

# ENVIRONMENTAL STATEMENT REPORT

**CEMENT GRINDING UNIT (2.0 MTPA)**

**Jaypee Nigrie Cement Grinding Unit**

**(A Unit of M/s Jaiprakash Power Ventures Limited)**

**Village: Nigrie, Tehsil: Sarai  
District: Singrauli**

**FY 2022 – 2023**

**SUBMITTED**

**to**

**M.P. POLLUTION CONTROL BOARD  
BHOPAL (M.P.)**

**Jaypee Nigrie Cement Grinding Unit**  
**(A Unit of Jaiprakash Power Ventures Limited)**

**Factory/Plant in Operation:** Jaypee Nigrie Cement Grinding Unit at Nigrie.

**Introduction:**

Jaiprakash Associates Ltd. (JAL), the flagship company of the Jaypee Group. JAL was formed due to merger of Jaiprakash Industries (JIL) and Jaiprakash Cement (JCL). JAL is the Engineering and Construction arm of the Jaypee group focused on development of River Valley and Hydro Electric Projects and a leader in Construction of River Valley and Hydropower Projects on turnkey basis for more than four decades. The company is currently executing various projects in Hydropower / Irrigation / other Infrastructure fields.

Jaiprakash Power Ventures Limited (JPVL) earlier known as Jaiprakash Hydro Power (JHPL) is a part of the Jaypee Group. The Company is engaged in the business of Generation of Power (Hydro & Thermal), Cement Grinding and Captive Coal Mining and Transmission of Power. Besides the 400MW (4 X 100MW) Jaypee Vishnuprayag Hydro Power Plant in Uttarakhand, JPVL is operating 500MW Phase I (of 1200 MW) Jaypee Bina Thermal Power Plant in Madhya Pradesh & (2X660 MW) 1320MW Jaypee Nigrie Supercritical Thermal Power Plant in Madhya Pradesh and Amelia (North) Coal Mine in Madhya Pradesh a dedicated Coal Mine to Jaypee Nigrie Super Thermal Power Plant. The Company has a Captive Cement Grinding Unit named "Jaypee Nigrie Cement Grinding Unit" at Nigrie (M.P.) with a capacity of 2 MTPA, which commenced its operations w.e.f. 9<sup>th</sup> October, 2014 and utilizing generated Fly Ash from Jaypee Nigrie Super Thermal Power Plant.

Jaypee Nigrie Super Thermal Power Plant is a Coal Based Super Critical Thermal Power Plant of (2x660 MW) 1320 MW at Nigrie Village, Sarai Tehsil in Singrauli District of Madhya Pradesh State. In order to utilize the Fly Ash produced by Thermal Power Plant, a Cement Grinding Unit has also been set up adjacent to Power Plant. The Cement Grinding Unit consists of the Roller Press and Ball Mill Combo mode with High Efficiency Separators which are supplied by KHD Humboldt Wedag. Cement is produced by Grinding Clinker and Fly Ash with small quantity of Gypsum to regulate the setting time.

Clinker from nearby cement plants is transported by trucks and carried to the clinker storage silo. The clinker is then conveyed to mill hopper by belt conveyors. Fly ash from our adjacent Jaypee Nigrie Super Thermal Power Plant is transported to the fly ash silo by pneumatic conveying system and taken to 400 MT fly ash bin in mill building as per requirement, and to

be fed to mill in controlled manner through solid flow meter. Gypsum procured from the various suppliers is transported to the gypsum yard is fed to mill gypsum hopper with the help of grab crane through crusher.

Controlled and weighed quantity of raw materials (clinker, fly ash and gypsum) through electronic weigh feeder is fed to roller press through feed belts and is ground to the desired fineness, regulated by separator RPM. After grinding, the cement is conveyed to separator for separating fines and coarse material. Coarse material is sent back to ball mill for regrinding and fine material collected in cyclones bag house, sent to silo by air slides and belt bucket elevator. From the cement silos, the cement is extracted via air slide to control bin and packed in 50 kg bags by electronic rotary packers. The packed bags are loaded in trucks by truck loading machines and in wagons by wagon loading machine and dispatched to the destinations. The plant is fully computerized and operated through Centralized Control Room (CCR), equipped with latest and most modern pollution control and monitoring devices to maintain emission levels within the prescribed limits.

