

WCL/ENV/ESR/MINES/2020-21/730

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 Limestone Mine (ML No. 22/2007, 9.10 MTPA) at Village- Bhatkotri, Lasrawan, Phalwa & Rasulpura, Tehsil - Nimbahera, District-Chittorgarh (Rajasthan) by M/s. Wonder Cement Ltd.

**Ref.:** File No. F(Mines)/Chittorgarh (Nimbahera)/1867(1)/2017-2018/590-594 and Order No.: 2017-2018/Mines/9241 on Dated 27/04/2017.

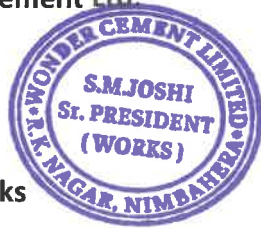
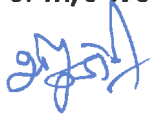
Dear Sir,

With reference to aforesaid subject, we are herewith submitting the Environmental Statement Report (Form-V) for Limestone Mine (9.10 MTPA) at Village- Bhatkotri, Lasrawan, Phalwa & 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** 731

**WONDER CEMENT LIMITED**

**Works Office:** R. K. Nagar, Tehsil - Nimbahera - 312 601, District - Chittorgarh, Rajasthan (India)  
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)  
Telefax: +91-1463-260151, E-mail: regd.office@wondercement.com, Website: www.wondercement.com





**ENVIRONMENTAL STATEMENT  
REPORT 2019-2020**

**OF**

**LIMESTONE MINE M.L No. 22/07  
(9.10 MTPA)**

**AT**

**VILLAGE- BHATKOTRI, LASRAWAN, PHALWA  
& RASULPURA, 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 31<sup>st</sup> March 2020****PART-A****General Information**

<b>Name of the Industry</b>	<b>M/s Wonder Cement Limited</b>
Name and address of the owner/occupier of the industry Operation or process.	Major Mineral Lime Stone Mine at near village- Bhatkotari, Lasrawan, Phalwa, & Rasulpura, M.L. No. 22/07 owned by M/s. Wonder Cement Limited at R.K. Nagar, Tehsil - Nimbahera-312601, District-Chittorgarh (Raj.)
Industry category Primary-(STC Code) Secondary – (SIC Code)	Red Category
Production capacity	Limestone :- 9.1 MTPA
Year of establishment	April, 2012
Date of the last environmental statement submitted.	25 <sup>th</sup> Sept., 2019

**PART – B****Water and Raw Material Consumption****1. Water Consumption m<sup>3</sup>/day:**

<b>Water consumption</b>	<b>During the previous financial year (2018-2019)</b>	<b>During the current financial year (2019-2020)</b>
Mine spraying (Dust Suppression + Plantation + Workshop )	60.438	58.86
Domestic (Cement Plant L-I+L-II+L-III+MINE+TPP + Colony )	449.271	440.95

<b>Name of the Products</b>	<b>Process water consumption per unit of product output</b>	
	<b>During the previous financial year (2018-2019)</b>	<b>During the current financial year (2019-2020)</b>
Cement grade Lime Stone	0.00329 KL/Tone of Cement Grade L S	0.00288 KL/Tone of Cement Grade L S

**2. Raw Material Consumption**

<b>Name of the Raw materials</b>	<b>Type of energy</b>	<b>Consumption of raw material per unit output (Per Ton)</b>	
		<b>During the previous financial year (2018-2019)</b>	<b>During the current financial year (2018-2019)</b>
Diesel Fuel for operation of mining machine and equipment's	Fuel Oil	0.351 Liter/Ton	0.362 Liter/Ton

**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	There is no waste water being generated from mining activity		
(b) Air	Stack Emission Results are enclosed as Annexure-1		

