change document
GOVERNMENT OF INDIA
MINISTRY OF CORPORATE AFFAIRS
Registrar of Companies, Coimbatore

Stock Exchange Building, 2nd Floor, 683, Trichy Road, Singanallur, Coimbatore - 641005, Tamil Nadu, INDIA

Certificate of Incorporation pursuant to change of name
[Pursuant to rule 29 of the Companies (Incorporation) Rules, 2014]

Corporate Identification Number (CIN): U02101TZ2002PTC010260

I hereby certify that the name of the company has been changed from SARADHA PAPERS AND BOARDS PRIVATE LIMITED to SENTHIL PAPERS AND BOARDS PRIVATE LIMITED with effect from the date of this certificate and that the company is limited by shares.

Company was originally incorporated with the name VAIGKUNTH DUPLEX BOARD MILLS PRIVATE LIMITED.

Given under my hand at Coimbatore this Fifth day of November Two Thousand Fourteen.

[Signature]
N RAMANATHAN
Registrar of Companies
Registrar of Companies
Coimbatore

Mailing Address as per record available in Registrar of Companies Office:

SENTHIL PAPERS AND BOARD PRIVATE LIMITED
6th Floor, Senthil Towers, 1078, Avinashi Road,
Coimbatore - 641 018.
Tamil Nadu, INDIA.
FRESH CERTIFICATE OF INCORPORATION
CONSEQUENT ON CHANGE OF NAME

In the office of the Registrar of Companies, Tamil Nadu, Coimbatore.
(Under the Companies Act, 1956 (1 of 1956))

IN THE MATTER OF

I hereby certify that VAIGKUNTH DUPLEX BOARD MILLS PRIVATE LIMITED which
was originally incorporated on SIXTEENTH day of JULY, 2002
under
Companies Act, 1956/1913 and under the name

VAIGKUNTH DUPLEX BOARD MILLS PRIVATE LIMITED

having duly passed the necessary resolution in terms of Section 21 of the Companies Act, 1956 and the
approval of the Central Government signified in writing having been accorded hereto in the Ministry of Law,
Justice & Company Affairs, Department of Company Affairs, Registrar of Companies, Tamil Nadu,
Coimbatore, Letter No. 92/S.2/1/10260/2005 dated 06.12.2005 the name of the said
company is this day changed to SARADHA PAPERS AND BOARDS PRIVATE
LIMITED ** ** ** **

and this Certificate is issued pursuant to Section 23(1) of the said Act

Given under my hand at COIMBATORE this SIXTH day of DECEMBER AGRAHAYANA
Two thousand and FIVE.
One Thousand nine hundred and TWENTY SEVEN.

(SAKA)

Registrar of Companies
Tamil Nadu
Coimbatore.
Annexure-2

Consent To Establish

15% of Coal usage – Air Act
CONSENT ORDER NO.:6385, (Expansion), Dated:25.09.2015


Sub: Tamil Nadu Pollution Control Board - Consent for Establishment (Expansion) – M/s. Saradha Papers and Boards Private Limited (Power Division), S.F.No.86/2, 86/3, 87/2, 87/3, 88, 114, 119, 218/2, 219/1, 219/2, Ikkaraithapalli Village, Sathyamangalam Taluk, Erode District - For the establishment or take steps to establish the industry under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981, as amended in 1987 (Central Act, 14 of 1981)- Reg.

2. Your Application received on 14.10.2014
4. Board meeting Item No.:257-1-6, dated 19.05.2015.

Consent to establish or take steps to establish for expansion is hereby granted under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981, as amended in 1987 and the Rules and Orders made there under to

The Director
M/s. Saradha Papers and Boards Private Limited (Power Division)

(hereinafter referred to as ‘The Applicant’) authorizing him to establish or take steps to establish the industry in the site mentioned below:

S.F.No.86/2,86/3,87/2,87/3,88,114,119,218/2,219/1,219/2, Ikkaraithapalli Village, Sathyamangalam Taluk, Erode District

1
This Consent to establish is valid for two years or till the industry obtains consent to operate under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981, as amended in 1987 whichever is earlier subject to special and general conditions enclosed.

K. Skandan
Chairman

To
The Director
M/s. Saradha Papers and Boards Private Limited, (Power Division)
S.F.No.114, Ilkaraithathapalli Village,
Sathyamanagaram Taluk,
Erode District – 638 451

Copy to
1. The District Environmental Engineer,
   Tamilnadu Pollution Control Board,
   Perundurai.

2. The Commissioner,
   Bhavanisagar Panchayat Union,
   Erode District

3. Spare

//Forwarded By Orders//

[Signature]
For Chairman

[Signature]
For Chairman

---

POLLUTION PREVENTION PAYS
அதன் தொடர்புள்ள வேலைபாடுகளே! புரோட்டியேனியேலே!
SPECIAL CONDITIONS

1. This consent to establish is valid for establishing the facility for the manufacture of products/byproducts (Col. 2) at the rate (Col 3) mentioned below. Any change in the product/byproduct and its quantity has to be brought to the notice of the Board and fresh consent has to be obtained.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>Main Products manufactured;</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Power [produced using 85% biofuel + 15% Coal]</td>
<td>15 MW</td>
</tr>
<tr>
<td>b.</td>
<td>By product</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Steam</td>
<td>105TPH</td>
</tr>
</tbody>
</table>

2. This consent to establish is valid for establishing the facility with the below mentioned emission/noise sources along with the control measures and/or stack. Any change in the emission source/control measures/change in stack height has to be brought to the notice of the Board and fresh consent has to be obtained if necessary.

<table>
<thead>
<tr>
<th>Chimney/Stack Number</th>
<th>Description of Chimney</th>
<th>Point of Discharge in meters (above ground level)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (ESP with stack)</td>
<td>Boiler 105TPH</td>
<td>85</td>
</tr>
</tbody>
</table>

3. The unit shall adhere to the Ambient air quality/ Stack/ Ambient Noise Level standards prescribed by the Board from time to time.

4. The unit shall collect all the fly ash from electrostatic precipitator, economizer, air heater etc., store in silo and dispose it for beneficial uses.

5. The unit shall properly operate the fire and safety measures to avoid any untoward incidents.

6. The unit shall operate the electrostatic precipitator & stack of height 85 meters connected to Boiler and bag filter & stack 19 mts to ash silo efficiently so as to achieve the emission standard of 50 mg/Nm³ and the Ambient Air quality standards.

7. The unit shall provide online continuous stack monitoring system to analyze the parameters to ensure the standards and connect it with the CARE Air Centre of the Board.

8. The unit shall operate water sprinkling arrangement to avoid fugitive emission in the areas such as unloading conveying and transfer points.

POLLUTION PREVENTION PAYS
9. The unit shall adopt effective vehicle arrangements inside the premises to arrest the fugitive emission generated due to the transport of raw materials. The road shall maintain properly.
10. The unit shall operate the acoustic measures including the anti-vibration foundation, in-built measures, silencers etc., for the control of noise emission so as to adhere to the ambient noise level standards.
11. The unit shall develop green belt for adequate width and density with native species around the unit’s premises at the rate of 400 trees per hectare in consultation with local District Forest Officer.

K. Skandan
Chairman

//Forwarded By Orders//

GENERAL CONDITIONS

1. The above consent to establish cannot be construed as consent to operate and the unit shall not commence the operation without obtaining the Consent to operate.
2. The applicant shall make a request for grant of consent to operate at least thirty days, before the commissioning of trial production.
3. Any Change in the details furnished in the conditions has to be brought to the notice of the Board and got approved by the Board, before obtaining consent to operate under the said Act.
4. The unit has to comply with the provisions of Public Liability Insurance Act, 1991 to provide immediate relief in the event of any hazard to human beings, other living creatures/plants and properties while handling and storage of hazardous substances (wherever applicable).
5. Consent to operate will not be issued unless the unit complies with the conditions of consent to establish.
6. The unit shall provide adequate water sprinklers for the control of dust emission during the loading and unloading of construction material so as to minimize the dust emission.

7. The unit shall provide water sprinklers along the temporary roads inside the premises to avoid fugitive dust emission during the vehicle movements.

8. The unit shall develop green belt of adequate width around the premises.

9. In case there is any change in the management, the unit shall inform the change with relevant documents immediately.

K. Skandan
Chairman

//Forwarded By Orders//

For Chairman
POLLUTION PREVENTION PAYS

தொடர்மான ஆதரவு! தொடர்மான ஆரம்பம்!
Annexure-3

Consent To Establish

15% usage of Coal – Water Act
CONSENT ORDER NO.: 6446, (Expansion), Dated: 25.09.2015


Sub: Tamil Nadu Pollution Control Board - Consent for Establishment (Expansion) – M/s. Saradha Papers and Boards Private Limited (Power Division), S.F.No.86/2, 86/3, 87/2, 87/3, 88, 114, 119, 218/2, 219/1, 219/2, Ikkaraiathapalli Village, Sathyamangalam Taluk, Erode District - For the establishment or take steps to establish the industry under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 as amended in 1988 (Central Act 53 of 1988) - Reg.

2. Your Application received on 14.10.2014,
3. IR.No.: PND0831/RL/DEE/PND/2014, dated: 17.11.2014,
4. Board meeting Item No.: 257-1-6, dated 19.05.2015,

Consent to establish or take steps to establish for expansion is hereby granted under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974, as amended in 1988 (Central Act 53 of 1988) (hereinafter referred to as ‘The Act’) and the Rules and Orders made there under to

The Director
M/s. Saradha Papers and Boards Private Limited (power Division)

(hereinafter referred to as ‘The Applicant’) authorizing him to establish or take steps to establish the industry in the site mentioned below:

S.F.No.86/2, 86/3, 87/2, 87/3, 88, 114, 119, 218/2, 219/1, 219/2,
Ikkaraiathapalli Village,
Sathyamangalam Taluk,
Erode District
This Consent to establish is valid for two years or till the industry obtains consent to operate under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974, as amended in 1988 whichever is earlier subject to special and general conditions enclosed.