## **Environment**

Efforts are made to Conserve Ecological Balance without any harm done to the Local Flora & Fauna. JPVL has also taken Green Initiatives, afforestation, Resources Conservation, Water Conservation, and Air Quality Control & Noise Pollution Control.

**"FORM - V"**

(See rule 14)

**ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING THE  
31<sup>st</sup> MARCH 2023**

**PART - A**

(I)	Name & Address of the Owner / Occupier of the Industry Operation or Process	<b>Jaypee Nigrie Cement Grinding Unit, (A Unit of Jaiprakash Power Ventures Limited)</b> P.O- Nigrie, Tehsil-Sarai, Distt. Singrauli-486669 (Madhya Pradesh)
(II)	Industry category Primary- (STC Code) Secondary-(SIC Code)	'RED' Category and Large Scale (Namely Cement Manufacturing), Major
(III)	Production Capacity	Total Capacity is 4.0 MTPA out of which 2.0 MTPA is in operation.
(IV)	Year of Establishment	Year 2014
(V)	Date of last Environmental Statement Submitted	May, 2022

**PART - B**

**Water & Raw Material Consumption**

**A. Water Consumption - m<sup>3</sup>/day**

(i)	Process	-	Nil
	Cooling	-	Nil
	Domestic	-	10.00

Name of the Product	Process Water Consumption per unit of Product Output (m <sup>3</sup> /MT)	
	During the Previous Financial Year (2021-2022)	During the Current Financial Year (2022-2023)
Portland Pozzolona Cement (PPC)	PPC is produced by dry grinding of Clinker and Fly Ash with small quantity of Gypsum; hence no process water is consumed.	

**(ii). Raw Material Consumption**

Name of the Raw Material	Name of Product	Consumption of Raw Material per Unit Product Output (MT/MT of Cement)	
		During the Previous Financial Year (2021-2022)	During the Current Financial Year (2022-2023)
• Clinker	Portland	0.736902	Nil
• Fly ash	Pozzolona	0.228305	Nil
• Gypsum	Cement (PPC)	0.034793	Nil

**Total Cement Generation**

Name of Product	During the Previous Financial Year (2021-2022), in MT	During the Current Financial Year (2022-2023), in MT
Portland Pozzolona Cement (PPC)	24,660.00	Nil

**PART - C**

**Pollutant Discharged To Environment / Unit of Output**

(Parameters as specified in the consent issued)

S. No.	Pollutants	Quantity of Pollutants Discharged (Mass / day) (tonne/day)	Concentrations of Pollutants in discharged (Mass / Volume) (mg/Nm3)	Percentage of variation from prescribed standard with reasons
(a)	Water			
(i)	Domestic	Zero discharge is maintained. Treated domestic waste water is being used in Horticulture & Green Belt Development.		
(ii)	Industrial	PPC is produced by dry grinding of Clinker and Fly Ash with Small quantity of Gypsum, hence no water pollutant is discharged.		
(b)	Air			
	Ambient Air Quality parameters are within limits and Monitoring report is attached as <b>Annexure- I</b>			
	Stack emission			
	(a) Bag houses			
	Stack-I (Cement Mill/ Ball Mill)	-	-	NA
	Stack-II(Roller Press Mill)	-	-	

\* Unit Shut down during the FY 2022-23.

**PART - D**

**Hazardous Wastes**

(As specified under Hazardous and Other Waste (Management & Transboundary Movement) Rules, 2016

Hazardous Waste		Total Quantity (Kg)			
		During the Previous Financial Year (2021-2022)		During the Current Financial Year (2022-2023)	
		Used oil	Waste oil	Used oil	Waste oil
(a)	From Process	Nil		Nil	
(b)	From Pollution Control Facilities.	Nil		Nil	

**PART - E**  
**Solid Wastes**

Solid Waste		Total Quantity	
		During the Previous Financial Year (2021-2022)	During the Current Financial Year (2022-2023)
(a)	From Process	Nil	Nil
(b)	From Pollution Control facilities	All the collected material recycled in the process.	Nil
(c)	(i) Qty. recycled or reutilised within the unit.	All the collected Solid waste reused in the process	NA
	(ii) Sold	Nil	Nil
	(iii) Disposed	Nil	Nil

