



# SAGAR CEMENTS (M) PRIVATE LIMITED

(A Subsidiary of SAGAR CEMENTS LIMITED)

SCMPL/Karondiya/ Emt. Stat./ 2023-24

Date - 09.07.2024

PCB ID: - Cement Plant -124536

To,

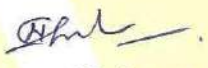
**The Member Secretary**  
**M.P. Pollution Control Board**  
**E-5, Area-Colony, Paryavaran Parisar**  
**Bhopal-16 Madhya Pradesh-462016**

**Sub : Environmental Statement for the Financial Year 2023- 24.**

Dear Sir,

We are herewith submitting the Environmental Statement of Cement manufacturing unit M/s Sagar Cements (M) Pvt. Ltd. located at village Karondiya, Post - Jeerabad, Teh.- Gandhwani District - Dhar (MP) for the financial year ending **31<sup>st</sup> March, 2024** in **Form V** in Compliance of Environment (Protection ) Rules 1986.

Yours faithfully  
For Sagar Cements (M) Private Limited.  
(Dhar) MP

  
**Niraj Kumar Shrivastava**  
(Vice President- Works)

cc:

**1 -The Director,**

Regional Office (Western Zone)  
Ministry of Environment , Forests & climate Change  
Kendriya Paryavaran Bhawan  
E-5 , Arera Colony, Link Road -3,  
Ravishankar Nagar, Bhopal (M.P)-462016

- For your kind information pl

**2- The Regional Officer**

M.P.Pollution Control Board,  
Vikas Bhawan, Sector-2 Pithampur,  
Dist-Dhar, Madhya Pradesh

- For your kind information pl



**M/S. Sagar Cements (M) Private Limited**  
**Village - Karondiya, Tehsil - Gandhwani, District -**  
**Dhar (M.P.)**

***Form - V***

**ENVIRONMENTAL**  
**STATEMENT**

**For the Financial year ending**  
**31<sup>st</sup> March 2024**

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**SAGAR CEMENTS (M) PRIVATE LIMITED,  
UNIT- JEERABAD**

**FORM - V  
(See Rules 14)  
Environmental Statement for the Financial  
Year ending 31<sup>st</sup> March 2024**

**PART – A**

(i)	<b>Name and address of the owner/ occupier of the industry operation or process.</b>	:	<b>M/S Sagar Cements (M) Private Limited (Old Name- Satguru cement Pvt. Ltd. Survey No. 4, 26/1, 36, 37/1, Village- Karondiya Post Jeerabad, Tahsil- Gandhwani, Dist: Dhar-454446 (M.P.)</b>
	<b>Occupier</b>	:	<b>Shri Rajesh Bansal</b>
(ii)	<b>Industry category Primary-(STC Code) Secondary- (STC Code)</b>	:	<b>Red, Large (Cement Manufacturing)</b>
(iii)	<b>Production Capacity Cement Plant  WHRS</b>	:	<b>0.825 MTPA(Clinker) &amp; 0.950 MTPA(Cement) 7.0 MW</b>
(iv)	<b>Year of establishment</b>	:	<b>2021</b>
(v)	<b>Date of the last environmental statement submitted</b>	:	<b>20<sup>th</sup> September 2023</b>

## PART – B

### WATER AND RAW MATERIALS CONSUMPTION

#### (i) Water Consumption

Cement manufacturing plant is dry process and does not require any process water. Water consumption in the plant is only for cooling, WHRS feed, gardening, domestic etc is as follows.

Water Consumption, m<sup>3</sup> / day (Avg.) :

Description	During Previous Financial Year 2022-23(m <sup>3</sup> /day)	During Current Financial Year 2023-24(m <sup>3</sup> /day)
Total Water Consumption	229	208
Process	Nil	Nil
Cooling/WHRS	67.53	74.08
Domestic/Plantation	161.31	129*

Sagar Cements (M) Private Limited is permitted to withdraw the water from Mann river by WRD, Madhya Pradesh at the rate 885 cubic meter per day.