K, Skandan
Chairman

To

The Director

M/s. Saradha Papers and Boards Private Limited, (Power Division)
S.F.No 114, Ilkarithathapalli Village,
Sathyamanagaram Taluk,
Erode District – 638 451

Copy to

1. The District Environmental Engineer,
Tamilnadu Pollution Control Board,
Perundurai.

2. The Commissioner,
Bhavanisagar Panchayat Union,
Erode District.

3. Spare

//Forwarded By Orders//

For Chairman

POLLUTION PREVENTION PAYS
முன்பு பற்றி பெருகப்படாது! முன்பு தவறு விட்டலாம்!
SPECIAL CONDITIONS

1. This consent to establish is valid for establishing the facility for the manufacture of products/byproducts (Col. 2) at the rate (Col. 3) mentioned below. Any change in the product/byproduct and its quantity has to be brought to the notice of the Board and fresh consent has to be obtained.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>Main Products manufactured:</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Power</td>
<td>15 MW</td>
</tr>
<tr>
<td></td>
<td>[produced using 85% biofuel + 15% Coal]</td>
<td></td>
</tr>
<tr>
<td>b</td>
<td>By Product</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Steam</td>
<td>105TPH</td>
</tr>
</tbody>
</table>

2. This consent to establish is valid for establishing the facility with the below mentioned outlets for the discharge of sewage/ trade effluent. Any change in the outlets has to be brought to the notice of the Board and fresh consent has to be obtained if necessary.

<table>
<thead>
<tr>
<th>Outlet No.</th>
<th>Description of Outlet</th>
<th>Maximum daily discharge in KLD</th>
<th>Point of disposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sewage</td>
<td>8</td>
<td>On industry's own land</td>
</tr>
<tr>
<td>2</td>
<td>Trade Effluent I</td>
<td>40</td>
<td>After neutralization used for Ash quenching</td>
</tr>
<tr>
<td>3</td>
<td>Trade Effluent II</td>
<td>170</td>
<td>After neutralizing used in Paper manufacturing plant</td>
</tr>
</tbody>
</table>
3. The unit shall provide Sewage Treatment Plant and/or Effluent Treatment Plant as indicated below.

<table>
<thead>
<tr>
<th>Nature of Effluent</th>
<th>Sl. No.</th>
<th>Components of ETP</th>
<th>Nos.</th>
<th>Dimensions (in meters)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sewage</td>
<td>1.</td>
<td>Septic tank</td>
<td>2</td>
<td>6 x 3 x 3</td>
</tr>
<tr>
<td></td>
<td>2.</td>
<td>Dispersion trench</td>
<td>2</td>
<td>8 x 2 x 2</td>
</tr>
<tr>
<td>Trade Effluent</td>
<td>1.</td>
<td>Neutralization Pit</td>
<td>1</td>
<td>9 x 3 x 3.5</td>
</tr>
</tbody>
</table>

4. The unit shall treat the sewage in septic tank and dispersion trench arrangement.

5. The unit shall generate 210KLD of trade effluent from the process. 40KLD of the trade effluent shall be used for Ash quenching process. The remaining 170KLD of the trade effluent shall be used in its paper manufacturing plant after neutralizing the effluent.

6. The unit shall efficiently operate the collection cum neutralization pit of size 9m x 3m x 3.5 m provided for the treatment of trade effluent arising from multi grade filter backwashing, boiler blow down, cooling tower blow down, RO reject, Re-generation of softener and demineralization plant, resin beds, so as to achieve the standards and to use for ash quenching and in its paper processing plant.

7. The unit shall ensure that the storm water within the premises shall be collected through storm water drain and to be used for recharging the ground water.

8. The unit shall store the raw materials in the completely paved area only.

9. The unit shall carryout shredding of biomass in closed shed to control dispersion of suspended particulate matter.

POLLUTION PREVENTION PAYS
தேத விபறை வழித்தடுத்து! தேத விபறை வழித்தடுத்து!
10. The unit shall ensure that the movement of raw material within the plant shall be only through closed conveyors and shall collect dust effectively from all the transfer points of the conveyor to avoid dust emission.

K.Skandan
Chairman

//Forwarded By Orders//

For Chairman

GENERAL CONDITIONS

1. The above consent to establish cannot be construed as consent to operate and the unit shall not commence the operation without obtaining the Consent to operate.
2. The industry shall make a request for grant of consent to operate at least thirty days before the commissioning of trial production.
3. The unit shall construct compound wall around the boundary of the unit.
4. Samples of water from the wells or any other nearby water sources have to be taken by the unit and get them analyzed by the Board Laboratory to develop base line data to assess the existing water quality.
5. The unit shall provide an alternate power source along with separate energy meter for the Effluent Treatment Plant to ensure continuous operation of the Effluent Treatment Plant.
6. The consent does not authorize or approve the construction of any physical structures or facilities, or the undertaking of any work in any natural watercourse.
7. Any change in the details furnished in the conditions has to be brought to the notice of the Board and got approved by the Board, before obtaining consent to operate under the said Act.
8. The unit has to comply with the provisions of Public Liability Insurance Act, 1991 to provide immediate relief in the event of any hazard to human beings, other living creatures/plants and properties while handling and storage of hazardous substances (if applicable).

9. Consent to operate will not be issued unless the unit complies with all the conditions of consent to establish.

10. In case there is any change in the management, the unit shall inform the change with relevant documents immediately.

K. Skandan
Chairman

//Forwarded By Orders//

For Chairman
Annexure-4

Existing and Proposed ETP Flow diagram
Existing ETP (4000 m³/day) for BM-1 & BM-2

Top Material
To SFT

SediCell

Overflow → Collection Tank

Primary Clarifier

overflow →

Aeration Tank-1
Fixed Surface Aerators (6x22kw)

Overflow → Secondary Clarifier-1

Overflow →

RAS

Overflow →

Secondary Clarifier-2

Secondary Clarifier-2

Biological Sludge to
Biological clarifier

Tertiary Clarifier

overflow →

Chlorine Contact Tank

MGF

overflow →

Ultrafiltration

overflow →

Reverse Osmosis

To Storage tank

overflow →

Sludge disposal to
Sundry board manufactures

overflow →

Mechanical Dewatering Device (MDD)
Belt Press

overflow →

Chemical Fiber Clarifier

overflow →

Biological Sludge Clarifier

overflow →

Aeration Tank-2
Fixed Surface Aerators (2x22kw)

overflow →

To Storage tank
Proposed ETP Scheme (4500m³/day) for BM-1 & BM-2

Proposed ETP Scheme (1200 m³/day) for BM-3

Sludge disposal to Sundry board manufactures
Annexure-5

Water withdrawal consent for Paper Plant
500 m³/d

&

Water withdrawal consent for Power Plant
1500 m³/d
அன்று வைக்கப்பட்ட - குறிப்பிட்டாமலாம் மட்டும் - பத்தாண்டுகளாக கிராமக் - துவ. ஓரத்து மீன்பாதை புத்தகங்கள் பாதிக்கவும் பிரிமைப்பு ஓரிட்டு. ஓரிட்டு பத்தாண்டுகள் வருவதானே 15 மாதங்கள் அரசில் விளக்கும் வருவாயில்களை பாதிக்கவும் பாதிக்கவும் ஆதரவு அளிக்கிறது - அது நம்பிக்கைப்பட்டும்.

அன்று வைக்கப்பட்ட (செல்வா) நாள் 232

முன்னாள் பெருநூற்றாண்டு குறிப்பிட்டாமலாம் - அவர்களுடைய வாழ்பாடால் வைக்கப்பட்ட நோக்கை, துவ. ஓரத்து மீன்பாதை செலவை, 2010/44/ அன்று வைக்கப்பட்ட பத்தாண்டுகள் வருவதானே 15 மாதங்கள் அரசில் விளக்கும் வருவாயில்களை (Biomass) செலவை, 5 ஆண்டுகள் வாய்ப்புகளை ஆன்டு வைக்கப்பட்ட நோக்கை, துவ. ஓரத்து மீன்பாதை செலவை. 2010/44/ அன்று வைக்கப்பட்ட பத்தாண்டுகள் வருவதானே 15 மாதங்கள் அரசில் விளக்கும் வருவாயில்களை (Biomass) செலவை, 5 ஆண்டுகள் வாய்ப்புகளை ஆன்டு வைக்கப்பட்ட நோக்கை, துவ. ஓரத்து மீன்பாதை செலவை. 2010/44/ அன்று வைக்கப்பட்ட பத்தாண்டுகள் வருவதானே 15 மாதங்கள் அரசில் விளக்கும் வருவாயில்களை (Biomass) செலவை, 5 ஆண்டுகள் வாய்ப்புகளை ஆன்டு வைக்கப்பட்ட நோக்கை, துவ. ஓரத்து மீன்பாதை செலவை. 2010/44/ அன்று வைக்கப்பட்ட பத்தாண்டுகள் வருவதானே 15 மாதங்கள் அரசில் விளக்கும் வருவாயில்களை (Biomass)
4. இல்லாதச்சலூர் காவேரி இயற்கைச் சூழல் தொடர்புகள் பதினைல்லாது காவேரியை பாதுகாப்பு மற்றும் தொழில்முறை நடைபெரும் காரணிகள் மற்றும் அதக்குச்சாய்வில்லாது காவேரியை பாதுகாப்பு மற்றும் தொழில்முறை நடைபெரும் காரணிகளை திசையான சமூகக் கலைகளுடன் கலக்கல்கூட்டும் வட்டங்கள் கையேற்களுடன் அறிவிக்கும் பாதுகாப்பு மற்றும் தொழில்முறை நடைபெரும் காரணிகளை திசையான சமூகக் கலைகளுடன் கலக்கல்கூட்டும் வட்டங்கள் கையேற்களுடன் அறிவிக்கும் பாதுகாப்பு மற்றும் தொழில்முறை நடைபெரும் காரணிகளை திசையான சமூகக் கலைகளுடன் கலக்கல்கூட்டும் வட்டங்கள் கையேற்களுடன் அறிவிக்கும் பாதுகாப்பு மற்றும் தொழில்முறை 

(அவர்கள் ஓருள்பாட்டு)

ஸலவா முன்னாடி
அவர்கள் ஓருள்பாட்டு

அவர்கள்

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// ஒருவர் / அமைப்புச்சொற்று //
ANNEXURE to G.O (Ms) No 232, Public Works (S1) Department Dated: 24.09.2013

TERMS & CONDITIONS FOR DRAWAL OF WATER FROM THE GOVERNMENT SOURCES FOR INDUSTRIAL PURPOSES

1. The Company M/s. Saradha Papers & Boards (P) Limited, S.F.No. 106/2A, Ilkaraithathapalli Village, Sathyamangalam Taluk, Erode District, is permitted to draw 1500 cu.mtrs of water from Bhavani River for a period of 5 years from the date of issue of this Government Order. The Industry should draw water from a down stream point where it lets down its own trade effluents.

