M/s. PARASAKTI CEMENT INDUSTRIES LTD.,

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

ENVIRONMENTAL STATEMENT (AUDIT)
FOR THE FINANCIAL YEAR 2019-2020

UNIVERSAL ENVIRO ASSOCIATES

104 & 105 Libra Enclave, RTC 'X' Roads,
Musheerabad, Hyderabad – 500 020.
Ph: 27633361.

ACKNOWLEDGEMENT

M/s. UNIVERSAL ENVIRO ASSOCIATES 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 Mines located near Jettipalem (V) Rentachintala (M), Guntur (Dist) of Andhra Pradesh. The Environmental Statement (Audit) is prepared for the financial year from April, 2019 to March, 2020. Special mention needs to be made of executives of M/s. Parasakti Lime Stone Mines (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.

CONTENTS

Acknowledgement 2

Contents 3

List of Tables 4

List of Figures 4

FORM – V 5

1. INTRODUCTION 12

2. OBJECTIVE OF THE STUDY 12

3. BENEFITS OF ENVIRONMENTAL AUDIT 13

4. LOCATION 14

5. PROCESS DESCRIPTION 16

6. WATER REQUIREMENT 23

7. POLLUTION CONTROL IN THE PLANT 23
7.1 Waste water sources and Monitoring 23
7.2 Air Pollution Control 23
7.2.1 Stack Emission 23
7.2.2. Ambient Air Quality 26
7.2.3. Noise Pollution 27

8. GREENBELT DEVELOPMENT 28

9. HOUSE KEEPING 29

APPENDIX

A. National Ambient Air Quality Standards i
B. Standard for Stack Emissions iii
C. Ambient Air Quality Standards in Respect Noise iii
D. General Standards for Discharge of Effluents iv
E. Test Characteristics for Drinking Water IS 10500:1991 vi
F. Plant Species for Green Belt Development viii

LIST OF TABLES

7.1. Air pollution control equipments (Unit – I & II) 24-25
7.2. Average Values of Ambient Air Quality Data 26
7.2.3. Average values of Ambient Noise Level 27

LIST OF FIGURES

Fig. 1. Location Map of M/s. PARASAKTI CEMENT INDUSTRIES LTD. 15

Fig. 2. Process flow Diagram of Cement Manufacturing . 22

FORM - V
(See rule 14)

ENVIRONMENTAL STATEMENT REPORT FOR THE FINANCIAL YEAR ENDING THE 31ST MARCH 2020

PART – A

1	Name and address of the owner/ occupier of the industry operation or process.	**M/s. Parasakti Cement Industries Ltd.,** Plot No. 8-3-214/21, Srinivasa Nagar Colony (West), Hyderabad – 500 038. **Factory:** Jettipalem, Rentachintala Mandal, Guntur 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, 2019
4	Production Capacity (units)	Clinker Production – 1.20 MTPA Cement Production – 1.26 MTPA
5	Year of establishment	June - 2005

PART – B

Water and Raw Material Consumption		
a) Water consumption	246.36	KLD
1. Process consumption & Dust suppression	116.14	KLD
2. Domestic	130.22	KLD

Name of Products	Water consumption per unit of product (KL/MT)	
	During the previous financial year (2018-2019)	During the current financial year (2019-2020)
Cement	0.062	0.110

i) Raw material & chemicals consumption			
Name of raw materials		Consumption of raw material per MT of output based on MT of Cement	
		During the previous	During the current

	financial year (2018-2019)	financial year (2019-2020)
Lime Stone	1.258	1.167
Laterite	0.049	0.058
Iron Ore	0.025	0.012
GCP Waste	-	0.0002
Dolomite	0.015	0.014
Slag	0.002	0.025
Coal	0.135	0.132
Gypsum	0.038	0.042
Fly Ash (PPC)	0.086	0.104

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

	Pollutants	Quantity of Pollutants Discharged (kg/day) 2019-2020	Concentrations Of Pollutants in Discharges (mg/L) 2019-2020	Percentage of variation from prescribed standards with reasons
a) Treated Waste Water				
1	Total Dissolved Solids	95.14	737.58	64.87 % less
2	Total Suspended solids	4.82	37.42	81.29 % less
3	COD	4.78	37.06	85.17 % less
4	BOD	1.36	10.58	89.42 % less
5	Oil & Grease	0.17	1.34	86.60 % less
Average Effluent Quantity		**129.0 KLD**		

b) Air.

