

# **ENVIRONMENTAL AUDIT STATEMENT [FORM-V]**

*For*

**1.26 MTPA CEMENT PLANT**

*of*

**M/s. PARASAKTI CEMENT INDUSTRIES LTD.,**

Jettipalem (Village & Post), Rentachintala (Mandal)  
Palnadu (Dist.) – A.P.522421

**FOR THE FINANCIAL YEAR 2023-2024**

*Submitted to*

**ANDHRA PRADESH POLLUTION CONTROL BOARD  
(APPCB)**

Prepared by

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## **ACKNOWLEDGEMENT**

**M/s. B.S ENVI-TECH PVT.LTD** express since debt of gratitude to **M/s. Parasakti Limestone Mines (M/s. Parasakti Cement Industries Limited)** for the opportunity given by assigning the preparation of Environmental Statement (Audit) for their CEMENT PLANT located near Jettipalem (V) Rentachintala (M), Guntur (Dist) of Andhra Pradesh. The Environmental Statement (Audit) is prepared for the financial year from April 2023 to March 2024. Special mention needs to be made of executives of M/s. PARASAKTI CEMENT INDUSTRIES LIMITED for their cooperation and assistance during the preparation of Environmental Statement. We also wish to acknowledge our gratitude to all of them who helped during the data collection and report preparation.

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**FORM - V  
(See rule 14)**

**ENVIRONMENTAL STATEMENT REPORT FOR THE FINANCIAL  
YEAR ENDING THE 31<sup>ST</sup> MARCH 2024**

**PART – A**

1	Name and address of the owner/ occupier of the industry operation Or process.	<b>M/s. Parasakti Cement Industries Ltd.,</b> My scape Weave,5 <sup>Th</sup> Floor, Financial District, Gachibowli, Hyderabad, Telangana – 500 032.  <b>Factory:</b> Jettipalem, Rentachintala Mandal, Palnadu District, Andhra Pradesh. Phone: 9866700013/14
2	Industry Category Primary: (STC Code) Secondary: (STC Code)	Primary
3	Date of last environmental audit Report submitted	September, 2023
4	Production Capacity (units)	Clinker Production – 1.20 MTPA Cement Production – 1.26 MTPA
5	Year of establishment	June - 2005

**PART – B**

<b>Water and Raw Material Consumption</b>				
a)	<b>Water consumption</b>	<b>Units</b>	<b>Limits</b>	<b>FY:2023-24</b>
1.	Process consumption & Dust suppression	KLD	260	196.40
2.	Domestic	KLD	160	143.85
3.	WHR Consumption	KLD	1445	681.84
	Total water consumption	KLD	1865	1022.09

Name of Products	<b>Water consumption per unit of product (KL/MT)</b>
	Financial year 2023-2024
Cement	0.3211

**RAW MATERIAL CONSUMPTIONS FOR THE YEAR OF 2023-24**

Name of raw materials	Consumption of raw material per MT of output based on MT of Cement
	Financial year in MT (2023-2024)
Lime Stone	1.091
Iron ore	0.024
Late rite	0.044
Dolomite	0.012
Gypsum-S	0.071
Gypsum	0.034
Fly Ash	0.082
Limestone-PIs	0.036
Coal	0.113

**PART - C**  
**POLLUTION GENERATED**  
(Parameter as specified in the consent issued)

a) Treated Waste Water				
S.NO	PARAMETERS	UNITS	LIMITS	2023-24
1	pH		6.5 – 9.0	7.55
2	Total Suspended solids	mg/l	<100	15.67
3	Oil & Grease	mg/l	10	2.08
4	BOD	mg/l	30	9.17
5	Fecal Coliform (MPN/100ml)		<1000	294.67

<b>b) Air.</b>				
Stack Attached to	Pollutants	Quantity of Pollutants Discharged (Kg/day) 2023-2024	Concentrations Of Pollutants in Discharges (mg/Nm <sup>3</sup> ) 2023-2024	Percentage of variation from prescribed standards with reasons
Kiln – I	PM	45.56	16.58	44.73 % less
Cooler - I	PM	30.11	16.74	44.20% less
Coal Mill – I	PM	8.26	17.18	42.73% less
Cement Mill –I	PM	103.25	16.4	45.33% less
Kiln – II	PM	62.96	16.92	43.60% less
Cooler – II	PM	18.80	17.08	43.07% less
Coal Mill – II	PM	8.37	16.24	45.87% less
Cement Mill – II	PM	12.68	15.65	47.83% less

**PART - D  
HAZARDOUS WASTE**

(As specified under Hazardous wastes/Management and handling Rules, 2003)

**Hazardous wastes From Process**

Hazardous wastes	Total Quantity per year		
	Units	LIMITS (CFO)	financial year (2023-2024)
Batteries scrap-used batteries	No's /Annum	100	82
Used Hicrome Grinding Media	MT /Annum	10	Nil
Waste Lube Oil	LPA	5000	1000
Waste Grease	Kg /Annum	8000	7720

**From Pollution Control facility**

**Quantity recycled or Re-utilized**

**Waste grease reused in the plant quantity is 720 kgs**

**waste lube oil reused in plant the quantity is 1000 liters**

**Note: Waste Oil and Grease generated from plant.**

**PART – E  
SOLID WASTES**

**Solid wastes From Process**

Solid Wastes	Total Quantity
<b>SOLID WASTES</b>	<b>During the current financial year (2023-2024)</b>
<b>From Pollution Control Facilities</b>	NIL
<b>Quantity recycled or reutilized within the unit</b>	NIL

**PART - F**

**Please specify the characteristics (in terms of concentration and quantum) of Hazardous as well as solid wastes and indicates disposal particles adopted for both these categories of wastes.**

1. Waste lube oil 1000 liters have been generated from the plant and same quantity is used in internally self consumed.
2. 7720 Kgs of waste grease have been generated from the plant and 720 kgs used in internally consumed.
3. 7000Kgs Waste grease is sold to M/S Sri Padmavathi Energy solutions India (p) Ltd Hyd. an agencies authorized by APPCB.
4. No Solid waste is generated from the Plant as it is a dry process. The intermediate products, raw material and finished product collected in various pollution control systems is being recycled in to the process.

