



BK BIRLA GROUP OF COMPANIES

MANGALAM CEMENT LTD.



Regd. A/D

MCL/Env. Audit – 117(II)/2024-2025/ 700

14.09.2024

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

Dear Sir,

Sub.: -Environmental Statement for the year 2023-2024

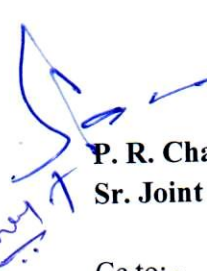
With reference to above subject, we are enclosing herewith an Environmental Statement Report of Unit-I, Colonies & Health Care Facility of M/s Mangalam Cement Ltd., Morak for the period from April-2023 to March-2024.

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

Thanking you,

Yours faithfully

For Mangalam Cement Ltd. (Unit-I)


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

Cc to: - The Regional Officer
Rajasthan Pollution Control Board
Plot No. Spl. 2A, Paryavaran Marg
Road No. 6, Indraprastha Indl. Area
Kota – 324005

Regd. Office & Works : P.O. Aditya Nagar-326520, Morak, Distt. Kota (Raj.) CIN : L26943RJ1976PLC001705, Telefax : 07459 - 23215
Website : www.mangalamcement.com, E-mail : email@mangalamcement.com

Kota Office : Shop No. 20, 80 Feet Road, Opp. Sukhdham Colony, (Near SBI Bank) Kota - 324001 (Rajasthan)

Delhi Office : 153, Leela Building (GF), Okhla Indl. Estate, Phase-III, New Delhi - 110020
Tel. No. : 011- 43539132, 43539133, 43539137 Fax : 011- 23421768
E-mail : delhi.purchase@mangalamcement.com, delhi.marketing@mangalamcement.com

Jaipur Office : 2nd Floor, Geejgarh Tower, Hawa-Sarak, Jaipur - 302 006 (Rajasthan)
Tel. : 0141 - 2218933, 2218931, E-mail : jaipur.marketing@mangalamcement.com

FORM-V
ENVIRONMENTAL STATEMENT
(See rule 14)

Environmental Statement for the financial year ending with 31st March 2024

PART-A

1.	Name & address of the owner/ occupier of the industry/ operation or process	Shri. P. R. Choudhary Sr. Joint President (O) & FM Mangalam Cement Ltd. (Unit-I) 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 :- 1.7 MTPA Clinker :- 1.35 MTPA
4.	Year of establishment	1981
5.	Date of last environmental statement submitted	14.09.2023

PART –B

Water and Raw Material Consumption:

I. Water consumption in m³/day

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

Cooling: - 122.37 M³/day

Domestic: - 140.30 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 Previous financial Year (2022-2023)	During the current financial Year (2023-2024)
1. Cement	0.044	0.054
2. Clinker	0.029	0.033

II. Raw material consumption (Cement Plant)

Name of raw materials*	Name of product	Consumption of raw material per unit of output	
		During Previous financial Year (2022-2023)	During the current financial Year (2023-2024)
1. Morak lime stone	Cement	1.2433	1.2458
2. High grade lime stone		0.1496	0.1476
3. Fly ash		0.336	0.345
4. Gypsum		0.070	0.070
5. Blue dust/ Red Ochre/ Laterite/ etc.		0.087	0.087
6. Coal		0.0149	0.0517
7. Pet Coke		0.086	0.052
8. Waste Stone slurry		0.049	0.050
9. Bio Mass		0.0	0.0
10. Carbon Black		0.0003	0.00002
11. Plastic Waste		0.0	0.0
12. Grinding Aid		0.0004	0.0009

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

Raw Material Consumption (D.G. Set)

Name of raw materials*	Name of product	Consumption of raw material (Ltr)	
		During Previous financial Year (2022-2023)	During the current financial Year (2023-2024)
H. S. Diesel	Power	975	1735

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

During Previous Financial Year	During Current Financial Year
64.92	57.41

iv) Total Production (MT):-

Production	During Previous Financial Year	During Current Financial Year
Clinker	1355964	1344920
Cement	876324.47	825157.24

Total Power Generation (DG Set) (KWh)

Production	During Previous Financial Year	During Current Financial Year
Power Generation	194	679

PART-C

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

Pollutants	Parameter	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) Kiln Main Stack	PM	0.116 Ton / day	18.91 mg/Nm ³	No any deviation
	SO ₂	0.128 Ton / day	20.00 mg/Nm ³	No any deviation
	NO _x	3.890 Ton / day	630.34 mg/Nm ³	No any deviation
c) Clinker Cooler Stack	PM	0.076 Ton / day	18.98 mg/Nm ³	No any deviation
d) Coal Mill Stack	PM	0.0254 Ton / day	16.16 mg/Nm ³	No any deviation
e) Cement Mill	PM	0.0112 Ton / day	18.52 mg/Nm ³	No any deviation

PART-D

HAZARDOUS WASTES

(As specified under Hazardous Wastes (M, H& Transboundary Movement Rules, 2016).

Hazardous Wastes	Total Quantity			
	During Previous financial Year (2022-2023)		During the current financial Year (2023-2024)	
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/ Equipment)	We have Authorization for Hazardous waste Management & Handling for Unit – I, CPP-I & II, D.G. set, Mines		We have Authorization for Hazardous waste Management & Handling for Unit – I, CPP-I & II, D.G. set, Mines	
	Total Quantity Generated from April 2022 to March 2023 (Ltrs.)	12600	Total Quantity Generated from April 2023 to March 2024 (Ltrs.)	11000
	Old stock (Ltrs.)	NIL	Old stock (Ltrs.)	NIL
	Total Used Oil (Ltrs.)	12600	Total Used Oil (Ltrs.)	11000
	Sold-out to registered recycler (Ltrs.)	12600	Sold-out to registered recycler (Ltrs.)	11000
	Balance Quantity (Ltrs.)	NIL	Balance Quantity (Ltrs.)	NIL
Chemical Gypsum	NIL		NIL	
Waste Mix Liquid & Solid	NIL		NIL	
Plastic Waste	NIL		NIL	
Agro Waste	NIL		NIL	
Tyre Chip	NIL		NIL	
Iron Sludge	NIL		NIL	
2. From pollution	NA		NA	

control facilities		
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PART-E

SOLID WASTE

Solid Wastes	Total Quantity (Kg)	
	During previous financial year (2022-2023)	During Current financial year (2023-2024)
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	
3. 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 Waste:-

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 1 st April 2023 to 31 st March 2024.
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 MT)
i) Automotive		
a) Four Wheeler	64	1.309
ii) Industrial		
a) UPS	220	1.654
Total	284	2.963

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 1 st April 2023 to 31 st March 2024.
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 MT)
i) Automotive	206	12.628 MT
a) Four Wheeler		
ii) Industrial	518	
a) UPS		
Total	724	12.628 MT

Used battery scrap was sent to CPCB authorized recycler

Hazardous Waste:

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 Waste:

Bio-Medical waste generated is common for Cement Plant, Power Plant and Mines during Period of January 2023 to December 2023 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
1 st Jan. 2023 to 31 st Dec. 2023	1.8483	1.3143	1.6807	0.2116

E- Waste:

E- Waste disposal is common for Cement Plant, Power Plant and Mines during financial year 2022-2023 and 2023-2024 under the E-Waste (Management) Rules 2016 & its amendments are as follows.

	Total Quantity Disposed	
	During previous financial year (2022-2023)	During Current financial year (2023-2024)
E-waste disposed	3220 kg	180 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 advantage of dry process is also in fuel economy. 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 on-going process. We have planted 567 No's of native species and up to March 2024, 132727 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 – 3:- Analysis Report of Treated Domestic Waste Water.

M/s Mangalam Cement Ltd.
Unit-I

Stack Monitoring Report
(All values are in Mg/Nm³)

Period: 2023-2024

S.No.	Month	Kiln-I Stack			Cooler-I	Cement Mill-I	Vertical Coal Mill-I
		PM	SO2	NOx			
Prescribed Standards		30	100	800	30	30	30
1	Apr-23	16.40	17.75	499.50	19.45	18.10	15.40
2	May-23	16.28	18.60	688.00	18.52	17.00	16.90
3	Jun-23	17.60	18.06	690.00	18.45	18.60	13.60
4	Jul-23	18.05	16.10	658.50	20.30	18.20	15.65
5	Aug-23	18.30	17.80	557.00	18.20	19.40	15.95
6	Sep-23	16.05	32.20	535.00	20.50	19.70	15.35
7	Oct-23	17.30	19.20	650.20	22.80	19.30	13.10
8	Nov-23	18.19	13.06	637.20	18.73	17.78	19.28
9	Dec-23	21.60	26.60	640.50	13.70	17.80	15.20
10	Jan-24	24.00	7.80	685.20	22.30	18.70	17.72
11	Feb-24	24.10	25.20	647.50	17.70	18.70	17.80
12	Mar-24	19.00	27.60	675.50	17.10	18.90	18.00
Average		18.91	20.00	630.34	18.98	18.52	16.16
Min		16.05	7.80	499.50	13.70	17.00	13.10
`Max		24.10	32.20	690.00	22.80	19.70	19.28

MANGALAM CEMENT LIMITED, MORAK, DIST: KOTA

AMBIENT AIR QUALITY (All values in µg/m³)

