BK BIRLA GROUP OF COMPANIES

MANGALAM CEMENT LTD.

MANGALAM CEMENT LTD.

Regd. A/D

MCL/Env. Audit-117(II)/2022-2023/ 4013 10.09.2022

Sr. Environment Engineer (CPP)
Rajasthan Pollution Control Board,
4, Institutional Area,
Jhalana Doongari,
Jaipur, (Rajasthan)

Dear Sir,

Sub.: -Environmental Statement for the year 2021-2022

With reference to above subject, we are enclosing herewith an Environmental Statement Report of Unit-III of M/s Mangalam Cement Ltd., Morak for the period from April-2021 to March-2022.

This is for your kind reference please. Kindly acknowledge the receipt of the same.

Thanking you,

Yours faithfully

For Mangalam Cement Ltd. (Unit-III)

P. R. Chaudhary
Sr. Joint President (O) & FM

Cc to: - The Regional Officer
Rajasthan Pollution Control Board
Plot No. Spl. 2A, ParyavaranMarg
Road No. 6, IndraprasthaIndl. Area
Kota - 324005

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FORM-V

ENVIRONMENTAL STATEMENT

(See rule 14)

Environmental Statement for the financial year ending with 31st March 2022

PART-A

1.	Name &address of the owner/ occupier of the industry/ operation or process	Shri K.C.Jain (Director) Mangalam Cement ltd. (Unit-III) Aditya Nagar, Village : Morak Distt: Kota (Raj.) Pin code : 326520
2.	Industry Category Primary – (STC Code) Secondary – (STC Code)	Red Category
3.	Production capacity	Cement : 6000 TPD
4.	Year of establishment	2013
5.	Date of last environmental statement submitted	07.09.2021

PART –B

Water and Raw Material Consumption:

i. Water consumption in m^3/d

Process: NA (As plant is based on Dry process technology)

Cooling: 55.63 M3/day

Domestic: 256.50 M3/Day, which is common for Unit –I, II, III & CPP- I & II and colonies.

Name of Products	Process water consumption per unit of products	
	During the previous financial year (2020-2021)	During the current financial Year (2021-2022)
1. Cement	0.0184	0.0162

ii. Raw material consumption

Name of raw materials*	Name of product	Consumption of raw material per unit of output	
		During previous financial year (2020-2021)	During Current financial year (2021-2022)
1. Fly ash	PPC Cement	0.312	0.309
2. Gypsum	OPC & PPC Cement	0.0615	0.072
3. Kota Stone Slurry	OPC Cement	0.050	0.048
4. Grinding Add	PromaxX Cement	0.010	0.010

*Industry may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw materials used.

iii) Power Consumption (KWH/T of Cement):-

During Previous Financial Year (2020-2021)	During Current Financial Year (2021-2022)
24.48 Unit / Tone of Cement	25.42 Unit / Tone of Cement

iv) Total Production (MT):-

Production	During Previous Financial Year (2020-2021)	During Current Financial Year (2021-2022)
Cement (OPC+PPC)	1016840	1256919.94

PART-C

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

Pollutants	Quantity of Pollutants discharged(mass/day)	Concentration of Pollutants in discharged(mass/volume)	Percentage of variation from prescribed standards with reasons.
a) Water	As the plant is being operated on dry process technology, total process water recycled, no liquid effluent is generated from the cement plant.		
b) Air	0.002 Ton / Day	11.86 mg/Nm^3	No any deviation

PART-D

HAZARDOUS WASTES

(As specified under Hazardous Wastes (Management, Handling & Transboundary Movement Rules, 2016).