**PART – G**

**Impact of the pollution control measures on conservation of natural resources and consequently on the cost of production.**

## **PART - H**

### **Additional investment proposal for environmental protection including abatement of pollution.**

1. An amount of Rs.2,52,000/- is spend on regular monitoring.
2. Total investment on the greenbelt development for the year 2023-24 is Rs.3,63,559/-
3. Total investment on the maintenance of the pollution control equipments for the year 2023-24 is Rs96,73,512/-
4. Total investment on STP, Vacuum cleaner, Drinking welfare & WHR Water Treatment Plant Vacume Cleaner for the year 2023-24 is Rs. .26,98,760/-
5. River Water Cess and water analysis charges is Rupees .4,55,033/-

## **PART - I**

### **Any other particulars in respect of environment protection and abatement of pollution.**

- Parasakti Cement Industries Ltd., (PCIL) is conducting regular meeting for reviewing and taking up various improvements in the quality of the Safety and Environment.
- PCIL is conducting regular environmental monitoring to comply the conditions of APPCB/ MOEF.
- PCIL incurred an amount of Rs.3, 83, 48,079 /- towards the power consumption on pollution control equipment.

## **1. INTRODUCTION**

M/s. Parasakti Cement Industries Limited has setup Cement manufacturing unit at Jettipalem Village, Rentachintala Mandal, and Palnadu District of AP. The Plant is established in the year of 2005. M/s. Parasakti Cement Industries Limited is manufacturing Ordinary Portland Cement (OPC) 53 grade, OPC 43 grade and PPC with a production capacity is 1.20 MT/A (Clinker) & 1.26 MT/A (Cement).

## 2. OBJECTIVE OF THE STUDY:

The objective of the present study is to review the performance of pollution control systems installed by the industry so as to identify efficient pollution prevention and control systems, which could be beneficial to both environment and its components. And also **Inserted by rule 2 of the Environment (Protection) second Amendment & Rules, 1992 vide G.S.R. 329 (E), dated: 13-3-1992.** Every person carrying on an Industry, operation or process requiring consent under section 25 of the water (prevention and control of pollution) Act 1974 (6 of 1974) or under section 21 of the Air (Prevention and Control of Pollution), Act 1981 (14 of 1981) or both or authorization under the Hazardous wastes (Management and Handling) Rules, 1989 issued under the Environmental (Protection) Act 1986 (29 of 1986) shall submit an environmental audit report for the financial year ending 31<sup>st</sup> March in Form – V to the concerned state pollution control board on or before the 30<sup>th</sup> day of September every year beginning 1993.

## 3. BENEFITS OF ENVIRONMENTAL AUDIT

Environmental audit creates awareness in the conservation of natural resources and helps to improve production safety and health. The benefits of audits are:

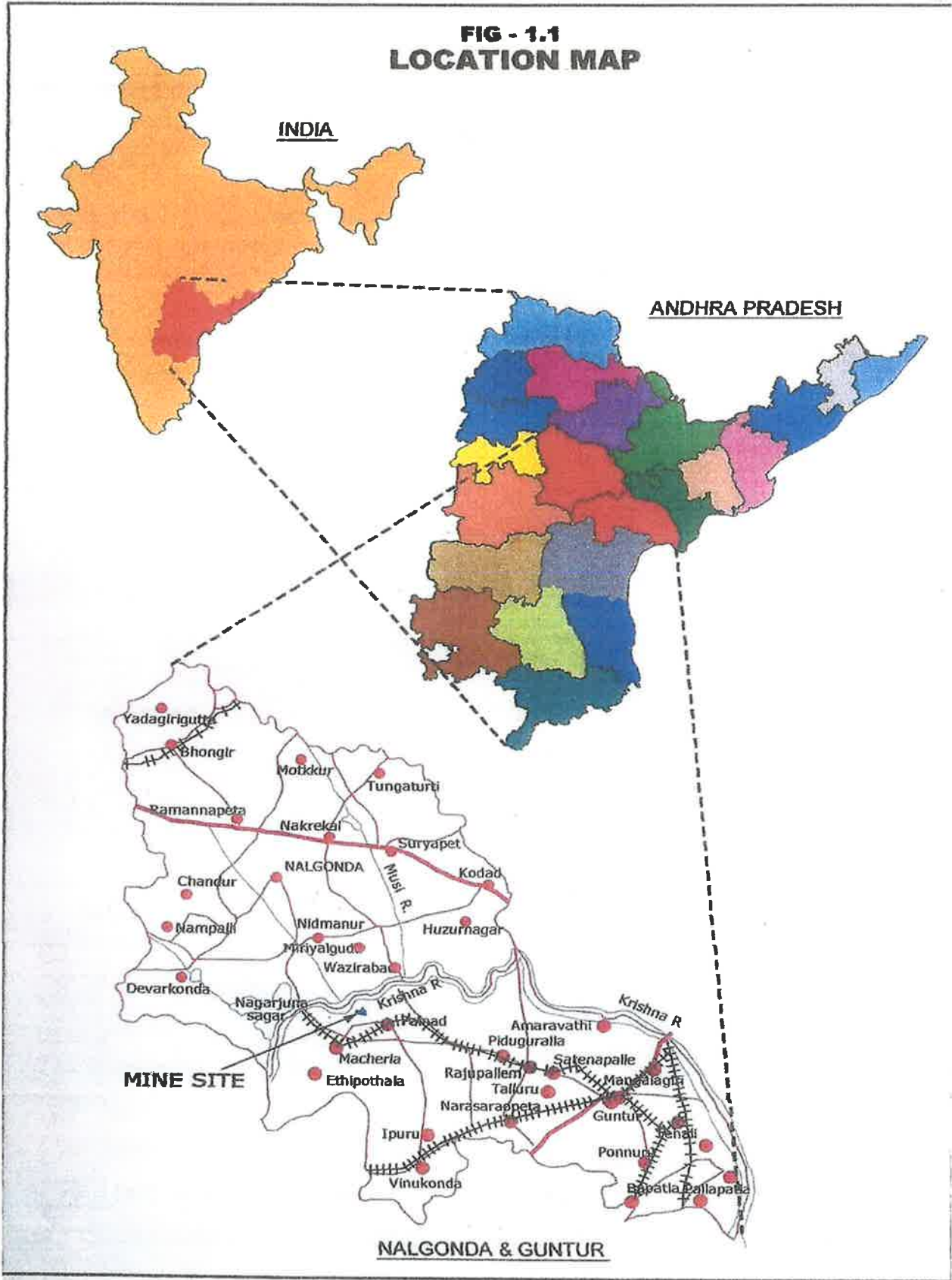
1. It helps in reduction of raw material consumption by way of waste minimization and adoption of recovery of waste and recycles the same.
2. Determined the performance of process systems and helps to improve the systems.
3. Efficiency of pollution control systems can be calculated.
4. This gives the awareness of environmental organization in the industry.
5. Data available will help the management for use in the plant modification and adopting pollution control for different types of technology.