(Year: 2023-24)

Location Month	Near Railway Gate					Near Work Shop					Near Rack Loading Area					Near Security gate				
	PM 10	PM 2.5	SO ₂	NO _x	CO	PM 10	PM 2.5	SO ₂	NO _x	CO	PM 10	PM 2.5	SO ₂	NO _x	CO	PM 10	PM 2.5	SO ₂	NO _x	CO
Limits	100	60	80	80	4000	100	60	80	80	4000	100	60	80	80	4000	100	60	80	80	4000
Apr-23	66.4	31.7	3.3	11.3	351.7	69.8	36.1	3.6	13.6	395.6	62.6	32.2	3.5	11.6	382.9	69.5	41.5	7.1	16.7	429.8
May-23	63.1	28.4	3.3	11.4	362.2	69.0	33.9	3.8	13.6	354.3	61.4	29.4	3.7	11.0	409.9	72.6	39.4	6.2	16.2	402.9
Jun-23	66.2	26.7	3.1	11.1	416.8	72.9	35.7	3.7	13.9	382.1	60.7	31.9	3.6	11.4	354.3	76.7	42.0	4.7	17.3	409.9
Jul-23	53.9	26.8	4.8	11.5	409.9	58.9	30.2	5.2	12.6	375.1	47.1	26.3	4.9	11.0	396.0	55.1	31.2	6.1	14.1	347.3
Aug-23	46.8	29.4	5.4	11.2	423.9	49.3	31.6	6.2	11.7	329.3	44.1	30.1	5.2	11.5	423.8	46.4	32.7	6.1	9.5	436.3
Sep-23	47.1	28.7	4.2	11.7	423.8	48.1	31.1	5.0	10.3	419.6	42.1	29.0	6.2	14.0	373.7	44.8	32.2	8.6	7.3	415.4
Oct-23	50.6	33.6	5.1	11.7	444.6	60.1	36.3	6.0	12.2	436.3	47.5	32.6	5.7	13.2	426.5	57.9	35.8	6.7	14.0	675.2
Nov-23	49.5	33.3	4.3	10.6	400.1	59.8	34.9	4.9	14.5	412.6	43.4	29.6	3.8	10.7	386.2	61.0	32.8	8.0	17.3	432.1
Dec-23	54.0	33.1	4.2	11.2	458.5	62.5	32.6	5.3	16.0	401.5	44.6	31.1	4.8	11.8	434.9	52.9	34.3	7.3	17.4	437.7
Jan-24	58.1	33.0	4.9	10.0	447.4	66.6	35.0	5.2	13.3	401.5	50.4	31.6	4.9	11.3	396.0	63.1	36.4	7.4	12.8	408.5
Feb-24	62.1	33.1	4.1	11.5	431.4	68.4	35.1	5.5	12.1	450.2	50.0	30.9	5.1	11.7	375.1	67.3	35.3	7.8	13.5	423.6
Mar-24	63.9	34.0	4.7	11.0	393.2	70.5	36.0	5.8	14.1	401.5	47.6	34.0	5.7	12.3	432.1	68.3	36.4	6.7	13.3	434.9
Average	56.8	31.0	4.3	11.2	413.6	63.0	34.0	5.0	13.2	396.6	50.1	30.7	4.8	11.8	399.3	61.3	35.8	6.9	14.1	437.8
Minimum	46.8	26.7	3.1	10	351.7	48.1	30.2	3.6	10.3	329.3	42.1	26.3	3.5	10.7	354.3	44.8	31.2	4.7	7.3	347.3
Maximum	66.4	34	5.4	11.7	458.5	72.9	36.3	6.2	16	450.2	62.6	34	6.2	14	434.9	76.7	42.0	8.6	17.4	675.2

MANGALAM CEMENT LIMITED, MORAK, DIST: KOTA

AMBIENT NOISE MONITORING REPORT

Year, 2023-24

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-23	66.0	55.4	69.9	56.2	63.5	54.9	68.4	56.6
May-23	66.1	55.2	64.9	55.6	66.7	55.6	68.6	56.3
Jun-23	66.8	54.4	64.3	54.7	64.1	54.5	67.5	55.6
Jul-23	65.8	56.4	64.0	55.1	64.4	54.2	67.6	55.5
Aug-23	64.3	56.3	65.1	57.6	63.4	56.0	64.6	59.2
Sep-23	65.2	54.4	64.8	55.9	63.9	56.0	68.1	58.5
Oct-23	66.7	55.5	65.5	56.3	65.2	55.8	66.9	56.9
Nov-23	64.4	54.9	67.4	57.8	64.4	56.1	68.2	57.0
Dec-23	66.5	55.3	68.4	57.9	63.8	55.4	66.6	57.2
Jan-24	66.5	55.7	68.8	57.2	65.3	56.7	67.6	57.2
Feb-24	66.5	55.8	70.7	57.4	64.2	54.7	67.4	55.5
Mar-24	66.3	55.8	69.1	57.8	64.1	56.1	67.4	57.2
Average	65.9	55.4	66.9	56.6	64.4	55.5	67.4	56.9
Minimum	64.3	54.4	64.0	54.7	63.4	54.2	64.6	55.5
Maximum	66.8	56.4	70.7	57.9	66.7	56.7	68.6	59.2

M/S Mangalam Cement Ltd - Morak, Kota (Rajasthan)									
Basant Vihar Colony STP Outlet : (2023-2024)									
Parameters	PH (at 25 'c)	COD	BOD (3 days at 27'c)	TSS	Oil and Grease	Total Residue Chlorine	Ammonical Nitrogen as N	Nitrate as NO3	Fecal Coliform MPN/100 ml
Permissible Limits	(5.5 to 9.0)	(250 Mg/L)	(30 Mg/L)	(100 Mg/L)	(10 Mg/L)	(1.0 Mg/L)	(50 Mg/L)	(50 Mg/L)	(<1000)
Average Result (April-2023 to March-2024)	7.37	51.63	11.06	27.48	4.37	0.26	4.04	8.29	46.82

M/S Mangalam Cement Ltd - Morak, Kota (Rajasthan)									
Sarvoday Vihar Colony STP Outlet: (2023-2024)									
Parameters	PH (at 25 'c)	COD	BOD (3 days at 27'c)	TSS	Oil and Grease	Total Residue Chlorine	Ammonical Nitrogen as N	Nitrate as NO3	Fecal Coliform MPN/100 ml
Permissible Limits	(5.5 to 9.0)	(250 Mg/L)	(30 Mg/L)	(100 Mg/L)	(10 Mg/L)	(1.0 Mg/L)	(50 Mg/L)	(50 Mg/L)	(<1000)
Average Result (April-2023 to March-2024)	7.32	66.44	11.85	31.95	4.30	0.24	36.30	4.38	50.36



BK BIRLA GROUP OF COMPANIES

MANGALAM CEMENT LTD.



MANGALAM CEMENT LTD.

Regd. A/D

14.09.2024

MCL/Env. Audit-117(II)/2024-2025/ 703

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

Dear Sir,

Sub.:- Environmental Statement for the year 2023-2024

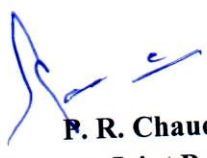
With reference to above subject, we are enclosing herewith an Environmental Statement Report of Unit-II of M/s Mangalam Cement Ltd., Morak for the period from April-2023 to March-2024.

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

Thanking you,

Yours faithfully

For Mangalam Cement Ltd. (Unit-II)


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

Cc to: - The Regional Officer
Rajasthan Pollution Control Board
Plot No. Spl. 2A, Paryavaran Marg
Road No. 6, Indraprastha Indl. Area
Kota - 324005

Regd. Office & Works : P.O. Aditya Nagar-326520, Morak, Distt. Kota (Raj.) CIN : L26943RJ1976PLC001705, Telefax : 07459 - 2321
Website : www.mangalamcement.com, E-mail : email@mangalamcement.com

Kota Office : Shop No. 20, 80 Feet Road, Opp. Sukhdham Colony, (Near SBI Bank) Kota - 324001 (Rajasthan)

Delhi Office : 153, Leela Building (GF), Okhla Indl. Estate, Phase-III, New Delhi - 110020
Tel. No. : 011- 43539132, 43539133, 43539137 Fax : 011- 23421768
E-mail : delhi.purchase@mangalamcement.com, delhi.marketing@mangalamcement.com

Jaipur Office : 2nd Floor, Geejgarh Tower, Hawa-Sarak, Jaipur - 302 006 (Rajasthan)
Tel. : 0141 - 2218933, 2218931, E-mail : jaipur.marketing@mangalamcement.com

FORM-V
ENVIRONMENTAL STATEMENT
(See rule 14)

Environmental Statement for the financial year ending with 31st March 2024

PART-A

1.	Name & address of the owner/ occupier of the industry/ operation or process	Shri. P. R. Choudhary Sr. Joint President (O) & FM Mangalam Cement Ltd. (Unit-II) 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 : 2.30 MTPA Clinker : 1.32 MTPA
4.	Year of establishment	1993
5.	Date of last environmental statement submitted	14.09.2023

PART –B

Water and Raw Material Consumption:

I. Water consumption in m³/d

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

Cooling: 343.28 M³/day

Domestic: 140.30 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 Previous financial Year (2022-2023)	During the current financial Year (2023-2024)
1. Cement	0.114	0.141
2. Clinker	0.110	0.100

II. Raw material consumption

Name of raw materials*	Name of product	Consumption of raw material per unit of output	
		During Previous financial Year (2022-2023)	During the current financial Year (2023-2024)
1. Morak lime stone	Cement	1.240	1.248
2. High grade lime stone		0.151	0.148
3. Fly ash		0.34	0.34
4. Gypsum		0.07	0.06
5. Blue dust/ Red Ochre/ Laterite		0.0889	0.0830
6. Coal		0.058	0.101
7. Pet Coke		0.049	0.007
8. Waste Stone slurry		0.05	0.05
9. Bio Mass		0.0001	0.0011
10. Carbon Black		0	0.0001
11. Plastic Waste		0	0.0001
12. Grinding Aid		0.0003	0.0009

*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 (2021-2022)	During Current Financial Year (2022-2023)
78.44 unit / of cement	82.52 unit / of cement

iv) Total Production (MT):-

Production	During Previous Financial Year (2021-2022)	During Current Financial Year (2023-2024)
Clinker	1047839	1258103
Cement	1009940.5	890392.83

PART-C

Pollution discharged to environment/unit of output

(Parameter as specified in the consent issued)

Pollutants	Parameter	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) Kiln Main Stack	PM	0.126 Ton / day	18.27 mg/Nm ³	No any deviation
	SO ₂	0.107 Ton / day	15.38 mg/Nm ³	No any deviation
	NO _x	3.723 Ton / day	541.71 mg/Nm ³	No any deviation

c) Clinker Cooler Stack	PM	0.087 Ton / day	19.74 mg/Nm ³	No any deviation
d) Coal Mill Stack	PM	0.0336 Ton/ day	19.30 mg/Nm ³	No any deviation
e) Cement Mill	PM	0.0064 Ton/ day	18.72 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 (2022-2023)		During Current financial year (2023-2024)	
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 – II,		We have Authorization for Hazardous waste Management & Handling for Unit – II,	
	Total Quantity Generated from April 2022 to March 2023 (Ltrs.)	10400	Total Quantity Generated from April 2023 to March 2024 (Ltrs.)	11400
	Old stock (Ltrs.)	NIL	Old stock (Ltrs.)	NIL
	Total Used Oil (Ltrs.)	10400	Total Used Oil (Ltrs.)	11400
	Sold-out to registered recycler (Ltrs.)	10400	Sold-out to registered recycler (Ltrs.)	11400
	Balance Quantity (Ltrs.)	NIL	Balance Quantity (Ltrs.)	NIL
Chemical Gypsum	NIL		NIL	
Waste Mix Liquid & Solid	NIL		NIL	
Plastic Waste	NIL		173.705 MT	
Agro waste	144.57 MT		1325.25 MT	
Tyre Chip	NIL		NIL	
Iron Sludge	NIL		NIL	
2. From pollution control facilities	NA		NA	

PART-E

SOLID WASTE

Solid Wastes	Total Quantity (Kg)	
	During previous financial year (2022-2023)	During Current financial year (2023-2024)
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	
3. 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 Waste:-

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 1 st April 2023 to 31 st March 2024.
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	64	1.309
ii) Industrial		
a) UPS	220	1.654
Total	284	2.963

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 1 st April 2023 to 31 st March 2024.
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	206	12.628 MT
a) Four Wheeler		
ii) Industrial	518	
a) UPS		
Total	724	12.628 MT

Used battery scrap was sent to CPCB authorized recycler

Hazardous waste:

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 Waste:

Bio-Medical waste generated is common for Cement Plant, Power Plant and Mines during Period of January 2023 to December 2023 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
1 st Jan. 2023 to 31 st Dec. 2023	1.8483	1.3143	1.6807	0.2116

E- Waste:-

E- Waste disposal is common for Cement Plant, Power Plant and Mines during financial year 2022-2023 and 2023-2024 under the E-Waste (Management) Rules 2016 & its amendments are as follows.

	Total Quantity Disposed	
	During Previous Financial Year (2022-2023)	During current Financial Year (2023-2024)
E-waste disposed	3220 kg	180 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 advantage of dry process is also in fuel economy. 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. We have planted 567 No's of native species and up to March 2024, 132727 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)

M/s Mangalam Cement Ltd.							
Unit-II							
Stack Monitoring Report							
(All values are in Mg/Nm3)							
<u>Period: 2023-2024</u>							
S. No.	Month	Kiln-II Stack			Cooler-II	Cement Mill-II	Vertical Coal Mill-II
		PM	SO2	NOx			
Prescribed Standards		30	100	800	30	30	30
1	Apr-23	18.50	11.90	482.19	17.25	17.70	14.10
2	May-23	19.45	16.55	617.00	14.70	20.75	16.90
3	Jun-23	16.60	20.20	670.00	19.98	18.85	16.40
4	Jul-23	17.70	22.21	515.00	19.95	17.98	18.95
5	Aug-23	12.85	9.10	410.00	20.90	18.55	15.30
6	Sep-23	18.90	17.20	515.50	18.95	19.40	20.35
7	Oct-23	18.85	8.40	498.50	18.95	18.65	15.55
8	Nov-23	19.33	16.59	566.63	21.10	18.95	25.05
9	Dec-23	19.40	20.10	600.00	21.30	18.48	25.00
10	Jan-24	19.56	21.95	610.50	21.80	18.00	19.30
11	Feb-24	19.50	5.30	345.20	20.90	19.00	24.10
12	Mar-24	18.60	15.10	670.00	21.05	18.30	20.60
Average		18.27	15.38	541.71	19.74	18.72	19.30
Min		12.85	5.30	345.20	14.70	17.70	14.10
Max		19.56	22.21	670.00	21.80	20.75	25.05

MANGALAM CEMENT LIMITED, MORAK, DIST: KOTA

AMBIENT AIR QUALITY (All values in $\mu\text{g}/\text{m}^3$)

(Year : 2023-24)

Location Month	Near Railway Gate					Near Work Shop					Near Rack Loading Area					Near Security gate				
	PM 10	PM 2.5	SO ₂	NO _x	CO	PM 10	PM 2.5	SO ₂	NO _x	CO	PM 10	PM 2.5	SO ₂	NO _x	CO	PM 10	PM 2.5	SO ₂	NO _x	CO
Limits	100	60	80	80	4000	100	60	80	80	4000	100	60	80	80	4000	100	60	80	80	4000
Apr-23	66.4	31.7	3.3	11.3	351.7	69.8	36.1	3.6	13.6	395.6	62.6	32.2	3.5	11.6	382.9	69.5	41.5	7.1	16.7	429.8
May-23	63.1	28.4	3.3	11.4	362.2	69.0	33.9	3.8	13.6	354.3	61.4	29.4	3.7	11.0	409.9	72.6	39.4	6.2	16.2	402.9
Jun-23	66.2	26.7	3.1	11.1	416.8	72.9	35.7	3.7	13.9	382.1	60.7	31.9	3.6	11.4	354.3	76.7	42.0	4.7	17.3	409.9
Jul-23	53.9	26.8	4.8	11.5	409.9	58.9	30.2	5.2	12.6	375.1	47.1	26.3	4.9	11.0	396.0	55.1	31.2	6.1	14.1	347.3
Aug-23	46.8	29.4	5.4	11.2	423.9	49.3	31.6	6.2	11.7	329.3	44.1	30.1	5.2	11.5	423.8	46.4	32.7	6.1	9.5	436.3
Sep-23	47.1	28.7	4.2	11.7	423.8	48.1	31.1	5.0	10.3	419.6	42.1	29.0	6.2	14.0	373.7	44.8	32.2	8.6	7.3	415.4
Oct-23	50.6	33.6	5.1	11.7	444.6	60.1	36.3	6.0	12.2	436.3	47.5	32.6	5.7	13.2	426.5	57.9	35.8	6.7	14.0	675.2
Nov-23	49.5	33.3	4.3	10.6	400.1	59.8	34.9	4.9	14.5	412.6	43.4	29.6	3.8	10.7	386.2	61.0	32.8	8.0	17.3	432.1
Dec-23	54.0	33.1	4.2	11.2	458.5	62.5	32.6	5.3	16.0	401.5	44.6	31.1	4.8	11.8	434.9	52.9	34.3	7.3	17.4	437.7
Jan-24	58.1	33.0	4.9	10.0	447.4	66.6	35.0	5.2	13.3	401.5	50.4	31.6	4.9	11.3	396.0	63.1	36.4	7.4	12.8	408.5
Feb-24	62.1	33.1	4.1	11.5	431.4	68.4	35.1	5.5	12.1	450.2	50.0	30.9	5.1	11.7	375.1	67.3	35.3	7.8	13.5	423.6
Mar-24	63.9	34	4.7	11.0	393.2	70.5	36.0	5.8	14.1	401.5	47.6	34.0	5.7	12.3	432.1	68.3	36.4	6.7	13.3	434.9
Average	56.8	31.0	4.3	11.2	413.6	63.0	34.0	5.0	13.2	396.6	50.1	30.7	4.8	11.8	399.3	61.3	35.8	6.9	14.1	437.8
Minimum	46.8	26.7	3.1	10	351.7	48.1	30.2	3.6	10.3	329.3	42.1	26.3	3.5	10.7	354.3	44.8	31.2	4.7	7.3	347.3
Maximum	66.4	34	5.4	11.7	458.5	72.9	36.3	6.2	16	450.2	62.6	34	6.2	14	434.9	76.7	42	8.6	17.4	675.2