Stack Attached to	Pollutants	Quantity of Pollutants Discharged (Kg/day) 2019-2020	Concentrations Of Pollutants in Discharges (mg/Nm^3) 2019-2020	Percentage of variation from prescribed standards with reasons
Kiln – I	PM	57.55	19.10	36.33% less
Cooler - I	PM	47.65	16.55	44.83% less
Coal Mill – I	PM	11.21	19.25	35.83% less
Cement Mill –I	PM	14.81	22.10	26.33% less
Cement Mill-Vent-I	PM	14.84	21.57	28.10% less
Kiln – II	PM	98.32	17.50	41.66% less
Cooler – II	PM	54.64	17.88	40.40% less
Coal Mill – II	PM	28.07	21.53	28.23% less
Cement Mill – II	PM	14.76	20.38	32.06% less
Cement Mill-Vent- II	PM	27.20	21.37	28.76% less
Crusher	PM	4.51	21.23	29.23% less
Raw Mill Vent-II	PM	17.27	17.73	40.90% less

PART - D
HAZARDOUS WASTE

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

Hazardous wastes	Total Quantity per year	
	During the previous financial year (2018-2019)	During the current financial year (2019-2020)
From Process		
Batteries scrap- used batteries	1.034 MT	Nil
Used Grinding Media	Nil	19.56 MT
Waste Lube Oil	1.05KL	Nil
Waste Grease	7.098 MT	4.36 MT
From Pollution Control facility		
Quantity recycled or Re-utilized		

Note: Waste Oil and Grease generated from plant.

PART – E
SOLID WASTES

Solid Wastes	Total Quantity	
	During the previous financial year (2018-2019)	During the current financial year (2019-2020)
From Process		
	NIL	NIL
From Pollution Control Facilities		
	NIL	NIL
Quantity recycled or reutilized within the unit		
	NIL	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.

About 4.36 MT waste grease, 19.56 MT High-Crome Grinding Media Scrap of have been generated from the plant. 19.56 MT High-Crome Grinding Media Scrap is sold to M/s. AIA Engineering. 3.276MT waste grease M/S Sri Padmavathi Energy solutions India (p) Ltd. an agencies authorized by APPCB. 1.084 MT waste grease is used internally for self consumption.

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.

-Nil-

PART - H

Additional investment proposal for environmental protection including abatement of pollution.

1. An amount of Rs.3, 20,016/- is spend on regular monitoring.
2. Total investment on the greenbelt development for the year 2019-20 is Rs.27, 77,904/-
3. Total investment on the maintenance of the pollution control equipments for the year 2019-20 is Rs. 79, 67,861/-.
4. Total investment on STP, Vacuum cleaner, Drinking welfare & road sweeping maintenance for the year 2019-20 is Rs.12,91,535/-
5. APPCB Analysis charges & Water Cess Rs.3,59,731/-.

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.2, 16, 48,528/- 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, Guntur 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 31st March in Form – V to the concerned state pollution control board on or before the 30th 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 $14^0 35' - 14^0 45'$ of North and Longitude of $78^0 30' - 78^0 35'$ 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.**