6. It helps to identify pollution creating systems and exposure to it by the employees for taking remedial measures.
7. The management will be assisted in complying with local, regional and national laws regulations by adopting standards.
8. It helps to identify hazardous wastes, handling measures taken and exposure to litigation can be reduced.
9. To determine the impact on the surrounding environment due the disposal of its pollutants and identify suitable preventive measures.
10. Energy saving systems can be adopted by considering fuel consumption data.

M/s. Parasakti Cement Industries Limited has entrusted the task of preparation of Environmental Statement (Audit) to M/s. Universal Enviro Associates (UEA), Hyderabad. An in-depth study was conducted by UEA, to review the process efficiency, waste water generated and the present treatment systems, emissions generated and air pollution control equipment provided mode of solid waste collection and disposal and the other associated problems leading to the pollution and impact on environment.

#### **4. LOCATION**

The M/s. Parasakti Cement Industries Limited is situated in Jettipalm Village, Rentachintala Mandal, Guntur district of Andhra Pradesh. The Plant is situated 30 km away from Macharla by the side of Macharla – Piduguralla road. **The project site falls under the Latitude 14°35' - 14°45' of North and Longitude of 78°30' - 78°35' East.** The project area is rocky in nature. The site comes under arid zone. **The Location map and Plant layout are show in Fig. 1.**



**POCESS DESCRIPTION:**

## **POCESS DESCRIPTION:**

The limestone is drilled, blasted and then loaded by hydraulic excavators into dumpers, which transports the limestone boulders to the crusher. After crushing it sent to stockpile.

### **The stages of cement manufacture at PCIL are as follows:**

- |    |                                  |   |         |
|----|----------------------------------|---|---------|
| 1. | Mining & Crushing of limestone   | - | Stage 1 |
| 2. | Raw meal grinding                | - | Stage 2 |
| 3. | Coal grinding                    | - | Stage 3 |
| 4. | Clinker Production (Pry process) | - | Stage 4 |
| 5. | Cement grinding                  | - | Stage 5 |
| 6. | Packing of Cement                | - | Stage 6 |

#### **1. Mining and Crushing of limestone**

Lime for Parasakti Cement is mined at our captive limestone mine, Parasakti Limestone Mines and crushed in the compound impact crusher. The crushed limestone is stocked in the limestone stock pile. The stock pile bays are demarcated for high grade and low grade limestone. Depending on the analysis the crushed limestone is stocked in the respective bays.

#### **2. Raw meal Grinding**

Raw meal is prepared by grinding limestone and additives in suitable proportions in Raw Mill. Raw Mill feed system consists of 4 hoppers. For maintaining uniform particle size in the ground raw meal, the raw mill system is equipped with a High efficiency separator. In the 4 hoppers, one hopper is meant for High grade limestone, second hopper for Low grade limestone, the third hopper for Iron ore and the fourth for Laterite. All the four hoppers are equipped with weigh feeders. Proportioned and weighed quantities of raw materials are fed to the Raw mill to meet the quality requirement.

Tertiary crusher is installed after weigh feeders, for further reduction of limestone size before entering the raw mill.

Raw mill is a tube mill filled with required quantity of grinding media charged inside. Raw mill consists of a drying chamber for drying of raw materials and two grinding chambers. The ground material from 1<sup>st</sup> and 2<sup>nd</sup> chambers is drawn out of the mill with air sucked through raw mill fan. The ground material is discharged into an air side and is carried to high efficiency separator through air slides and bucket elevator. In the separator, the ground material is separated to finer and coarse fraction. Finer fraction, called raw meal is transported to Raw meal silo, a continuous flow silo by Belt Bucket Elevator or Vertical Pneumatic Pump.

The fine dust in the air is collected in a Cyclone and the air is sent to Bag House. The collected dust is mixed with raw mill product when raw mill is running and to a separate dust silo when raw mill is stopped. The dust in silo will be added to the raw mill product when the mill is running.

### **3. Fine Coal Grinding**

Incoming raw coal is unloaded into a hopper. Truck unloading system is installed in the plant for coal unloading. The coal from the hopper is conveyed to the raw coal crusher. The crushed coal is stocked in the coal stock pile in different bays as per the grade of coal. Fine coal is prepared by grinding crushed coal. The coal mill system consists of a two chambered air swept tube mill (one drying chamber and one grinding chamber), grit separator and a bag house. The coal from the raw coal hopper is fed to the mill through rotary table feeder. The dried coal from drying chamber then passes to grinding chamber filled with grinding media. Hot air from the Kiln cooler is utilized for the drying of coal. The powdered coal is swept to grit separator, by air because of the induced draft created by coal mill bag filter fan, where fines and coarse are separated. Coarse material is returned back to mill for further

grinding and fines are swept to bag house where fines are collected and stocked in fine coal bins.