Annexure - IIA**MANGALAM CEMENT LIMITED, MORAK, DIST: KOTA****AMBIENT NOISE MONITORING REPORT****Year, 2023-24**

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-23	66.0	55.4	69.9	56.2	63.5	54.9	68.4	56.6
May-23	66.1	55.2	64.9	55.6	66.7	55.6	68.6	56.3
Jun-23	66.8	54.4	64.3	54.7	64.1	54.5	67.5	55.6
Jul-23	65.8	56.4	64.0	55.1	64.4	54.2	67.6	55.5
Aug-23	64.3	56.3	65.1	57.6	63.4	56.0	64.6	59.2
Sep-23	65.2	54.4	64.8	55.9	63.9	56.0	68.1	58.5
Oct-23	66.7	55.5	65.5	56.3	65.2	55.8	66.9	56.9
Nov-23	64.4	54.9	67.4	57.8	64.4	56.1	68.2	57.0
Dec-23	66.5	55.3	68.4	57.9	63.8	55.4	66.6	57.2
Jan-24	66.5	55.7	68.8	57.2	65.3	56.7	67.6	57.2
Feb-24	66.5	55.8	70.7	57.4	64.2	54.7	67.4	55.5
Mar-24	66.3	55.8	69.1	57.8	64.1	56.1	67.4	57.2
Average	65.9	55.4	66.9	56.6	64.4	55.5	67.4	56.9
Minimum	64.3	54.4	64.0	54.7	63.4	54.2	64.6	55.5
Maximum	66.8	56.4	70.7	57.9	66.7	56.7	68.6	59.2



B.K. BIRLA GROUP OF COMPANIES

MANGALAM CEMENT LTD.



MANGALAM CEMENT LTD.

Regd. A/D

14.09.2024

MCL/Env. Audit-117(II)/2024-2025/ 704

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

Dear Sir,

Sub.: -Environmental Statement for the year 2023-2024

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-2023 to March-2024. 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, Paryavaran Marg
Road No. 6, Indraprastha Indl. Area
Kota - 324005

Regd: Office & Works : P.O. Aditya Nagar-326520, Morak, Distt. Kota (Raj.) CIN : L26943RJ1976PLC001705, Telefax : 07459 - 232156
Website : www.mangalamcement.com, E-mail : email@mangalamcement.com

Kota Office : Shop No. 20, 80 Feet Road, Opp. Sukhdham Colony, (Near SBI Bank) Kota - 324001 (Rajasthan)

Delhi Office : 153, Leela Building (GF), Okhla Indl. Estate, Phase-III, New Delhi - 110020
Tel. No. : 011- 43539132, 43539133, 43539137 Fax : 011- 23421768
E-mail : delhi.purchase@mangalamcement.com, delhi.marketing@mangalamcement.com

Jaipur Office : 2nd Floor, Geejgarh Tower, Hawa-Sarak, Jaipur - 302 006 (Rajasthan)
Tel. : 0141 - 2218933, 2218931, E-mail : jaipur.marketing@mangalamcement.com

FORM-V
ENVIRONMENTAL STATEMENT

(See rule 14)

Environmental Statement for the financial year ending with 31st March 2024

PART-A

1.	Name & address of the owner/ occupier of the industry/ operation or process	Shri. P. R. Chaudhary Sr. Joint President (O) & FM 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	14.09.2023

PART –B

Water and Raw Material Consumption:

i. Water consumption in m³/d

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

Cooling: 72.61 M3/day

Domestic: 140.30 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 (2022-2023)	During the current financial Year (2023-2024)
1. Cement	0.0140	0.0228

ii. Raw material consumption

Name of raw materials*	Name of product	Consumption of raw material per unit of output	
		During previous financial year (2022-2023)	During Current financial year (2023-2024)
1. Fly ash	PPC Cement	0.312	0.323
2. Gypsum	OPC & PPC Cement	0.068	0.067
3. Kota Stone Slurry	OPC Cement	0.049	0.050
4. Grinding Aid	PromaxX Cement	0.000348	0.000999
5. CEMCO Aid	PPC Cement	0.0101	0.00733

*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 (2022-2023)	During Current Financial Year (2023-2024)
27.08 Unit / Tone of Cement	25.96 Unit / Tone of Cement

iv) Total Production (MT):-

Production	During Previous Financial Year (2022-2023)	During Current Financial Year (2023-2024)
Cement (OPC+PPC)	1176471.935	1166781.035

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	0.003 Ton / Day	18.89 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 (2022-2023)		During Current financial year (2023-2024)	
1. 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)	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 2022 to March 2023 (Ltrs.)	0.0	Total Quantity Generated from April 2023 to March 2024 (Ltrs.)	0.0
	Old stock (Ltrs.)	NIL	Old stock (Ltrs.)	NIL
	Total Used Oil (Ltrs.)	0.0	Total Used Oil (Ltrs.)	0.0
	Sold-out to registered recycler (Ltrs.)	0.0	Sold-out to registered recycler (Ltrs.)	0.0
	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 (2022-2023)	During Current financial year (2023-2024)
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 1 st April 2023 to 31 st March 2024.
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	64	1.309
ii) Industrial		
a) UPS	220	1.654
Total	284	2.963

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 1 st April 2023 to 31 st March 2024.
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	206	12.628 MT
a) Four Wheeler		
ii) Industrial	518	
a) UPS		
Total	724	12.628 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 / Equipment. 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 2023 to December 2023 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
1 st Jan. 2023 to 31 st Dec. 2023	1.8483	1.3143	1.6807	0.2116

E- Wastes:-

E- Waste disposal is common for Cement Plant, Power Plant and Mines during financial year 2022-2023 and 2023-2024 under the E-Waste (Management) Rules 2016 & its Amendments are as follows.

	Total Quantity Disposed	
	During Previous Financial Year (2022-2023)	During Previous Financial Year (2023-2024)
E-waste disposed	3220 kg	180 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. We have planted 567 No's of native species and up to March 2024, 132727 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)

M/s Mangalam Cement Ltd. Unit-III		
Stack Monitoring Report		
<u>Period: 2023-2024</u>		
S.No.	Month	Cement Mill-III
Prescribed Standards (in mg/NM3)		30 Mg/Nm3
1	Apr-23	15.00
2	May-23	17.25
3	Jun-23	14.82
4	Jul-23	22.55
5	Aug-23	19.35
6	Sep-23	15.68
7	Oct-23	16.32
8	Nov-23	17.01
9	Dec-23	25.40
10	Jan-24	22.50
11	Feb-24	22.00
12	Mar-24	18.80
Average		18.89
Min		14.82
Max		25.40

MANGALAM CEMENT LIMITED, MORAK, DIST: KOTA**AMBIENT AIR QUALITY (All values in µg/m3)****(Year: 2023-24)**

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-23	66.4	31.7	3.3	11.3	351.7	69.8	36.1	3.6	13.6	395.5	62.6	32.2	3.5	11.6	382.9	69.5	41.5	7.1	16.7	429.8
May-23	63.1	28.4	3.3	11.4	361.2	69.0	33.9	3.8	13.6	354.3	61.4	29.4	3.7	11.0	409.9	72.6	39.4	6.2	16.2	402.9
Jun-23	66.2	26.7	3.1	11.1	416.8	72.9	35.7	3.7	13.9	382.1	60.7	31.9	3.6	11.4	354.3	76.7	42.0	4.7	17.3	409.9
Jul-23	53.9	26.8	4.8	11.5	409.9	58.9	30.2	5.2	12.6	375.1	47.1	26.3	4.9	11.0	396.0	55.1	31.2	6.1	14.1	347.3
Aug-23	46.8	29.4	5.4	11.2	423.8	49.3	31.6	6.2	11.7	329.3	44.1	30.1	5.2	11.5	423.8	46.4	32.7	6.1	9.5	436.3
Sep-23	47.1	28.7	4.2	11.7	423.8	48.1	31.1	5.0	10.3	419.6	42.1	29.0	6.2	14.0	373.7	44.8	32.2	8.6	7.3	415.4
Oct-23	50.6	33.6	5.1	11.7	444.6	60.1	36.3	6.0	12.2	436.3	47.5	32.6	5.7	13.2	426.5	57.9	35.8	6.7	14.0	675.2
Nov-23	49.5	33.3	4.3	10.6	400.1	59.8	34.9	4.9	14.5	412.6	43.4	29.6	3.8	10.7	386.2	61.0	32.8	8.0	17.3	432.1
Dec-23	54.0	33.1	4.2	11.2	458.5	62.5	32.6	5.3	16.0	401.5	44.6	31.1	4.8	11.8	434.9	52.9	34.3	7.3	17.4	437.7
Jan-24	58.1	33.0	4.9	10.0	447.4	66.6	35.0	5.2	13.3	401.5	50.4	31.6	4.9	11.3	396.0	63.1	36.4	7.4	12.8	408.5
Feb-24	62.1	33.1	4.1	11.5	431.4	68.4	35.1	5.5	12.1	450.2	50.0	30.9	5.1	11.7	375.1	67.3	35.3	7.8	13.5	423.6
Mar-24	63.9	34.0	4.7	11.0	393.2	70.5	36.0	5.8	14.1	401.5	47.6	34.0	5.7	12.3	432.1	68.3	36.4	6.7	13.3	434.9
Average	56.8	31.0	4.3	11.2	413.5	63.0	34.0	5.0	13.2	396.6	50.1	30.7	4.8	11.8	399.3	61.3	35.8	6.9	14.1	437.8
Minimum	46.8	26.7	3.1	10.0	351.7	48.1	30.2	3.6	10.3	329.3	42.1	26.3	3.5	10.7	354.3	44.8	31.2	4.7	7.3	347.3
Maximum	66.4	34.0	5.4	11.7	458.5	72.9	36.3	6.2	16.0	450.2	62.6	34.0	6.2	14.0	434.9	76.7	42.0	8.6	17.4	675.2