2. The Consumer Company shall enter into an agreement with the Government ie Superintending Engineer, concerned who is the controlling officer before proceeding with the drawal of water as per Revenue Standing Orders 11.A.

3. The tapping arrangements of the Consumer Company shall be got approved by the Controlling Officer before commissioning. The off-take arrangement so approved shall be used exclusively for the drawal of water permitted herein and should not be used for any other purpose.

4. No guarantee for an adequate supply of water can be given. In times of scarcity the supply is liable to be reduced or cut-off in order to safeguard the interest of both irrigation and public drinking water arrangements. The Company shall comply with the decisions and instructions of the Executive Engineer, Water Resources Department having jurisdiction over the river course in this matter. The Consumer Company cannot claim any compensation for such reduction or cutting off of supply of water and shall have their own arrangements of alternative sources.

5. The Consumer Company shall use the water only for the industrial purposes and for the drinking water supply for the staff of the factory. If the water or the effluent, even after the treatment, as the case may be, used for any other purpose like irrigation or for the industrial purpose, it will attract levy of water cess by the Revenue Authorities as per rules in force. This will be in addition to the royalty to be paid to the Government through Water Resources Department for the water permitted to be drawn under clause 1 above from the river source as per stipulation of the agreement.

6. The arrangements for drawal of water and the constructions on the river margin shall be got approved by the concerned Executive Engineer, Water Resources Department. All such constructions will be at the cost of the Company and to the satisfaction of the Public Works Department, Water Resources Department Officers and conforming to the approved standards specified by Water Resources Department and authorities. The Consumer Company will not be permitted to carryout any construction on the river bed, which may obstruct its natural flow.

7. The Company shall make its own arrangements to utilize the water drawn fully and avoid the flow of any untreated effluent back into the river course. However, if under any extraordinary circumstances the effluent is to be returned to the river or any other Government/Private source, it shall be properly treated and rendered innocuous to the satisfaction of the Tamil Nadu Pollution Control Board. The disposal of the effluent after treatment in an innocuous condition should not be let into the water course just upstream of any drinking water supply scheme. The Company shall provide treatment
system so that the quality of effluent satisfies the standards prescribed by the Tamil Nadu Pollution Control Board within six months from the date of consent order or before commencement of production whichever is earlier.

8. The consumer Company shall furnish the details of the proposed treatment for the effluent to the Tamil Nadu Pollution Control Board authorities or any other authority duly constituted by the Government to deal with matters relating to Environmental Pollution and obtain approval thereto before entering into the agreement for drawing of water. The construction of the treatment plants shall conform to the approved designs and capacity.

9. The consumer Company shall produce a set of such approved drawings for the construction of treatment plant to Executive Engineer, Water Resources Department and the construction shall be carried out at their own cost with the supervision of the concerned field officers of Water Resources Department.

10. The consumer Company shall bear the entire cost towards periodical collection of samples of the effluent or the samples of the water from the sources into which the treated effluent is discharged and also the cost of testing these samples at the King Institute, Guindy or any other Public Health Laboratories. If it is found that the effluent is not innocuous the consumer company shall arrange for further treatment of the effluent at their own cost to conform the standard specified.

11. All test reports certifying the effective treatment of effluent issued by the competent Public Health Laboratory shall be made available to the Water Resources Department and authorities concerned for inspection on demand.

12. Separate electric connection has to be obtained from the Tamil Nadu Electricity Board by the Company for the head works pumping system and it should not be interlinked at any cost with the factory electric supply arrangements.

13. The consumer Company shall install a separate meter/measuring device for the measurement of the water drawn from Government source. Similarly separate meter shall be installed for any water returned after use. The officers of the Water Resources Department and Revenue Department shall have free and easy access to install these meters (measuring devices) and other installations. The licensee should provide a separate electricity meter of Tamil Nadu Electricity Board by getting a separate electricity connection for arriving at the exact quantum of water drawn by the industry.

14. The meter shall always be kept in good working condition. Further the consumer Company shall keep spare meters in ready stock. At no time the drawal shall be resorted to without meter or with defective meters. Drawal of water without proper meter (measuring devices) will be treated as unauthorized and the Consumer Company shall pay the charges at the rate of maximum quantity drawn for the particular month in the last five years.

15. For the infringement of any of the above conditions and for any unauthorized drawal or excess drawal, the authorities will levy penal charges which will be ten times of the normal rate of penalty and in exceptional cases where the violation is continuous or if any other gross negligence is noticed, it may be charged at a maximum rate of 20 times of the normal rate. The discretion in this regard will be left to the Water Resources
Department authorities concerned whose decision will be final and binding on the consumer.

16. In case of any further continued violation by the Company in the matter of drawal of water and effective treatment and disposal of effluent, even after imposing the penalty stipulated in condition No.15 above, the authorities shall have the final option of instructing the Tamil Nadu Electricity Board to cut off supply to the Company’s water supply head works system.

17. The consumer Company shall obtain the permission of the Water Resources Department, Revenue Department or any other concerned Government Departments for the occupation of Government lands to the extent that becomes inevitable and pay the lease amounts, track rent etc., fixed by the authorities.

18. The consumer Company shall pay royalty for water drawn for industrial purposes at the rate fixed by the Government from time to time. The present rate of royalty charges ordered in G. O. Ms. No. 890 / PWD / Dt. 09.05.1991 and G. O. Ms. No. 474 / PW (W2) Dept. dated 13.11.2001 with effect from 09.05.1991 onwards is as follows:

i) For new industries, upto a period of five years from the date of commencement of their production / operations, the rate will be 30 (Thirty) paisa per 1000 (Thousand) litres, subject to minimum of Rs.3000/- (Rupees Three Thousand only) per annum, and thereafter 50(Fifty) paisa per 1000(Thousand) litres, subject to a minimum of Rs.5000 (Rupees Five Thousand only) per annum.

ii) For the existing industries, after a period of five years from the date of commencement of their production / operation the rate will be 50 (Fifty) paisa per 1000 (Thousand) litres subject to a minimum of Rs.5000/- (Rupees Five Thousand only) per annum. Hence the consumer company shall pay water charges as per the above orders. In addition, the company should also pay water cess for the usage of effluent water for their agricultural lands.

19. The company shall pay royalty charges at enhanced rate whenever the Government increases the same.

20. Whenever the Royalty charges for water drawn from Government sources for industrial purpose are revised by the Government from time to time, the consumer Company shall not go to the court for obtaining stay orders. In this regard necessary undertaking shall be given by Consumer Company and the same shall be appended and enclosed in the water drawal agreement.

21. The Consumer Company shall deposit in advance before 10th day of April every year an assessed amount of water charges for one-year consumption. The Company shall not be entitled to the refund of any portion of the said annual sum paid in advance or to claim damages either on the ground that the Company has not taken the maximum permitted quantity of water or on the ground that the Company has not been able to take such maximum permitted quantity owing to deficiency of water in the river.
22. The remitted royalty charges to the maximum permitted quantity of water for one year consumption shall not be refunded to the Consumer Company at any cost or shall not be adjusted to the consumed quantity.

23. For belated payment beyond the due date (i.e. 10th April every year, interest will be charged at the rate fixed by the Government from time to time. In case of belated payment of either actual water charges or advance water charges beyond the prescribed date, the levy of penal interest at 1% (One percent) per month for the delay of each month or part thereof for the first six months and 1.5% (One and half percent) per month or part thereof for the delayed period beyond six months shall be paid by the licensee as per G.O.Ms.No.530/PWD/Dt. 22.03.1980. The water drawal is also liable to be discontinued by approaching Tamil Nadu Electricity Board to disconnect the Electric supply arrangements to water supply headwork system in the river for any default of payment.

24. The royalty charges are liable to be revised by the Government at any time without any notice to the company and such upward revision of royalties shall take effect from the date notified by the Government.

25. For the serious violation of any of the above conditions, in addition to the cutting off electric supply to water supply arrangements as per condition 16, the permit issued to the Company for the water drawal is likely to be cancelled.

26. The permission given will be valid for a period of five years from the date of issue of this Government Order subject to renewal by the Government at its discretion.

27. The industry has to ensure that the agency for the disposal of sludge generated during treatment as well as in the process, obtain permission from the Tamil Nadu Pollution Control Board (under Section 24 of Water Prevention and Control of Pollution Act 1974) before disposal.

28. The Company shall tap only the running water and tapping of spring water is strictly prohibited.

29. The Company shall not expand the industry without obtaining prior approval of the Government.

30. The Company should not change the industry's name without obtaining the prior approval of the Government.

31. If the present Company is to be sold to others, the company shall keep the Government informed of the position well in advance by providing documents. All the arrears of royalty charges and liabilities if any etc., should be paid by the selling Company. Otherwise, the buying Company should be given undertaken for remitting all the arrears of royalty charges and liabilities if any etc., for the previous company. In the case of the company whereas the permission for water drawal as per the Government orders are in alive and the company is sold out during the live period, the name change of firm is to be approved by Government and new agreement has to be executed for water drawal with new firm.

32. Any other condition that the Government may stipulate from time to time will be adhered to, by the Company.
33. The permission is liable to be withdrawn by Government at any time without any previous notice to the Company without assigning any reasons therefor.

34. The licence shall be valid for a period of five years only subject to the condition that the payment of pending royalty charges if any, as per existing orders, together with the payment of water charges for a period of one year in advance is made.

35. The Company should obtain the consent orders for both Air and Water from the Tamil Nadu Pollution Control Board every year well in advance say 6 months i.e., before the date of expiry of consent orders for the current financial year and should furnish the same to the concerned Superintending Engineer, Water Resources Department without fail. Otherwise, the water withdrawal is liable to be discontinued by approaching the Tamil Nadu Electricity Board to cut off electric supply arrangements to water supply head works system in the river.

36. The Company has to obtain the consent orders for both Air and Water from the Tamil Nadu Pollution Control Board for the current year and should furnish the same to the Superintending Engineer, Water Resources Department concerned before accepting the agreement by the Superintending Engineer. Otherwise, the water withdrawal agreement should not be accepted by the concerned Superintending Engineer, Water Resources Department.

37. The Company shall pay the royalty charges as per the orders in force and the Company should pay the arrears of royalty charges if any before executing the agreement of water withdrawal. Arrears of royalty charges if not remitted in time is liable to be recovered under Revenue Recovery Act.