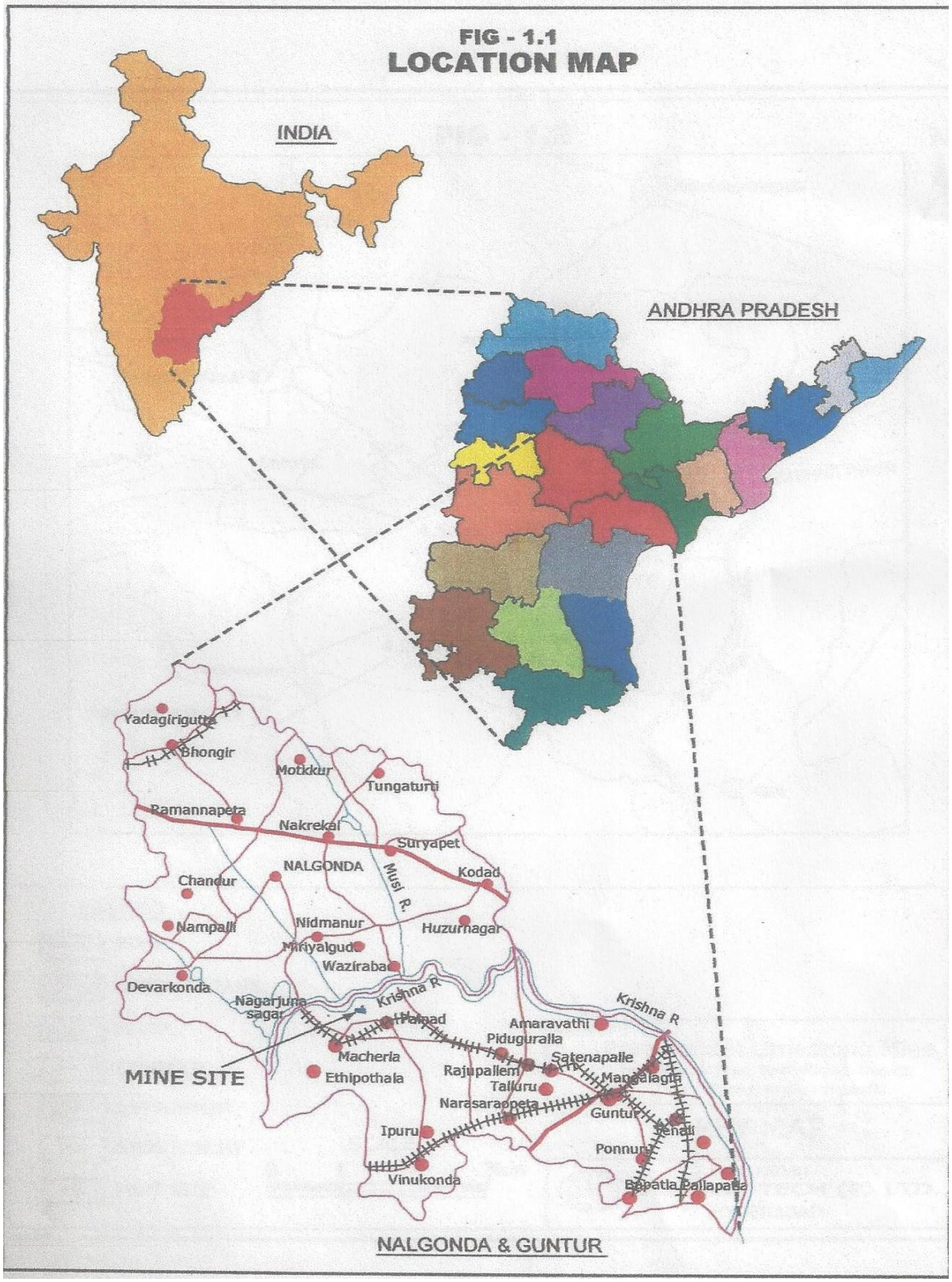


FIG - 1.1
LOCATION MAP
INDIA
ANDHRA PRADESH
Yadagirigutta
Bhongir
Motikkur
Tungaturti
Ramannapeta
Nakrekal
Suryapet
NALGONDA
Musi R.
Kodad
Chandur
Nampalli
Nidmanur
Huzurnagar
Miriyalguda
Wazíraba
Devarkonda
Krishna R
Nagarjuna sagar
Palnad
Amaravathi
Piduguralla
Macherla
Satenapalle
MINE SITE
Ethipothala
Rajupallem
Mangalagiri
Tallúru
Narasaraopeta
Guntur
Ipuru
Tenali
Ponnur
Vinukonda
Bapatla
Pallapalla
NALGONDA & GUNTUR

5. PROCESS 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 1st and 2nd 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^{th} 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^{st} 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 precalcined kiln feed entered from preheater is further heated in the rotary kiln to about 1350 - 1450^0C at which clinker form is formed.