MANGALAM CEMENT LIMITED, MORAK, DIST: KOTA

AMBIENT NOISE MONITORING REPORT

Year, 2023-24

Date	Measured Noise Level (in dBA)							
	Near Railway Gate		Near Workshop		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-23	66.7	56.8	65.3	55.8	64.3	56.6	69.3	57.6
May-23	67.4	56.7	66.3	55.6	66.6	57.3	69.4	57.8
Jun-23	67.6	56.1	63.3	56.7	66.3	55.7	68.4	57.8
Jul-23	65.3	55.5	63.9	55.1	64.9	55.7	69.0	57.1
Aug-23	64.5	55.7	67.7	56.5	64.2	56.0	69.3	59.2
Sep-23	65.7	55.6	66.8	55.7	63.2	56.0	69.6	59.4
Oct-23	65.0	55.5	67.0	56.0	63.7	55.1	68.7	57.2
Nov-23	66.6	54.9	69.2	57.7	64.3	55.8	66.8	55.6
Dec-23	66.1	55.0	69.2	57.8	63.8	55.0	66.1	56.6
Jan-24	67.5	55.6	68.8	55.8	64.8	56.4	66.6	57.3
Feb-24	65.8	55.6	69.7	56.4	64.1	55.8	66.5	55.7
Mar-24	65.1	54.9	69.2	56.6	63.8	54.7	65.8	55.5
Average	66.1	55.7	67.2	56.3	64.5	55.8	68.0	57.2
Minimum	64.5	54.9	63.3	55.1	63.2	54.7	65.8	55.5
Maximum	67.6	56.8	69.7	57.8	66.6	57.3	69.6	59.4



BK BIRLA GROUP OF COMPANIES

MANGALAM CEMENT LTD.



MANGALAM CEMENT LTD.

Regd. A/D

MCL/Env. Audit-117(II)/2024-2025/ 699

14.09.2024

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

Dear Sir,

Sub.: -Environmental Statement for the year 2023-2024

With reference to above subject, we are enclosing herewith an Environmental Statement Report of Waste Heat Recovery based 11 MW Power Plant of M/s Mangalam Cement Ltd., Morak for the period from April-2023 to March-2024.

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

Thanking you,

Yours faithfully

For Mangalam Cement Ltd.


P. R. Chaudhary

Sr. Joint President (O) & FM

Cc to: - The Regional Officer
Rajasthan Pollution Control Board
Plot No. Spl. 2A, Paryavaran Marg
Road No. 6, Indraprastha Indl. Area
Kota – 324005

Regd. Office & Works : P.O. Aditya Nagar-326520, Morak, Distt. Kota (Raj.) CIN : L26943RJ1976PLC001705, Telefax : 07459 - 232156
Website : www.mangalamcement.com, E-mail : email@mangalamcement.com

Kota Office : Shop No. 20, 80 Feet Road, Opp. Sukhdham Colony, (Near SBI Bank) Kota - 324001 (Rajasthan)

Delhi Office : 153, Leela Building (GF), Okhla Indl. Estate, Phase-III, New Delhi - 110020
Tel. No. : 011- 43539132, 43539133, 43539137 Fax : 011- 23421768
E-mail : delhi.purchase@mangalamcement.com, delhi.marketing@mangalamcement.com

Jaipur Office : 2nd Floor, Geejgarh Tower, Hawa-Sarak, Jaipur - 302 006 (Rajasthan)
Tel. : 0141 - 2218933, 2218931, E-mail : jaipur.marketing@mangalamcement.com

FORM-V
ENVIRONMENTAL STATEMENT
(See rule 14)

Environmental Statement for the financial year ending with 31st March 2024

PART-A

1.	Name & address of the owner/ occupier of the industry/ operation or process	Shri. P. R. Chaudhary Sr. Joint President (O) & FM M/s Mangalam Cement Ltd. Waste Heat Recovery Plant (WHR) Aditya Nagar, Village: Morak Distt: Kota (Raj.) Pin code: 326520
2.	Industry Category Primary – (STC Code) Secondary – (STC Code)	Red Category
3.	Production capacity	Power: 11.00 MW
4.	Year of establishment	2020
5.	Date of last environmental statement submitted	14.09.2023

PART –B

Water and Raw Material Consumption:

i. Water consumption in M³/d

Process: } 1082.69 M³/day

Cooling: }

Domestic: 140.30 M³/Day, which is common for Unit – I, II, III & CPP – I & II, WHR and colonies

Name of Products	Process water consumption per unit of products (KL/KWh)	
	During the previous financial year (2022-2023)	During the current financial Year (2023-2024)
1. Power generation from Waste Heat Recovery (WHR)	0.0060	0.0055

ii. Raw material consumption

Name of raw materials*	Name of product	Consumption of raw material per unit of Output (KL/KWh)	
		During the previous financial year (2022-2023)	During the current financial Year (2023-2024)
1. Water	Power	0.0060	0.0055

*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/KWH): -

During Previous Financial Year	During Current Financial Year
0.0668	0.0666

iv) Total Production (KWH): -

Production	During Previous Financial Year	During Current Financial Year
Power Generation	69528010	72138115

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	We are maintaining zero water discharge in our power plant, WHR & cement plant. During the year 2023-2024, 89238 KL waste water generated from Waste Heat Recovery Project, which is being used 100% in our own cement plant process after treatment in Neutralization pit.		
b) Air	NA	NA	NA

PART-D

HAZARDOUS WASTES

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

Hazardous Wastes	Total Quantity (Kg)			
	During previous financial year (2022-2023)		During Current financial year (2023-2024)	
1. 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)	We have Authorization for Hazardous waste Management & Handling for Unit – I CPP – I & II, D.G. set.		We have Authorization for Hazardous waste Management & Handling for Unit – I CPP – I & II, D.G. set.	
	Total Quantity Generated from April 2021 to March 2022 (Ltrs.)	12600	Total Quantity Generated from April 2022 to March 2023 (Ltrs.)	11000
	Old stock (Ltrs.)	NIL	Old stock (Ltrs.)	NIL
	Total Used Oil (Ltrs.)	12600	Total Used Oil (Ltrs.)	11000
	Sold-out to registered recycler (Ltrs.)	12600	Sold-out to registered recycler (Ltrs.)	11000
	Balance Quantity (Ltrs.)	NIL	Balance Quantity (Ltrs.)	NIL
2. From pollution control facilities	NA		NA	

PART – E**SOLID WASTES:**

Solid Wastes	Total Quantity –WHR (Ton)	
	During previous financial year (2022-2023)	During Current financial year (2023-2024)
1. From Process	NA	NA
2. From pollution control facilities	NA	NA
2. i) Quantity recycled or reutilised within the unit.	NA	NA
ii) Solid	NA	NA
iii) Disposed	NA	NA

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 1 st April 2023 to 31 st March 2024.
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	64	1.309
ii) Industrial		
a) UPS	220	1.654
Total	284	2.963

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 1 st April 2023 to 31 st March 2024.
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	206	12.628 MT
a) Four Wheeler		
ii) Industrial	518	
a) UPS		
Total	724	12.628 MT

Used battery scrap was sent to CPCB authorized recycler

Hazardous wastes

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 current financial year from Jan. 2023 to Dec. 2023 under the Bio-medical Waste Management Rules 2016 & its amendment are as follows.

Year	Bio-Medical Waste Quantity (Kg) as per Colour Coding			
	Red	Blue	Yellow	White
1 st January 2023 to 31 st December 2023	1.8483	1.3143	1.6807	0.2116

E- Wastes:-

E- Waste disposal is common for Cement Plant, Power Plant and Mines during financial year 2022-2023 and 2023-2024 under the E-Waste (Management) Rules 2016 & its amendments are as follows.

	Total Quantity Disposed	
	During Previous Financial Year (2022-2023)	During Previous Financial Year (2023-2024)
E-waste disposed	3220 kg	180 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.

Waste Heat Recovery based Power Plant is being operated on environmentally clean technology. In this project waste heat released from stack of cement plant is being utilized to generate power. Hence, there is no source of air pollution involved; however effluent water generated from this project is being 100% utilised in cement plant process.

