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SHREE JHARKHAND CEMENT PLANT

(A UNIT OF SHREE CEMENT LTD.)

Vill : Hansda-Burudih, Dist : Seraikela Kharsawan, Jharkhand 833220

SCL/Jharkhand/Env.Statement/2019-20/ 755



Date: 18.09.2019

To,
The Member Secretary,
Jharkhand State Pollution Control Board,
T.A. Division Building (Ground Floor),
H.E.C. Dhurwa, Ranchi-834004

Sub: Environmental Statement of M/s. Shree Jharkhand Cement Plant (A unit of Shree Cement Limited) for the period from April 2018 to March 2019 under Environmental Protection Act, 1986.

Ref: CTO Letter No.- JSPCB/HO/RNC/CTO-4431947/2019/557 dated 22/03/2019.

Dear Sir,

We are submitting herewith Environmental Statement for the period from April, 2018 to March, 2019 for Cement Grinding Unit M/s. Shree Jharkhand Cement Plant (A unit of Shree Cement Limited) located near Village – Hansda, PO – Burudih, Dist. – Seraikela-Kharsawan, Jharkhand. The plant has been commissioned in the month of May 2019.

Submitted for your kind information please.

Thanking you,

Yours faithfully,

For Shree Jharkhand Cement Plant (A unit of Shree Cement Ltd.)

(Ashok Kumar)

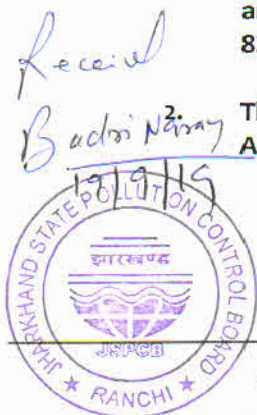
Sr. Manager (Operations)



CC:

1. The Additional Principal Chief Conservator of Forests (APCCF), Ministry of Environment, Forest and Climate Change, Regional Office (Ranchi), Bungalow No. A-2, Shyamali Colony, Ranchi-834002

The Regional Officer, JSPCB, Regional office cum laboratory, M.15, New Housing Colony, Adityapur, Jamshedpur – 831013



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ENVIRONMENTAL STATEMENT

M/s Shree Jharkhand Cement Plant (A Unit of Shree Cement Limited)

Period from April 2018 to March 2019

FORM - V

(See Rule-14)

PART - A

1.	Name and address of the Owner / Occupier of the Industry operation or process	Shree Jharkhand Cement Plant (A Unit of Shree Cement Limited) Village-Hansda, PO-Burudih, Dist.-Seraikela-Kharsawan, Jharkhand -833210
2.	Industry Category Primary (S.T.C. Code) Secondary (S.T.C. Code)	Red Category
3.	Production Capacity	2.5 Million TPA Cement
4.	Year of Establishment	2019
5.	Date of the last Environmental Statement Submitted	This is the 1 st Environmental Statement, as the plant has been commissioned in the month of May 2019.

PART - B

WATER AND RAW MATERIAL CONSUMPTION

(I) WATER CONSUMPTION:

Process	Nil, as the plant has been commissioned in the month of May 2019.	
Cooling		
Dust Suppression	20 m ³ /day	Water was consumed during project stage.
Domestic	40 m ³ /day	
Construction	50 m ³ /day	

Name of Product	Process Water Consumption per Unit of Product Output	
	During Previous Financial Year (2017-2018)	During Current Financial Year (2018-2019)
Cement	Nil, as the plant has been commissioned in the month of May 2019.	



(II) RAW MATERIAL CONSUMPTION:

Name of Raw Material	Name of Product	Consumption of Raw Material Per Unit of Output (Cement)	
		During Previous Financial Year (2017-2018)	During Current Financial Year (2018-2019)
1. Clinker	Cement	Nil, as the plant has been commissioned in the month of May 2019.	
2. Gypsum			
3. Fly Ash			
4. Performance Improver			
5. Bed Ash (in Cement)			

(III) POWER CONSUMPTION (KWH/T OF Cement):

During Previous Financial Year (2017-2018)	During Current Financial Year (2018-2019)
Nil, as the plant has been commissioned in the month of May 2019.	

(IV) TOTAL CEMENT PRODUCTION (MT):

During Previous Financial Year (2017-2018)	During Current Financial Year (2018-2019)
Nil, as the plant has been commissioned in the month of May 2019.	