38. The Company should apply well in advance of one year before the expiry of the existing permission period for getting the approval from the Government and the renewal proposal should be forwarded to Government before 6 months on expiry of permission. Before expiry of Government Order wherein permission has been accorded for withdrawal of water, the company should arrange to obtain renewal order from Government for withdrawal of water. Otherwise it will be treated as illegal and 20 times of penalty charges will be collected.

39. If the renewal of water withdrawal proposal is not sent to Government in time for approval, the permission for withdrawal of water shall be discontinued without prior intimation to the consumer Company.

40. When the renewal proposal is under process for finalisation of the Government, the renewal of water withdrawal proposal for the further period shall not be entertained and also the withdrawal of water from the Government sources for industrial purpose shall be discontinued.

41. Unauthorised withdrawal of water after the lapse of Government permission is liable for penalty charges 20 times of normal charge.

42. The Consumer Company shall furnish the following information to the Tamil Nadu Pollution Control Board, Chennai before the Company starts functioning:

(i) An outline of the manufacturing / treatment process with an indication of the water used on the process.
(ii) The nature of the wastes to be discharged and arrangements made for disposing of the same.

(iii) The process in detail from which the liquid wastes are being discharged.

43. The Consumer Company shall pay to the Grantor in advance on or before 10th April every year, the rent for laying pipeline in Government lands in accordance with the rules and regulations in force. The permission of the concerned District Collector shall be obtained and the appropriate “Licensee Fee” and “Track Rent” shall be paid for laying pipe line, well in advance for the occupation of the Government land, River margins, etc., that may require for the construction of Pump House, laying of pipe line, and other ancillary installations.

44. The Consumer Company shall intimate the total Quantity of drawal of water from the Government Sources and release of water to the river in an innocuous condition every Fortnight to the Water Resources Department along with water meter reading.

45. The Consumer Company shall not allow or permit any person not to, by itself or through any agency or person acting on its behalf, conduct any quarrying and blasting activities within distance of 10 Kilo Meters upstream (as the river flows) from the abstraction area and all quarrying and blasting activities should be done as per the terms and conditions stipulated in Tamil Nadu Mines and Minerals Concession Rules, 1959 and other rules that are in force.

46. The Company should pay for the poramboke land lease amount in advance without fail. The Company should also pay the enhanced lease amount fixed by the Executive Engineer concerned from time to time due to revision of market value of land.

47. In the event of any ambiguity or conflict of Terms and Conditions specified herein, the terms and conditions specified in the Agreement will prevail and the consumer Company shall pay the Royalty charges as per the Government Orders / Heads of Department orders etc., in vogue and as revised by the Government from time to time and the Consumer Company should not move the court in this regard.

M. Sai Kumar
Secretary to Government

// True Copy //

K. Sury
Section Officer

24/9/13
சுருக்கம்

தனாதி மண்டலம், முதுநாட்டுப் பகுதியில் உள்ள குதிரையின் பார்வையில் சுதையூர் மராத்திய மராத்திய மாநில தொழில் மற்றும் கட்ட்னிய நிகழ்ச்சிகள் பல்லுயிர் உரையாட்டாள் முறையில் ஆவணம் வழங்கப்பட்டுள்ளது.

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இந்துருந்து (எழுதி) சேந்தி.357

குறுவக 7.12.2010

குறுவக 21,

தொலைவியல் அட்சீ 2041

பாதுகாப்பு முறை:

1. ஒலிம்பிய்க் பானைமில்லாம், தொலைவியல் தமிழகத்தில் ஒலிம்பிய்க் பானைமில்லாம் என்று ஆராய்ச்சி அவர்கள் 1/17/72 மார்ச் 29.3.2010, 4.10.2010 முடித்து 29.10.2010.

2. முக்கியமான பட்னங்கள் பானைமில்லாம் என்று 80481/2008/ அம் 12, முடித்து 10.3.2010.


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விவரங்கள்:

சுருக்கம் தொழில்நுட்பத்தில் பாதுகாப்பு விளக்கம் அதிகமானது, தொலைவியல் தமிழகத்தில் ஒலிம்பிய்க் பானைமில்லாம் என்று ஆராய்ச்சி அவர்கள் 1/17/72 மார்ச் 29.3.2010, 4.10.2010 முடித்து 29.10.2010.

முக்கியமான பட்னங்கள் பானைமில்லாம் என்று 80481/2008/ அம் 12, முடித்து 10.3.2010.


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(சோ.சோ.)
3. கேரள மாநில அரசியர் புறநிலையை பொறுப்பாக ஆக்கியது விளைவில்லை என்று ஆராய்ச்சித் தொடர்பில் பாதுகாப்பான அனுகூலத்தில் ஆய்வாக்கியது. பின்னர் அரசியலில், வருடம் முடியச் செல்லும்போது விளையாட்டுக்கள் முறுக்குவதற்கான அதிக கணினியியல் உலகில் வெளியிட்டுள்ளது. அதுவே, கேரள மாநிலத்தில், சுற்றுலா விளையாட்டுக்கு வெளியிட்டுள்ளது. இது கேரள மாநிலத்தில் புறநிலையின் விளையாட்டுக்கு வெளியிட்டுள்ளது. 500(தொகுதி) க்கு மேல் விளையாட்டுக்கு பாதுகாப்பான அனுகூலத்தில் வெளியிட்டுள்ளது. இதுவே விளையாட்டுக்கு வெளியிட்டுள்ளது. அதுவே விளையாட்டுக்கு வெளியிட்டுள்ளது. 

4. மேற்கொள்ள முனையில் காணப்படும் எடுத்துக்காட்டுகளில் கண்டுபிடித்து விளைவை வழங்குவதற்கு அவற்றை அறிவிக்கும் முயலுக்கு பதிவு வழங்கப்பட்டுள்ளது. ஏற்றுக்கொள்ளும் முயலுக்கு பதிவிகள் செய்யப்பட்டுள்ளது. இதுவே வழங்கப்பட்டுள்ளது. முயலுக்கு பதிவிகள் வழங்கப்பட்டுள்ளது. இதுவே வழங்கப்பட்டுள்ளது. அவற்றை அறிவிக்கப்பட்டுள்ளது. காணப்படும் மேற்கொள்ள முனையில் முயல் வழங்கப்பட்டுள்ளது. 

(எண்ணிக்கை அவரையுரை)

சிறப்பிடி

பிரதியேகத்தில் சிறப்பு முனையில் வருமதிக்காட்டு.

இவ்விதழ் அறிவிக்கும் முயலுக்கு வழங்கப்பட்டுள்ளது வருடம் வழங்கப்பட்டுள்ளது (சுருக்க).

சுருக்கப்பட்டுள்ளது, அல்லது -5. (எண்ணிக்கை)

விளையாட்டுக்கு வழங்கப்பட்டுள்ளது, விளையாட்டு அல்லது, கேரள மாநிலத்தில்.

சுருக்கப்பட்டுள்ளது, அல்லது -5. (எண்ணிக்கை)

பாதுகாப்பான அனுகூலத்தில் வருமதிக்காட்டு.

சுருக்கப்பட்டுள்ளது, அல்லது -5. (எண்ணிக்கை)

சுருக்கப்பட்டுள்ளது, அல்லது -5. (எண்ணிக்கை)

சுருக்கப்பட்டுள்ளது, அல்லது -5. (எண்ணிக்கை)

106, இருந்து கேரள மாநிலம் வருமதிக்காட்டு, விளையாட்டுக்கு வழங்கப்பட்டுள்ளது, நூற்றாண்டு - 836 451. (எண்ணிக்கை)

சுருக்கப்பட்டுள்ளது, அல்லது -5. (எண்ணிக்கை)

சுருக்கப்பட்டுள்ளது, அல்லது -5. (எண்ணிக்கை)

76, விளையாட்டுக்கு வழங்கப்பட்டுள்ளது. 32. (எண்ணிக்கை)

சுருக்கப்பட்டுள்ளது, அல்லது -5. (எண்ணிக்கை)

// அவரையுரை / அவரையுரை}
CONDITIONS FOR DRAWAL OF WATER FOR INDUSTRIAL PURPOSE

1. The company M/s. Saradha Papers and Boards (P) Limited, S.F.No.106/2A, Ikkaraiththapalli Village, Sathyamangalam Taluk, Erode District is permitted to draw 500 Cubic Meter of water per day from Bhavani River.

2. The consumer company shall enter into an agreement with the Government i.e. Superintending Engineer concerned before proceeding with the drawal of water as per Revenue Standing Order 11-A.

3. No guarantee for adequate supply of water can be given. In times of scarcity, the supply is liable to be reduced or cut off in order to safeguard the interest of both irrigation and public drinking water arrangements. The company shall comply with the decisions and instructions of the Executive Engineer, Water Resources Department having jurisdiction over the river course in this matter. The consumer cannot claim any compensation for such reduction or cutting off supply and shall have his own arrangements of alternative sources.

4. The consumer shall use the water only for the industrial purpose and for the drinking water supply for the staff of the factory. If the water or the effluent even after the treatment as the case may be used for any other purposes like irrigation, it will attract levy of water cess by the Revenue authorities as per rules in force. This will be in addition to the royalty to be paid to the Government.

5. If at all any construction is made in the river bed with the approval of Water Resources Department authorities for any water sources as the case may be without causing any obstruction to the flow, lease amount for area of construction as per the existing rules framed from time to time, is to be paid by the company.

6. The company should make arrangements to utilise the water drawn fully and avoid the flow of any untreated effluent back into the river course. However, if under any extraordinary circumstances the effluent is to be returned to the river or any other Government/Private sources, it shall be properly treated rendered innocuous to the satisfaction of Tamil Nadu Pollution Control Board. The disposal of the effluent after treatment in an innocuous condition should not be let into the water course just upstream of any drinking water supply scheme. The company shall provide treatment system so that the quantity of effluent satisfies the standards prescribed by the Tamil Nadu Pollution Control Board within six months from the date of running of the factory.
7. All the arrangements pertaining to drawal of water as well as return of the effluent and all the constructions pertaining to them should be got approved by the Executive Engineer, Water Resources Department in advance and constructed by the consumer company at its cost to the satisfaction of the Water Resources Department officers.

8. The consumer company shall furnish to the Tamil Nadu Pollution Control Board authorities or any other authority duly constituted by the Government to deal with matters relating to Environmental Pollution the details of the proposed treatment for the effluent and obtain approval thereto before entering into the agreement for drawal of water. The construction of the treatment plants shall conform to the approved designs and capacity.