\* Excluding CSR water

Name of Product	Process Water Consumption per unit of product output	
	During the previous financial (Year 2022-23)	During the Current financial (Year 2023-24)
Cement	Nil	Nil
Clinker	0.0239 KL/Ton	0.0206 KL/Ton
WHRS	1.021 (KL/MWH)	0.72 (KL/MWH)

#### (ii) -Raw Materials Consumption

Name of Raw Materials	Name of Product	Consumption of raw material per unit of output	
		During the previous Financial (Year 2022-23)	During the previous Financial (Year 2023-24)
Lime Stone	Clinker	<u>1.43</u>	<u>1.44</u>
Laterite		<u>0.005</u>	<u>0.026</u>
Bauxite		<u>0.0013</u>	<u>0.0013</u>
Coal		<u>0.03</u>	<u>0.059</u>
Pet coke		<u>0.09</u>	<u>0.065</u>
Murmur		<u>0.082</u>	<u>0.066</u>

Name of Raw Materials	<u>Name of Product</u>	Consumption of raw material per unit of output	
		During the previous Financial (Year 2022-23)	During the previous Financial (Year 2023-24)
Clinker	Cement (OPC)	<u>0.96</u>	<u>0.95</u>
Coal		<u>0.11</u>	<u>0.12</u>
Gypsum		<u>0.04</u>	<u>0.03</u>
Name of Raw Materials	<u>Name of Product</u>	Consumption of raw material per unit of output	
		During the previous Financial (Year 2022-23)	During the previous Financial (Year 2023-24)
Clinker	Cement (PPC)	<u>0.68</u>	<u>0.64</u>
Coal		<u>0.08</u>	<u>0.08</u>
Fly ash		<u>0.29</u>	<u>0.33</u>
Gypsum		<u>0.03</u>	<u>0.03</u>

### **Total Cement Production (MT)**

Name of product	During current financial year (2023-24)	During current financial year (2022-23)
Cement	743110MT	536350 MT
Clinker	726900 MT	478914 MT

## PART- C

### POLLUTION DISCHARGED TO ENVIRONMENT/UNIT OF OUTPUT (Parameter as specified in the consent issued)

#### (a)Water Pollutant Details

Water pollution is virtually absent as no liquid effluent is being generated from the process. The water is only used for cooling the machines/parts of the machine. The major area of domestic water consumption inside the plant is for domestic (Drinking, Toilet, Colony and for Canteen use) and other part of water is used in Green belt development.

Domestic waste water generated is being treated in the STP which have installed capacity of 150 KLD in Staff colony . All the parameters are well below the specified limit.

S.No.	Pollutants	Quantity of pollutants discharged (Mass/day)	Concentration of pollutants in discharge ( Mass/Volume)	Percentage of variation from prescribed standards with reasons
<b><u>STP (Outlet)</u></b>				
1.	Outlet effluent of Sewage Treatment plant	16.57 KL/Day (Average)		
2.	pH		7.26	Within Standard
3.	BOD 3 days at 27°C		8	Within Standard
4.	COD		50	Within Standard
5.	Total Suspended Solid		17	Within Standard
6.	Fecal Coliforms		110	Within Standard
7.	Oil & Grease		Less Than 5	

**(b) Air Pollutant Details: -**

	<b>i. Ambient Air</b>		Min.	Max.	Avg.	
1	<b>Near Main Gate , µg/m<sup>3</sup></b>	PM10	67.2	87.0	74.0	Within Standard
		PM2.5	27.9	43.4	33.3	Within Standard
		SO <sub>2</sub>	11.1	15.0	12.7	Within Standard
		NO <sub>x</sub>	15.4	22.9	19.0	Within Standard
		CO	389.5	500.0	431.5	Within Standard
2	<b>Near Store , µg/m<sup>3</sup></b>	PM10	77.8	86.9	81.7	Within Standard
3		PM2.5	32.1	39.6	36.0	Within Standard
4		SO <sub>2</sub>	8.8	11.8	10.4	Within Standard
5		NO <sub>x</sub>	13.7	27.7	21.8	Within Standard
6		CO	300.0	412.4	364.3	Within Standard
	<b>Near Water Tank , µg/m<sup>3</sup></b>	PM10	42.3	82.7	55.9	Within Standard
		PM2.5	15.8	40.4	22.6	Within Standard
		SO <sub>2</sub>	6.6	10.1	8.8	Within Standard
		NO <sub>x</sub>	9.9	15.1	13.0	Within Standard
		CO	217.7	300.0	255.5	Within Standard
	<b>Near stone crusher boundary, µg/m<sup>3</sup></b>	PM10	60.3	84.3	67.8	Within Standard
		PM2.5	24.1	41.2	29.8	Within Standard
		SO <sub>2</sub>	8.8	13.0	10.9	Within Standard
		NO <sub>x</sub>	14.2	17.0	15.1	Within Standard
		CO	378.0	500	417.1	Within Standard