#### **4. Production of Clinker**

Clinker preparation is subdivided into 4 stages.

- Raw meal extraction,
- Preheating & Precalcination
- Burning (Clinkerisation)
- Cooling
- Recycling of Dust

##### **Raw meal Extraction:**

The material stored in continuous flow silo, which is storage cum blending silo. The inverted central cone silo creates a good blending effect on the raw meal. The silo is equipped with multiple gates that are operated in auto/manual mode. The material is extracted in a cycle of multiple gates opening at a time for fixed period. This cycle feeds homogenized raw meal to the preheater system. This extracted raw meal is called Kiln Feed.

The extracted raw meal is discharged in to kiln feed storage bin using air slides. From the storage bin, weighed quantity of kiln feed using solid flow meter is transported to preheater system by Belt Bucket Elevator or V.P. Pump.

##### **Preheating & Pre-Calcinations:**

The kiln feed is preheated and partly calcined by hot kiln exit gases in a tower of heat exchange cyclones called Preheater. The heat exchange between gas and the material takes place in the cyclones, in suspension of material and gas.

The preheater at PCIL is a 5 stage preheater equipped with precalcinator, called RSP (Reinforced Suspension Preheater). The material from the 4<sup>th</sup> stage of preheater is fed into the pre-calcinator called Swiri calciner. 60% of the fuel required for clinkerisation is fed into

this calciner system along with hot recouped air from cooler called Tertiary air. The material from the precalciner goes to 1<sup>st</sup> stage of the preheater before entering the kiln. By the time it enters the kiln, the kiln feed attains about 80-95% of degree of calcinations.

**Burning (Clinkersation):**

The final clinkerisation of the kiln feed takes place in the rotary kiln. 40% of fuel required for clinkerisation is fed into the kiln for burning. The pre calcined kiln feed entered from preheater is further heated in the rotary kiln to about 1350 - 1450<sup>o</sup>C at which clinker form is formed.

**Cooling:**

The clinker produced in the kiln is cooled from 1100 - 1400<sup>o</sup>C to 120-150<sup>o</sup>C in the grate cooler by air quenching. The cooler is fitted with slotted grate plates. As the clinker moves on the grates towards the discharge end of the cooler, air is blown from the bottom of the plates and cools the clinker. The hot air generated, is recouped and utilized for clinker burning as secondary air for the kiln and tertiary air for precalcinator.

**Recycling of Dust:**

The dust laden exhaust gases from the preheater are passed Reverse Air Bag House (RABH), where the fine dust is collected and clean gases are released into the atmosphere. The dust collected is transported back to raw meal silo along with raw mill product. When the raw mill is not running this dust is collected in an intermediary dust silo and then mixed with the raw mill product, when raw mill is running.

**5. Cement Grinding:**

Cement is ground by grinding clinker, fly ash and gypsum in suitable proportions. Cement mill at PCIL are closed circuit ball mills. Each Cement mill is having of 3 hoppers (one for clinker, second for Gypsum and one for spare). For fly ash separate metallic storage silos

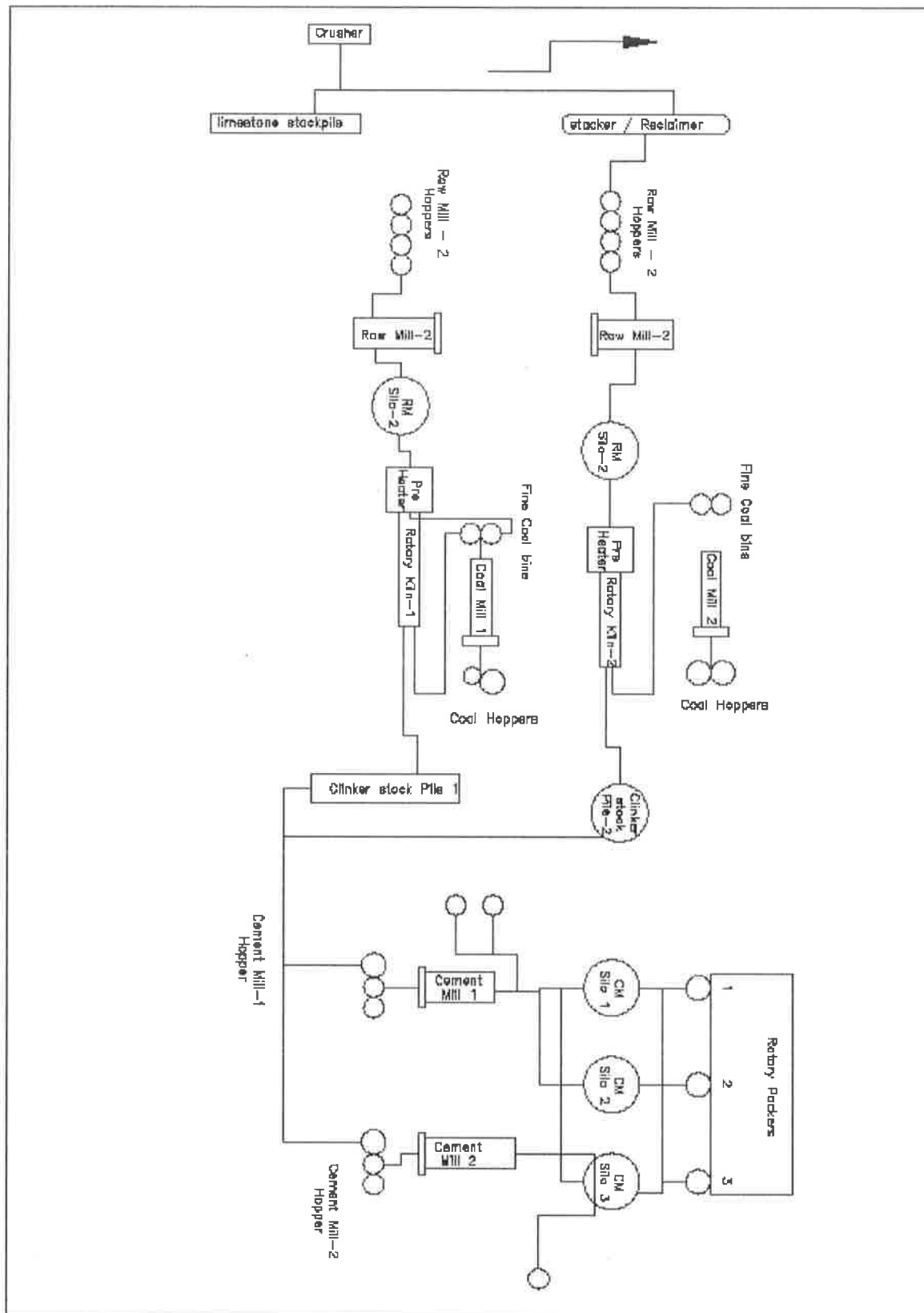
are installed. Weighed quantity of Fly ash is extracted through solid flow meter from the bottom of the silo and pumped to high efficiency separator.