9. The consumer company shall bear the entire cost of periodical collection of samples of the effluent or the samples of the water from the sources into which the effluent is discharged and also the cost of testing the samples at the King Institute, Guindy, Chennai or other Public Health Laboratories. If the treatment is found that the effluent is not innocuous the consumer shall arrange for further treatment of the effluent at their cost as directed by the Tamil Nadu Pollution Control Board authorities.

10. The consumer company shall install separate meters/measuring devices for measurement of the water drawn from the Government source. Similarly, separate meter installed for any water returned after use. The officers of the Water Resources Department and Revenue Department shall have free and easy access to inspect these meters/measuring devices and other installations at any time.

11. The meter should be kept in good working condition. Further the consumer company shall keep spare meters in ready stock. At no time the drawal shall be resorted to without meters or with defective meters. Drawal of water without proper meters/measuring devices will be treated as unauthorized and the consumer company shall pay the charges at the rate for the maximum quantity drawn for the particular month in the last five years.

12. For the infringement of any of the above conditions and for any unauthorised drawal of water or excess drawal of water the authorities will levy penal charges which will be 10 to 20 times the normal rates depending upon the nature and degree of violation and the repetitive nature of the violation. The decision of the Water Resources Department authorities in this regard will be final and binding on the consumer.

13. The consumer shall obtain the permission of the Water Resources Department, Revenue or other Government Departments concerned for the
14. The consumer company shall pay royalty for water drawn for industrial purposes at the rate fixed by the Government from time to time. The present rate as per G.O.Ms.No.474, Public Works (W2) Department, dated 13.11.2001, the charges for water drawn for industrial purposes directly from Government sources either by hand or by mechanical contrivances has been revised as below:

i) For new industries, up to a period of five years from the date of commencement of their production/operations, the rate will be 30 (Thirty) paise per 1,000 (thousand) litres subject to a minimum of Rs.3,000/- (Rupees three thousand only) per annum and thereafter 50 (fifty) paise per 1,000 (thousand) litres, subject to a minimum of Rs.5,000/- (Rupees five thousand only) per annum.

ii) For the existing industries, the rate will be 50 (fifty) paise per 1,000 (thousand) litres subject to a minimum of Rs.5,000/- (Rupees five thousand only) per annum.

The company shall pay royalty charges at enhanced rate whenever the Government increases the same.

15. The royalty charges are liable to be revised by the Government at any time without notice and such revised rates shall take effect from the date notified by the Government.

16. For the violation of any of the above conditions, the supply is liable to be cut off and the permit is liable to be cancelled.

17. The permission given will be valid for 5 (Five) years, from the date of according permission subject to renewal by the Government at its discretion.

18. The company shall pay the full water charges in advance for one year, calculated at the approved rates for the full quantity as permitted by the Government. This amount has to be paid annually in advance on or before 10th April each year as per Revenue Standing Order 11 A.

19. As per Revenue Standing Order 11 A para 7(a), the consumer company shall not be entitled to the refund of any portion of the said annual sum paid in advance or to claim damages either on the ground that the company has not taken the maximum of quantity of water mentioned (x) on the ground that the consumer company has not been able to take such a maximum quantity owing to deficiency of
water in the river. For the excess drawal over and above the permitted quantity, the penal rates will be applicable.

20. For the belated payment beyond the due date i.e., after 10th April interest will be charged at the rate fixed by the Government from time to time. The present rate being 1% per month or part thereof beyond the due date of payment up to 6 months and at 1 ½ % per month or part thereof for delay beyond 6 months shall be collected.

21. The interest charges payable for the belated payments are liable to be revised by the Government at any time without prior notice and such revised rates shall take effect from the date to be notified by the Government.

22. The industry has to ensure that the agency for the disposal of sludge generated during treatment as well as in process, obtains permission of the Tamil Nadu Pollution Control Board (under section 24 of water Prevention and Control of Pollution Act 1974) before disposal.

23. The company should not expand industry without obtaining prior approval of the Government.

24. The consumer company shall furnish necessary consent order for both water and air obtained from the Tamil Nadu Pollution Control Board, every year to the Chief Engineer, Water Resources Department, Coimbatore Region, Coimbatore and Superintending Engineer, Bhavani Basin circle, Coimbatore and Collector, Erode District, without fail.

25. All the test reports certifying the effective treatment of effluent issued by the competent Public Health Laboratory shall be made available to the Water Resources Department authorities for inspection on demand.

26. Any other conditions that the Government may stipulate from time to time shall be adhered to by the company.

27. The permission is liable to be withdrawn by Government at any time without any previous notice to the company or without assigning reasons therefore.

28. If the organizing units, with the entire structures are sold out to the new organization, the company shall keep the Government informed the position well in advance by providing documents. All arrears due to Government is to be paid for before applying for change of ownership. In the case of the companies whereas the permission for water drawal as per the Government orders are in alive and the company is sold out during the live period, the name change of firm is to be approved
by Government and new agreement has to be executed for water drawal with new firm.

29. Unauthorised drawal of water after the lapse of Government permission is liable for penalty charge of 20 times of normal charge.

30. The licensee should provide a separate electricity meter of Tamil Nadu Electricity Board by getting a separate electricity connection for arriving at the exact quantum of water drawn by the industry.

31. Arrears of royalty charges if not remitted in time is liable to be recovered under Revenue Recovery Act.

32. Before expiry of Government Order wherein permission has been accorded for drawal of water from Bhavani river, the company should arrange to obtain renewal order from Government for drawal of water. Otherwise it will be treated as illegal and 20 times of penalty charges will be collected.

33. The company should pay for the poramboke land lease amount in advance without fail. The company should also pay the enhanced lease amount fixed by the Executive Engineer from time to time due to revision of market value of land.

K. Dhanavel
Secretary to Government

//True Copy//

S. V. M. I. J. R. O
Section Officer
Annexure-6

Ground water drawl approval
Regional Director

No.21-4(306)/SECR/CGWA/2012-4706

To,
Ms. Saradha Papers & Boards Pvt Ltd.,
122-1, Venkatesamy Road,
Sidhapudur, Coimbatore-641004
Tamilnadu

Sub: NOC for ground water withdrawal by Ms Saradha Papers & Boards Pvt Ltd., in respect of their expansion programme of Paper Boards production unit at village Ikkaraiathappalli, Bhavanisagar Block, Erode District, Tamilnadu – reg.

Sir,

Kindly refer to your application on the above cited subject. Based on recommendations of Regional Director, Central Ground Water Board, South Eastern Coastal Region, Chennai vide their office letter no. T(8)/46/848 dated 7.5.2012 and further deliberations on the subject, the NOC of Central Ground Water Authority is hereby accorded to Ms Saradha Papers & Boards Pvt Ltd., in respect of their expansion programme of Paper Boards production unit at village Ikkaraiathappalli, Bhavanisagar Block, Erode District, Tamilnadu. The NOC is, however subject to the following conditions:-

1. The firm may abstract 375 m³/day (not exceeding 13,325 m³/year) of ground water through existing three (3) and proposed three (3) borewells only. No additional ground water abstraction structures to be constructed for this purpose without prior approval of the CGWA.

2. The wells and abstraction structures to be fitted with water meter by the industry at its own cost and monitoring of ground water abstraction to be undertaken accordingly on regular basis, at least once in a month. The ground water quality to be monitored twice in a year during pre monsoon and post monsoon periods.

3. Ms Saradha Papers & Boards Pvt Ltd., shall, in consultation with the Regional Director, Central Ground Water Board, South Eastern Coastal Region, Chennai implement cumulative ground water recharge measures.

Dated: 10 OCT 2012
to the tune of 70,262 m$^3$/year as proposed for augmenting the ground water resources of the area within six months from the date of issue of this letter.

4. The photographs of the recharge structures after completion of the same are to be furnished immediately to the Regional Director, Central Ground Water Board, South Eastern Coastal Region, Chennai for verification and under intimation to this office.

5. The firm at its own cost shall install piezometers at suitable locations and execute ground water regime monitoring programme in and around the project area on regular basis in consultation with the Central Ground Water Board, South Eastern Coastal Region, Chennai.

6. The ground water monitoring data in respect of S. No. 2 & 5 to be submitted to Central Ground Water Board, South Eastern Coastal Region, Chennai on regular basis at least once in a year.

7. The firm shall ensure proper recycling and re-use of waste water after adequate treatment.

8. Action taken report in respect of S. No. 1 to 7 may be submitted to Central Ground Water Authority within one year period.

9. The permission is liable to be cancelled in case of non-compliance of any of the conditions as mentioned in S. No. 1 to 8.

Yours faithfully

[Signature]

Regional Director

Copy for information to:

1. The District Environmental Engineer, Tamilnadu Pollution Control Board, First Floor, V.R.V. Complex, 167, Bhavani road, Perundurai-638052, Tamilnadu.

2. The Regional Director, CGWB, South Eastern Coastal Region, Chennai. This has reference to your letter no. T/ (8)/ 46/848 dated 7.5.2012.

3. TS to Chairman, CGWB, CHQ, Faridabad.


[Signature]

Regional Director
Annexure-7

Overall Plant Layout
Annexure-8

CTO -POWER AIR ACT 2014-15

CTO-POWER WATER ACT 2014-15 PART 1 (1)

CTO-POWER WATER ACT 2014-15 PART 1 (2)
CONSENT ORDER No. 19064, Dated: 05.06.2014


Consent for new operation of the plant under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 as amended.

Sub: TAMIL NADU POLLUTION CONTROL BOARD – CONSENT –
M/s. Saradha Papers and Boards Private Limited (Power Division),
S.F.No.86/2,86/3,87/2,87/3,88,114,119,218/2,219/1,219/2, Ikkaraithathapalli Village, Sathyamangalam Taluk, Erode District - for the new operation of the plant under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981, as amended.

Ref: 1. Unit's application for CTO under Air Act dated 24.02.2014
3. Consent Clearance Committee Meeting Item No.157– 8 dated: 30.05.2014

*****

CONSENT is hereby granted under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981, (Central Act, 14 of 1981) as amended (hereinafter referred to as "The Act") and the rules and orders made there under to

The Director,
M/s. Saradha Papers and Boards Private Limited (Power Division)
S.F.No.86/2,86/3,87/2,87/3,88,114,119,218/2,219/1,219/2,
Ikkaraithathapalli Village,
Sathyamangalam Taluk,
Erode District

(hereinafter referred to as "The Applicant") Authorising him to operate his industrial plant in the Air Pollution Control Area as notified by the Government and to make new discharge of emission from the stacks / chimneys.