<b><u>(ii) Stack</u></b>			
<b>Pollutants</b>	<b>Allowable Standards</b>	<b>Concentration of Pollutants Discharged in mg/Nm<sup>3</sup></b>	<b>Percentage of variation from prescribed Standards with reason</b>
<b><u>Stack Emission.</u></b>			
<b>Stack of Cement Mill  P.M.</b>	<b>30 mg/Nm<sup>3</sup></b>	<b>Min.    Max.    Avg. 12.2– 24.9    (18.7)</b>	<b>Stack emission values are well within the prescribed limits stipulated by SPCB in Consent</b>
<b>Stack of Coal Mill  P.M.</b>	<b>30 mg/Nm<sup>3</sup></b>	<b>13.2 – 21.4    (17.1)</b>	<b>Stack emission values are well within the prescribed limits stipulated by SPCB in Consent</b>
<b>Stack of ESP Cooler  P.M.</b>	<b>30 mg/Nm<sup>3</sup></b>	<b>9.1 – 18.8    (15.5)</b>	<b>Stack emission values are well within the prescribed limits stipulated by SPCB in Consent</b>
<b>Stack of Raw Mill &amp; Kiln  P.M.</b>	<b>30 mg/Nm<sup>3</sup></b>	<b>10.1 - 18.1    (14.9)</b>	<b>Stack emission values are well within the prescribed limits stipulated by SPCB in Consent</b>
<b>Stack of Raw Mill &amp; Kiln  SO<sub>2</sub></b>	<b>100 mg/Nm<sup>3</sup></b>	<b>24.4 - 32.0    (28.4)</b>	<b>Stack emission values are well within the prescribed limits stipulated by SPCB in Consent</b>
<b>Stack of Raw Mill &amp; Kiln  NO<sub>2</sub></b>	<b>600 mg/Nm<sup>3</sup></b>	<b>14.1 - 22.0    (17.7)</b>	<b>Stack emission values are well within the prescribed limits stipulated by SPCB in Consent</b>

## P A R T – D

### Hazardous Waste

**(As specified under Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008**

Hazardous Waste	Total Quantity (kg)	
	During the previous Financial year 2022- 23	During the Current Financial year 2023-24
(a) From Process		
Spent Oil (Used Oil)	4.6 MT	4.0 MT
Used Grease	Nil	3.4 MT
(b) From pollution Control Facilities	Nil.	Nil.

The Waste oil generated at different sections in the plant is collected in the leak proof container (M.S.Barrels) and stored for short time at Hazardous waste storage room . Waste oil so collected in the leak proof container (M.S.Barrels) is being sold to the authorized reprocesses/recyclers. Used Batteries waste are sale out as buy back procedure and either will be disposed through authorized recycler.

#### **Details for utilization of Non-hazardous waste in co-processing during 2023-24**

S.No.	Waste Description	Quantity Used (MT)
1	Plastic Waste	276.13

**P A R T – E**  
**SOLID WASTE**

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Total Quantity in MT		
	During the previous Financial year 2022 - 2023	During the Current financial year 2023-2024
(a) From Process	0.99 MT (Burst Bags)	1.06 MT (Burst Bags) (Used as AFR in the Kiln)
(b) From Pollution control Facilities	NIL	NIL
(c) ( 1 ) Quantity recycled or reutilized Within the unit	All the collected swept solid waste is reused in the the process	
( 2 ) Sold	Nil	247.92 (Scrap)
( 3 ) Disposed	NIL	NIL

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**Dust collected in the Bag House and Bag filters are Recycled back into the system**

## P A R T – F

Please specify the characterization (in term of composition and quantum ) of Hazardous as well as solid waste and indicate disposal practice adopted for both these categories of wastes.

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**HAZARDOUS WASTE.** No Hazardous waste is generated from the process except used oil and used grease which are generated from machineries. Presently used oil is stored in 200/220 liter capacity drums and kept in secured area / place within the factory premises as per the Hazardous Waste Management Rules. After getting the authorization of Hazardous Waste (Authorization No. AWHP-53884 dated 23/07/2021 ), the disposal is being done as per Hazardous & Other Wastes (Management and Transboundary Movement) Rules , 2016. The Used Oil disposed off to the Authorized recyclers for processing.

**E-WASTE.** Nil (No any E- Waste disposed )

### **SOLID WASTE.**

Burst bags are collected, stored in specific area and used as AFR in Kiln.

Dust collected in the Bag House and Bag filters is recycled back into the system.