**PART - F**

**PLEASE SPECIFY THE CHARACTERISATIONS (IN TERMS OF COMPOSITION AND QUANTUM) OF HAZARDOUS AS WELL AS SOLID WASTES AND INDICATE DISPOSAL PRACTICE ADOPTED FOR BOTH THESE CATEGORIES OF WASTES.**

**Hazardous waste:** Generated Hazardous Waste is being stored under covered shed at an isolated covered place; the floor is concreted & persons working at site have been provided with all required PPEs. From there the stored hazardous waste will be sold out to authorized recyclers.

However No Hazardous Waste generated from the grinding unit during Financial Year 2022 - 2023.

**Solid waste:** No Solid Waste generated from the plant during 2022-2023 Financial Year.



## PART - G

### IMPACT OF THE POLLUTION ABATEMENT MEASURES TAKEN ON CONSERVATION OF NATURAL RESOURCES AND ON THE COST OF PRODUCTION.

Following measures have been adopted for abatement of pollution, conservation of natural resources:-

#### **a) Utilization of Fly Ash for the manufacturing of cement:-**

JNSTPP having capacity of 2 x 660 MW has the potential to generate 1.454 Million TPA (Fly ash = 1.163 Million TPA & Bottom Ash = 0.291 Million TPA). Ash utilisation by the JNSTPP, Nigrie for the FY 2022-23 is 100.09 %. Generated Fly ash is transported to nearby Cement Plants (Jaypee Rewa, PCL Satna, Birla Corp Satna, KJS Maihar, VTC Maihar, Reliance, UTCL, Bhagwar, UTCL Bara, UTCL, Bela and Other Brick manufacturing Units) for manufacturing of PPC and manufacturing of fly ash bricks. - **This has resulted into Top Soil Conservation.**

#### **b) Installation of Sewage Treatment Plant:-**

Sewage Treatment Plant of 1000 KLD has been installed for treatment of domestic waste water and treated water from the same is used for horticulture & green belt development. There is no discharge of water from the premises to any surface drain, hence zero liquid discharge is maintained. - **This has resulted into Water Conservation.**

#### 1000 KLD Sewage Treatment Plant





**c). Installation of APCDs at various sources:-**

High Efficiency Bag Houses (2Nos.) are attached to (Ball & Roll Press Mills) with guaranteed emission level of  $<30 \text{ mg/Nm}^3$  at full load. Each Bag House has 1180 & 780 bags respectively. We have installed 34 no. of Bag Filters at various source points to control the fugitive emission. Details of Air Pollution Control Devices are given in **Annexure - II**



**Photograph of Bag House**

- ✓ d) **Online Monitoring system:** Four Continuous Ambient Air Quality Monitoring Stations (Online/Real Time) are provided along the boundary considering the wind rose/wind directions for parameters  $\text{PM}_{10}$ ,  $\text{PM}_{2.5}$ ,  $\text{SO}_2$ ,  $\text{NO}_x$  &  $\text{CO}$  and the real time data of the CAAQMS is being transmitted to MPPCB server at Bhopal & CPCB server at Delhi.



**e). Installation of Water Sprinkling Systems:-** Water spraying arrangements are made for control of fugitive emission from dusty area like Fly Ash Silo and transfer points and other dust generation areas of the unit.



**f).Noise Pollution Abatement Measures:** – Acoustics enclosures are provided to reduce Noise levels in noise-making rotating machines area. Personal protective equipment like ear plug/ear muffs are provided to the workmen working in high noise area such as Compressor area.

**g). Good housekeeping practices adopted:**

Following measures have been taken for good house keeping

- a. Raw materials are being stored in silos and the covered shed.
- b. The conveyor belts are fully covered.
- c. Schedule maintenance of PCDs.

Further the Company has obtained IMS - Integrated Management System Certificate covering ISO 9001:2015 (QMS – Quality Management System), ISO 14001:2015 (EMS - Environmental Management Systems), ISO 45001:2018 (OHSAS - Occupational Health and Safety Assessment Series) & ISO 27001:2015 (ISMS-Information Security Management System).