PART – H

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

Green belt development and tree plantation is our on-going process. In the year 2023-2024 we have planted 567 No's of native species and up to March 2024, 132727 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 and 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: - Analysis Report of Treated Effluent Waste Water.

Annexure-III

M/S Mangalam Cement ltd - Morak												
Neutralization Pit Outlet (Trade Effluent) : (2023-2024)												
Sr. No.	Month	Parameters										
		pH	COD	BOD (3 days at 27'c)	TSS	Oil and Grease	Free Available chlorine	Phosphate	Chromium (Total)	Copper	Iron	Zinc
Permissible Limits		(6.5 to 8.5)	(250 Mg/L)	(30 Mg/L)	(100 Mg/L)	(10 Mg/L)	(0.5 Mg/L)	(5.0 Mg/L)	(0.2 Mg/L)	(1.0 Mg/L)	(1.0 Mg/L)	(1.0 Mg/L)
Average Result (April-2023 to March-2024)		7.62	103.21	19.43	39.65	2.10	B.D.L	0.54	B.D.L	B.D.L	0.05	0.01

B.D.L : Below detectable limit

Regd. A/D

MCL/Env. Audit-117(II)/2024-2025/702

14.09.2024

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

Dear Sir,

Sub:- Environmental Statement for the year 2023-2024

With reference to above subject, we are enclosing herewith an Environmental Statement Report of CPP-I of M/s Mangalam Cement Ltd., Morak for the period from April-2023 to March-2024. This is for your kind reference please. Kindly acknowledge the receipt of the same.

Thanking you,

Yours faithfully

For Mangalam Cement Ltd. (CPP-I)


P. R. Chaudhary

Sr. Joint President (O) & FM

Cc to: - The Regional Officer
Rajasthan Pollution Control Board
Plot No. Spl. 2A, Paryavaran Marg
Road No. 6, Indraprastha Indl. Area
Kota – 324005

FORM-V
ENVIRONMENTAL STATEMENT
(See rule 14)

Environmental Statement for the financial year ending with 31stMarch 2024

PART-A

1.	Name & address of the owner / occupier of the industry / operation or process	Shri. P. R. Choudhary Sr. Joint President (Operation) & FM M/s Mangalam Cement ltd. Captive Power Plant (CPP-I) Aditya Nagar, Village: Morak Distt: Kota (Raj.) Pin code: 326520
2.	Industry Category Primary – (STC Code) Secondary – (STC Code)	Red Category
3.	Production capacity	Power: 17.5 MW
4.	Year of establishment	2007
5.	Date of last environmental statement submitted	14.09.2023

PART –B

Water and Raw Material Consumption:

i. Water consumption in M³/d

Process: } 200.95 M³/day which is common for CPP – I & II
Cooling: }

Domestic: 140.30 M³/Day, which is common for Unit – I, II, III, CPP- I, CPP – II and colonies

Name of Products	Process water consumption per unit of products	
	During the previous financial year (2022-2023)	During the current financial Year (2023-2024)
1. Power (CPP I & II)	0.0009 KL/KWh	0.0006 KL/KWh

ii.Raw material consumption

Name of raw materials*	Name of product	Consumption of raw material per unit of Output	
		During previous financial year (2022-2023)	During Current financial year (2023-2024)
1. Coal	Power (CPP-I)	0.839 Kg/Unit	0.852 Kg/Unit
2. Bio-Mass	Power (CPP-I)	0.0979 Kg/Unit	0.0811 Kg/Unit
3. Water	Power (CPP-I & II)	0.0009 KL/ KWH	0.0006 KL/ KWH

*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/KWH): -

During Previous Financial Year (2022-2023)	During Current Financial Year (2023-2024)
0.113	0.107

iv) Total Production (KWH):-

Production	During Previous Financial Year (2022-2023)	During Current Financial Year (2023-2024)
Power Generation	53354000	35363000

PART-C

Pollution discharged to environment/unit of output

(Parameter as specified in the consent issued)

Pollutants	Parameter	Quantity of Pollutants discharged (mass/day)	Concentration of Pollutants in discharged (mass/volume)	Percentage of variation from prescribed standards with reasons.
a) Water	We are maintaining zero water discharge in our power plant & cement plant. During the year 2023-2024, 5490 KL waste water generated from power plant (CPP-I & II), which is being used 100% in our own plant for horticulture purpose after treatment in Neutralization pit.			
b) CPP-I	PM	0.092 Ton / day	38.91 mg/Nm ³	No any Deviation
	SO ₂	0.575 Ton / day	254.02 mg/Nm ³	No any Deviation
	NO _x	0.341 Ton / day	157.56 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 (2022-2023)		During Current financial year (2023-2024)	
1. 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)	We have Authorization for Hazardous waste Management & Handling for Unit – I CPP – I & II, D.G. set.		We have Authorization for Hazardous waste Management & Handling for Unit – I CPP – I & II, D.G. set.	
	Total Quantity Generated from April 2022 to March 2023 (Ltrs.)	12600	Total Quantity Generated from April 2023 to March 2024 (Ltrs.)	11000
	Old stock (Ltrs.)	NIL	Old stock (Ltrs.)	NIL
	Total Used Oil (Ltrs.)	12600	Total Used Oil (Ltrs.)	11000
	Sold-out to registered recycler (Ltrs.)	12600	Sold-out to registered recycler (Ltrs.)	11000
	Balance Quantity (Ltrs.)	NIL	Balance Quantity (Ltrs.)	NIL
Agro Waste	NIL		2866.98 MT	
2. From pollution control facilities	NA		NA	

PART – E**SOLID WASTES:**

Solid Wastes	Total Quantity –CPP-I & II (Ton)	
	During previous financial year (2022-2023)	During Current financial year (2023-2024)
1. From Process	Bed Ash: 5587	Bed Ash: 7248.53
2.From pollution control facilities	Fly Ash: 32981	Fly Ash: 29025.16
2. i) Quantity recycled or reutilised within the unit.	Fly Ash & Bed Ash generated from our both Captive Power Plants (CPP-I & II) are being 100% utilized in our existing cement plants for cement manufacturing. Dust Collected in the Bag filters are being 100% recycled into the system.	
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 1 st April 2023 to 31 st March 2024.
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	64	1.309
ii) Industrial		
a) UPS	220	1.654
Total	284	2.963

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 1 st April 2023 to 31 st March 2024.
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	206	12.628 MT
a) Four Wheeler		
ii) Industrial	518	
a) UPS		
Total	724	12.628 MT

Used battery scrap was sent to CPCB authorized recycler

Hazardous wastes

No Hazardous waste is generated from the process except used oil which is drained from Machineries / Equipment. 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 2023 to December 2023 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
1 st Jan. 2023 to 31 st Dec. 2023	1.8483	1.3143	1.6807	0.2116

E- Wastes:-

E- Waste disposal is common for Cement Plant, Power Plant and Mines during financial year 2022-2023 and 2023-2024 under the E-Waste (Management) Rules 2016 & its amendments are as follows.

	Total Quantity Disposed	
	During previous financial year (2022-2023)	During Current financial year (2023-2024)
E-waste disposed	3220.00 kg	180.00 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.

Captive Power Plant is being operated on environmentally clean technology. The stack emissions from the plant are controlled by ESP's. Bag Filters are installed at various material transfer points to clean the process and arrest the fugitive emissions. The boiler Ash collected in the pollution control equipment is used in the process of existing cement plants, thus it can be said that the utilization of raw material is being done at their cost. Since the system is operated on total recycle, there is no effect on the cost of production.

PART – H

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

Green belt development and tree plantation is our on-going process. We have planted 567 No's of native species and up to March 2024, 132727 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 and 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 – 3: - Analysis Report of Treated Effluent Waste Water.

**M/s Mangalam Cement Ltd.
(CPP-I)**

**Stack Monitoring Report
(All values are in Mg/Nm³)**

Period: 2023-2024

S. No.	Month	Main ESP Stack (CPP-I)		
Prescribed Standards (in mg/NM ³)		PM	SO ₂	NO _x
		50	600	450
1	Apr-23	43.50	339.20	92.10
2	May-23	39.40	254.00	162.50
3	Jun-23	NR	NR	NR
4	Jul-23	NR	NR	NR
5	Aug-23	33.70	318.50	156.50
6	Sep-23	NR	NR	NR
7	Oct-23	40.60	208.50	248.50
8	Nov-23	36.25	307.43	98.28
9	Dec-23	40.00	96.50	187.50
10	Jan-24	NR	NR	NR
11	Feb-24	NR	NR	NR
12	Mar-24	NR	NR	NR
Average		38.91	254.02	156.56
Min		33.70	96.50	92.10
Max		43.50	339.20	248.50

N.R.:- Not Running

MANGALAM CEMENT LIMITED, MORAK, DIST: KOTA

AMBIENT AIR QUALITY (All values in µg/m³)

(Year: 2023-24)