Weigh feeders are installed to every hopper, and Mills are equipped with high efficiency classifiers for better particle size distribution. Weighed & proportioned quantities of clinker, gypsum are fed into the cement mill from hoppers. The cement mill are two chambered mills. The ground cement and fly ash is fed to the separator by air slide and bucket elevator. In the separator, the ground material and fly ash is separated to finer and coarse fraction. Finer fraction is transported to four compartment silo by Bucket Elevator or Vertical Pneumatic Pump.

## **6. Dispatch of Cement**

PCIL has electronic packers with eight spouts for packing the cement into bags and loading into the trucks.

Cement from the silos is extracted through gates and transported to the Hopper in Packer System. Bags are attached to the nozzle of the rotating electronic packer. Filled in bags are automatically discharged from the packer on to the belt conveyers and loaded in to the trucks.



## **6. WATER REQUIREMENT:**

The total consumption is 1059.46 m<sup>3</sup> /day and the breakup details are given below:

1. Process consumption & Dust suppression	-	196.40 m <sup>3</sup> /day
2. Domestic	-	143.85 m <sup>3</sup> /day
3. WHR Consumption		681.84 m <sup>3</sup> /day

Most of the process and cooling water will be evaporated / consumed. The domestic requirement includes requirements of colony, drinking as well as sanitation. The water requirement is being met from the bore wells.

## **7. POLLUTION CONTROL IN THE PLANT**

The industry has given top priority for pollution prevention and control. Therefore all the sources that release particulate matter are provided with ESP & Bag filters for the control of particulate emissions into atmosphere. Tall stacks are provided as an effective measure for good atmospheric dispersion of the pollutants and air pollution control.

### **7.1 Waste water Sources and Monitoring**

Most of the water consumed for process as well as cooling is consumed/ evaporated. The only source of wastewater is from sanitary facilities of the plant and colony is presently being sent to Sewage treatment plant to treat this wastewater. Discharges from the sewage treatment plant water characteristic meets the discharge standards of APPCB for on-land irrigation.

### **7.2 Air Pollution Control**

#### **7.2.1 Stack Emissions**

The sources of air emissions are from Raw mills & Kiln, Raw mills and kiln, Cooler Stack, Cement Mill –I & II, Coal Mill. Stack emissions monitoring is carried out regularly for the parameters PM. The average values of stack emission data is given in table 7.1. It is noticed from the collected emissions data that the parameters monitored are within the limits prescribed by AP pollution control Board.

**Table 7.1**

<b>AIR POLLUTION CONTROL EQUIPMENTS</b>		
<b>UNIT – I</b>		
<b>S No.</b>	<b>LOCATION</b>	<b>TYPE OF EQUIPMENT</b>
U1-1	RAW MILL & ROTARY KILN	REVERSE AIR BAG HOUSE
U1-2	COAL MILL	BAG HOUSE
U1-3	COOLER	ESP
U1-4	CEMENT MILL	ESP
U1-5	CEMENT MILL VENT	ESP
U1-6	LIMESTONE CRUSHER	BAG HOUSE
U1-7	LIMESTONE HOPPERS TOP	BAG HOUSE
U1-8	TERTIARY CRUSHER	BAG FILTER
U1-9	RAW MEAL SILO	BAG FILTER
U1-10	RAW MEAL SILO EXTRACTION	BAG FILTER
U1-11	COAL CRUSHER	BAG FILTER
U1-12	COAL TRANSFER POINT	BAG FILTER
U1-13	COAL FEED CIRCUIT	BAG FILTER
U1-14	CLINKER DISCHARGE ABOVE DBC	BAG FILTER
U1-15	CLINKER STOCK PILE SHAFT – I	BAG FILTER
U1-16	CLINKER STOCK PILE SHAFT – II	BAG FILTER
U1-17	CSP TO TRANSFER POINT	BAG FILTER
U1-18	CLINKER HOPPER TOP	BAG FILTER
U1-19	CEMENT SILO	BAG FILTER
U1-20	PACKING PLANT	BAG FILTER
U1-21	COAL MILL HOPPERS TOP	BAG FILTER
U1-22	PRE-HEATER TOP	BAG FILTER
U1-23	FLY ASH SILO TOP	BAG FILTER

