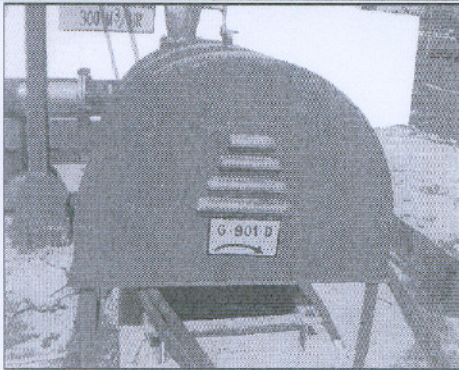


# Annexure-5

## Details of Some Major Energy Saving Projects

### FY05-06 Projects

#### 1.Replacement of 3 Number of small cooling tower pumps by a large pump



New 300 M3 /hr Pump driven by 75 Kwh motor

**Objective:** Three number of small cooling tower pumps each of 120 M3/hr capacity replaced by a large 300 M3 /hr capacity pump.This modification resulted into substantial saving of electricity

**Investment :** Rs 3 Lakh

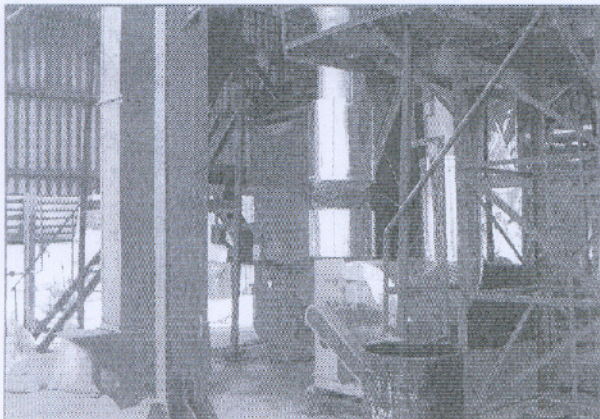
**Savings :** Rs 10 lakh per annum

**Electricity**

**Savings:** 2.2 lakh Kwh per annum

### FY06-07 Projects

#### 1.Agro-waste Hot Gas Air Generator



Components of Hot Air Generator

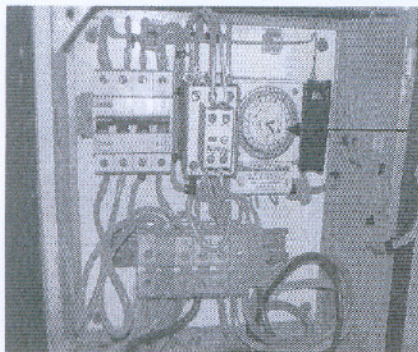
**Objective:** This Agro-waste hot gas air generator installed to replace furnace oil based heating system in dryer. In this generator process waste generated from corn cob plant,which earlier was being dumped, is used as fuel.

**Investment :** Rs 28 Lakh

**Savings :** Rs 26 lakh per annum

**Fuel Savings:** 130 MT of Furnace Oil per annum

## 2. Installation of timer switches and energy efficient tub lights



Timer Switch

**Objective:** Timer switches installed in all street lighting MCC's and old tube lights replaced by energy efficient tube lights.