## PART-H

### ADDITIONAL MEASURES / INVESTMENT PROPOSALS FOR ENVIRONMENTAL PROTECTION INCLUDING ABATEMENT POLLUTION, PREVENTION OF POLLUTION.

**Additional measures taken for Environmental Protection are as under:**

#### **Extensive plantation in and around the Plant:**

We have a dedicated team of skilled horticulturists for the Afforestation and Greenery development program at our plant under the supervision of senior experienced person. 33% of the plant area in and around the Power plant boundary has been developed with green belt as per the CPCB guidelines.

Total number of Plants Planted up to 31.03.2023 is approximately 5.785 Lac in 144.21 ha. (also including Cement Grinding Unit).

During this FY (April, 2022 – March, 2023), Total no. of 0.55 Lac of saplings have been planted.

#### **Steps taken to protect plantation:**

1. Barricading provided for protection of plants.
2. Two numbers of dedicated water tankers are provided for regular watering of plants.
3. Dedicated manpower is provided for regular watering & care of plants.
4. Tree Guards are provided for protection of the plants.





## **PART - I**

### **ANY OTHER PARTICULARS FOR IMPROVING THE QUALITY OF ENVIRONMENT.**

#### **Water Harvesting Measures:**

A surface water body is constructed in the township area for rain water harvesting.



#### **Establishment of Environment Laboratory:**

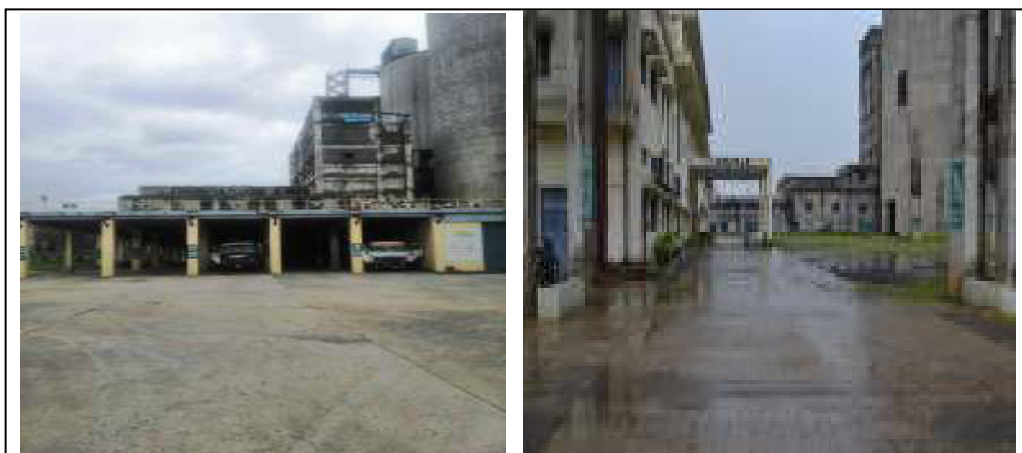
Environment Laboratory has been set up with well equipped facilities such as water & waste water testing instruments as well Air Quality Monitoring instruments.



#### **Environment Cell**

#### **Concreting of Roads:**

All internal roads in Grinding unit & township area are made Pucca.