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## Part-G

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

Sagar Cement (M) Private Limited is using fly ash to manufacture PPC Cement, thus utilizing power plant waste and conserving limestone and coal-the non-renewable natural resources. The plant is equipped with state-of-the art Air Pollution Control devices so that emission level maintained well below stipulated norms as prescribed in the consent: Total 68 Nos. of pollution Control Device viz. Bag House, Bag filters and ESP have been installed to control the emissions from stacks as well as fugitive dust emissions from various material transfer points as per CPCB guideline. Entire collected dust is also recycled/ reutilized into the system. Fully mechanized system developed for handling of raw materials. All raw materials handling is being done by fully covered conveyor belt. Water sprinkling on road is being carried out regularly to control the fugitive dust emission which is generated during movement of vehicles. The company has undertaken various energy efficiency improvement measures & process modifications which helped to significantly reduce the overall energy consumption to enable us to achieve our ultimate goal of GHG emission reduction and positive contribution. Thus, the pollution abatement & other energy conservation practices adopted by us save precious raw material/ product and greatly help in conserving valuable natural resources.

## **Good housekeeping practice is being done by**

1. Raw coal is stored in covered shed
2. Clinker and cement is being stored in covered silo.
3. Gypsum is stored in covered shed.
4. Regular road sweeping is being carried out mechanized sweeping machine.
5. Scheduled maintenance and monitoring of Pollution Control Devices is being done.

## **PART – H**

### **Additional measures/ investment proposal for environmental protection including abatement of pollution, and Prevention of Pollution.**

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Company has been installed and commissioned Continuous Online Ambient Air Quality Monitoring Systems and Continuous Online Emission Monitoring Systems and all the systems are connected with MPPCB and CPCB server for data transfer.

Sewage Treatment Plant (STP) has been installed for treatment of domestic effluent. STP treated water is being used for green belt development and plantation in the plant area.

Replacement of damaged filter bags in bag filters and Bag House to effectively control the dust emission during material transport to improve the air quality inside the plant premises.

The ecology of the area has improved due to Green Belt development programme undertaken by the plant. So far, approx 11270 trees in total have been planted over an area of 8.5 ha in the plant area.

For the pollution control measures the company incurred a cost of Rs. 47.756 per ton of Clinker production during 2023-24. This does not include capital investment for installation of Pollution Control devices.

### **ADDITIONAL MEASURES**

1. 491BC1 Belt skirt rubber modification work has been completed to control the fugitive dust emission .
2. 491BC2 Belt skirt rubber belt replaced with new one.
3. Gypsum hopper modification work done to control Fugitive dust emission.
4. 531 BC1 skirt rubber modification work done.

5. 531 BF3 discharge chute modification work done.
6. Fly ash bin venting line modification work done.
7. 531 BC3 discharge step chute repairing work done.
8. 541 BC2 discharge chute stone box making work.
9. 491BC2 discharge chute leakage arresting work by installed stone box.
10. RP venting line damper Installed for pine wear minimizing work.
11. A proper hazardous waste room has been Constructed for storage of used oil and used grease.
12. Twelve recharge bore wells with recharge pits are constructed for rain water harvesting.

## **PART-I**

### **Any other particulars for improving the quality of the Environment**

1. The company has planted about 11270 numbers of trees till date in the plant premises a. About 8.5 Ha green belt area covered till date.
2. Revival & Proper care of trees/plants by top up of soil and fertilizer.
3. 725 Numbers of bags and 725 nos. of cages replaced from Bag Filters & Bag Houses for controlling of dust emission effectively.
4. RO Reject water are being used for washing of utensil in kitchen and watering in green belt.
5. Water Sprinkling is being done on regular basis for dust suppression.
6. Awareness program and Tree plantation carried out on World Environment Day.
7. Awareness program carried out on International Ozone Day.
8. Awareness sessions carried out regarding Water conservation issues.
9. All the Internal Roads has been made CC Road to control fugitive Dust Emission.
10. Regular road sweeping is being carried out through mechanized road sweeping machine.



## Green Belt Development



- Sewage Waste Water is treated in 150 KLD Sewage Treatment Plant of Bio- Digester Technology.
- STP Treated Water is being used for the green belt development and Plantation Purposes.



**Continuous Ambient Air Quality Monitoring System (CAAQMS) installed and Connected to the Central Pollution Control Board & MPPCB.**





**CEMS (Continuous Emission Monitoring System) with Analyzers**



**Mechanized Sweeping Machine**





## Recharge Bore wells with Recharge Pits