HCIL(NGH)-ENV-F-088 - 420

HEIDELBERGCEMENT

Diamond Cements
Prop: HeidelbergCement India Limited
CIN: L26942HR1958FLC042301

Village and P. O. Narsingarh
District Damoh, M.P. 470 675, India
Phone +91-07601-241301, 02 & 05
Fax +91-07601-241235
Website: www.mycemco.com

The Member Secretary
M.P. Pollution Control Board
E-5, Arera Colony
Paryawaran Parisar
Bhopal (MP) 462 016

May 27, 2020

SUB: Environment Statement Report (Form -V) of Waste Heat Recovery Boiler (15 MW) and 2 Nos of D.G. Set 500 KVA each at Narsingarh, Damoh, M.P.

Dear Sir,

Please find enclosed herewith the Environment Statement Report (Form V) of Waste Heat Recovery Boiler (15 MW) and 2 Nos of D.G. Set 500 KVA each for 2019-20.

This is for your kind perusals please.

Thanking you,

Yours faithfully

For Diamond Cements
(Prop: HeidelbergCement India Ltd)

Sanjeev Kumar Gupta
Head Works- Damoh
Sr. Vice President

Encl : as above.

CC : Zonal Office (Central)
Central Pollution Control Board
3rd Floor, Sahkar Bhawan,
North TT Nagar, Bhopal (MP) 462 003

CC : The Regional Officer
MP Pollution Control Board
Deen Dayal Nagar, Housing Board Colony
Sagar (MP)

CC: Office copy

HEIDELBERGCEMENT

ENVIRONMENT STATEMENT REPORT

(Form-V)

[Year 2019 - 2020]

REPORT BY

HEIDELBERGCEMENT

WASTE HEAT RECOVERY POWER PLANT
DIAMOND CEMENTS
(Prop. HeidelbergCement India Ltd.)
P.O. NARSINGARH
DIST. DAMOH (M.P.) - 470675

HEIDELBERGCEMENT

Waste Heat Recovery Power Plant
DIAMOND CEMENTS

(Prop. HeidelbergCement India Ltd.)
P.O. NARSINGARH
DIST. DAMOH (M.P.) - 470675

(For the Financial year ending 31st March 2020)

CONTENTS

ANNEXURES

mycem HEIDELBERGCEMENT

INTEGRATED MANAGEMENT SYSTEM POLICY

We, at Heidelberg Cement India Limited are fully committed towards customer satisfaction, environmental protection, providing healthy & safe work environment to all concerned and our endeavour is to:

- Produce cement much better than the applicable standards to satisfy the customer needs.
- Comply with all applicable legal, social and other requirements.
- Involve and train human resource to upgrade their skills in all areas including safety.
- Regularly set and review objectives and targets for continual improvement in quality, productivity, work environment and health & safety performance.
- Prevention of pollution.
- Prevention in occupational injuries and ill health.

This policy has been communicated to all the employees and is also available to the public and interested parties on demand.

-sd-

Date: 15th April 2013

CEO & Managing Director

INTRODUCTION

Man is a part of nature, and not separate or independent; at the same time, man is unique in the influence he has over nature. Man derives all his food, clothing, shelter, and other amenities from nature. In that process, if he does not take care to protect and cherish nature, but decrease or destroys, he will find that his own life and that of his children is in jeopardy.

In the words of our late Prime Minister, Mrs. Indira Gandhi "It is said that, in country after country, progress should become synonymous with an assault on nature.....the higher standard of living must be achieved without alienating our people from their heritage and without despoiling of its beauty, freshness and purity essential to our lives."

The environment is now catch for all, the industry, the government, the people. Hence, it is joint responsibility to protect, preserve the environment and avoid the perishing the natural treasures. At this critical junction of time and efforts, the Indian industry has fulfilled its commitment in maintaining the environmental integrity.

HeidelbergCement India limited is committed to excel Environmental Sustainability by putting all engineering the best efforts to prevent environmental degradation, minimize the waste generation, resource conservation and reutilization of waste.

The next few pages of this Environment Statement Report (ESR) of HeidelbergCement India Limited is based on factual data and verified record, will present a picture of more optimism for environmental care than ever before.

