

WCL/ENV/ESR/TPP/2020-21/ 736

Date: 24/09/2020

The Member Secretary

Rajasthan state Pollution Control Board
4, Institutional Area, Jhalana Doongri
Jaipur (Raj.)

Sub: Submission of **Environmental Statement Report (Form-V)** (April, 2019 to March, 2020) for Thermal Power Plant (40 MW) at Village:- Sangaria, Borakheri, Peerkhera and Rasulpura,, Tehsil - Nimbahera, District-Chittorgarh (Rajasthan) by M/s. Wonder Cement Ltd.

Ref.: File No. F(Tech)/Chittorgarh (Nimbahera)/9(1)/2010-2011/2424-2426 and Order No.: 2018-2019/CPM/5262 on Dated 19/07/2018.

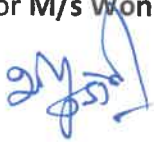
Dear Sir,

With reference to aforesaid subject, we are herewith submitting the Environmental Statement Report (Form-V) for Thermal Power Plant (40 MW) at village Sangaria, Borakheri, Peerkhera and Rasulpura Tehsil - Nimbahera, District-Chittorgarh (Rajasthan) by M/s. Wonder Cement Ltd. for the financial year April-2019 to March- 2020.

We hope that you will find the same in order

Thanking you with regards,

For M/s Wonder Cement Ltd



S. M. Joshi
Sr. President (Works)



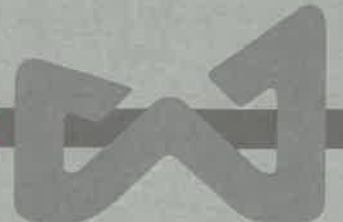
Encl: as above

CC: **The Regional Officer**, Rajasthan State Pollution Control Board, Near FCI Godown, Chanderiya, Chittorgarh (Raj) – 312 001 737

WONDER CEMENT LIMITED

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Tel: +91-1477-277777, Fax: +91-1477-277333, E-mail: plant.nbh@wondercement.com

Registered Office: Makrana Road, Madanganj, Kishangarh - 305 801, District - Ajmer, Rajasthan (India)
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**ENVIRONMENTAL STATEMENT
REPORT 2019-2020**

OF

THERMAL POWER PLANT (40MW)

AT

**VILLAGE : RASULPURA, SANGARIA &
BORAKHERI, TEHSIL - NIMBAHERA,
DISTRICT-CHITTORGARH (RAJASTHAN)**

**SUBMITTED TO
RAJASTHAN STATE POLLUTION
CONTROL BOARD**

For

**M/s. WONDER CEMENT LIMITED,
At R.K.Nagar, Nimbahera-312601,
District: Chittorgarh (Raj)**

ENVIRONMENTAL STATEMENT FORM-V

(See rule 14)

Environmental Statement for the financial year ending with 31st March 2020**PART-A****General Information**

Name of the Industry	M/s Wonder Cement Limited
Name and address of the owner/occupier of the industry Operation or process.	M/s. Wonder Cement Limited at R.K. Nagar, Tehsil - Nimbahera - 312601, District-Chittorgarh (Raj.)-Thermal Power Plant (40 MW)
Industry category Primary-(STC Code) Secondary – (SIC Code)	Red (Captive Power Plant)
Production capacity	40 MW
Year of establishment	April, 2013
Date of the last environmental statement submitted.	25 th Sept., 2019

PART – B**Water and Raw Material Consumption:****1) Water Consumption (m3/day)**

Water Consumption	
Process +Cooling	Nil, Only treated water is consumed for power generation (308 m3/day recycled water)
Domestic (Cement Plant L-I+ L-II +L-III+ Colony +mine +TPP)	440.95

S. No.	Name of the Products	Process water consumption per unit of product output	
		During the previous financial year 2018-19	During the current financial year 2019-20
	Power Generation	0.000351 m ³ /Kwh	0.000347 m ³ /Kwh

2) Raw material consumption

Name of the Raw materials	Name of the Products	Consumption of raw material per unit output	
		During the previous financial year 2018-19	During the current financial year 2019-20
Coal	Power	0.000553 Ton/kwh	0.000622 Ton/kwh
Water		0.000351 m ³ /Kwh	0.000347 m ³ /Kwh

Power Consumption-

Consumption of Power per unit output	
During the previous financial year 2018-19	During the current financial years 2019-20
Electric Energy Used in % (CTPP Auxiliaries)- 09.99 % (29104302.4 kwh)	Electric Energy Used in % (CTPP Auxiliaries)- 9.54 % (28135813 kwh)

Power generation

Generation of Power per unit output	
During the previous financial year 2018-19	During the current financial year 2019-20
291341600 KWH	294883456 KWH

PART – C

**Pollution discharged to environment/unit of output
(Parameter as specified in the consent issued)**

Pollution	Quantity of Pollutants discharged (mass/day)	Concentration of Pollutants discharged (mass/volume)	Percentage of variation from prescribed standards with reasons.
(a) Water	Industrial Water: Effluent water generated from CPP is being treated in ETP and being used in Power generation. Waste water Result enclosed as Annexure-I		
(b) Air	Stack Emission Results enclosed as Annexure-II & Ambient air monitoring result as Annexure-III		