Hazardous Wastes	Total Quantity (Kg)			
	During previous financial year (2020-2021)		During Current financial year (2021-2022)	
1. From Process (Cement Manufacturing is based on "Dry Process" no Hazardous waste is generated form the process except used oil which is drained from Machinery / Equipments)	We have Authorization for Hazardous waste Management & Handling for Unit – III,		We have Authorization for Hazardous waste Management & Handling for Unit – III,	
	Total Quantity Generated from April 2020 to March 2021 (Ltrs.)	0.0	Total Quantity Generated from April 2021 to March 2022 (Ltrs.)	400.0
	Old stock (Ltrs.)	NIL	Old stock (Ltrs.)	NIL
	Total Used Oil (Ltrs.)	0.0	Total Used Oil (Ltrs.)	400.0
	Sold–out to registered recycler (Ltrs.)	0.0	Sold–out to registered recycler (Ltrs.)	400.0
	Balance Quantity (Ltrs.)	NIL	Balance Quantity (Ltrs.)	NIL
Chemical Gypsum	NIL		NIL	
Waste Mix Liquid & Solid	NIL		NIL	
2. From pollution control facilities	NA		NA	

PART – E

SOLID WASTES:

Solid Wastes	Total Quantity (Kg)	
	During previous financial year (2020-2021)	During Current financial year (2021-2022)
1. From Process	NIL	NIL
2. From pollution control facilities	Dust Collected in the ESP's, bag house and bag filters are recycled to the system	
2. i) Quantity recycled or reutilised within the unit.	100 %	100 %
ii) Solid	NIL	NIL
iii) Disposed	NIL	NIL

PART – F

Please specify the characteristics (in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

Battery Wastes:-

As specified under Batteries (Management and Handling) Amendment Rules, 2010. We have purchased following new batteries of different categories is common for Cement Plant Unit I, II, III and Captive Power Plant Unit I & II and Mines-

Number of new batteries of categories purchased from the manufacturer / importer / dealer or any other agency.		During 1st April 2021 to 31st March 2022.
Common for Cement Plant Unit I, II, III and Captive Power Plant Unit I & II and Mines		
Category	i) No. Of Batteries	ii) Approximate weight (In metric Tonnes)
i) Automotive		
a) Four Wheeler	70	2.287
ii) Industrial		
a) UPS	731	8.899
Total	801	11.186

Number of used batteries of categories mentioned in Sl. No. 3 and Tonnage of scrap sent manufacturer / dealer / importer / registered recycler / or any other agency to whom the used batteries scrap was sent.		During 1st April 2021 to 31st March 2022.
Common for Cement Plant Unit I, II, III and Captive Power Plant Unit I & II and Mines		
Category	iii) No. Of Batteries	iv) Approximate weight (In metric Tonnes)
i) Automotive	0.0	4.560 MT
a) Four Wheeler		
ii) Industrial	235.0	
a) UPS		
Total	235.0	4.560 MT

Used battery scrap was sent to CPCB authorized recycler

Hazardous wastes

Cement manufacturing is based on "Dry Process". No Hazardous waste is generated from the process except used oil which is drained from Machineries / Equipments. The used oil & lead acid batteries are sold to CPCB authorized recyclers.

Bio-Medical Wastes:

Bio-Medical waste generated is common for Cement Plant, Power Plant and Mines during Period of January 2021 to December 2021 under the Bio-medical Waste Management Rules 2016 & its Amendments are as follows.

Year	Bio-Medical Waste Quantity (Kg) as per Colour Coding			
	Red	Blue	Yellow	White
1st Jan. 2021 to 31st Dec. 2021	1.133	1.518	2.649	0.370

E- Wastes:-

E- Waste disposal is common for Cement Plant, Power Plant and Mines during financial year 2019-2020 and 2020-2021 under the E-Waste (Management) Rules 2016 & its Amendments are as follows.

	Total Quantity Disposed	
	During Previous Financial Year (2020-2021)	During Previous Financial Year (2021-2022)
E-waste disposed	NIL	1240 kg

E-waste was sent to CPCB authorized recycler.

PART-G

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

M/s Mangalam Cement Limited is being operated on dry process technology, which is cost effective and environmentally clean technology. The stack emissions from the plant are controlled by equipment like ESPs & Bag Houses. 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 equipment and hence no cost impact on the production cost.