Cooling:

The clinker produced in the kiln is cooled from 1100 - 1400^0C to 120-150^0C 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 blowed 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:

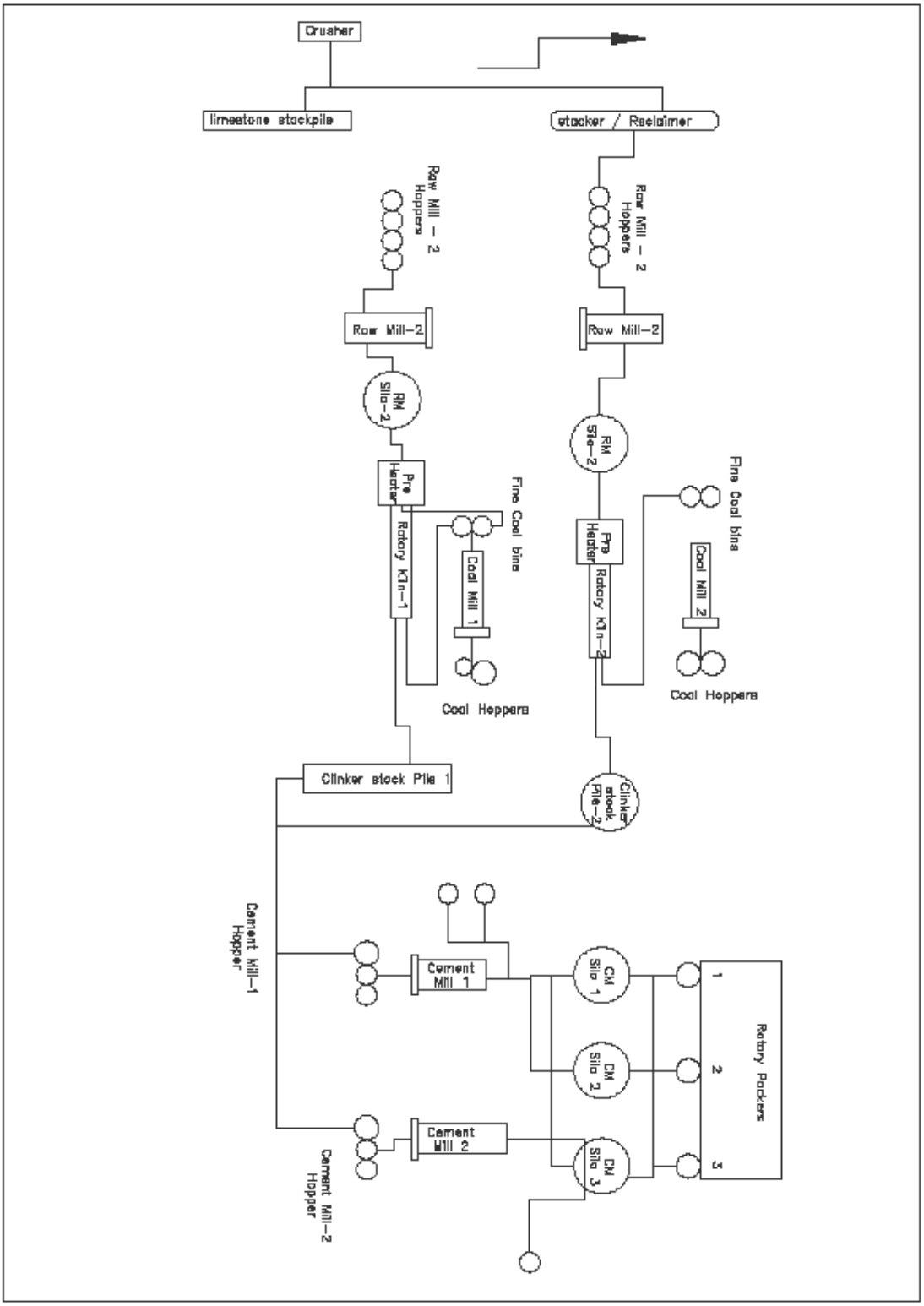
Cement is ground by grinding clinker, fly ash and gypsum in suitable proportions. Cement mill at PCIL are closed circuit ball mills. Each Cement mill is having of 3 hoppers (one for clinker, second for Gypsum and one for spare). For fly ash separate metallic storage silos are installed. Weighed quantity 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 246.36 m^3 /day and the breakup details are given below:

1. Process consumption & Dust suppression - 116.14 m^3/day
2. Domestic & Gardening - 130.22 m^3/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

AIR POLLUTION CONTROL EQUIPMENTS		
UNIT – I		
S No.	**LOCATION**	**TYPE OF EQUIPMENT**
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

AIR POLLUTION CONTROL EQUIPMENTS		
UNIT – II		
S No.	**LOCATION**	**TYPE OF EQUIPMENT**
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 though 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_{10}, $PM_{2.5}$, SO_2, NOx. Estimated average values for the parameters monitored are represented in the Table 7.2 the analyzed values for PM_{10}, $PM_{2.5}$, SO_2 and NOx are within limits prescribed by APPCB.