<b>AIR POLLUTION CONTROL EQUIPMENTS</b>		
<b>UNIT – II</b>		
<b>S No.</b>	<b>LOCATION</b>	<b>TYPE OF EQUIPMENT</b>
U2-1	RAW MILL VENT	BAG FILTER
U2-2	KILN & RAW MILL	REVERSE AIR BAG HOUSE
U2-3	COOLER STACK	ESP
U2-4	COAL MILL VENT	BAG FILTER
U2-5	CEMENT MILL VENT	BAG HOUSE
U2-6	CEMENT MILL STACK	ESP
U2-7	TP-8 (@RMH-II FEEDING)	BAG FILTER
U2-8	RM HOPPERS TOP	BAG FILTER
U2-9	TERTIARY CRUSHER (RMH BOTTEM)	BAG FILTER
U2-10	RMH BOTTEM FOR WEIGH FEEDERS-3 NOS.)	BAG FILTER
U2-11	BLENDING SILO TOP – SILO VENT	BAG FILTER
U2-12	BLENDING SILO TOP – (DB+BE/VP/PUMP)	BAG FILTER
U2-13	SILO DISCH. BIN (KILN FEED BIN)	BAG FILTER
U2-14	PREHEATER TOP (BE/VP/PUMP VENT)	BAG FILTER
U2-15	COOLER DISCHARGE ABOVE DBC	BAG FILTER
U2-16	CSP TOP	BAG FILTER
U2-17	CSP EXTRACTION – 2 NOS.	BAG FILTER
U2-18	TP-9 (@CSP OUTLET)	BAG FILTER
U2-19	TP-10 (@CMH. FEEDING CONV.)	BAG FILTER
U2-20	CEMENT MILL HOPPERS TOP	BAG FILTER
U2-21	CEMENT MILL HOPPERS BOTTEM (WEIGH FEEDERS)	BAG FILTER
U2-22	CEMENT SILO TOP (SILO VENT)	BAG FILTER
U2-23	CEMENT SILO TOP (BE/VP PUMP+DB)	BAG FILTER
U2-24	PACKING PLANT (PACKER #2)	BAG FILTER
U2-25	TP-II(@COAL TRANSFER POINT)	BAG FILTER
U2-26	RAW COAL HOPPERS TOP	BAG FILTER
U2-27	COAL MILL BUILDING – 3 NOS.	BAG FILTER
U2-28	@TP -4 (BC-1 SPLITTING)	BAG FILTER
U2-29	@TP-5 (LSP-II EXTRACTION)	BAG FILTER
U2-30	@TP-6 (STACKER FEEDING TP)	BAG FILTER
U2-31	@TP-7 (RECLAIMER DISCHARGE. TP)	BAG FILTER
U2-32	ADDITIVE DUMP HOPPER	BAG FILTER
U2-33	ADDITIVE DUMP CRUSHER	BAG FILTER
U2-34	@CMB-I (SEPERATOR CHIMNEY – TAPPING)	BAG FILTER
U2-35	FLY-ASH SILO TOP	BAG FILTER
U2-36	CEMENT SILO #3 TOP (SILO VENT)	BAG FILTER
U2-37	CEMENT SILO #3 TOP (BE/VP/PUMP VENT)	BAG FILTER
U2-38	PACKING PLANT (PACKER #3)	BAG FILTER
U2-39	EXTENDED TUNNEL CLINKER FEED POINT	BAG FILTER

The emission from Cooler, Kiln, cement mill is passed through ESP which reduces the particulate matter to the minimum levels. The emission from Coal Mill, Kiln and Cement Mill are passed through Bag filters.

### 7.2.2 Ambient Air Quality

Ambient air quality monitoring is carried out regularly at mines to know the status of the ambient air quality.

Ambient air quality is monitored for 24 hours at each station for the estimation of PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>. Estimated average values for the parameters monitored are represented in the Table 7.2 the analyzed values for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>2</sub> are within limits prescribed by APPCB.

**Table 7.2**  
**AVERAGE VALUES OF AMBIENT AIR QUALITY DATA**

Location	Parameters			
	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>2</sub>
Near Security gate	62.75	49.00	11.87	13.40
Near Cement mill area	52.00	12.68	12.68	14.48
Near Crushing area	58.92	46.00	12.10	13.04
Colony	50.83	40.42	13.03	14.14

Note: All the values are expressed as ( $\mu\text{g}/\text{m}^3$ )

### 7.2.3 Noise Pollution

Noise Levels are measured at various places in the factory premises by using a sound level meter. The noise levels were found to be within the limits prescribed by APPCB. The management provided ear muffs for workers who are exposing to high noise levels. The industry has provided industrial type silencers for Diesel Generator sets for controlling noise pollution.

**Table**  
**Ambient Noise Levels**

S No.	Location	Noise Levels in dB(A)	Noise Levels in dB(A)
		Day Time	Night Time
1	Near Raw Mill	66.76	57.48
2	Near QC Lab	59.22	51.59
3	Near Time Office	57.16	47.93
4	Near Colony	49.53	40.50

## 8. GREENBELT DEVELOPMENT

DETAILS OF SPECIES FOR GREEN BELT DEVELOPMENT FOR THE YEAR 2023-24	
<b>PLANT AREA</b>	
AREA IN ACRES	0.25 Acre
NO. OF PLANTS	1050
NAME OF THE SPECIES	Dubai,Feltoform, Ganuga
Survival rate (%)	85%
WATER SUPPLY	Drip system and Water Tanker

## 9. HOUSEKEEPING:

Proper cleaning of the different sections is required to maintain healthy environment, to avoid unnecessary loss of product in the form of dust emission and polluting surrounding environment. Water spraying is done inside the factory premises to control fugitive emissions from coal yard and raw material storage yards. Stores to be maintain properly. Factory premises are to be clean and green to have good housekeeping' **M/s. Parasakti Cement Industries Ltd**, is keeping their plant and premises neat tidy. Housekeeping has been found to be well.