PART – D**HAZARDOUS WASTES**

(As specified under Hazardous & Other Wastes (Management & Trans boundary Movement Rules, 2016)

S. No.	Hazardous Wastes	Total Quantity (KL)	
		During the previous financial year 2018-19	During the current financial year 2019-20
a.	From Process	1.89 KL	2.75
b.	From Pollution Control Facilities	Nil	Nil

PART – E**SOLID WASTES**

S. No.	Solid Wastes	Total Quantity	
		During the previous financial year 2018-19	During the current financial year 2019-20
a.	From Process (Fly ash/ Bottom ash)	40198.14 MT	35702.10 MT
b.	From Pollution Control Facility	Fly ash of ESP/Bag house of captive cement plant is utilized in cement manufacturing	
c.	1. Quantity recycled or re-utilized within the unit	100%	100%
	2. Sold	Nil	Nil
	3. Disposed	Nil	Nil

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 these categories of wastes.

S. No.	Waste Generation	Source	Qty. of waste disposed off during current FY 2019-20	Management/ Disposal Method
Solid Waste:				
1.	Fly ash	CPP	35702.10 MT	Utilized in Cement manufacturing process (PPC)
Hazardous Waste :				
2.	Used Oil & Grease (Cat. 5.1)	Process (CPP)	2.75 KL	Sold to CPCB authorized Recycler
			Disposed-Nil	-
			Recycled-Nil	-

PART – G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production.

- Fly ash generated from TPP is being used in the Manufacturing of cement.
- Treated water generated from ETP is being used in Power generation.

PART – H

Additional measures/investment proposal for environmental protection including abatement of pollution, prevention of pollution.

- Rain Water Harvesting Measures: Rain water harvesting system has been installed to conserve water & to replenish ground water resources of the area for long term sustenance of the industry.
- Extensive plantation in and along the plant boundary has been done. Same will be further done in the future as well.
-

Plantation Details :

Duration	Mines Area (A)			Cement plant L-I,L-II, L-III CTPP & Colony Area (B)			Out Side Plant Area (CSR) (C)			Grand Total (A+B+C)
	Trees	Shrubs	Total	Trees	Shrubs	Total	Trees	Shrubs	Total	
Fy-2019-20	2054	464	2518	163	2471	2634	72	462	534	5686
2011-2012 to 2019-2020	50101	7163	57264	54370	57844	112214	20885	48739	69624	239102

- Adequate dust collection and extraction system to control fugitive dust emissions has been installed at transfer points.
- Proper training has been provided to the drivers to follow the speed limit signage throughout the premises.
- Regular water sprinkling .
- Interlocking facility has been provided in the pollution control equipment so that in the event of the pollution control equipment not working, the respective unit (s) is shut down automatically.
- Regular monitoring of ambient air quality, stack emissions and effluent quality have been taken up to evaluate the efficiency of the pollution control systems and control measures on the overall emissions from stack and ambient air.
- All internal roads are paved to reduce the fugitive dust emission inside the plant premises.
- Good House keeping

Following measures have been taken for good housekeeping at Plant:-

- Conveyor belts are fully covered.
- Mechanical vacuum road sweeping machine used for the road sweeping, resulting in the reduction of fugitive emission from the manual sweeping.
- Internal roads are paved.
- 100% utilization of fly ash.

Expenditure on Environment Protection Measures:

S. No.	Particular	Recurring Cost per annum	
		Rs. In Lakhs	
		2018-2019	2019-2020
1	Cement Plant L-I+L-II+L-III Air & Water Pollution Control Equipment's Maintenance Cost	57.3	56.3
2	LS Mines Air ,Noise & Water Pollution Control Equipment's Maintenance Cost	65.15	64.32
3	CPP Air ,Noise & Water Pollution Control Equipment's Maintenance Cost	27.45	19.18
4	STP Water Pollution Control Equipment's Maintenance Cost	4.52	6.8
5	Power Cost of Pollution Control Equipment's for Cement Plant L-I+ L-II+L-III+CPP+STP+LS Mines	1027.1551	1185.56
6	Environment Protection Measures	70.07	81
7	Greenbelt development/plantation	85.34	109.95
8	Wild Life Conservation	3	0
	Sub Total	1339.98289	1523.11
9	Occupational Health Service	51.44469	67.64137
	Total	1391.42758	1590.75137

Proposed Expenditure on Environment Protection Measures (2020-21):

S. No.	Particular	Recurring Cost per annum In Lakhs
1.	Cement Plant L-I+L-II+L-III Air & Water Pollution Control Equipment's Maintenance Cost	58
2.	LS Mines Air ,Noise & Water Pollution Control Equipment's Maintenance Cost	70.00
3.	CPP Air ,Noise & Water Pollution Control Equipment's Maintenance Cost	15.58
4.	STP Water Pollution Control Equipment's Maintenance Cost	8
5.	Power Cost of Pollution Control Equipment's for Cement Plant L-I+L-II+L-III +CPP+STP+LS Mines	1185
6.	Environment Protection Measures	90
7.	Greenbelt development/plantation	73.19
8.	Wild Life Conservation	22
	Sub Total	1521.77
9.	Occupational Health Service	70.91
	Total	1592.68