**CSR works:**

- A separate budget earmarked for CSR activities. CSR study report already submitted to the ministry vide letter no. - JPVL/JNSTPP/MOEF/2010 dated 20.01.2011 and 29.06. 2011.
- For CSR activities capital outlay of more than Rs. 24.00 Crores has been made.
- The company is carrying out CSR activities in the vicinity of the Project as per the directions and guidance of the District Administration.
- Providing drinking water facility benefitting to the nearby villages (Nigrie, Niwas, Katai, Hardi, Mahua Ganv, Chamrach and Joba).
- Unit is also investing on CSR Activities on Rural Development Projects like laying of Paver block in CHC, Niwas & in front of Community Centre Building, Nigrie. PCC road construction in Schedule cast colony Papal village and Niwas village (near Phoolmati Temple), Pipe Bridge development on Karondiya Nallah for connecting Papal village to Chamrach village, Providing furniture/ building material to Police Department, Nigrie, Revenue dept., Sarai and Education Department, Deosar, Providing Water cooler to nearby Majholi and Niwas road Railway station, Women empowerment, Construct Boundary wall in Govt. Middle School, Nigrie and Construction of Platform for community use in village Nigrie.
- Promotion of Safety/Cultural/sports activities in nearby Rural Areas/villages (Nigrie & Niwas), providing water via water tankers to the nearby villages as per requirement.
- Promoting Education through Sardar Patel School under Jaiprakash Sewa Sansthan & Gopad Viklang Sikasha Vikas Samiti, Village-Katai.
- Free Cataract operation of 26 peoples from nearby village.
- Deepening, Restoration & Refurbishment of 2 no. of ponds in nearby villages Niwas and Papal.
- Construction of Six Handpumps in nearby villages Nigrie, Bharsedi, and Chamrach for drinking water facility.
- Providing furniture to Police Department, Deosar. Skill development trainings imparted for Women empowerment.
- Promotion of Safety/Cultural/sports activities in nearby Rural Areas/villages (Nigrie & Niwas), providing water via water tankers to the nearby villages as per requirement.
- Total expenditure incurred up to March, 2023 is **Rupees 7.2841 Crores.**
- Based on Need Base Assessment Study for development of nearby villages, an action plan was worked out for income generating projects for up-liftment of poor section of society.

**The following activities were undertaken:**

- Sardar Patel Uchchatar Madhyamik Vidyalaya started for up to class five w.e.f. July, 2011 and subsequently upgraded up to 10<sup>th</sup> class in July'2016 session.
- Free Education & Free Mid Day Meals provided to the children of affected village Nigrie & Sardar patel School, Nigrie.
- Free Health Check Up & Health cards provided to the 229 students.
- Free electricity supply is provided to the Street Lights in R & R Colony.
- Providing Mobile Hospital & Ambulance Service to affected villages (Nigrie, Niwas, katai & Hardi & Mahua Ganv and Chamrach and Joba).
- PCC road construction in Papal village, Niwas village (near Phoolmati Temple), Pipe Bridge development on Karondiya Nallah for connecting Papal village to Chamrach village.
- A Dispensary was also setup in R & R colony for providing treatment facilities to the nearby residents.
- Provide financial aid to Gopad Viklang Sikasha Vikas Samiti, Village-Katai, Indian Red cross society and Chainsingh Markam Trust.

**“Trasform Singrauli” Project under Indian government and MP Government:-**

- Providing the free Medical Check-up facility, Ambulance facility, Free Medicines in nearby villages (Nigrie, Niwas, Katai, Hardi, Mahuagaon and Chhamrach).
- Established/Started Kuteer Udyog, Training Centre for Stitching and honey bee keeping.
- Groceries, Nose maks have been distributed in the villages nearby project area to protect villagers from COVID-19 Pandemic Disease.
- Expenditure incurred on “Trasform Singrauli” in FY 2022 - 23 is Rupees 5.00 Lac.

**Hindi Medium School - Free Education for nearby villagers:-**





### Free Medical Camps:-



### Free Medicines to all nearby Villagers:-

A 10 bed hospital is functional for medical check-up and treatment to the local habitats for the surrounding 10 villages. Almost 90-95 people avail the Medical facilities daily.



For Jaypee Nigrie Cement Grinding Unit  
(A Unit of Jaiprakash Power Ventures Ltd.)