**PART – D**  
**HAZARDOUS WASTES**

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

S. No.	Hazardous Wastes	Total Quantity					
		During the previous financial year (2018-2019)			During the current financial year (2019-2020)		
		Qty. Disposed Off to recyclers	Qty.Utilize in House	Total Qty.	Qty.disposed Off to recyclers	Qty.Utilize in House	Total Qty.
a.	From Process (Mining equipment's)	25.86	10.71	36.57	33.55	0.0	33.55
b.	From Pollution Control Facilities	Nil			Nil		

**PART – E**  
**SOLID WASTES**

S. No.	Solid Wastes	Total Quantity (in MT)	
		During the previous financial year-2017-18	During the current financial year 2019-20
a.	From Process	556171 (Overburden) & 226317 (Screen Reject)	707076 (Overburden) & 246799 (Screen Reject)
b.	From Pollution Control Facility	Dust collected from the Air Pollution control devices ( Bag Filters of crusher) recycled back into the process	
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.

Only dust of pollution control measures and screen rejects are reuse in process.

S. No.	Waste Generation	Source	Qty. of waste disposed off during the Current FY (in MT)	Management/ Disposal Method
<b>Solid Waste:</b>				
1.	Overburden	Mining Activity	707076	Stacked at the earmarked dump sites & top soil <b>191547 MT</b> used in plantation
2.	Screen Reject		246799	Stacked at the earmarked dump sites and partially Utilized for haul road maintenance
<b>Hazardous waste:</b>				
1.	Waste Oil Generation	Mining Equipment	33.55	Sold to authorized Recycler of CPCB/RSPCB

**PART – G**

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

- Top soil is being used in greenbelt/plantation.
- Treated water from workshop is being recycled back for use of Equipment washing, dust suppression.

**PART – H**

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

- Expenditure on Environment Protection Measures:

**Recurring Environment cost**

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

- All Belt conveyors are covered to mitigate dust generation
- Regular water sprinkling is being carried out at haul road, loading points, unloading area.
- The Mines approach roads are paved & inside pit roads are maintained by road grader at regular interval to reduce the fugitive dust emission with in the mining lease area.
- Regular monitoring of ambient air quality and other environmental parameters is being carried out.
- Extensive plantation in & around the mine area.
- Constructions of Rainwater Harvesting / groundwater recharge structures in mining area
- Systematic & Scientific Mining Operations and use of HEMMs.
- Extensive & Intensive geological exploration conducted in entire mining Lease area.
- Controlled blasting techniques adopted
- Bag filters are provided in crusher, belt conveyor and transfer point.
- Crushed limestone is transported to cement plant through covered conveyor belt.

**PART –I**

**Any other particulars for improving the quality of the environment**

1. Use of Personal protective equipment's (PPEs) is envisaged.
2. Stabilization of waste dump.
3. Water spray during unloading of limestone into crusher.
4. Energy and resource Management-
  - Installation of energy efficient lighting. Use of energy saving light fittings
  - 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

5. To conserve the natural resources and protect environment, WCL has developed an extensive greenbelt in & around the mine lease area.
6. Environment cell: Environment Cell has been established for the continuous check on the pollution abatement measures taken up & effective implementation of environmental management plan

**Plantation Details:**

Duration	Mines Area (A)			Cement plant L-I,L-II, 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

**7. Improvement of Environment protection measures:-**

- a. Review of compliance of environmental laws through periodic Management Review & Internal/ external audits.
- b. Awareness promotion through various environmental competitions, workshops, presentations etc. on world environment day, Earth Day, Bio-diversity Day, Ozone Day etc.
- c. EHS inspection of all the sections throughout the plant premises.
- d. Regular Inspection and maintenance (I & M) Programme for vehicles.