ENVIRONMENTAL STATEMENT REPORT

[FORM-V]

(See rule 14)

PART-A

(i)	Name and address of the Owner/occupier of the industry, Operation or process	:	DIAMOND CEMENTS - Clinkerisation Unit (Prop. HeidelbergCement India Ltd.) P.O. NARSINGARH DIST. DAMOH (M.P.) – 470 675
(ii)	Industry category	:	LARGE SCALE
(iii)	Production capacity	:	15 MW power from WHRPP D.G. Set (2x 500 KVA)
(iv)	Year of establishment	:	2016
(v)	Date of the last Environmental statement submitted:		19.09.2019

PART-B

Water and Raw Material Consumption

(I) Water consumption m3/d
Process} - Cooling} –204
Domestic} - Common colony for Clinkerisation unit, Narsingarh& WHRPP

Particular	Name of products	Process water consumption per unit of products output	
		During the previous financial year	During the current financial year
		(1)	(2)
WHRPP	Power (KWH)	0.0009 KL/KWH	0.0009 KL/KWH
D.G. Set near WHR	Power (KWH)	Nil	Nil
D.G. Set near CCR	Power (KWH)	Nil	Nil

(ii) Raw material consumption

Particular	* Name of raw materials	Name of products	Consumption of raw material per unit of output	
			During the previous financial year (LTR/KWH)	During the current financial year (KL/KWH)
WHRPP	Power generation by Waste heat generated from preheater and cooler from our Clinkerisation unit. Therefore, no raw materials and fuel consumption during process.			
D.G. Set near WHR	HSD	Power	Nil (No power generation)	0.0013
D.G. Set near CCR	HSD	Power	Nil (No power generation)	0.0002

PART-C

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

(i) Pollutants	Quantity of pollution discharged (mass/day)	Concentrations of pollutants in discharges (mass/volume)	Percentage of variation from prescribed standards with reasons
(a) Water	Please see Annexure-1		
(b) Air	Please see Annexure-2		

PART-D
Hazardous Wastes

[as specified under Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008]

Hazardous Wastes		Total Quantity	
		During the Previous Financial year (MT)	During the Current Financial year (MT)
(a) From Process	(a) Spent/ Used Oil (Category 5.1)	0	0.1
	(b) Residue containing waste oil (Category 5.2)	0	0
(b) From Pollution control Facilities	N.A.	N.A	N.A

* Hazardous waste is not generated from WHRPP during process. However, this waste is being generated from industrial related activity i.e. hydraulic movement of machines, oiling/ greasing etc. which is being sold to registered recycler.

PART-E
Solid Wastes

	Total Quantity (Solid waste) disposed	
	During the previous financial year (%)	During the current financial year (%)
(a) From process	N.A.	N.A.
(b) From pollution control facility	N.A.	N.A.
(c) Quantity recycled or re-utilized	N.A.	N.A.
	Total Quantity (E- waste) disposed	
	During the previous financial year (MT)	During the current financial year (MT)
(a) *From Plant & Mines	0	1.32

* E-waste disposed in 2019-20 have included Clinker plant, Grinding unit & Mines

PART-F

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

Hazardous waste details given in Part –D. Hazardous waste is being sold to registered recycler.

We have separate storage yard for Hazardous waste as well as different type of waste.

Hazardous waste Storage Yard for Category 5.1 & 5.2 at Clinkerisation Unit - Narsingarh

Separate Storage yard for different type of waste such as filter bag, Glass, Used Batteries, E-waste, Turning Metals etc

PART-G

Impact of pollution abatement measures taken on conservation of natural resources and on the cost of production.	Waste heat generated from Preheater & cooler of Clinkerisation unit is now utilizing in our WHRPP for power generation it is conserving natural resource like coal and reducing power cost.