POLLUTION PREVENTION PAYS
தாமசு தண்ணீர் அதிகாரத்துடன் கேள் கேளும் தண்ணீர் அதிகாரத்துடன்!
TAMILNADU POLLUTION CONTROL BOARD

This is subject to the provision of the Act and the rules and orders made there under and further subject to the terms and conditions incorporated in the Special and General Conditions annexed and the additional conditions imposed in the Consent to Establish under Air Act.

This CONSENT is valid for a period ending with the 31.03.2015
(Thirty First March Two Thousand Fifteen)

Sd/- xxx
Chairman

To

The Director,
M/s. Saradha Papers and Boards Private Limited (Power Division)
Senthil Towers(6th Floor)
1078, Avanashi Road,
Coimbatore 641 018

Copy to:

1. The District Environmental Engineer,
   Tamil Nadu Pollution Control Board,
   Perundurai - for information and necessary action.

2. The Commissioner,
   Bhavanisagar Panchayat Union,
   Erode District.

3. BMS.


//Forwarded by Order//

For Chairman

POLLUTION PREVENTION PAYS

ஓதிய தற்கொை அண்டையே பற்றி குறிை உண்டையே!
SPECIAL CONDITIONS

1. Details of the products manufactured

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Main Product: Power</td>
<td>15 MW/Hr</td>
</tr>
<tr>
<td>2.</td>
<td>By Product: Steam</td>
<td>105 TPH</td>
</tr>
</tbody>
</table>

This Consent is valid for the manufacture of Products and the rate of Production mentioned above. Any change in the quantity or quality of products has to be brought to the notice of the Board and fresh consent has to be obtained.

2. Emission is permitted through the following chimneys/stacks and shall not exceed the figures indicated:

Details of chimney and stacks

<table>
<thead>
<tr>
<th>Chimney/Stack Number</th>
<th>Description of Chimney/Stack</th>
<th>Maximum discharge in m³/hr</th>
<th>Point of discharge (ft) in metres</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Stack attached to Boiler (105 TPH)</td>
<td>-</td>
<td>85</td>
</tr>
</tbody>
</table>

3. (a) The emissions shall not contain constituents in excess of the tolerance limits as laid down hereunder.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Parameter</th>
<th>Unit</th>
<th>Tolerance limit for Chimney / Stack, 1 2 3 4 5 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SO₂</td>
<td></td>
<td>The unit shall adhere to the emission standards prescribed by the Board from time to time</td>
</tr>
<tr>
<td>2</td>
<td>CO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>NOₓ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>SPM</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. (b) The ambient air in the industrial plant area shall not contain constituents in excess of the tolerance limits prescribed below:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Pollutant</th>
<th>Time Weighted average</th>
<th>Unit</th>
<th>Tolerance Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sulphur Dioxide (SO₂)</td>
<td>Annual average</td>
<td>microgram/m³</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>24 Hours</td>
<td>microgram/m³</td>
<td>80</td>
</tr>
<tr>
<td>2</td>
<td>Oxides of Nitrogen as NOₓ</td>
<td>Annual average</td>
<td>microgram/m³</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td></td>
<td>24 Hours</td>
<td>microgram/m³</td>
<td>80</td>
</tr>
<tr>
<td>3</td>
<td>Particulate Matter (Size less than 10 μm)PM₁₀</td>
<td>Annual average</td>
<td>microgram/m³</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td></td>
<td>24 Hours</td>
<td>microgram/m³</td>
<td>100</td>
</tr>
</tbody>
</table>

POLLUTION PREVENTION PAYS

தமிழ் வல்லுறை செய்தியானது! தமிழ் வல்லுறை செய்தியானது!
### Limits in dB(A)

<table>
<thead>
<tr>
<th>Limits in DB(A)</th>
<th>Day time (6 A.M to 10 P.M)</th>
<th>Night Time (10 P.M to 6 A.M)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>55</td>
<td>45</td>
</tr>
</tbody>
</table>

3. (c) The ambient noise level in the industrial plant area shall not exceed the limits prescribed below.

4. The unit shall not use coal as auxiliary fuel under any circumstances as committed.
5. The unit shall use 100% biomass only as fuel for power generation.
6. The unit shall remit the Consent fee for 2014-2015 based on the GFA as on 31.03.2014
7. The unit shall not use any other fuel other than biomass.
8. The District Environmental Engineer, Perundurai shall make random inspection once in a month.
9. All the required units of the air pollution control equipment shall be operated effectively to achieve the quality of the emissions to the tolerance limits prescribed above.
10. The applicant shall provide port holes for sampling the emission and access-platform for carrying out stack sampling and provide electrical outlet points and other arrangements for Chimneys/stacks and other sources of emissions so as to collect samples of emission by the Board or the applicant at any time in accordance with the provisions of the Act or Rules made therein.
11. The applicant shall at his own cost get the samples of emission collected and analyzed by the Tamil Nadu Pollution Control Board Laboratory every month for the parameters indicated in condition No.3(a) and shall furnish in triplicate the report thereof to the Board by the 10th of succeeding month.

12. This Consent is given by the Board in consideration of the particulars given in the application. Any change or alteration or deviation made in actual practice from the particulars furnished, in the application will also be ground for review/variation/revocation of the Consent Order under Section 21 of the Act to make such deviation as deemed fit for the purpose of the Act.

13. The applicant shall not change or alter either the quality or quantity or rate of emission or install, replace or alter the air pollution control equipment or change the raw material or manufacturing process resulting in any change in quality and / or quantity of emissions, without the previous written permission of the Board.

14. The applicant shall provide and maintain at his own cost one/ two/ three ambient air quality monitoring stations for monitoring Suspended Particulate Matter, Sulphur Dioxide, Oxides of Nitrogen, Hydro-Carbon, Carbon-monoxide and monitor the same all in a day, once in a week/fortnight/month. The data collected shall be maintained in a register and a monthly extract furnished to the Board.

15. The applicant shall provide and maintain at his own cost a meteorological station to collect the data on wind velocity, direction, temperature, humidity, rainfall, etc., and the daily readings shall be recorded and the extract sent to the Board once in a month.

16. The applicant shall forward the following information to the Member Secretary, Tamil Nadu Pollution Control Board, Chennai regularly before 10th of every month.
(a) Progress on the installation of Air Pollution Control equipments.
(b) Progress on the procurement and installation of equipments for monitoring ambient air quality, stacks, chimneys and meteorological data.
(c) Monthly extract of daily discharge of emission through each chimney/ stack.
(d) Report of Analysis of stack monitoring, ambient air quality monitoring, Meteorological data as required under conditions.
(e) Progress on planting of trees and plants as referred to under General Conditions No.8.

17. Any upset conditions if any of the plant/plants of the factory which is likely to result in increased emissions and / or result in violation of the standards mentioned above shall be reported to the Head Quarter and District Environmental Engineer’s Office/Regional Joint Chief Environmental Engineer’s Office of the Board telegraphically.

POLLUTION PREVENTION PAYS
அந்த செல்வத்தை விளையாட்டுதல் எப்படி செல்வதை விளையாட்டுதல்!
18. The applicant shall furnish to the Visiting Officer of the Board any information regarding the stack monitoring system or operation of the plant or any other particulars as may be pertinent in preventing and controlling of pollution of Air.

19. The applicant shall submit process flow sheet and particulars of proposed control equipments, monitoring equipments and time schedule for completing the installation of the same so as to reach the Board within 30 days from the date of receipt of this order.

20. The conditions imposed as above shall continue in force until revoked under Section 21 of the Act.

21. The unit shall operate the APC measures efficiently and continuously so as to adhere the AAQ/Emission and ANL standards prescribed by the Board.

22. The unit shall adhere to the ambient noise standards prescribed by the Board.

23. The unit shall not burn any materials inside/outside under any circumstance.

24. The unit shall continue to develop thick canopy green belt area in and around the premises.

Sd/- xxxx
Chairman

//Forwarded by Order//

For Chairman

K S
10/6/14

POLLUTION PREVENTION PAYS
"தொன்மை நன்னை பூந்தவுது பலரும் நன்னை பூந்தவுது!"
GENERAL CONDITIONS

1. The applicant shall make an application for grant of fresh consent atleast 60 days before the date of expiry of this Consent Order.

2. The necessary fee, as prescribed for obtaining consent, shall be paid for by the applicant along with the application for consent.

3. The industry shall immediately submit the revised application for Consent to this Board in the event of any change in the quantity/ quality or raw material, manufacturing process, rate of emissions, air pollution control equipment, etc.

4. The applicant shall either:
   (a) Not later than 30 days from the date of issue of this Consent Order, certify in writing to the Member-Secretary that the applicant has installed or provided for an alternate electric power source sufficient to operate all facilities installed by the applicant to maintain compliance with the terms and conditions of the Consent.
   (b) Not later than 30 days from the date of this Consent, certify in writing to the Member Secretary that upon the reduction, loss or failure of any one or more of the primary sources of electric power to any facilities installed by the applicant to maintain compliance with the terms and conditions of this Consent, the applicant shall halt, reduce or otherwise control production and/or all discharges in order to maintain compliance with the terms and conditions of this Consent.

5. No control equipments or chimney shall be altered or replaced or as the case may be erected or re-erected except with the previous approval of the Board.

6. The liquid effluent arising out of the operation of the air pollution control equipment shall also be treated in a manner and to the satisfaction of standards prescribed by the Board in accordance with the provisions of Water (Prevention and Control of Pollution) Act, 1974 as amended.

7. The solid waste, such as sweepings, wastage, package, empty containers, residues, sludge including that from air pollution control equipments collected within the premises of the industrial plant shall be disposed off scientifically to the satisfaction of the Board, so as not to cause fugitive emission, dust problems, or water pollutions problem through leaching, etc., of any kind.

8. The applicant shall plant a minimum of three varieties of trees (Eucalyptus, Subabul and any other suitable variety) at the density of not less than 1,000 trees per acre of land. The plantations are stipulated over and above the bulk plantation of trees in those areas and maintain them.

9. The applicant shall provide all facilities for collection of sample to the Board staff.

POLLUTION PREVENTION PAYS
İchet Thuşunma Alışalıdı! Öncə Güvənliyyə İmişdər!
10. The stack monitoring system employed by the applicant shall be open for inspection of this Board at any time.