**Annexure- 1****A. Stack Emission Details (Annual Average, Financial year (2019-2020))**

S. No	Stack attached to	Pollution Control Measures	Air (Stack) particular emission concentration (mg/Nm <sup>3</sup> )	Quantity of Pollutants discharged (mass/day)	Norms (mg/Nm <sup>3</sup> )
1.	LS CRUSHER -1	BAG FILTER	15.43	0.0051	30
1.	LS CRUSHER -2	BAG FILTER	16.14	0.0067	

Source: Third Party NABL Accredited Laboratory analysis

**B. 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 <sub>2.5</sub>	µg/m <sup>3</sup>	60	33.45	30.05	32.90	30.55
2	Particulate Matter -PM <sub>10</sub>	µg/m <sup>3</sup>	100	63.60	60.88	61.45	61.23
3	Nitrogen Dioxides -NO <sub>x</sub>	µg/m <sup>3</sup>	80	18.75	12.35	16.70	13.63
4	Sulphur Dioxides- SO <sub>2</sub>	µg/m <sup>3</sup>	80	7.39	6.80	6.63	6.72
5	Carbon Monoxide-CO	mg/m <sup>3</sup>	4	0.56	0.48	0.53	0.59
6	Ammonia-NH <sub>3</sub>	µg/m <sup>3</sup>	400	6.15	4.10	5.03	7.15
7	Lead-Pb	µg/m <sup>3</sup>	1	0.11	0.05	0.27	0.06
8	Benzene-C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	5	BDL	BDL	BDL	BDL
9	Benzo(a)pyrene(BaP)- Particulate phase only	ng/m <sup>3</sup>	1	ND	#DIV/0!	#DIV/0!	ND
10	Ozone O <sub>3</sub>	µg/m <sup>3</sup>	180	9.84	8.13	11.10	10.10
11	Arsenic-AS	ng/m <sup>3</sup>	6	ND	ND	ND	ND
12	Nickel-Ni	ng/m <sup>3</sup>	20	1.75	4.03	1.57	2.00
13	Mercury as Hg	ng/m <sup>3</sup>	-	ND	ND	ND	ND

Source: Third Party NABL Accredited Laboratory analysis

**C. Free Silica in Respirable Dust concentration (in µg/m<sup>3</sup>) (Annual Average, (2019-2020))**

S. No.	Location	Average
1.	Nr. Mines Haul Road	0.95
2.	Nr. Limestone Handling Area	0.95
3.	Nr. Limestone Crusher	1.04
4.	Nr. Drilling & Blasting Activity Area	1.0

Source: Third Party NABL Accredited Laboratory analysis

**D. Fugitive Dust Emission Monitoring Concentration ( $\mu\text{g}/\text{m}^3$ ) (Annual Average, Financial year (2019-2020))**

S. No.	Location	Average
1	Near LS Crusher-I	804.5
2	Near LS Crusher-II	671

Source: Third Party NABL Accredited Laboratory analysis

**E. Work Zone Personal dust Monitoring Concentration ( $\text{Mg}/\text{m}^3$ ) Annual Average, Financial year (2019-2020)**

Sr. No.	Location	Year 2019-2020
		Average
1	Lime Stone Operator Crusher -1	0.39
	Lime Stone Operator Crusher -2	0.46
2	Dozer Operator	0.40
3	Drilling Machine Operator	0.39
4	Loader Operator	0.34
5	Dumper Operator	0.34
6	Excavator Operator	0.45

Source: Third Party NABL Accredited Laboratory analysis

**F. Waste water analysis results (Oil-Water Separator Chamber-Mines) Annual Average, Financial year (2019-2020)****Waste Water Analysis Report**

S. No.	Parameter	Standards as given in consent Letter	Annual Average Year 2019-2020
			Outlet
1.	pH	Between 5.5 to 9.0	7.30
2.	COD (mg/l)	Not to exceed 250	39.49
3.	BOD (mg/l)	Not to exceed 30	12.53
4.	Oil & Grease (mg/l)	Not to exceed 10	1.81
5.	TSS (mg/l)	Not to exceed 100	16.45

Source: Third Party NABL Accredited Laboratory analysis