Table 7.2
AVERAGE VALUES OF AMBIENT AIR QUALITY DATA

Location	Parameters			
	PM_{10}	**$PM_{2.5}$**	**SO_2**	**NO_X**
Near Security gate	64.60	25.57	14.55	19.21
Near Cement mill area	67.35	27.50	15.43	19.66
Near Crushing area	66.94	27.66	14.67	18.94
Colony	59.35	22.50	13.58	18.56

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

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	71.62	67.29
2	Near QC Lab	60.68	55.25
3	Near Time Office	61.80	56.65
4	Near Colony	52.17	43.00

8. GREENBELT DEVELOPMENT

DETAILS OF SPECIES FOR GREEN BELT DEVELOPMENT FOR THE YEAR 2019-2020	
PLANT AREA	
AREA IN ACRES	1.80Acres
NO. OF PLANTS	1030 Plants
NAME OF THE SPECIES	Dubai
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.

NNEXURE-1			
MONTH WISE WATER CONSUMPTION FOR THE YEAR 2019-20			
MONTH	**INDUSTRIAL(KL)**	**DOMESTIC(KL)**	**TOTAL(KL)**
April, 2019	1292	2780	4072
May, 2019	2248	3240	5488
June, 2019	1787	3150	4937
July, 2019	3391	3970	7361
August, 2019	1700	3650	5350
September, 2019	2161	3850	6011
October, 2019	1856	3900	5756
November, 2020	1867	4070	5937
December, 2020	8136	4790	12926
January, 2020	8178	4790	12968
February, 2020	4073	4520	8593
March, 2020	5701	4820	10521
TOTAL	**42390**	**47530**	**89920**

RAW MATERIAL CON-2019-20										
MONTH	Limestone Cons.	Dolomite Cons.	Laterite	Iron Ore	GCP Waste	Gypsum	Fly Ash	Slag	Coal Imp	Pvt. Coal
APR'19	61974	661	2343	1127	0	3895	7735	1814	6052	413
MAY'19	90779	968	3212	1849	0	3903	8754	2419	9247	674
JUN'19	120717	1419	4632	1921	0	3114	8460	2331	9312	4453
JUL'19	102977	1339	4641	1677	0	3113	8916	2305	8754	2921
AUG'19	31678	443	1429	513	0	3005	8469	2404	3056	714
SEP'19	119094	1743	4264	2475	0	1918	4620	1439	13379.65	310.35
OCT'19	34262	515	1608	425	0	1909	5963	1609	3915	0.00
NOV'19	32118	484	1917	103	0	2207	6198	2095	3503	0.00
DEC'19	123595	1612	7677	0	0	3077	7973	2332.65	14042	0.00
JAN'20	123477	1333	8157	0	158	3099	7030	0.00	14046	0.00
FEB'20	19725	211	1273	0	0	2734	5821	197.02	2207	0.00
MAR'20	91573	984	5915	0	0	2274	4925	1364.80	10487	0.00
TOTAL	**951969**	**11712**	**47068**	**10090**	**158**	**34248**	**84864**	**20310.47**	**98000.65**	**9485.35**

CLINKER PRODUCTION, CONSUMPTION & SALES FOR THE YEAR 2019-20			
MONTH	Production	Consumption	Sales
APR'19	44141	68385	7105.20
MAY'19	65653	70846	2879.17
JUN'19	84091	63930	0
JUL'19	72894	62559	0
AUG'19	23829	60837	0
SEP'19	84846	39943	0
OCT'19	25346	38263	0
NOV'19	22798	44674	0
DEC'19	87691	63497.35	0
JAN'20	87609	62504	871.61
FEB'20	14041	52878.98	12655.86
MAR'20	65115	48022.20	2887.85
Total	**678054**	**676339.53**	**26399.69**