PART – H

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

Green belt development and tree plantation is our ongoing process. In the year 2020-2021 we have planted 510 No's of native species and up to March 2022, 131664 trees have been planted in premises of Unit – I, II, III, CPP – I, CPP – II and colonies.

PART –I

MISCELLANEOUS:

Any other particulars in respect of environmental protection and abatement of pollution.

1. We have full-fledged Environment Department with three separate cells, for monitoring, maintenance of pollution control equipment and Green Belt development.
2. Monitoring of stack emission and ambient air and water quality is being done regularly.
3. Maintenance department is doing regular checking and scheduled maintenance of all the pollution control devices.
4. Civil Department is taking care of Housekeeping, water supply & operation of STPs.
5. Horticulture Department is taking care of tree plantation and green belt development. Every year we are doing tree plantation.

We are enclosing herewith following documents:-

Annexure – 1:- Stack Emission Monitoring Test Reports
Annexure – 2:- Ambient Air Quality (PM10, PM2.5, NOx and SO2)

Annexure-I

M/s Mangalam Cement Ltd.
Unit-III

Stack Monitoring Report

Period: 2021-2022

S. No.	Month	Cement Mill-III
Prescribed Standards (in mg/NM3)		30 Mg/Nm3
1	Apr-21	11.72
2	May-21	14.60
3	Jun-21	11.50
4	Jul-21	13.48
5	Aug-21	15.81
6	Sep-21	15.40
7	Oct-21	9.20
8	Nov-21	7.50
9	Dec-21	7.95
10	Jan-22	11.10
11	Feb-22	9.85
12	Mar-22	14.19
Average		**11.86**
Min		7.50
Max		15.81

MANGALAM CEMENT LIMITED, MORAK, DIST: KOTA

AMBIENT AIR QUALITY (All values in µg/m3)

(Year : 2021-22)

Location Month	Near Railway Gate					Near Work Shop					Near Rack Loading Area					Near Security gate				
	PM 10	PM 2.5	SO2	NOx	CO	PM 10	PM 2.5	SO2	NOx	CO	PM 10	PM 2.5	SO2	NOx	CO	PM 10	PM 2.5	SO2	NOx	CO
Limits	**100**	**60**	**80**	**80**	**4000**	**100**	**60**	**80**	**80**	**4000**	**100**	**60**	**80**	**80**	**4000**	**100**	**60**	**80**	**80**	**4000**
Apr-21	61.4	31.4	6.9	14.0	396.0	54.6	27.6	6.9	13.6	444.6	61.8	32.1	7.4	11.2	532.1	56.6	27.6	8.2	15.9	561.3
May-21	58.3	31.6	6.7	14.0	465.8	51.7	26.4	6.7	14.4	404.8	48.7	26.0	4.8	11.4	515.8	48.9	25.3	4.3	13.7	562.7
Jun-21	62.4	33.3	5.8	13.4	479.3	53.4	28.9	6.3	14.3	465.4	55.2	28.7	6.4	14.2	481.4	49.3	25.6	6.3	14.4	484.9
Jul-21	54.3	30.5	5.4	12.7	425.2	48.9	27.3	5.4	12.9	432.1	47.6	25.6	5.3	13.2	451.7	44.9	22.5	5.9	13.9	434.9
Aug-21	53.3	29.6	5.6	13.3	372.4	49.2	25.7	5.7	13.6	369.6	51.6	26.1	5.9	13.0	312.6	46.1	22.6	5.6	13.7	315.4
Sep-21	48.6	24.7	5.2	11.9	361.2	50.7	26.6	5.1	13.8	379.3	47.6	23.1	5.2	11.4	379.8	52.5	28.0	5.8	14.9	355.7
Oct-21	51.9	26.4	4.4	12.0	414.2	53.6	28.7	4.5	14.7	422.0	50.2	23.8	4.6	11.0	418.0	55.9	29.9	7.3	15.6	436.1
Nov-21	59.9	30.0	3.8	11.3	390.8	66.5	32.7	4.6	15.3	398.6	55.9	30.3	4.2	11.2	381.4	66.2	36.5	7.3	17.2	468.9
Dec-21	59.8	30.6	3.6	11.5	375.1	65.6	32.5	4.4	14.8	406.4	59.1	31.4	4.1	11.8	398.6	66.0	36.5	7.6	16.9	437.7
Jan-22	56.4	29.2	3.3	11.0	367.3	60.7	32.3	3.9	13.8	351.7	54.7	29.3	4.4	10.8	367.3	62.6	34.8	6.8	15.5	422.0
Feb-22	63.4	28.8	3.3	11.3	359.5	66.8	32.6	3.7	13.8	359.5	58.2	30.2	3.8	11.3	367.3	69.4	37.0	6.5	17.4	390.8
Mar-22	65.9	31.8	3.8	11.3	390.8	66.5	34.9	3.9	13.3	414.2	61.9	32.9	4.5	11.7	429.8	70.3	40.5	7.8	16.9	375.1
Average	**58.0**	**29.8**	**4.8**	**12.3**	**399.8**	**57.4**	**29.7**	**5.1**	**14.0**	**404.0**	**54.4**	**28.3**	**5.1**	**11.8**	**419.7**	**57.4**	**30.6**	**6.6**	**15.5**	**437.1**
Minimum	**48.6**	**24.7**	**3.3**	**11.0**	**359.5**	**48.9**	**25.7**	**3.7**	**12.9**	**351.7**	**47.6**	**23.1**	**3.8**	**10.8**	**312.6**	**44.9**	**22.5**	**4.3**	**13.7**	**315.4**
Maximum	**65.9**	**33.3**	**6.9**	**14.0**	**479.3**	**66.8**	**34.9**	**6.9**	**15.3**	**465.4**	**61.9**	**32.9**	**7.4**	**14.2**	**532.1**	**70.3**	**40.5**	**8.2**	**17.4**	**562.7**