Location Month	Near Railway Gate					Near Work Shop					Near Rack Loading Area					Near Security gate				
	PM 10	PM 2.5	SO ₂	NO _x	CO	PM 10	PM 2.5	SO ₂	NO _x	CO	PM 10	PM 2.5	SO ₂	NO _x	CO	PM 10	PM 2.5	SO ₂	NO _x	CO
Limits	100	60	80	80	4000	100	60	80	80	4000	100	60	80	80	4000	100	60	80	80	4000
Apr-23	66.4	31.7	3.3	11.3	351.7	69.8	36.1	3.6	13.6	395.6	62.6	32.2	3.5	11.6	382.9	69.5	41.5	7.1	16.7	429.8
May-23	63.1	28.4	3.3	11.4	362.2	69.0	33.9	3.8	13.6	354.3	61.4	29.4	3.7	11.0	409.9	72.6	39.4	6.2	16.2	402.9
Jun-23	66.2	26.7	3.1	11.1	416.8	72.9	35.7	3.7	13.9	382.1	60.7	31.9	3.6	11.4	354.3	76.7	42.0	4.7	17.3	409.9
Jul-23	53.9	26.8	4.8	11.5	409.9	58.9	30.2	5.2	12.6	375.1	47.1	26.3	4.9	11.0	396.0	55.1	31.2	6.1	14.1	347.3
Aug-23	46.8	29.4	5.4	11.2	423.9	49.3	31.6	6.2	11.7	329.3	44.1	30.1	5.2	11.5	423.8	46.4	32.7	6.1	9.5	436.3
Sep-23	47.1	28.7	4.2	11.7	423.8	48.1	31.1	5.0	10.3	419.6	42.1	29.0	6.2	14.0	373.7	44.8	32.2	8.6	7.3	415.4
Oct-23	50.6	33.6	5.1	11.7	444.6	60.1	36.3	6.0	12.2	436.3	47.5	32.6	5.7	13.2	426.5	57.9	35.8	6.7	14.0	675.2
Nov-23	49.5	33.3	4.3	10.6	400.1	59.8	34.9	4.9	14.5	412.6	43.4	29.6	3.8	10.7	386.2	61.0	32.8	8.0	17.3	432.1
Dec-23	54.0	33.1	4.2	11.2	458.5	62.5	32.6	5.3	16.0	401.5	44.6	31.1	4.8	11.8	434.9	52.9	34.3	7.3	17.4	437.7
Jan-24	58.1	33.0	4.9	10.0	447.4	66.6	35.0	5.2	13.3	401.5	50.4	31.6	4.9	11.3	396.0	63.1	36.4	7.4	12.8	408.5
Feb-24	62.1	33.1	4.1	11.5	431.4	68.4	35.1	5.5	12.1	450.2	50.0	30.9	5.1	11.7	375.1	67.3	35.3	7.8	13.5	423.6
Mar-24	63.9	34.0	4.7	11.0	393.2	70.5	36.0	5.8	14.1	401.5	47.6	34.0	5.7	12.3	432.1	68.3	36.4	6.7	13.3	434.9
Average	56.8	31.0	4.3	11.2	413.6	63.0	34.0	5.0	13.2	396.6	50.1	30.7	4.8	11.8	399.3	61.3	35.8	6.9	14.1	437.8
Minimum	46.8	26.7	3.1	10	351.7	48.1	30.2	3.6	10.3	329.3	42.1	26.3	3.5	10.7	354.3	44.8	31.2	4.7	7.3	347.3
Maximum	66.4	34.0	5.4	11.7	458.5	72.9	36.3	6.2	16	450.2	62.6	34	6.2	14	434.9	76.7	42	8.6	17.4	675.2

MANGALAM CEMENT LIMITED, MORAK, DIST: KOTA

AMBIENT NOISE MONITORING REPORT

Year, 2023-24

Date	Measured Noise Level (in dBA)							
	Near Railway Gate		Near Workshop		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-23	66.0	55.4	69.9	56.2	63.5	54.9	68.4	56.6
May-23	66.1	55.2	64.9	55.6	66.7	55.6	68.6	56.3
Jun-23	66.8	54.4	64.3	54.7	64.1	54.5	67.5	55.6
Jul-23	65.8	56.4	64.0	55.1	64.4	54.2	67.6	55.5
Aug-23	64.3	56.3	65.1	57.6	63.4	56.0	64.6	59.2
Sep-23	65.2	54.4	64.8	55.9	63.9	56.0	68.1	58.5
Oct-23	66.7	55.5	65.5	56.3	65.2	55.8	66.9	56.9
Nov-23	64.4	54.9	67.4	57.8	64.4	56.1	68.2	57.0
Dec-23	66.5	55.3	68.4	57.9	63.8	55.4	66.6	57.2
Jan-24	66.5	55.7	68.8	57.2	65.3	56.7	67.6	57.2
Feb-24	66.5	55.8	70.7	57.4	64.2	54.7	67.4	55.5
Mar-24	66.3	55.8	69.1	57.8	64.1	56.1	67.4	57.2
Average	65.9	55.4	66.9	56.6	64.4	55.5	67.4	56.9
Minimum	64.3	54.4	64.0	54.7	63.4	54.2	64.6	55.5
Maximum	66.8	56.4	70.7	57.9	66.7	56.7	68.6	59.2

M/S Mangalam Cement ltd - Morak												
Neutralization Pit Outlet (Trade Effluent) : (2023-2024)												
Sr. No.	Month	Parameters										
		PH	COD	BOD (3 days at 27'e)	TSS	Oil and Grease	Free Available chlorine	Phosphate	Chromium (Total)	Copper	Iron	Zinc
Permissible Limits		(6.5 to 8.5)	(250 Mg/L)	(30 Mg/L)	(100 Mg/L)	(10 Mg/L)	(0.5 Mg/L)	(5.0 Mg/L)	(0.2 Mg/L)	(1.0 Mg/L)	(1.0 Mg/L)	(1.0 Mg/L)
Average Result (April-2023 to March-2024)		7.32	67.67	14.13	25.75	2.90	B.D.L	0.69	B.D.L	B.D.L	0.09	B.D.L

B.D.L : Below detectable limit



B K BIRLA GROUP OF COMPANIES

MANGALAM CEMENT LTD.



MANGALAM CEMENT LTD.

Regd. A/D

MCL/Env. Audit-117(II)/2024-2025/ 697

14.09.2024

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

Dear Sir,

Sub.: -Environmental Statement for the year 2023-2024


With reference to above subject, we are enclosing herewith an Environmental Statement Report for Fly Ash Handling Unit of M/s Mangalam Cement Ltd. situated at the premises of Kota Super Thermal Power Station, Kota for the period from April-2023 to March-2024.

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

Thanking you,

Yours faithfully

For Mangalam Cement Ltd.


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

Cc to: - The Regional Officer
Rajasthan Pollution Control Board
Plot No. Spl. 2A, Paryavaran Marg
Road No. 6, Indraprastha Indl. Area
Kota - 324005

Regd. Office & Works : P.O. Aditya Nagar-326520, Morak, Distt. Kota (Raj.) CIN : L26943RJ1976PLC001705, Telefax : 07459 - 232156
Website : www.mangalamcement.com, E-mail : email@mangalamcement.com

Kota Office : Shop No. 20, 80 Feet Road, Opp. Sukhdham Colony, (Near SBI Bank) Kota - 324001(Rajasthan)

Dethi Office : 153, Leela Building (GF), Okhla Indl. Estate, Phase-III, New Delhi - 110020
Tel. No. : 011- 43539132, 43539133, 43539137 Fax : 011- 23421768
E-mail : delhi.purchase@mangalamcement.com, delhi.marketing@mangalamcement.com

Jaipur Office : 2nd Floor, Geejgarh Tower, Hawa-Sarak, Jaipur - 302 006 (Rajasthan)
Tel. : 0141 - 2218933, 2218931, E-mail : jaipur.marketing@mangalamcement.com

FORM-V
ENVIRONMENTAL STATEMENT
(See rule 14)

Environmental Statement for the financial year ending with 31stMarch 2024

PART-A

1.	Name & address of the owner/ occupier of the industry/ operation or process	Sri. P. R. Choudhary Mangalam Cement ltd. (Unit-I) Aditya Nagar, Village : Morak Distt: Kota (Raj.)Pin code : 326520
2.	Industry Category Primary – (STC Code) Secondary – (STC Code)	Fly Ash Silo
3.	Storage capacity	Silo 1 X 500 MT
4.	Year of establishment	2008
5.	Date of last environmental statement submitted	14.09.2023

PART –B

Water and Raw Material Consumption:

i) Water consumption in m³/day

Process: -NA

Cooling: - NA

Domestic: - NA

Name of Products	Process water consumption per unit of products	
	During the previous financial year (2022-2023)	During the current financial Year (2023-2024)
Fly Ash Handling	NA	NA

ii) Raw material consumption (Fly Ash Handling Silo)

Name of raw materials*	Name of product	Handling of Fly Ash (MT)	
		During the previous financial year (2022-2023)	During the current financial Year (2023-2024)
Fly Ash Handling	Fly Ash	161780.44	191142.38

*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 Fly Ash):-

During Previous Financial Year	During Current Financial Year
13.15	23.40

iv) Total Production (MT):-

Production	During Previous Financial Year	During Current Financial Year
Fly Ash Handling	161780.44	191142.38

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	NA		
b) Air	Please refer Annexure – I		

PART-D

HAZARDOUS WASTES

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

Hazardous Wastes	Total Quantity (Kg)	
	During previous financial year (2022-2023)	During Current financial year (2023-2024)
From Process	NA	NA
From pollution control facilities	Dust Collected in the bag filter is recycled in the system	

PART-E

SOLID WASTE

Solid Wastes	Total Quantity (Kg)	
	During previous financial year (2022-2023)	During Current financial year (2023-2024)
1. From Process	NA	NA
2. From pollution control facilities	Dust Collected in the ESP's, bag house and bag filters are recycled to the system	
1. i) Quantity recycled or reutilised within the unit.	100 %	100 %
ii) Solid	NA	NA
iii) Disposed	NA	NA

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.

