BK BIRLA GROUP OF COMPANIES

MANGALAM CEMENT LTD.

MANGALAM CEMENT LTD.

Regd. A/D

MCL/Env. Audit / 2021-2022/ 2429

Dt :07.09.2021

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

Dear Sir,

Sub.: -Environmental Statement for the year 2020-2021

With reference to above subject, we are enclosing herewith an Environmental Statement Report of CPP-II of M/s Mangalam Cement Ltd., Morak for the period from April-2020 to March-2021.

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

Thanking you,

Yours faithfully

For Mangalam Cement Ltd. (CPP-II)

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 2021

PART-A

1.	Name &address of the owner/ occupier of the industry/ operation or process	Shri K.C.Jain (Director) M/sMangalam Cement Ltd. Captive Power Plant (CPP-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	Power : 17.5 MW
4.	Year of establishment	2011
5.	Date of last environmental statement submitted	17.09.2020

PART –B

Water and Raw Material Consumption:

i. Water consumption in M^3/d

Process: } 178.87 M^3/day which is common for CPP – I & II

Cooling: }

Domestic: 346.71 M^3/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 (2019-2020)	During the current financial Year (2020-2021)
1. Power (CPP I & II)	0.0008 KL/KWh	0.0005 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 (2019-2020)	During Current financial year (2020-2021)
1. Coal	Power (CPP-II)	0.93 kg/unit	0.94 kg/unit
2. Bio-Mass	Power (CPP-II)	0.0064 kg/unit	0.0048 kg/unit
3. Water	Power (CPP-I & II)	0.0008 M^3/ Unit	0.0005 KL/KWh
4. Kota Stone Slurry	Power (CPP-II)	0.70	0.17

*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
0.102	0.090

iv) Total Production (KWH):-

Production	During Previous Financial Year	During Current Financial Year
Power Generation	105455000	40312000

PART-C

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

Pollutant	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 2020-2021, 4446 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-II	PM	0.093	30.12 mg/Nm3	No any Deviation
	SO2	1.452	435.0 Mg/Nm3	No any Deviation
	NOx	0.663	226.4 Mg/Nm3	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 (2019-2020)		During Current financial year (2020-2021)	
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 2019 to March 2020 (Ltrs.)	9200	Total Quantity Generated from April 2020 to March 2021 (Ltrs.)	10400
	Old stock (Ltrs.)	NIL	Old stock (Ltrs.)	NIL
	Total Used Oil (Ltrs.)	9200	Total Used Oil (Ltrs.)	10400
	Sold–out to registered recycler (Ltrs.)	9200	Sold–out to registered recycler (Ltrs.)	10400
	Balance Quantity (Ltrs.)	NIL	Balance Quantity (Ltrs.)	NIL
2. From pollution control facilities	NA		NA	

PART – E

SOLID WASTES:

Solid Wastes	Total Quantity CPP-I & II (Ton)	
	During previous financial year (2019-2020)	During Current financial year (2020-2021)
1. From Process	Bed Ash: 103361.59	Bed Ash: 17530
2.From pollution control facilities	Fly Ash: 61623	Fly Ash: 27823
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 1st April 2020 to 31st March 2021.
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	48	1.595
ii) Industrial		
a) UPS	507	5.03
Total	555	6.625

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 2020 to 31st March 2021.

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	131	7.714 MT
a) Four Wheeler		
ii) Industrial	314	
a) UPS		
Total	445	7.714 MT

Used battery scrap was sent to CPCB aut6horized 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 2020 to December 2020 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. 2020 to 31st Dec. 2020	1.184	1.109	5.359	0.152

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 (2019-2020)	During Previous Financial Year (2020-2021)
E-waste disposed	466 kg	0

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 Plants are 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. In the year 2020-2021 we have planted 470 No's of native species and up to March 2021, 131154 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.