PART -I**Any other particulars for improving the quality of the environment**

1. Use of Personal protective equipments is envisaged.
2. Energy and resource Management-
 - Installation of energy efficient lightings (LED Lights)
 - Raw mix optimization.
 - Procurement of energy efficient machineries
 - Minimizing idle running of vehicle , machines and electrical appliances
 - Optimizing loads and periodic preventive maintenance & lubrication
 - Prevention of leakages of compressed air
 - Periodic energy audits
3. Environment cell: Environment Department has been established for the continuous check on the pollution abatement measures taken up & effective implementation of environmental management plan
4. Environment Protection measures improvement- Periodical review of such measures includes compliance of environmental laws through periodic Management Review & Internal/ external audits.
5. Awareness promotion through various environmental competitions, workshops, presentations etc. on world environment day, Earth Day, Bio-diversity Day, Ozone Day etc.
6. EHS inspection of all the sections throughout the plant premises.

7. Continuous online Ambient Air Quality monitoring System has been installed at up & down wind direction & connects to RSPCB & CPCB server.
8. CEMS has been installed & connected to RSPCB & CPCB server.
9. Planned to reduce the energy consumption in Fly ash Bag House motor by introducing the VFD (Variable Frequency Drive).
10. We have so far replaced the Sodium Vapor Lamps (HPSV) with Compact Florescent Lamp (CFL) in our offices for energy conservation.
11. Regular Inspection and maintenance (I&M) Programme for vehicles.

Annexure I**A. Waste water analysis results- Effluent Water Treatment Plant**

S. No.	Parameter	Standards as given in consent Letter For Treated Water	Annual Average Year 2019-2020
			STP Outlet
1.	pH	Between 5.5 - 9.0	7.2525
2.	Total Suspended Solids	Not to Exceed 100 mg/l	2.75
3.	Oil & Grease	Not to Exceed 10 mg/l	0.5675
4.	B.O.D	Not to Exceed 30 mg/l	17.975
5.	C.O.D.	Not to Exceed 250 mg/l	86.13
6.	Copper (as Cu)	Max. 1.0 mg/l	0.0775
7.	Iron (as Fe)	Max. 1.0 mg/l	0.3075
8.	Amonical Nitrogen (as N)	Max.50 mg/l	5.595
9.	Nitrate Nitrogen	Max. 10 mg/l	2.82
10.	Sulphate (so4)	Max. 1000 mg/l	38.1
11.	Residual free chlorine	Max. 10 mg/l	BDL (DL 0.20 mg/l)
12.	Chlorides	Max. 1000 mg/l	67.1175
13.	Sulphide	Max. 2.0mg/l	BDL (DL 0.10 mg/l)
14.	Phosphate	Max. 5.0 mg/l	0.6825
15.	Zinc	Max. 1.0 mg/l	0.3675
16.	Total Chromium	Max.0.2 mg/l	0.18

Source: Third Party NABL Accredited Laboratory analysis

Annexure II**A. Stack Emission Results**

S. No.	Source	Pollution Control measures	Particulate concentration (Annual average mg/Nm ³)	Quantity of Pollutants discharged (mass/day)	Standard (in mg/Nm ³)
1	TPP Boiler Stack	ESP	26.2	0.2836	50

Source: Third Party NABL Accredited Laboratory analysis

Annexure III

A. AAQM Results (Annual Average, Financial year (2019-2020))

S. No	Parameters	Unit	Limit	Results average value of Four Ambient Air Quality Monitoring Station at periphery of Plant			
				Nr. Main Gate	Nr. WCL Colony	Nr. RECB Power Grid	Mines Office
1	Particulate Matter -PM _{2.5}	µg/m ³	60	33.45	30.05	32.90	30.55
2	Particulate Matter -PM ₁₀	µg/m ³	100	63.60	60.88	61.45	61.23
3	Nitrogen Dioxides -NO _x	µg/m ³	80	18.75	12.35	16.70	13.63
4	Sulphur Dioxides- SO ₂	µg/m ³	80	7.39	6.80	6.63	6.72
5	Carbon Monoxide-CO	mg/m ³	4	0.56	0.48	0.53	0.59
6	Ammonia-NH ₃	µg/m ³	400	6.15	4.10	5.03	7.15
7	Lead-Pb	µg/m ³	1	0.11	0.05	0.27	0.06
8	Benzene-C ₆ H ₆	µg/m ³	5	BDL	BDL	BDL	BDL
9	Benzo(a)pyrene(BaP)- Particulate phase only	ng/m ³	1	ND	ND	ND	ND
10	Ozone O ₃	µg/m ³	180	9.84	8.13	11.10	10.10
11	Arsenic-AS	ng/m ³	6	ND	ND	ND	ND
12	Nickel-Ni	ng/m ³	20	1.75	4.03	1.57	2.00
13	Mercury as Hg	ng/m ³	-	ND	ND	ND	ND

Source: Third Party NABL Accredited Laboratory analysis