PART-H

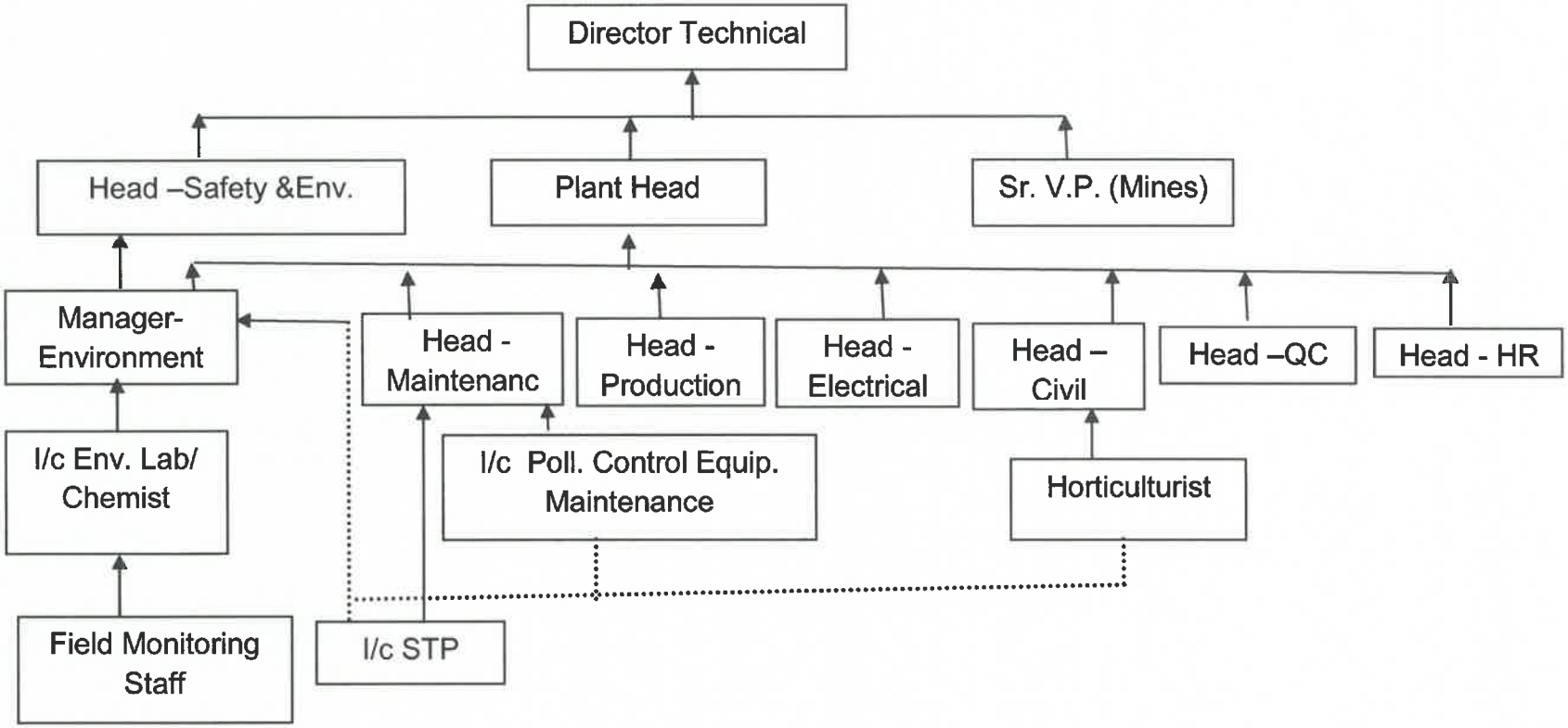
Additional measures/investment proposal for environmental protection including abatement of pollution, prevention of pollution.	Continuous efforts are always being made to maintain the clean environment.

- Expenditure on Environment Management is included in Clinkerisation unit Narsingarh.

Part – I

(Any other particular in respect of environmental protection and abatement of pollution)

Details of Environmental Cell



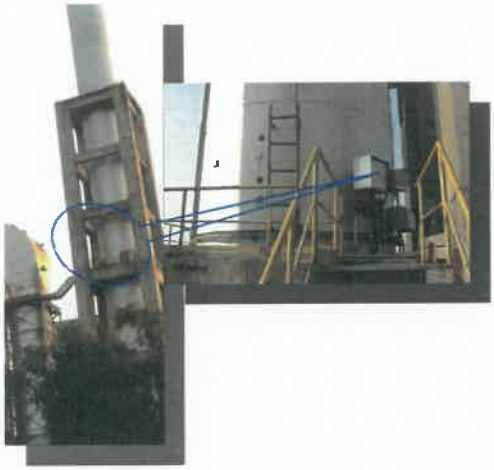
Facilites available in Environment Laboratory at Diamond Cements (Prop. HeidelbergCement India Ltd.)