CEMENT PRODUCTION DETAILS 2019-20					
GRADE	OPC 43	OPC 53	PPC	SRPC	TOTAL
MONTH	PROD	PROD	PROD	PROD	PROD
APR'19	4490	49965	24394	2980	**81829**
MAY'19	2685	53405	25922	3910	**85922**
JUN'19	2221	46717	26567	2330	**77835**
JUL'19	2424	45910	27360	1199	**76893**
AUG'19	1716	45018	26480	1501	**74715**
SEP'19	2066	31168	13390	1296	**47920**
OCT'19	2427	26212	17806	1299	**47744**
NOV'19	1951	33150	18782	1291	**55174**
DEC'19	1393	49054	23356	3077	**76880**
JAN'20	3270	47836	20382	1145	**72633**
FEB'20	2609	39872	16876	2274	**61631**
MAR'20	4099	34806	16993	688	**56586**
TOTAL	**31351**	**503113**	**258308**	**22990**	**815762**

CEMENT DESPATCH DETAILS 2019-20					
GRADE	OPC 43	OPC 53	PPC	SRPC	TOTAL
MONTH	DESPATCH	DESPATCH	DESPATCH	DESPATCH	DESPATCH
APR'19	3976.32	48447.18	24893.9	3380.92	80698.32
MAY'19	3365.85	49390.01	25408.27	3429.6	81593.73
JUN'19	2084.9	45645.75	25635.11	2545.28	75911.04
JUL'19	1914.09	47123.46	28144.35	1159.14	78341.04
AUG'19	2551.13	47975.74	26175.31	1675.85	78378.03
SEP'19	1110.13	25680.01	14001.8	1070.48	41862.42
OCT'19	2077.69	29536.84	17501.2	976.2	50091.93
NOV'19	2229.18	35333.34	18612.14	1900.36	58075.02
DEC'19	2219.35	48126.14	22957.2	2564.25	75866.94
JAN'20	2366	49346.22	20133.1	1479.48	73324.8
FEB'20	3371.84	38311.64	18756.7	1897.96	62338.14
MAR'20	3522.02	33565.11	15446.5	998.95	53532.58
TOTAL	**30788.50**	**498481.44**	**257665.58**	**23078.47**	**810013.99**

EXPENDITURE ON POLLUTION CONTROL EQUIPMENT & MONITORING 2019-2020

	CRUSHER	KILN ESP	RAWMILL	KILN	COALMILL	CEMENT MILL	PACKING PLANT	WHR WTP	TOTAL
LINE-1		512722.21	210.00	38440.01	7352.38	118580.30	0.00	0.00	677304.90
LINE-2	560505.13	58080.95	109732.85	4337117.48	65079.89	449577.62	35701.31	1496848.89	7112644.12
LINE 1 &2	**560505.13**	**570803.16**	**109942.85**	**4375557.49**	**72432.27**	**568157.92**	**35701.31**	**1496848.89**	**7789949.02**
STP MAINTENANCE									568339.00
P&A WELFARE-STP									119072.24
P&A WELFARE-DRINKING WATER TREATMENT PLANT									55615.05
ROAD SWEEPING MACHINE									527771.73
VACCUME CLEANER									20737.32
MONTHLY MONITORING CHARGES									320016.00
GENERAL POLLUTION MONITORING EQUIPMENTS									177912.24
APPCB RIVER WATER CESS & WATER ANALYSIS CHARGES									359731.00
HORTICULTURE									433081.27
PLANTATION									2344822.86
TOTAL PLANTATION & HORTICULTURE									**2777904.13**
POWER CONSUMPTION ON POLLUTION EQUIP									21648528.00
GRAND TOTAL									**34365576**
HAZARDOUS WASTE (OIL) KL	NIL								
(GREASE)Tons	4.36MT								
Batteries scrap- used batteries. Tons	NIL								
Used Grinding Media. Tons	19.56MT								

MONTHLY WISE CONSUMPTION OF ELECTRICAL ENERGY FROM APSPDCL / GENERATION OF ELECTRICAL ENERGY FROM D.G.SETS/DIESEL CONSUMPTION FOR THE YEAR OF 2019-2020.			
MONTH	**ELECTRICAL ENERGY FROM APSPDCL**	**WHR UNITS**	**ELECTRICAL ENERGY FROM D.G. SET**
APR'19	3208496	1136925	
MAY'19	2653771	2684167	0
JUN'19	2522742	4027305	0
JUL'19	2183917	3244628	0
AUG'19	1842670	552035	0
SEP'19	1732524	3647525	0
OCT'19	2500272	203302	0
NOV'19	1657957	32554	0
DEC'19	2309601	4278049	0
JAN'20	1674426	4041626	0
FEB'20	2492400	682633	0
MAR'20	1537437	3082813	0
TOTAL	**26316213**	**27613562**	