Annexure-I

M/s Mangalam Cement Ltd. (CPP-II)

Stack Monitoring Report

(All values in mg/NM3)

Period: 2020-2021

S.No.	Month	Main ESP Stack			Coal Bunker-II
		PM	SO2	NOx	
Prescribed Standards		**50**	**600**	**300**	**50**
1	Apr-20	**Not Possible due to COVID-19 Pandemic**			
2	May-20				
3	Jun-20	N.R	N.R	N.R	N.R
4	Jul-20	28.60	310.54	242.18	9.50
5	Aug-20	32.90	419.30	203.50	11.40
6	Sep-20	27.30	433.51	160.48	10.20
7	Oct-20	29.25	530.78	240.16	9.50
8	Nov-20	29.10	430.70	242.30	10.80
9	Dec-20	32.70	450.10	230.50	11.35
10	Jan-21	N.R	N.R	N.R	N.R
11	Feb-21	N.R	N.R	N.R	N.R
12	Mar-21	31.00	470.20	265.80	10.58
Average		**30.12**	**435.02**	**226.42**	**10.48**
Min		27.30	310.54	160.48	9.50
Max		32.90	530.78	265.80	11.40

Annexure-II

MANGALAM CEMENT LIMITED, MORAK, DIST: KOTA
AMBIENT AIR QUALITY (All values in µg/m3)
(Year : 2020-21)

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-20	**Not Possible due to COVID-19 Pandemic**																			
May-20																				
Jun-20	65.8	35.2	6.7	11.7	241.5	53.5	26.7	6.2	12.1	257.0	63.7	34.5	6.0	12.2	239.9	50.6	27.8	6.2	11.0	281.4
Jul-20	64.3	34.1	6.8	12.5	240.6	54.0	27.7	6.0	10.7	236.9	61.4	32.9	6.9	10.9	275.9	49.7	26.4	6.2	11.1	220.9
Aug-20	58.4	31.2	7.0	12.7	254.0	50.7	26.2	7.0	11.2	262.6	55.8	30.2	6.9	11.2	203.2	48.2	24.9	6.7	11.8	243.8
Sep-20	53.8	27.7	6.2	11.4	233.7	47.8	25.3	6.2	11.1	233.4	53.0	29.0	6.1	11.0	236.2	47.1	24.7	6.0	11.3	231.3
Oct-20	51.6	27.2	6.5	12.0	239.7	45.9	24.8	6.4	11.4	242.2	53.8	28.1	6.5	23.2	232.7	48.9	26.3	6.3	11.4	248.6
Nov-20	52.3	29.3	5.7	11.5	283.7	47.9	27.5	6.8	11.9	247.0	52.9	28.5	5.6	11.4	259.5	49.5	28.0	6.6	11.9	286.0
Dec-20	52.7	28.3	6.4	12.3	322.3	48.1	26.3	6.9	11.3	343.2	51.6	27.0	7.0	11.4	348.7	48.2	27.7	6.5	11.8	335.5
Jan-21	54.3	28.5	6.1	12.5	336.9	49.3	25.8	6.8	11.9	373.7	53.1	29.4	6.8	12.1	307.1	51.7	27.4	6.1	12.5	455.7
Feb-21	56.3	30.6	6.8	13.1	387.6	50.6	26.2	6.5	12.1	364.2	55.5	30.5	6.5	12.9	361.1	47.8	25.4	6.9	13.4	387.6
Mar-21	60.9	31.1	6.6	13.2	373.7	53.6	27.2	6.4	13.6	375.1	60.8	31.2	6.4	13.3	379.3	50.0	26.4	9.1	14.3	482.1
Average	**57.0**	30.3	**6.5**	**12.3**	**291.4**	**50.1**	**26.4**	**6.5**	**11.7**	**293.5**	**56.2**	**30.1**	**6.5**	**13.0**	**284.4**	**49.2**	**26.5**	**6.7**	**12.0**	**317.3**
Minimum	**51.6**	**27.2**	**5.7**	**11.4**	**233.7**	**45.9**	**24.8**	**6.0**	**10.7**	**233.4**	**51.6**	**27.0**	**5.6**	**10.9**	**203.2**	**47.1**	**24.7**	**6.0**	**11.0**	**220.9**
Maximum	**65.8**	**35.2**	**7.0**	**13.2**	**387.6**	**54.0**	**27.7**	**7.0**	**13.6**	**375.1**	**63.7**	**34.5**	**7.0**	**23.2**	**379.3**	**51.7**	**28.0**	**9.1**	**14.3**	**482.1**