PART – C
DISCHARGED TO ENVIRONMENTAL / UNIT OF OUTPUT

Pollutants	Quantity of Pollutants Discharged (Mass/Day)	Concentration of Pollutants in Discharge (Mass/Value)	Percentage of variation from prescribed standard with reasons
(a)	Water	During project stage waste water generated from office toilets and canteen is being send to soak pit via septic tank.	
(b)	Air	Please refer Annexure – 1	



PART – D
HAZARDOUS WASTE

(As specified under Hazardous Wastes (Management, Handling & Trans boundary Movement Rule, 2016)

Hazardous Waste	Total Quantity (Ltrs.)	
	During Previous Financial Year (2017-2018)	During Current Financial Year (2018-2019)
a) From Process (Cement manufacturing is based on “Dry Process” No Hazardous waste is generated from the process except used oil which is drained from Machinery / Equipments)	No Hazardous waste has been generated as the plant was commissioned in the month of May 2019.	
(b) From Pollution Control Facilities		

PART – E
SOLID WASTE

		Total Quantity	
		During Previous Financial Year (2017-2018)	During Current Financial Year (2018-2019)
(a)	From Process	There is no solid waste generated from our cement grinding unit.	
(b)	From Pollution Control Facility		
(c)	1. Quantity rejected or re- utilized within the unit		
	2. Sold		
	3. Disposed		

PART – F

Please specify the characterization (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both the categories of wastes:

Hazardous Wastes

No Hazardous waste has been generated as the plant was commissioned in the month of May 2019.

Bio-Medical Wastes

	Bio-Medical Waste Quantity (Kg) as per Color Coding			
	Red	Blue/White	Yellow	Black
April 2017 to March 2018	Nil, as the plant has been commissioned in the month of May 2019.			
April 2018 to March 2019				



E- Wastes:

	Total Quantity	
	During Previous Financial Year (2017-2018)	During Current Financial Year (2018-2019)
From Process	Nil, as the plant has been commissioned in the month of May 2019.	
From Pollution Control Facility		

Solid Wastes: - Not Available, as the plant has been commissioned in the month of May 2019.

Battery Wastes:

As specified under Batteries (Management and Handling) Amendment Rules, 2010, we have purchased following new batteries of different categories.

1.	Number of new batteries of different categories purchased from the manufacturer / importer / dealer or any other agency	During 1 st Apr 2018 to 31 st Mar 2019	
	Category:	(i) No. of Batteries	(i) Approximate Weight (In Metric Tonnes)
	(i) Automotive		
	a) Four wheeler	Nil	Nil
	b) Two wheeler	Nil	Nil
	(ii) Industrial		
	a) UPS	Nil	Nil
	b) Motive Power	Nil	Nil
	c) Stand -by	110	0.55
	(iii) Others	Nil	Nil
	Total	110	0.55
2.	Number of used batteries of categories mentioned in Sl. No 1 and Tonnage of scrap sent manufacturer/dealer/importer/registered recycler/or any other agency to whom the used batteries scrap was sent	During 1 st Apr 2018 to 31 st Mar 2019	
	Category:	(i) No. of Batteries	(i) Approximate Weight (In Metric Tonnes)
	(i) Automotive		
	a) Four wheeler	Nil	Nil
	b) Two wheeler	Nil	Nil
	(ii) Industrial		
	a) UPS	Nil	Nil
	b) Motive Power	Nil	Nil
	c) Stand -by	Nil	Nil
	(iii) Others	Nil	Nil
	Total	Nil	Nil



PART – G

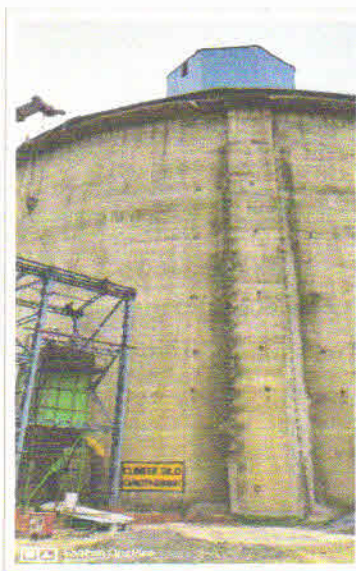
IMPACT OF THE POLLUTION CONTROL MEASURES ON CONSERVATION OF NATURAL RESOURCES AND CONSEQUENTLY ON THE COST OF PRODUCTION

M/s Shree Jharkhand Cement Plant (A Unit of Shree Cement Limited) is a clinker grinding unit and is operated on dry process technology, which is cost effective and environmentally clean technology. The advantage of roller press for pre grinding of clinker is an energy conservation process. The stack emissions from the plant are controlled by equipment like Bag Houses and 57 numbers of Bag Filters installed at various material transfer points to clean the process and arrest the fugitive emissions. The particulate matter collected in the pollution control equipment is recycled in process and neutralizing the cost of operation of pollution control equipments and hence no cost impact on the production cost. Further fly ash is also being utilized in the production of PPC cement thus eliminating the harmful impacts on environment.

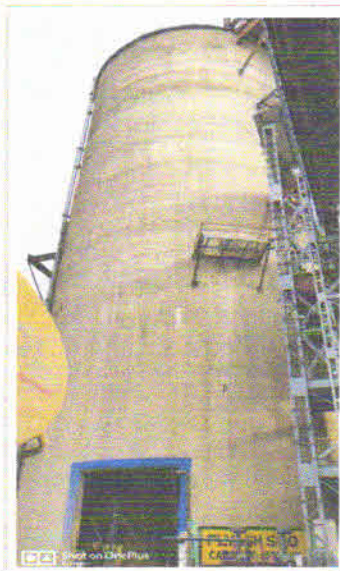


(Image Showing Baghouse of cement mill)

Moreover, to control the dust nuisance emission effectively, M/s Shree Jharkhand Cement Plant has constructed concrete silos and covered yard to store raw materials and end product.