*(Vikram Singh Gaharwar)*  
(Vikram Singh Gaharwar)  
General Manager

**JAYPEE NIGRIE CEMENT GRINDING UNIT**  
**(A Unit of Jaiprakash Power Ventures Limited)**

**AMBIENT AIR QUALITY MONITORING REPORT**

**Period : April, 2022 - March 2023**

Near STP - Colony Area						
Month	Particulars	PM <sub>2.5</sub> (µg/m³)	PM <sub>10</sub> (µg/m³)	SO <sub>2</sub> (µg/m³)	NO <sub>2</sub> (µg/m³)	CO (mg/m³)
Apr-22	Monthly Average	28.0	54.6	6.8	12.8	0.460
May-22		20.8	48.9	5.7	11.4	0.405
Jun-22		24.5	49.9	5.7	11.2	0.403
Jul-22		23.8	47.5	6.1	10.8	0.385
Aug-22		17.0	40.8	5.6	10.7	0.560
Sep-22		18.1	43.9	6.0	11.3	0.520
Oct-22		22.3	46.2	6.0	11.5	0.530
Nov-22		21.9	47.0	6.4	12.7	0.520
Dec-22		23.8	47.7	6.4	12.8	0.540
Jan-23		24.1	49.1	7.3	13.0	0.550
Feb-23		21.7	44.6	6.4	11.7	0.525
Mar-23		23.0	45.2	6.0	11.6	0.493
Near H <sub>2</sub> Gas Cylinder Shed						
Month	Particulars	PM <sub>2.5</sub> (µg/m³)	PM <sub>10</sub> (µg/m³)	SO <sub>2</sub> (µg/m³)	NO <sub>2</sub> (µg/m³)	CO (mg/m³)
Apr-22	Monthly Average	32.5	64.0	8.9	14.9	0.561
May-22		30.6	63.2	8.0	14.9	0.554
Jun-22		29.4	59.8	7.1	13.1	0.508
Jul-22		30.4	54.9	7.7	12.7	0.496
Aug-22		21.3	48.2	6.3	11.4	0.540
Sep-22		24.2	51.3	7.4	12.9	0.530
Oct-22		25.3	51.8	7.6	12.9	0.570
Nov-22		24.3	49.4	6.8	12.4	0.550
Dec-22		25.6	51.4	7.4	13.4	0.570
Jan-23		26.4	52.5	8.3	14.2	0.580
Feb-23		28.6	56.1	7.6	14.9	0.616
Mar-23		25.6	52.0	6.3	13.0	0.555
Near Watch Tower 22 (Cement Grinding Unit)						
Month	Particulars	PM <sub>2.5</sub> (µg/m³)	PM <sub>10</sub> (µg/m³)	SO <sub>2</sub> (µg/m³)	NO <sub>2</sub> (µg/m³)	CO (mg/m³)
Apr-22	Monthly Average	33.1	67.7	7.8	14.1	0.553
May-22		31.9	64.7	7.6	14.0	0.548
Jun-22		29.4	60.4	7.0	13.1	0.493
Jul-22		28.7	59.2	7.2	12.8	0.502
Aug-22		20.4	48.9	6.3	12.1	0.680
Sep-22		21.0	49.7	6.2	12.2	0.530
Oct-22		25.9	53.3	6.7	13.1	0.540
Nov-22		27.8	54.6	7.1	13.6	0.540
Dec-22		28.8	58.0	7.9	13.9	0.560
Jan-23		28.0	57.1	8.5	15.1	0.560
Feb-23		28.4	57.4	7.9	13.5	0.578
Mar-23		25.5	52.8	6.9	12.9	0.553
Near Fuel Storage Tank						
Month	Particulars	PM <sub>2.5</sub> (µg/m³)	PM <sub>10</sub> (µg/m³)	SO <sub>2</sub> (µg/m³)	NO <sub>2</sub> (µg/m³)	CO (mg/m³)
Apr-22	Monthly Average	36.4	70.0	9.0	15.5	0.614
May-22		31.3	64.6	7.2	13.6	0.539
Jun-22		32.7	64.2	7.9	13.8	0.539
Jul-22		31.8	57.7	8.0	12.8	0.560
Aug-22		22.2	50.8	6.9	12.1	0.580
Sep-22		23.8	52.5	7.2	14.2	0.540
Oct-22		27.7	56.7	8.2	13.3	0.600
Nov-22		26.4	52.5	7.9	14.3	0.560
Dec-22		27.5	55.0	8.2	14.2	0.580
Jan-23		26.9	53.6	8.4	14.7	0.600
Feb-23		28.1	53.0	7.6	14.2	0.609
Mar-23		27.5	53.1	7.1	12.9	0.576

**JAYPEE NIGRIE CEMENT GRINDING UNIT**  
**(A Unit of Jaiprakash Power Ventures Ltd.)**

**Details of Air Pollution Control Devices**

**Major Pollution control devices installed:**

2 nos. of Bag Houses attached to cement mills (Ball & Roll Press Mill) with guaranteed emission level of <30 mg/Nm<sup>3</sup> at full load. Each Bag House has 780 & 1188 bags respectively.