<b>ANEXURE-1</b>			
<b>MONTH WISE INPUT WATER CONSUMPTION FOR THE YEAR 2023-2024</b>			
<b>MONTH</b>	<b>RIVER WATER(KL)</b>	<b>SUMP &amp; BORE WATER(KL)</b>	<b>TOTAL(KL)</b>
Apr-23	17600	0	17600
May-23	19400	17118	36518
Jun-23	20840	20371	41211
Jul-23	16690	271	16961
Aug-23	33530	1790	35320
Sep-23	24730	11215	35945
Oct-23	29560	10399	39959
Nov-23	39210	2467	41677
Dec-23	35600	0	35600
Jan-24	30240	2349	32589
Feb-24	29720	0	29720
Mar-24	37920	1357	39277
<b>TOTAL</b>	<b>335040</b>	<b>67337</b>	<b>402377</b>

<b>ANEXURE-1</b>			
<b>MONTH WISE WATER CONSUMPTION FOR THE YEAR 2023-24</b>			
<b>MONTH</b>	<b>INDUSTRIAL(KL)</b>	<b>DOMESTIC(KL)</b>	<b>WHR(KL)</b>
Apr-23	7887	4120	2900
May-23	8129	4220	21648
Jun-23	7891	4720	25819
Jul-23	5434	3380	5977
Aug-23	6659	4810	22012
Sep-23	3454	4580	25832
Oct-23	5127	4810	27711
Nov-23	4728	4600	29906
Dec-23	4802	4520	23976
Jan-24	5455	4360	20485
Feb-24	5763	4080	17468
Mar-24	6552	4450	25820
<b>TOTAL</b>	<b>71881</b>	<b>52650</b>	<b>249554</b>

**MONTH WISE EFFLUENT WATER CONSUMPTION FOR THE YEAR 2023-2024**

<b>MONTH</b>	<b>STP(KL)</b>	<b>N-PIT(KL)</b>
Apr-23	2025	1000
May-23	1677	2620
Jun-23	1828	5010
Jul-23	1645	1110
Aug-23	2784	3294.5
Sep-23	2817	5545.5
Oct-23	1851	6068.3
Nov-23	2349	5800.9
Dec-23	1759	4010.2
Jan-24	1701	4036.58
Feb-24	1455	2954.2
Mar-24	2499	4643.5
<b>TOTAL</b>	<b>24390</b>	<b>46093.68</b>

**RAWMATERIAL CONSUMPTION FOR THE YEAR OF 2023-24**  
**Quantity in MT**

Month	LIMESTONE	IRON ORE	LATERITE	DOLOMITE	GYP SUM-S	GYP SUM	FLYASH	LIMESTONE - Pls	Coal Imp	Pvt. Coal	Pet Coke
<b>Apr-23</b>	106354	0	7789	1152	9233	3590	7906	3811	4082	1585	4068
<b>May-23</b>	137717	0	10513	1504	8641	3301	7579	3573	5223	4517	3442
<b>Jun-23</b>	112903	453	5843	1051	9261	3373	7722	3949	6013	3514	2110
<b>Jul-23</b>	66142	1787	1861	704	6209	2649	7135	2961	2314	2329	1893
<b>Aug-23</b>	115401	3388	3632	1234	5432	3508	8456	3812	5410	2340	4305
<b>Sep-23</b>	101008	2895	3190	1082	4986	3007	8236	2917	3947	2865	3459
<b>Oct-23</b>	109773	3354	3524	1180	7083	4203	8831	4425	3708	3888	3738
<b>Nov-23</b>	107183	3281	3462	1150	6104	3206	6955	3494	668.05	6587	4733.55
<b>Dec-23</b>	120725	4025	3216	1231.8	5455	2877	7130	3048	7168.96	797	4386.48
<b>Jan-24</b>	90250	2898	2843	991	5550	3029	8270	3306	3187.68	4768	2610
<b>Feb-24</b>	92841	2759	2815	996	6943	3258	8473	3636	2007.4	6003	2615.02
<b>Mar-24</b>	107108.8	2936	2581	1139.2	7428	3258	8452	3450	4291	4351	2765
<b>TOTAL</b>	<b>1267406</b>	<b>27776</b>	<b>51269</b>	<b>13415</b>	<b>82325</b>	<b>39259</b>	<b>95145</b>	<b>42382</b>	<b>48020</b>	<b>43544</b>	<b>40125</b>

<b>CLINKER PRODUCTION, CONSUMPTION &amp; SALES FOR THE YEAR 2023-24 (in MT)</b>			
<b>MONTH</b>	<b>Production</b>	<b>Consumption</b>	<b>Sales</b>
Apr-23	74961	78026	0
May-23	99864	75290	0
Jun-23	77788	81117	0
Jul-23	45484	63803	0
Aug-23	84617	85060	0
Sep-23	71046	66648	0
Oct-23	77536	92099	0
Nov-23	76437	71850	0
Dec-23	82549	65597	0
Jan-24	64604	71648	36.15
Feb-24	65887	77772	497.48
Mar-24	73634	73160	0
<b>Total</b>	<b>894407</b>	<b>902069.5</b>	<b>533.63</b>

<b>CEMENT PRODUCTION DETAILS 2023-24 (in MT)</b>					
<b>MONTH</b>	<b>OPC 43GR</b>	<b>OPC 53GR</b>	<b>PPC</b>	<b>SRPC</b>	<b>TOTAL</b>
Apr-23	4131	72074	25661	700	<b>102566</b>
May-23	6465	64979	24169	2771	<b>98384</b>
Jun-23	4432	74538	24539	1913	<b>105422</b>
Jul-23	3815	55330	21509	2103	<b>82757</b>
Aug-23	2569	73710	28036	1953	<b>106268</b>
Sep-23	4152	54183	25232	2227	<b>85794</b>
Oct-23	3929	84465	26824	1423	<b>116641</b>
Nov-23	3283	66554	19933	1839	<b>91609</b>
Dec-23	2174	58789	21852	1292	<b>84107</b>
Jan-24	1750	64324	24963	766	<b>91803</b>
Feb-24	3298	69374	25811	1599	<b>100082</b>
Mar-24	2058	66892	26131	667	<b>95748</b>
<b>TOTAL</b>	<b>42056</b>	<b>805212</b>	<b>294660</b>	<b>19253</b>	<b>1161181</b>