**Investment :** Rs 0.3 Lakh

**Savings :** Rs 5 lakh per annum

**Electricity**

**Savings:** 1.0 lakh Kwh per annum

## 3. Installation of micro and oil filters in discharge of screw air compressor

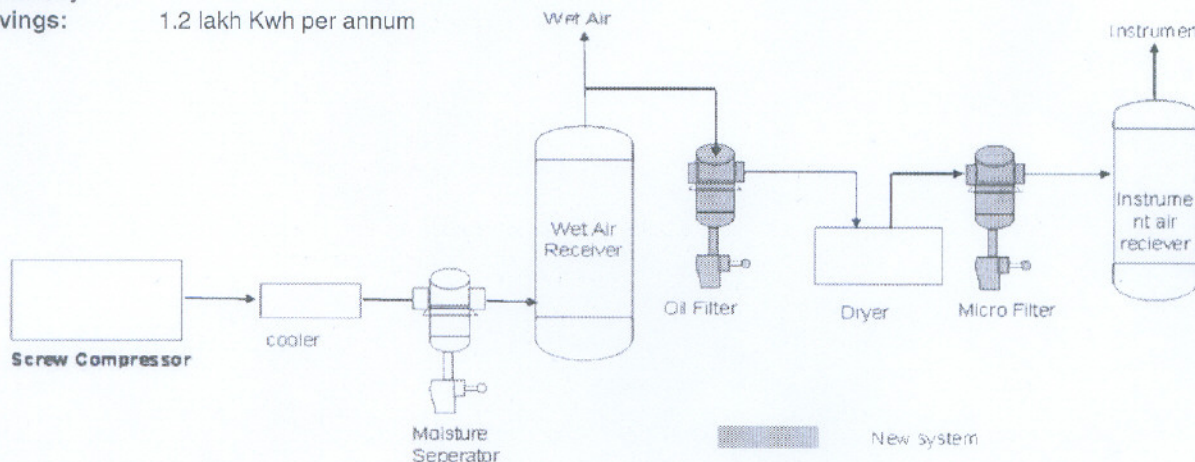
**Objective:** Micro and oil filters installed in the discharge of screw air compressor. Now screw air compressor is providing oil and moisture free air, which is used as instrument air and also providing utility air, so instrument air compressor permanently stopped.

**Investment :** Rs 1 Lakh

**Savings :** Rs 6 lakh per annum

**Electricity**

**Savings:** 1.2 lakh Kwh per annum



*Note : With installation of Oil filter and micro filter, the screw compressor shall meet the requirement of wet air as well as instrument air and consequently instrument air compressor shall remain stopped*

### Modified Scheme for Screw Compressor

Requirement of instrument air : 120 Nm<sup>3</sup>/hr  
Requirement of wet air : 20-60 Nm<sup>3</sup>/hr

#### 4.Replacement of V-belt drive system in nitrogen compressor by Flat-belt drive



Flat belt

**Objective:** V-belt drive in nitrogen compressor driven by 55 Kwh compressor replaced by flat belt drive. This modification led to 5% reduction in slippage and more than 5% reduction in power consumption.

**Investment :** Rs 1.35 Lakh

**Savings :** Rs 2 lakh per annum

**Electricity**

**Savings:** 0.4 lakh Kwh per annum

#### 5.Modification of beaters of hammer mill



Modified Hammer mill beater

**Objective:** Based on inputs from experts, beaters of hammer mill driven by 75kwH motor modified to reduce their weight and increase efficiency of the hammer mill

**Investment :** Rs 1.0 Lakh

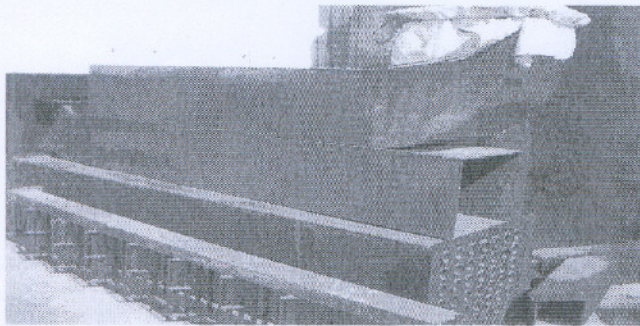
**Savings :** Rs 7 lakh per annum

**Electricity**

**Savings:** 1.4 lakh Kwh per annum

## FY07-08 Projects

### 6.Replacement of Furnace oil based Steam boiler by agro waste steam boiler



Component of Agro-waste steam boiler

**Objective:** In FY07-08 we are replacing furnace oil based steam boiler by agro-waste steam boiler. Construction work has started, this will save huge amount of furnace oil.

**Investment :** Rs 36 Lakh

**Savings :** Rs 44 lakh per annum

**Fuel Savings:** 230 MT of furnace oil per annum