Sr. No	Location	Equipment Name	Attached to
1	Mill Building	Bag House	Cement Mill-I
2	Mill Building	Bag House	Roll Press-I

**Bag Filter Details:**

Sr. No	Location	Equipment Name	Attached to
1	Hopper building	Bag Filter	Clinker +Gypsum feeding belt 531 BC1 &531 BC1A
2	Mill building	Bag Filter	Reject Bin 531 BI-1
3	Mill building	Bag Filter	Reject Bin 531 BI-2 & 531 BC-3/4
4	Hopper building	Bag Filter	Connected to Gypsum Hopper ( Flush Mounted)
5	Hopper building	Bag Filter	Connected to Clinker Hopper ( Flush Mounted)
6	Mill building	Bag Filter	Bucket Elevator 541BE -1, 531 BC-4, 541 BC-1 & BIN 541 BI-1
7	Mill building	Bag Filter	Air Slides 571 AS-1/2 , 571 BE-1 & Air Slides 561 AS-1/3
8	Mill building	Bag Filter	Air Slides 591 AS-1 /2/3 & Roll Press 541 RP-1
9	Mill building	Bag Filter	Air Slides 591 AS-3/4 , 581 AS-3/4& Bucket Elevator ( Feed ) 591 BE-1
10	Mill building	Bag Filter	Aie Slides K21 AS-2 , 581 AS-2 & 581 FM-1
11	Clinker silo	Bag Filter	Clinker Silo ( Flush Mounted)
12	Cement silo1	Bag Filter	Cement Silo (Flush Mounted )
13	Cement silo2	Bag Filter	Cement Silo (Flush Mounted )

14	Control bin	Bag Filter	Control Bin
15	Packer1	Bag Filter	Packing Machine and Elevator & Hoppers
16	Packer2	Bag Filter	Packing Machine and Elevator & Hoppers
17	Packer3	Bag Filter	Packing Machine and Elevator & Hoppers
18	Packer4	Bag Filter	Packing Machine and Elevator & Hoppers
19	Packer1	Bag Filter	Bag Cleaning Devise & Air Slides
20	Packer2	Bag Filter	Bag Cleaning Devise & Air Slides
21	Packer3	Bag Filter	Bag Cleaning Devise & Air Slides
22	Packer4	Bag Filter	Bag Cleaning Devise & Air Slides
23	Clinker Unloading hopper	Bag Filter	Connected to Truck Tripler
24	Clinker Unloading hopper	Bag Filter	Connected to Truck Tippler
25	Clinker Unloading hopper	Bag Filter	Appron Feeder 511 AF-1 & Connected Belt Conveyor 511 BC-1
26	Clinker Transfer Tower (TT1)	Bag Filter	Between Clinker discharge Belt 511 BC-1 To 511 BC-2
27	Clinker Transfer Tower (TT2)	Bag Filter	Between Clinker Discharge Belt 511 BC-2 To 511 BC-3
28	Clinker Transfer Tower (TT3)	Bag Filter	Between Clinker Discharge Belt 511 BC-3 To 511 BC-4
29	Clinker Transfer Tower (TT4)	Bag Filter	Between Clinker Discharge Belt 511 BC-5 To 511 BC-7
30	Clinker Transfer Tower (TT4)	Bag Filter	Between Clinker Discharge Belt 511 BC-6 To 511 BC-7
31	Clinker Transfer Tower (TT6)	Bag Filter	Between Clinker Discharge Belt 511 BC-3 To 511 BC-4
32	Mill building (Fly Ash Bin)	Bag Filter	400 MT Fly Ash Bin
33	Fly Ash Silo	Bag Filter	Fly ash silo Top ( Flush Mounted )
34	Fly Ash Silo	Bag Filter	Fly ash silo Top ( Flush Mounted )