<b>CEMENT DESPATCH DETAILS 2023-24 (In MT)</b>					
<b>MONTH</b>	<b>OPC 43GR</b>	<b>OPC 53GR</b>	<b>PPC</b>	<b>SRPC</b>	<b>TOTAL</b>
APR'22	4199.55	64020.99	24485.5	1674.55	<b>94381</b>
MAY'22	5942.12	65390.14	23999.6	1895.31	<b>97227</b>
JUN'22	4518.25	73961.45	24597.8	1780.05	<b>104858</b>
JUL'22	3842.9	59360.23	22624.3	2190.84	<b>88018</b>
AUG'22	3526.17	67577.54	28217.6	1756.5	<b>101078</b>
SEP'22	3364.76	56398.39	25264.1	2362.91	<b>87390</b>
OCT'22	3942.54	85324.88	25277.6	1668.97	<b>116214</b>
NOV'22	3196.58	63484.48	19302.5	1317.48	<b>87301</b>
DEC'22	1944.38	59180.41	22673.4	1541.58	<b>85340</b>
JAN'23	2375.8	65100.56	25362.6	1123.01	<b>93962</b>
FEB'23	2852.4	68679.8	25805.5	1205.53	<b>98543</b>
MAR'23	2038.62	67424.67	25896.5	511.69	<b>95871</b>
<b>TOTAL</b>	<b>41744.07</b>	<b>795903.54</b>	<b>293507</b>	<b>19028.4</b>	<b>1150183</b>

**EXPENDITURE ON POLLUTION CONTROL EQUIPMENT & MONITORING 2023-2024**

<b>PLANT-EXPENDITURE ON POLLUTION CONTROL EQUIPMENT &amp; MONITORING 2023-2024</b>	
<b>LINE-01</b>	
CRUSHUR- AUX.BAG FILTERS WITH FAN- LS CRUSHER (BM 107)	9831.32
CLINKER-1 - ELECTRO STATIC PRECIPITATORS	96731.88
PH1 - POLLUTION MONITORING EQPT: KILN-1 GAS ANALYZER SO2,NOX (K1SO2/K1NOX)	8150
PH1 - RABH BAG HOUSE	64465.59
COAL MILL-1 - BAG FILTERS WITH FANS: BAG FILTER TP-2 (ZM 112)	143.12
CEMENT MILL-1 - AUX.BAG FILTERS WITH FANS	1728.56
CEMENT MILL-1 - MAIN BAG FILTER WITH FAN	4811.92
CEMENT MILL-1 - ELECTRO STATIC PRECIPITATORS: ESP CHAMBER ASSY	45366.95
CEMENT MILL-1- ESP TRANSFORMERS: TRANSFORMER -1	747.36
PACKING PLANT - BAG FILTERS WITH FANS	56875.24
<b>LINE-1 TOTAL</b>	<b>288851.94</b>
<b>LINE-2</b>	
RAW MILL-2 - AUX.BAG FILTERS WITH FANS	21194.66
RAW MILL-2- MAIN BAG HOUSE: BAG FILTER ASSY	290114.50
CLINKER-2 - AUX.BAG FILTERS	66552.03
CLINKER-2 - ELECTRO STATIC PRECIPITATORS	113581.71
CLINKER-2 - ESP DUST CONV.SYSTEM	16495.86
CLINKER-2 - ESP TRANSFORMERS	1110.00
PH2 - AUX.BAG FILTERS & FANS: KILN FEED BIN BAGFILTER (K2M106)	9544.01
PH2 - POLLUTION MONITORING EQPT: KILN-2 GAS ANALYZER SO2,NOX (K2SO2/K2NOX)	28275.00
PH2 - RABH BAG HOUSE	2123980.79
COAL MILL-2 - AUX.BAG FILTERS WITH FANS	6213.57
COAL MILL-2- MILL BAG HOUSE ASSY: BF DISCH RAL-1 (Z2M134)	54448.88
CEMENT MILL-2 - BAG FILTER WITH FANS: BAGFILTER AT CSP-II TUNNEL-1 (N2M100)	11920.24
CEMENT MILL-2 - ELECTRO STATIC PRECIPITATORS WITH FAN	922910.56
CEMENT MILL-2 - ESP PANELS: ESP RAPPER PANEL (N2A154)	57726.35
CEMENT MILL-2 - MAIN BAG HOUSE WITH FAN: MAIN BAG HOUSE ASSY	304258.13
WHR PLANT	5345333.96
POLLUTION MONITORING EQPT: MAIN GATE AAQ STATION (MGAAQ)	11000.00
<b>LINE-2 TOTAL</b>	<b>9384660.25</b>
<b>PLANT GENERAL</b>	
WHR- WATER TREATMENT PLANT	1386413.47

WEL - DRINKING WATER TREATMENT PLANT	12775.20
WEL - STP	41166.81
QC - GENERAL	624.42
SWEEPING MACHINE	657780.08
STP MAINTANANCE BILL	600000
THIRD PARTY( <b>BS ENVIROTEC</b> )MONITORING CHARGES	252000
RIVER WATER CESS & WATER ANALYSIS CHARGES	455033
POWER CONSUMPTION ON POLLUTION EQUIP	3,83,48,078.69
GREEN BELT	363559.44
<b>TOTAL AMOUNT</b>	<b>51790943.30</b>