11. There shall not be any fugitive or episodal discharge from the premises.

12. In case of such episodal discharge/emissions the industry shall take immediate action to bring down the emission within the limits prescribed by the Board in special conditions No.3(a).

13. The applicant shall at all times maintain in good working order and operate as efficiently as possible all pollution control facilities to achieve the terms and conditions of the Consent.

14. The issue of this Consent does not cover any property right in either real or personal property or any exclusive privileges nor does it authorize any injury to private property or any invasion of personal rights, or any infringement of Central, State Laws or regulations.

15. The applicant shall keep the premises of the industrial plant and air pollution equipments clean and make all hoods, pipes, valves, stacks/chimneys leak proof. The air pollution control equipments, location, inspection chambers, sampling port holes shall be made easily accessible at all time.

16. The applicant shall display this Consent granted to him in a prominent place for perusal of the inspecting officers of this Board.

17. An inspection book shall be opened and made available to the Board’s Officers during their visit to the factory.

18. If due to any technological improvements or otherwise this Board is of opinion that all or any of the conditions referred to above requires variation (including the change of any control equipment either in whole or in part) this Board shall, after giving the applicant an opportunity of being heard, vary all or any of such condition and thereupon the applicant shall be bound to comply with the conditions so varied.

19. The applicant, his/her/their legal heirs/representatives or assignees shall have no claim whatsoever to the continuation or renewal of this Consent after the expiry of the period of this Consent.

20. The Board reserves the right to review, impose additional conditions or conditions, revoke change or alter the terms and conditions of this consent.

Sd/- xxxx
Chairman

//Forwarded by Order//
Tamilnadu Pollution Control Board

Consent Order No. 23027, Dated: 05.06.2014


Consent for New discharge of Sewage and Trade effluent under Section 25 of the Water (Prevention and Control of Pollution) Act 1974, as amended.


Ref: 1. Unit's application for CTO under Water Act dated 24.02.2014
3. Consent Clearance Committee Meeting Item No. 157 – 8 dated 30.05.2014

* * *

Consent is hereby granted under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974, (Central Act, 6 of 1974) as amended (hereinafter referred to as "The Act") and the rules and orders made there under to

The Director,
M/s. Saradha Papers and Boards Private Limited (Power Division)
S.F.No.86/2, 86/3, 87/2, 87/3, 88, 114, 119, 218/2, 219/1, 219/2,
Ikkaraithathapalli Village,
Sathyamangalam Taluk,
Erode District

(hereinafter referred to as "The Applicant") authorizing him to make new discharge of Sewage and Trade effluent.

Pollution Prevention Pays
"நீங்களும் பயமுள்ளே, நீங்களும் வளர்க்கும்!"
This is subject to the provision of the Act and the rules and orders made there under and further subject to the terms and conditions incorporated in the Special and General Conditions annexed and the additional conditions imposed in the Consent to Establish under Water Act.

This **CONSENT** is valid for a period ending with the **31.03.2015**

*(Thirty First March Two Thousand Fifteen)*

To

The Director,
M/s. Saradha Papers and Boards Private Limited (Power Division)
Senthil Towers (6th Floor)
1078, Avanashi Road,
Coimbatore 641 018

Copy to:

1. The District Environmental Engineer,
   Tamil Nadu Pollution Control Board,
   Perundurai - for information and necessary action.

2. The Commissioner,
   Bhavanisagar Panchayat Union,
   Erode District.

3. BMS.


//Forwarded by Order//

For Chairman

[Signature]

**POLLUTION PREVENTION PAYS**

[Message in Tamil]

[Message in English]
SPECIAL CONDITIONS

1. Details of the products manufactured:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Main Product: Power</td>
<td>15 MW/Hr</td>
</tr>
<tr>
<td>2.</td>
<td>By Product: Steam</td>
<td>105 TPH</td>
</tr>
</tbody>
</table>

This Consent is valid for the manufacture of Products and the rate of Production mentioned above. Any change in the quantity or quality of products has to be brought to the notice of the Board and fresh consent has to be obtained.

2. Discharge of effluent is permitted from the following outlets. The quantity of effluent discharged shall not exceed the figures mentioned below:

<table>
<thead>
<tr>
<th>Outlet Number</th>
<th>Description of Outlet</th>
<th>Maximum Daily Discharge (in litres)</th>
<th>Point of Disposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Sewage Trade Effluent</td>
<td>8 KLD 210 KLD</td>
<td>On land inside the premises. 40 KLD for usage in ash quenching &amp; 170 KLD for usage in its paper processing plant.</td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. The effluent discharge shall not contain constituents in excess of the tolerance Limits as laid down hereunder:

<table>
<thead>
<tr>
<th>SI. NO</th>
<th>CHARACTERISTICS</th>
<th>UNIT</th>
<th>TOLERANCE LIMITS OUTLET NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.</td>
<td>PH</td>
<td>Number</td>
<td>5.5-9</td>
</tr>
<tr>
<td>02.</td>
<td>Temperature</td>
<td>°C</td>
<td>40 degree C at the point of discharge</td>
</tr>
<tr>
<td>03.</td>
<td>Particle size of Total Suspended Solids</td>
<td>mm/micron</td>
<td>Shall pass 850 Micron IS Sieve</td>
</tr>
<tr>
<td>04.</td>
<td>Total Suspended Solids</td>
<td>mg/l</td>
<td>30</td>
</tr>
<tr>
<td>05.</td>
<td>Total Dissolved Solids (inorganic)</td>
<td>mg/l</td>
<td>2100</td>
</tr>
</tbody>
</table>

POLLUTION PREVENTION PAYS

தற்காலம் தாண்டவுடன் பொறியியல் வளியும் வழியாக பொறியியல் வளியும்
<table>
<thead>
<tr>
<th>No.</th>
<th>Parameter</th>
<th>Unit</th>
<th>Standard Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>06.</td>
<td>Chloride as (Cl)</td>
<td>mg/l</td>
<td>-</td>
</tr>
<tr>
<td>07.</td>
<td>Sulphide as (S)</td>
<td>mg/l</td>
<td>-</td>
</tr>
<tr>
<td>08.</td>
<td>Sulphate as (SO₄)</td>
<td>mg/l</td>
<td>-</td>
</tr>
<tr>
<td>09.</td>
<td>Fluoride as (F)</td>
<td>mg/l</td>
<td>-</td>
</tr>
<tr>
<td>10.</td>
<td>Ammoniacal Nitrogen as (N)</td>
<td>mg/l</td>
<td>-</td>
</tr>
<tr>
<td>11.</td>
<td>Sodium</td>
<td>%</td>
<td>-</td>
</tr>
<tr>
<td>12.</td>
<td>Copper as (Cu)</td>
<td>mg/l</td>
<td>-</td>
</tr>
<tr>
<td>13.</td>
<td>Zinc as (Zn)</td>
<td>mg/l</td>
<td>-</td>
</tr>
<tr>
<td>14.</td>
<td>Phenolic Compounds</td>
<td>mg/l</td>
<td>-</td>
</tr>
<tr>
<td>15.</td>
<td>Oil and Grease</td>
<td>mg/l</td>
<td>-</td>
</tr>
<tr>
<td>16.</td>
<td>Boron as (B)</td>
<td>mg/l</td>
<td>-</td>
</tr>
<tr>
<td>17.</td>
<td>BOD 5 days @ 20 C</td>
<td>mg/l</td>
<td>20</td>
</tr>
<tr>
<td>18.</td>
<td>COD</td>
<td>mg/l</td>
<td>250</td>
</tr>
<tr>
<td>19.</td>
<td>Total Residual Chlorine</td>
<td>mg/l</td>
<td>-</td>
</tr>
<tr>
<td>20.</td>
<td>Arsenic as (AS)</td>
<td>mg/l</td>
<td>-</td>
</tr>
<tr>
<td>21.</td>
<td>Cadmium as (Cd)</td>
<td>mg/l</td>
<td>-</td>
</tr>
<tr>
<td>22.</td>
<td>Total Chromium as (Cr)</td>
<td>mg/l</td>
<td>-</td>
</tr>
<tr>
<td>23.</td>
<td>Chromium as (Hexavalent Cr⁵⁺)</td>
<td>mg/l</td>
<td>-</td>
</tr>
<tr>
<td>24.</td>
<td>Lead as (Pb)</td>
<td>mg/l</td>
<td>-</td>
</tr>
<tr>
<td>25.</td>
<td>Selenium as (Se)</td>
<td>mg/l</td>
<td>-</td>
</tr>
<tr>
<td>26.</td>
<td>Mercury as (Hg)</td>
<td>mg/l</td>
<td>-</td>
</tr>
<tr>
<td>27.</td>
<td>Pesticides</td>
<td></td>
<td>Absent</td>
</tr>
<tr>
<td>28.</td>
<td>Alpha Emitters</td>
<td>Micro Curie/ml</td>
<td>-</td>
</tr>
<tr>
<td>29.</td>
<td>Beta Emitters</td>
<td>Micro Curie/ml</td>
<td>-</td>
</tr>
<tr>
<td>30.</td>
<td>Free Ammonia as (NH₃)</td>
<td>mg/l</td>
<td>-</td>
</tr>
<tr>
<td>31.</td>
<td>Dissolved Phosphates as (P)</td>
<td>mg/l</td>
<td>-</td>
</tr>
<tr>
<td>32.</td>
<td>Total Kjeldahl Nitrogen as (N)</td>
<td>mg/l</td>
<td>-</td>
</tr>
<tr>
<td>33.</td>
<td>Cyanide as (CN)</td>
<td>mg/l</td>
<td>-</td>
</tr>
<tr>
<td>34.</td>
<td>Nickel as (Ni)</td>
<td>mg/l</td>
<td>-</td>
</tr>
<tr>
<td>35.</td>
<td>Residual Sodium Carbonate</td>
<td>mg/l</td>
<td>-</td>
</tr>
</tbody>
</table>
4. The unit shall not use coal as auxiliary fuel under any circumstances as committed.
5. The unit shall use 100% biomass only as fuel for power generation.
6. The unit shall remit Consent fee for 2014-2015 based on the GFA as on 31.03.2014
7. The unit shall not use any other fuel other than biomass.
8. The District Environmental Engineer, Perundurai shall make random inspection once
   in a month.
9. All the required units of the sewage / trade effluent treatment plant shall be operated
   effectively to achieve the quality of the effluent according to the tolerance limits
   prescribed above.
10. Meters must be affixed at the entrance of the water supply connection so that such
    meters are easily accessible for inspection and maintenance and for other purposes
    of the Act, provided that the place where it is affixed shall in no case be at a point
    before which water has been tapped by the consumer for utilization for any purposes
    whatsoever.
11. Separate meters with necessary pipe-line for assessing the quantity of water used
    for each of the purposes mentioned below:
    a. Industrial cooling, spraying in mine pits or boiler feed.
    b. Domestic purpose.
    c. Process.
12. The applicant shall take immediate action to install mechanical composting sampling
    equipment and continuous flow measuring / recording devices on the effluent drains
    of trade as well as sewage effluent within three months from the date of this Consent
    Order. A record of daily effluent discharge shall be maintained.
13. This Consent is given by the Board in consideration of the particulars given in the
    application. Any change or alteration or deviation made in actual practice from the
    particulars furnished in the application will also be ground for review/ variation/
    revocation of the Consent Order under Section 27 of the Act and to make such
    variation as deemed fit for the purpose of the Act.
14. The Applicant shall not change or alter either the quality or quantity or the rate of the
    discharge or temperature or the route of discharge without the previous written
    permission of the Board.
15. The applicant shall comply with and carryout directions/ orders issued by the Board
    in this Consent Order and at all subsequent times without any negligence on his/
    her/ their part. The applicant shall be liable for such legal action as per provisions
    of the Law/ Act in case of non-compliance of any order / directions issued at any time
    and or violation of the terms and conditions of this Consent Order.
16. The following information shall be forwarded to the Member Secretary regularly on or before 10th of every month:
   a) Progress on the installation of effluent treatment plant;
   b) Progress on the installation of Mechanical compost sampling equipment and continuous flow recording/measuring devices.
   c) Monthly statement of daily discharge of sewage as well as trade effluent.