(Clinker Silo)



(Fly ash Silo)



(Cement Silo)





(Gypsum Yard)

PART – H

ADDITIONAL MEASURES / INVESTMENTS PROPOSAL FOR ENVIRONMENT PROTECTION INCLUDING ABATEMENT OF POLLUTION

Green belt development and tree plantation is our ongoing activity within the plant area and outside of the plant area. Every year plantation activities are being done to increase the bio-diversity of the area. Till 31st March, 2019, we have covered 21.78 acres with around 3677 nos. of trees. During the FY 2019- 20 we have a target of planting around 2500 nos. of tree species.



(Plantation inside plant premises)

PART – I

ANY OTHER PARTICULATES FOR IMPROVING THE QUALITY OF ENVIRONMENT.

1. We have full-fledged Environment Department with separate cells for monitoring, maintenance of pollution control equipment and Green Belt development.
2. To control fugitive dust nuisance and for better housekeeping, two number of vacuum sweeping & cleaning machine has been engaged. Moreover, all the material transfer belts are covered and transfer points are equipped with pollution control equipment. To further control fugitive dust nuisance, we are developing concrete area within the vehicle movement area.
3. Frequent monitoring and analyses of data for ambient air quality, ambient noise and ground water quality & levels is being done during project stage to improve the environment quality of the plant area.



4. Special attention has been given to Green belt development with planting tree of different species inside and outside of the plant area.
5. 17 number of solar LED street light has been installed inside plant premises which is ecofriendly.
6. We have installed Continuous Emission Monitoring System (CEMS) and 4 numbers of Continuous Ambient Air Quality Monitoring Stations (CAAQMS) for real time monitoring and to display the data on SPCB and CPCB web sites.
7. We have installed STP of capacity 10 KLD.
8. We are developing 6 numbers of Rain Water Harvesting Structure to recharge ground water.

On the support of above, we are enclosing herewith following documents: -

Annexure-1: Ambient Air Quality monitoring report (PM10, PM2.5, SO₂ and NO₂)

Annexure-2: Ambient Noise Level monitoring report

Annexure-3: Vacuum sweeping & cleaning machine

Annexure-4: Solar LED street light



Annexure: 1

**Shree Jharkhand Cement Plant
(A unit of Shree Cement Limited)**

Ambient Air Quality Monitoring Data (values in $\mu\text{g}/\text{m}^3$)																
Locations	Plant boundary near Logistic building				Plant boundary near Rain water harvesting pond				Plant boundary near Railway Siding				Plant boundary near Maharaja fabrication office			
Parameters	PM ₁₀	PM _{2.5}	SO ₂	NO _x	PM ₁₀	PM _{2.5}	SO ₂	NO _x	PM ₁₀	PM _{2.5}	SO ₂	NO _x	PM ₁₀	PM _{2.5}	SO ₂	NO _x
Norms	60	40	50	40	60	40	50	40	60	40	50	40	60	40	50	40
Oct-18	44	28	10	12	46	27	12	11	48	29	11	13	48	27	9	12
Nov-18	48	30	11	11	48	29	10	12	52	31	10	12	52	26	11	13
Dec-18	46	29	12	13	49	28	10	13	53	33	12	13	54	26	10	11
Jan-19	49	28	12	14	50	30	11	13	50	33	13	14	53	28	11	13
Feb-19	50	30	13	14	51	31	12	15	55	34	11	14	56	31	9	12
Mar-19	53	32	15	15	55	34	12	16	56	36	12	15	57	34	13	14
Average	48.33	29.50	12.17	13.17	49.83	29.83	11.17	13.33	52.33	32.67	11.50	13.50	53.33	28.67	10.50	12.50



**Shree Jharkhand Cement Plant
(A unit of Shree Cement Limited)**

Ambient Sound Level Monitoring Data Leq. in dB(A)								
Locations	Plant boundary near Logistic building		Plant boundary near Rain water harvesting pond		Plant boundary near Railway Siding		Plant boundary near Maharaja fabrication office	
Time	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time
Norms	75	70	75	70	75	70	75	70
Oct-18	63.2	58.4	62.8	55.9	71.6	65.3	69.7	60.4
Nov-18	65.4	56.8	65.9	55.7	70.8	68.2	70.2	61.5
Dec-18	60.7	54.3	68.3	59.7	69.8	66.9	68.3	59.8
Jan-19	69.5	56.4	70.2	59.6	72.8	68.4	71.5	62.4
Feb-19	67.4	55.9	69.4	58.7	70.6	64.8	69.5	60.3
Mar-19	68.7	58.7	70.8	60.7	71.8	65.7	70.6	59.4





(Vacuum sweeping & cleaning machine)





(Solar LED street light)