(Env. Lab is common For Clinkerization unit, Grinding unit & Mines)

Sl. No.	Instrument Name	Quantity
1	Work table & Chair	1 set
2	Respirable Dust Sampler (R.D.S.)	4
3	Fine Dust Sampler	4
4	Stack Monitoring Kit	1
5	NOx assembly	1
6	Digital Barometer	1
7	Noise Meter	1
8	Personal Sampler	2
9	Spectrophotometer	1
10	Weighing Balance	1
11	Kit (EC & Temp.)	1
12	pH Meter	1
13	Oven	1
14	Water Bath	1
15	Desiccator	1
16	Hot Plat	1
17	Refrigerator	1
18	Computers	1
19	Online Monitoring System	
A	CAAQMS	3
B	CEMS-Gaseous	3
C	CEMS-PM	9
20	Chemicals, Glasswares and Consumables	-

Environmental Laboratory at Diamond Cements (Prop. HeidelbergCement India Ltd.)

Continuous Ambient Air Quality Monitoring stations at HCIL, Narsingarh (02 Nos Locations)



Installation of Continuous Stack emission Monitoring stations

ANNEXURE-1

M/s Diamond Cement (Prop. HeidelbergCement India Limited)

Waste Heat recovery Power Plant (Results of Treated Effluent Water)

S. No.	Parameters	25.04.2019	25.05.2019	22.06.2019	26.07.2019	26.08.2019	25.09.2019	22.10.2019	27.11.2019	27.12.2019	25.01.2020	26.02.2020	14.03.2020
		ETP Outlet	ETP Outlet	ETP Outlet	ETP Outlet	ETP Outlet	ETP Outlet	ETP Outlet	ETP Outlet	ETP Outlet	ETP Outlet	ETP Outlet	ETP Outlet
1	pH	8.4	8.2	7.9	7.7	7.3	7.4	7.7	7.6	8.1	7.9	7.7	6.4
2	TSS	8.1	8.8	10.0	12.0	10.4	5.7	6.7	6.5	8.0	7.2	7.4	7.8
3	TDS	470.3	460.5	490.5	510.3	501.4	487.9	501.3	469.1	480.6	468.1	458.7	424.7
4	BOD	3.9	4.1	6.0	6.8	4.2	2.2	3.0	4.2	5.0	2.4	1.9	2.1
5	COD	11.0	12.0	15.0	17.0	16.0	15.6	18.4	16.3	17.5	16.9	20.1	24.6
6	Oil & Grease	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
7	Chlorides	180.3	200.0	225.0	300.0	289.0	275.0	280	256.0	260.0	268.0	257.3	269.7

Note: All parameters are in mg/l except pH
BDL- Below Detection Limit

Monitored by Ecomen Laboratories (P) Ltd.
(An approved Laboratory from Ministry of Environment, Forest and Climate Change)
Flat No.5-8, 2nd Floor, Arif Chamber V, Sector H, Aliganj, Lucknow - 226 024

ANNEXURE-2

M/s Diamond Cements (Prop. HeidelbergCement India Limited)

CLINKERISATION UNIT NARSINGHAR

Ambient Air Quality Report (Monthly Average)

Month: April 19

AAQMS	$PM_{2.5}$ (µg/m³)	PM_{10} (µg/m³)	CO (µg/m³)	SO_2 (µg/m³)	NO_2 (µg/m³)
Near Hospital	39.16	56.06	225	6.17	7.47
Near Gate of Mine Pit No.1	45.99	69.78	223	7.25	7.93
Near STP Area	42.83	66.76	248	7.70	8.59
Near Worker Colony	41.08	59.26	225	6.44	7.57

Month: May 2019

AAQMS	$PM_{2.5}$ (µg/m³)	PM_{10} (µg/m³)	CO (µg/m³)	SO_2 (µg/m³)	NO_2 (µg/m³)
Near Hospital	40.81	57.91	463	6.23	9.87
Near Gate of Mine Pit No.1	48.04	71.73	487	7.56	10.46
Near STP Area	46.13	64.79	533	8.32	9.80
Near Worker Colony	43.14	62.72	507	6.08	9.20

Month: June 2019

AAQMS	$PM_{2.5}$ (µg/m³)	PM_{10} (µg/m³)	CO (µg/m³)	SO_2 (µg/m³)	NO_2 (µg/m³)
Near Hospital	42.89	59.76	510	6.81	9.83
Near Gate of Mine Pit No.1	46.88	69.87	540	8.29	11.02
Near STP Area	44.86	66.76	537	8.81	10.44
Near Worker Colony	41.96	58.23	497	7.24	10.13

Month: July 2019

AAQMS	$PM_{2.5}$ (µg/m³)	PM_{10} (µg/m³)	CO (µg/m³)	SO_2 (µg/m³)	NO_2 (µg/m³)
Near Hospital	19.1	48.1	387	5.9	7.9
Near Gate of Mine Pit No.1	25.6	54.2	370	7.6	8.9
Near STP Area	21.8	51.9	397	6.7	9.1
Near Worker Colony	20.1	50.3	387	6.6	9.5