17. Any upset condition in any of the plant / plants of the factory which is, likely to result in increased effluent discharge and or result in violation of the standards mentioned above shall be reported to the Head Quarters and District Environmental Engineer’s Office/Regional Joint Chief Environmental Engineer’s Office of the Board telegraphically.

18. The applicant shall furnish to the visiting officer of the Board any information regarding the construction installation or operation of the plant or effluent treatment plant and any other particulars as may be pertinent to preventing and controlling pollution of water.

19. Notwithstanding anything contained in this conditional letter of Consent, the Board hereby reserves to it the right and power under Section 27(2) of the Water (Prevention and Control of Pollution) Act, 1974 (as amended) to review any and/or all the conditions imposed herein above and to make such variation as deemed fit for the purpose of the Act by the Board.

20. The conditions imposed as above shall continue in force until revoked under Section 27 (2) of the Act.

21. The industry has to ensure that minimum three varieties of trees (Eucalyptus, Subabul and any other suitable variety) are planted at the density of not less than 1,000 trees per acre of land. The trees may be planted along the boundaries of the industry or industrial premises. This plantation is stipulated over and above the bulk plantation of trees in that area and maintain them.

22. The unit shall collect solid waste (non hazardous waste/non bio degradable waste) such as office stationary, waste paper, plastic, other waste etc., and pack separately and sent to recyclers for reuse. In case of biodegradable solid waste such as food waste, garden waste the same shall be converted in to manure either individually or jointly such as bio compost system (organic convertor)
23. The unit shall continue to develop thick canopy green belt area in and around the premises.

Sd/- xxxx
Chairman

//Forwarded by Order//

For Chairman

POLLUTION PREVENTION PAYS

தமிழ் பொறியியல் வழக்குகள்! இறையுள்ளே பொறியியல் வழக்குகள்!
1. The applicant shall make an application for grant of fresh consent at least 60 days before the date of expiry of this Consent Order.

2. The industry would immediately submit revised application for Consent to this Board in the event of any change in the quantity and quality of raw material/ end products/ manufacturing process or quantity/ quality of the effluent, etc.

3. The applicant shall display suitable caution board at the place where the effluent is entering any water-body or any other place to be indicated by the Board indicating therein that the area into which the effluents are being discharged is not fit for the domestic use/ bathing.

4. The applicant shall either:
   a. Not later than 30 days from the date of issue of this Consent Order, certify in writing to the Member-Secretary that the applicant has installed or provided for an alternate electric power source sufficient to operate all facilities installed by the applicant to maintain compliance with the terms and conditions of the Consent.
   b. Not later than 30 days from the date of this Consent, certify in writing to the Member-Secretary that upon the reduction, loss or failure of any one or more of the primary sources of electric power to any facilities installed by the applicant to maintain compliance with the terms and conditions of this Consent, the applicant shall halt, reduce or otherwise control production and/or all discharges in order to maintain compliance with the terms and conditions of this Consent.

5. The applicant shall not allow the discharge from other premises to mix with the discharge from his/ her/ their premises.

6. Storm water shall not be allowed to mix with the sewage and/ or trade effluent on the upstream of the terminal manholes where the flow measuring devices will be installed.

7. All solid wastes arising in the premises shall be properly classified and disposed off to the satisfaction of the Board by:
   (i) Landfill, in case of inert material, care being taken to ensure that the material does not give rise to leachate which may percolate into ground water or carried away with storm run-off.
   (ii) Controlled incineration, wherever possible in case of combustible organic material.
   (iii) Composting, in case of biodegradable material.

POLLUTION PREVENTION PAYS
தொடர் பிடித்து அுண்மையாக மேலும் நூற்றைந்து அப்பாலே!
8. Any toxic material shall be detoxified otherwise be sealed in steel drums and buried in protected areas after obtaining approval of this Board in writing. The detoxification or sealing and burying shall be carried out in the presence of Board's authorized persons only.

9. The applicant shall maintain good house-keeping both within the factory and in the premises. All pipes, valves, sewers and drains shall be leak proof. Floor washings shall be admitted into the effluent collection system only and shall not be allowed to find their way in storm drains or open areas.

10. The applicant shall provide all facilities to the Board staff for collection of samples.

11. The applicant shall at all times maintain in good working order and operate efficiently all treatment or control facilities or systems installed or used by him to satisfy the terms and conditions of the Consent.

12. The issuance of this Consent does not convey any property right in either real personal property or any exclusive privileges, nor, does it authorize any injury to private property or any invasion of personal rights nor any infringement of Central, State laws or regulation.

13. This Consent does not authorize or approve the construction of any physical structures or facilities or the undertaking of any work in any natural water course.

   a. If for any reason the applicant does not comply with or will be unable to comply with any effluent limitations specified in this Consent, the applicant, shall immediately notify the Consent issuing authority by telephone and provide the Consent issuing authority with the following in writing within 5 days of such notifications:
      i) Cause for Non – compliance.
      ii) A description of the non–complied discharge including its impact upon the receiving waters.
      iii) Anticipated time of continuance of non-compliance if expected to continue or if such condition has been corrected the duration of period of non-compliance.
      iv) Steps taken by the applicant to reduce and eliminate the non-complying discharge
      v) Steps to be taken by the applicant to prevent recurrence of condition of non-compliance.

POLLUTION PREVENTION PAYS
இன்றி சுந்தரமாகும்! இன்றிய சுந்தரமும்!
b. The applicant shall take all reasonable steps to minimize any adverse impact to natural waters resulting from non-compliance with any effluent limitation specified in this Consent including such accelerated or additional monitoring as necessary to determine natural and impact of the non-complying discharge.

c. Nothing in this Consent shall be construed to relieve the applicant from civil or criminal penalties for non-compliance whether or not such non-compliance is due to factors beyond his/her control, such as break-down, electric failure, accident or natural disaster.

15. The diversion or by-pass of any discharge from facilities utilized by the applicant to maintain compliance with the terms and conditions of this Consent is prohibited except:

i) Where unavoidable to prevent loss of life or severe property damage or

ii) Where excessive storm damage or run off would damage any facilities necessary for compliance with terms and conditions of this Consent. The applicant shall immediately notify the Board in writing of each diversion or by-pass in accordance with procedure specified as under item No.14.

16. The applicant shall at his own cost get the effluent samples collected both before and after treatment and get them analyzed at an approved laboratory of the Board every month for the parameters indicated in Special Condition No:3 and shall submit in duplicate the report there of to the Board.

17. The addition of various treatment chemicals should be done only with mechanical dosers and proper equipment for regulation of correct dosages determined daily and for proper uniform feeding. Cured practices such as dumping of chemicals in drains or sumps or trickling of acids or alkalis arbitrarily and utilizing poles for stirring etc., should not be resorted to.

18. Care should be taken to keep the anaerobic lagoons, if any biologically active and not to utilize as mere stagnation ponds. The anaerobic lagoons should be fed with the required nutrients for effective digestion. Lagoons should be constructed with sides and bottom made impervious.

19. The utilization of treated effluent on factory's own lands, if any, should be complete and there should be no possibility of the effluent gaining access into any drainage channel or other water courses either directly or by overflow.

20. The effluent disposal on land, if any, should be done without creating any nuisance to the surroundings or inundation of the lands at any time.
21. If at any time the disposal of treated effluent on land becomes incomplete or unsatisfactory or create any problem or becomes a matter of dispute, the industry must adopt alternate satisfactory treatment and disposal measures.

22. The sludge from treatment units shall be dried in sludge drying beds and the drained liquid shall be taken to equalization tank.

23. In the disposal of treated effluent on land for irrigation, the industry shall keep in view the need for:
   i) Rotation of crops.
   ii) Change of point of application of effluent on land.
   iii) A portion of land kept fallow.
   The adoption of these would avoid soil becoming sick or stale. The industry may ensure this in consultation with the Agricultural Department.

24. It is the sole responsibility of the industry to ensure that there are no complaints at any time from the ryots in the surrounding areas as a result of discharge of sewage or trade effluent.

25. The effluent treatment units and disposal measures, shall become operative at the time of commencement of production.

26. The fact of commissioning of the industry shall be intimated to this Office within one week of commissioning.

27. The unit has to ensure that the agency to whom the disposal of solid waste/sludge arising from the process/treatment is entrusted, shall obtain the permission of Tamil Nadu Pollution Control Board under Section 24 of the Water (Prevention and Control of Pollution) Act, 1974 before the disposal.

28. The applicant shall display this consent granted to him in a prominent place for perusal of the inspecting officers of this Board.

Sd/- xxx
Chairman

//Forwarded by Order//

For Chairman

SS 10.02.2014

POLLUTION PREVENTION PAYS

 tamil: பொறுப்பு பதவு சுத்தமாகது! பொறுப்பு பதவு சுத்தமாகது!