Annexure - IIA

MANGALAM CEMENT LIMITED, MORAK, DIST: KOTA

AMBIENT NOISE MONITORING REPORT

Year, 2021-22

Date	Measured Noise Level (in dBA)							
	Near Railway Gate		Near Work shop		Near Rack Loading Area		Near Security gate	
	Day	Night	Day	Night	Day	Night	Day	Night
Limits	**75.0**	**70.0**	**75.0**	**70.0**	**75.0**	**70.0**	**75.0**	**70.0**
Apr-21	69.0	64.2	66.8	62.3	68.8	63.5	68.7	64.2
May-21	67.2	62.1	66.2	60.8	68.9	63.1	68.5	63.4
Jun-21	67.4	61.6	64.8	59.3	67.2	61.6	66.9	60.8
Jul-21	64.7	60.1	65.5	60.3	63.6	59.3	67.2	61.4
Aug-21	65.2	58.3	67.6	61.1	65.8	59.6	67.8	61.8
Sep-21	64.8	58.5	68.1	61.1	64.1	58.8	69.3	62.0
Oct-21	66.7	58.7	68.5	61.2	65.2	58.3	70.2	60.9
Nov-21	66.6	58.9	70.3	60.4	64.5	58.2	71.3	62.8
Dec-21	66.2	58.0	65.7	58.6	65..6	58.1	70.4	61.3
Jan-22	65.9	56.8	66.3	56.1	65.6	57.1	69.9	59.8
Feb-22	65.3	56.3	67.7	56.0	63.0	56.9	69.5	59.0
Mar-22	67.1	56.3	67.5	56.3	64.1	56.3	69.4	58.9
Average	**66.3**	**59.2**	**67.1**	**59.5**	**65.5**	**59.2**	**69.1**	**61.4**
Minimum	**64.7**	**56.3**	**64.8**	**56.0**	**63.0**	**56.3**	**66.9**	**58.9**
Maximum	**69.0**	**64.2**	**70.3**	**62.3**	**68.9**	**63.5**	**71.3**	**64.2**