Annexure-IIA

MANGALAM CEMENT LIMITED, MORAK, DIST: KOTA

AMBIENT NOISE MONITORING REPORT

Year : 2020-2021

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-20	**Not Possible due to COVID-19 Pandemic**							
May-20								
Jun-20	64.9	61.1	62.1	58.6	61.6	57.9	62.1	58.4
Jul-20	66.2	61.9	62.4	58.1	61.5	57.7	62.5	58.3
Aug-20	67.4	63.6	66.2	61.9	66.0	62.2	65.4	61.3
Sep-20	65.8	61.5	64.8	60.9	65.8	61.7	64.5	60.0
Oct-20	67.8	63.4	66.4	61.9	66.3	62.1	67.3	62.5
Nov-20	67.6	62.5	66.9	62.4	67.9	62.8	66.3	61.4
Dec-20	68.8	64.5	68.1	63.3	66.8	61.9	66.1	61.6
Jan-21	68.8	63.8	65.9	61.1	68.1	63.3	67.8	62.6
Feb-21	67.4	62.4	66.8	61.8	67.6	62.2	66.5	61.4
Mar-21	68.0	63.2	68.1	63.4	67.8	63.3	67.9	63.5
Average	**67.3**	**62.8**	**65.8**	**61.3**	**65.9**	**61.5**	**65.6**	**61.1**
Min	**64.9**	**61.1**	**62.1**	**58.1**	**61.5**	**57.7**	**62.1**	**58.3**
Max	**68.8**	**64.5**	**68.1**	**63.4**	**68.1**	**63.3**	**67.9**	**63.5**

Annexure-3

M/S Mangalam Cement ltd - Morak, Kota (Rajasthan)												
Neutralization Pit - CPP Unit (2020-2021)												
Sr. No.	**Month**	**Parameters**										
		PH (at 25 'c)	**COD**	**BOD (3 days at 27'c)**	**TSS**	**Oil and Grease**	**Free available Chlorine**	**Total chromium**	**Copper (as Cu)**	**Zinc (as Zn)**	**Iron (as Fe)**	**Phosphate (as PO4)**
Permissible Limits		**(6.5-8.5)**	**(250 Mg/L)**	**(30 Mg/L)**	**(100 Mg/L)**	**(10 Mg/L)**	**(0.5 Mg/L)**	**(0.2 Mg/L)**	**(1.0 Mg/L)**	**(1.0 Mg/L)**	**(1.0 Mg/L)**	**(5.0 Mg/L)**
1	Apr-20	**Not possible due to COVID-19 Pandemic**										
2	May-20	7.31	40.2	11.7	26.0	1.0	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L
3	Jun-20	7.90	21.1	6.0	40.0	3.0	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L
4	Jul-20	7.65	79.0	18.0	40.4	5.4	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L
5	Aug-20	7.61	89.3	15.6	36.8	4.0	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L
6	Sep-20	7.12	79.4	16.8	32.2	3.2	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L
7	Oct-20	7.72	60.0	15.0	34.8	4.9	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L
8	Nov-20	7.70	72.1	13.2	44.7	5.6	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L
9	Dec-20	7.51	60.8	12.0	36.7	4.5	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L
10	Jan-21	7.64	58.7	10.5	31.0	4.0	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L
11	Feb-21	7.36	57.1	16.8	39.4	4.4	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L
12	Mar-21	7.31	67.8	15.6	27.1	2.5	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L
Average		**7.53**	**62.3**	**13.7**	**35.4**	**3.9**	**B.D.L**	**B.D.L**	**B.D.L**	**B.D.L**	**B.D.L**	**B.D.L**
Min.		7.12	21.1	6.0	26.0	1.0	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L
Max.		7.90	89.3	18.0	44.7	5.6	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L

B.D.L: Below Detectable Limit