Month: August 2019

AAQMS	$PM_{2.5}$ (µg/m³)	PM_{10} (µg/m³)	CO (µg/m³)	SO_2 (µg/m³)	NO_2 (µg/m³)
Near Hospital	14.60	31.91	313	8.33	11.90
Near Gate of Mine Pit No.1	18.40	32.50	335	9.61	11.44
Near STP Area	15.10	29.17	325	8.21	12.38
Near Worker Colony	12.90	27.80	319	8.11	12.73

Month: September 2019

AAQMS	$PM_{2.5}$ (µg/m³)	PM_{10} (µg/m³)	CO (µg/m³)	SO_2 (µg/m³)	NO_2 (µg/m³)
Near Hospital	13.60	24.20	357	11.40	12.35
Near Gate of Mine Pit No.1	14.80	25.40	353	11.23	12.44
Near STP Area	15.40	23.90	367	11.94	13.26
Near Worker Colony	12.90	22.70	353	10.12	11.79

Month: October 2019

AAQMS	$PM_{2.5}$ (µg/m^3)	PM_{10} (µg/m^3)	CO (µg/m^3)	SO_2 (µg/m^3)	NO_X (µg/m^3)
Near Hospital	18.10	35.57	337	9.10	10.74
Near Gate of Mine Pit No.1	21.60	37.56	360	8.66	12.13
Near STP Area	22.60	38.19	348	7.50	11.51
Near Worker Colony	20.24	36.10	347	7.49	11.78

Month: November 2019

AAQMS	$PM_{2.5}$ (µg/m^3)	PM_{10} (µg/m^3)	CO (µg/m^3)	SO_2 (µg/m^3)	NO_2 (µg/m^3)
Near Hospital	20.13	48.81	343	9.19	12.50
Near Gate of Mine Pit No.1	23.51	49.28	367	10.37	13.87
Near STP Area	26.24	51.02	371	11.11	13.6
Near Worker Colony	22.21	50.27	357	9.36	11.79

Month: December 2019

AAQMS	$PM_{2.5}$ (µg/m^3)	PM_{10} (µg/m^3)	CO (µg/m^3)	SO_2 (µg/m^3)	NO_2 (µg/m^3)
Near Hospital	34.01	50.32	363	10.56	14.36
Near Gate of Mine Pit No.1	27.14	55.14	410	11.30	12.73
Near STP Area	28.91	57.71	380	10.14	13.78
Near Worker Colony	34.88	52.21	357	9.56	15.24

Month: January 2020

AAQMS	$PM_{2.5}$ (µg/m³)	PM_{10} (µg/m³)	CO (µg/m³)	SO_2 (µg/m³)	NO_2 (µg/m³)
Near Hospital	39.30	54.54	380	12.19	13.66
Near Gate of Mine Pit No.1	33.53	58.35	427	13.02	15.69
Near STP Area	31.78	62.54	397	11.30	16.17
Near Worker Colony	40.10	56.89	367	10.27	14.44

Month: February 2020

AAQMS	$PM_{2.5}$ (µg/m³)	PM_{10} (µg/m³)	CO (µg/m³)	SO_2 (µg/m³)	NO_2 (µg/m³)
Near Hospital	35.09	50.30	397	10.64	12.17
Near Gate of Mine Pit No.1	39.17	51.79	437	11.30	14.70
Near STP Area	33.09	60.37	407	10.32	14.61
Near Worker Colony	38.60	54.02	387	9.80	13.53

Month: March 2020

AAQMS	$PM_{2.5}$ (µg/m³)	PM_{10} (µg/m³)	CO (µg/m³)	SO_2 (µg/m³)	NO_2 (µg/m³)
Near Hospital	32.03	48.11	407	10.17	12.99
Near Gate of Mine Pit No.1	36.19	53.51	430	9.91	15.37
Near STP Area	30.36	57.48	417	10.00	13.77
Near Worker Colony	35.91	50.81	438	10.24	12.10

Monitored by Ecomen Laboratories (P) Ltd.
(An approved Laboratory from Ministry of Environment, Forest and Climate Change)
Flat No.5-8, 2nd Floor, Arif Chamber V, Sector H, Aliganj, Lucknow - 226 024