1. Hazardous Waste :- NA
2. Solid Waste :- NA
3. Battery Waste :- NA
4. E-waste :- NA

PART-G

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

The Fly Ash Silo handling system M/s Mangalam Cement Limited is based on dry material handling mechanism & itself is on environmentally clean technology. The fugitive emission generated from fly ash handling system during ash feeding is controlled by bag filters installed at top of silos & fly ash loading points. Ash collected in bag filters is recycled back in system. Use of fly ash in cement plant helps in natural resources conservation which results in CO₂ emission reduction.

PART – H

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

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 is being done regularly.
3. Maintenance department is doing regular checking and scheduled maintenance of all the pollution control devices.
4. M/s Mangalam Cement Ltd. taking care of Housekeeping.

We are enclosing herewith following documents:-

Annexure – 1(a) & 1(b):- Stack, Ambient Air Quality Monitoring Results.

Fly Ash Handling Silo
M/s Mangalam Cement Ltd.
at Kota Thermal Power Station
Stack Monitoring Report
(All values are in Mg/Nm³)
Period: 2023-2024

S.No.	Month	Fly Ash Handling Silo Stack
Prescribed Standards		30
Average Result (April-2023 to March-2024)		22.94

Fly Ash Handling Silo
M/s Mangalam Cement Ltd.
At Kota Thermal Power Station
AMBIENT AIR QUALITY (All values in $\mu\text{g}/\text{m}^3$)
Period: 2023-2024

Location Month	Near Fly Ash Handling Silo				
	PM 10	PM 2.5	SO ₂	NO _x	CO
Limits	100	60	80	80	4000
Average Result (April-2023 to March-2024)	73.65	39.88	13.22	21.20	700.00

Fly Ash Handling Silo
M/s Mangalam Cement Ltd.
At Kota Thermal Power Station
AMBIENT NOISE MONITORING REPORT
(All values in dBA)
Period: 2023-2024

Date	Measured Noise Level (in dBA)	
	Near Fly Ash Handling Silo	
	Day	Night
Limit	75.0	70.0
Average Result (April-2023 to March-2024)	62.79	52.30



B.K. BIRLA GROUP OF COMPANIES

MANGALAM CEMENT LTD.



MANGALAM CEMENT LTD.

Regd. A/D

MCL/Env. Audit-117(II)/2024-2025/ 698

14.09.2024

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

Dear Sir,

Sub.: -Environmental Statement for the year 2023-2024

With reference to above subject, we are enclosing herewith an Environmental Statement Report of Synthetic Gypsum Plant of M/s Mangalam Cement Ltd., Morak for the period from April-2023 to March-2024.

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

Thanking you,

Yours faithfully

For Mangalam Cement Ltd.


P. R. Chaudhary

Sr. Joint President (O) & FM

Cc to: - The Regional Officer
Rajasthan Pollution Control Board
Plot No. Spl. 2A, Paryavaran Marg
Road No. 6, Indraprastha Indl. Area
Kota - 324005

Regd. Office & Works : P.O. Aditya Nagar-326520, Morak, Distt. Kota (Raj.) CIN : L26943RJ1976PLC001705, Telefax : 07459 - 232156
Website : www.mangalamcement.com, E-mail : email@mangalamcement.com

Kota Office : Shop No. 20, 80 Feet Road, Opp. Sukhdham Colony, (Near SBI Bank) Kota - 324001 (Rajasthan)

Delhi Office : 153, Leela Building (GF), Okhla Indl. Estate, Phase-III, New Delhi - 110020
Tel. No. : 011- 43539132, 43539133, 43539137 Fax : 011- 23421768
E-mail : delhi.purchase@mangalamcement.com, delhi.marketing@mangalamcement.com

Jaipur Office : 2nd Floor, Geejgarh Tower, Hawa-Sarak, Jaipur - 302 006 (Rajasthan)
Tel. : 0141 - 2218933, 2218931, E-mail : jaipur.marketing@mangalamcement.com

FORM-V
ENVIRONMENTAL STATEMENT
(See rule 14)

Environmental Statement for the financial year ending with 31st March 2024

PART-A

1.	Name & address of the owner/ occupier of the industry/ operation or process	Shri. K.C.Jain (Director) M/s Mangalam Cement Ltd. Aditya Nagar, Village : Morak Distt: Kota (Raj.) Pin code: 326520
2.	Industry Category Primary – (STC Code) Secondary – (STC Code)	Red Category
3.	Production capacity	Synthetic Gypsum : 1000TPD
4.	Year of establishment	2020
5.	Date of last environmental statement submitted	14.09.2023

PART –B

Water and Raw Material Consumption:

i. Water consumption in M³/d

Process: } NIL M³/day
Cooling: }

Domestic: 140.30M³/Day, which is common for Unit – I, II, III & CPP – I & II, WHR and colonies

Name of Products	Process water consumption per unit of products (KL/Ton)	
	During the previous financial year (2022-2023)	During the current financial Year (2023-2024)
1. Synthetic Gypsum	NA	NA

ii.Raw material consumption

Name of raw materials*	Name of product	Consumption of raw material per unit of Output (Ton/Ton)	
		During previous financial year (2022-2023)	During Current financial year (2023-2024)
1. Phospho-Gypsum	Synthetic Gypsum	0.36	0.34
2. Kota Stone Slurry		0.64	0.66

*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/Ton):-

During Previous Financial Year	During Current Financial Year
27.08*	25.96*

*Included in Power consumption of Unit-III.

iv) Total Production (Tons): -

Production	During Previous Financial Year	During Current Financial Year
Power Generation	196720	200825

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	Not Applicable		
b) Air	NA	NA	NA

PART-D

HAZARDOUS WASTES

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

Hazardous Wastes	Total Quantity (Kg)			
	During previous financial year (2022-2023)		During Current financial year (2023-2024)	
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 – I CPP – I & II, D.G. set.		We have Authorization for Hazardous waste Management & Handling for Unit – I CPP – I & II, D.G. set.	
	Total Quantity Generated from April 2022 to March 2023 (Ltrs.)	12600	Total Quantity Generated from April 2023 to March 2024 (Ltrs.)	11000
	Old stock (Ltrs.)	NIL	Old stock (Ltrs.)	NIL
	Total Used Oil (Ltrs.)	12600	Total Used Oil (Ltrs.)	11000
	Sold-out to registered recycler (Ltrs.)	12600	Sold-out to registered recycler (Ltrs.)	11000
	Balance Quantity (Ltrs.)	NIL	Balance Quantity (Ltrs.)	NIL
2. From pollution control facilities	NA		NA	

PART – E

SOLID WASTES:

Solid Wastes	Total Quantity –WHR(Ton)	
	During previous financial year (2022-2023)	During Current financial year (2023-2024)
1. From Process	NA	NA
2. From pollution control facilities	NA	NA
2. i) Quantity recycled or reutilised within the unit.	NA	NA
ii) Solid	NA	NA
iii) Disposed	NA	NA

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 1 st April 2023 to 31 st March 2024.
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	64	1.309
ii) Industrial		
a) UPS	220	1.654
Total	284	2.963

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 1 st April 2023 to 31 st March 2024.
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		12.628 MT
a) Four Wheeler	206	
ii) Industrial		
a) UPS	518	
Total	724	12.628 MT

Used battery scrap was sent to CPCB authorized recycler

Hazardous wastes

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 current financial year from Jan. 2023 to Dec. 2023 under the Bio-medical Waste Management Rules 2016 & its amendment are as follows.

Year	Bio-Medical Waste Quantity (Kg) as per Colour Coding			
	Red	Blue	Yellow	White
1 st January 2023 to 31 st December 2023	1.8483	1.3143	1.6807	0.2116

E- Wastes:-

E- Waste disposal is common for Cement Plant, Power Plant and Mines during financial year 2022-2023 and 2023-2024 under the E-Waste (Management) Rules 2016 & its amendments are as follows.

	Total Quantity Disposed	
	During Previous Financial Year (2022-2023)	During Previous Financial Year (2023-2024)
E-waste disposed	3220 kg	180 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.

Synthetic Gypsum Plant is being operated on environmentally clean technology. In this project two different industrial wastes i.e. Phospho-gypsum (a waste of phosphoric acid manufacturing plant) and Kota Stone Slurry Powder (a waste from Kota Stone industries) are being used for gainful utilization as synthetic gypsum in our own cement plant; which helps in conservation of natural resources and waste disposal problem simultaneously.

PART – H

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

Green belt development and tree plantation is our on-going process. We have planted 567 No's of native species and up to March 2024, 132727 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 and operation of STPs.
5. Horticulture Department is taking care of tree plantation and green belt development. Every year we are doing tree plantation.