O/C

UCWL UDAIPUR CEMENT WORKS LIMITED

PLATINUM HEAVY DUTY CEMENT

UCWL/ENV&SUST /2018-19/ 634

25th September, 2018

The Member Secretary,
Rajasthan State Pollution Control Board,
4, Paryavaran Marg,
Institutional Area, Jhalana Doongari,
Jaipur, Rajasthan- 302004

Sub: Submission of Environmental statement for the financial year 2017-18 for our Integrated Cement Manufacturing Plant Udaipur Cement Works Limited (UCWL) C.F.A, Shripati nagar, Dabok, Udaipur- 313021

Ref: Consent to Operate Letter No. F(CPM)/Udaipur(Girwa)/9(1)/2013-2014/8716-8718 dated 06/12/2016.

Dear Sir,

With reference to the aforesaid subject, please find enclosed herewith the **ENVIRONMENTAL STATEMENT** for the financial year 2017-18, ending **31st March 2018,** for our Integrated Cement Manufacturing Plant.

Hope you find the above in line with the requirement. This is for your kind record, please.

Thanking you,

Yours faithfully,
For UDAIPUR CEMENT WORKS LTD.,
For Udaipur Cement Works Ltd.

Authorised Signatory
P. K. Chouhan
(General Manager – QC)

Encl: As Above

CC:

1. **Regional Officer, RSPCB-Udaipur**
   F-470, Near UCCI Bhavan, Madri Industrial Area, Udaiour, Rajasthan- 313001

2. **Ministry of Environment, Forest and Climate Change,**
   Regional Office (CZ),Kendriya Bhawan, 5th Floor, Sector "H", Aliganj,, Lucknow – 226020

3. **CPCB – Bhopal**
   4th Floor, Sahkar Bhawan, North T.T. Nagar, Bhopal – 462 003

Admin. Office : Nehru House, 4, Bahadur Shah Zafar Marg, New Delhi - 110002; Phone: 33001142 / 33001112; Fax: 91-011-23722251 / 23722021;
E-mail: ucwl.customercare@ucwl.jkmail.com
Regd. & Works Office: Shripati Nagar, CFA, P.O. Dabok, Udaipur-313 022 (Rajasthan); Phone: 0294-2655076; Fax: 0294-2655077;
E-Mail: ucwl@ucwl.jkmail.com; Website: udaipurcement.com; CIN: L26943RJ1993PLC007287

UCWL UDAIPUR CEMENT WORKS LIMITED

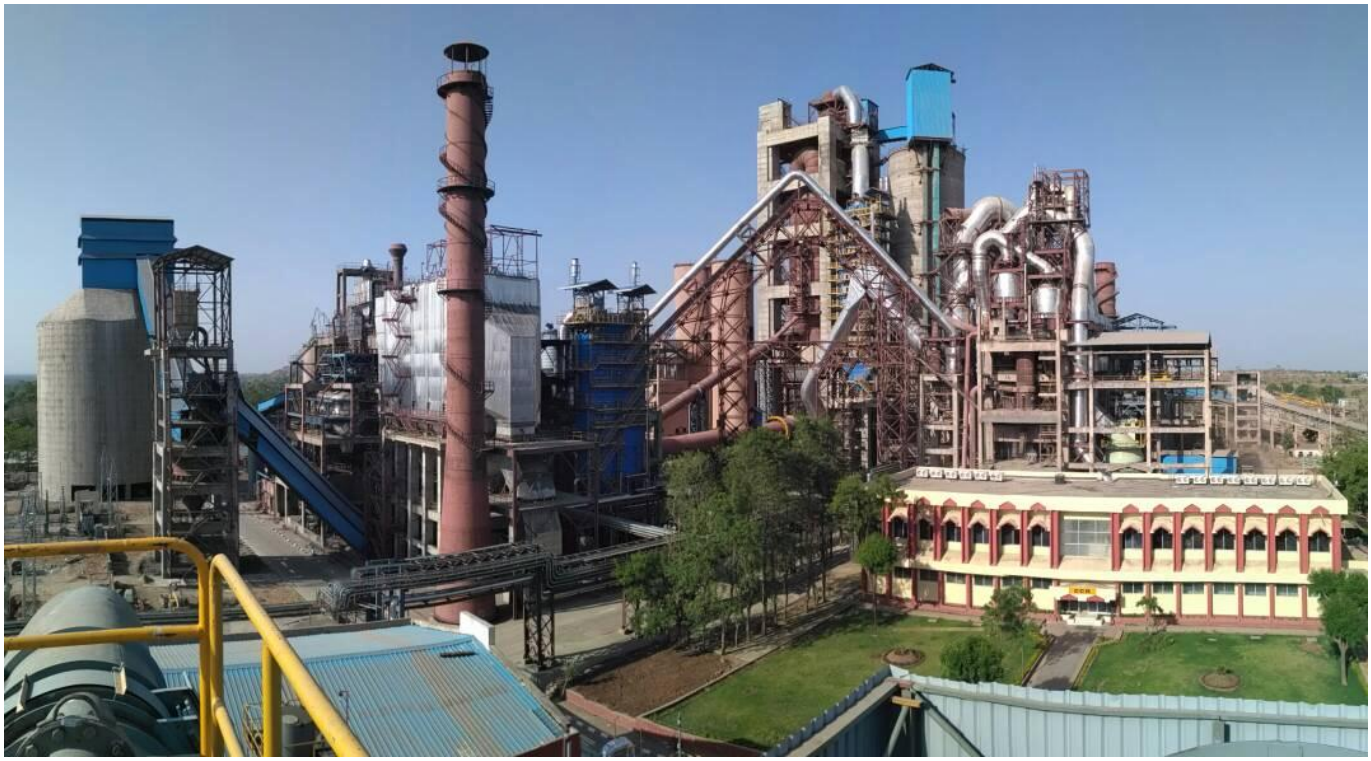
ENVIRONMENT STATEMENT

(FORM V)

Udaipur Cement Works Limited

Integrated Cement Manufacturing Plant

YEAR 2017-18



Udaipur Cement Works Limited

SHRIPATINAGAR, P.O. CFA: DABOK,
DISTRICT – UDAIPUR (RAJASTHAN)-313021

Udaipur Cement Works Limited, Environmental Statement for the financial year ending the **31st March, 2018**

FORM – V
(See rule 14)

Environmental statement for the financial year ending the 31st March 2018

PART – A

1.	Name and address of the Owner/Occupier of the Industry, operation of the process.	:	**M/s UDAIPUR CEMENT WORKS LIMITED,** SHRIPATINAGAR, P.O. CFA: DABOK, DISTRICT – UDAIPUR (RAJASTHAN)-313021
2.	Industry category	:	RED, LARGE
3.	Production Capacity	:	2.85 MTPA - Cement 2.00 MTPA -Clinker
4	Year of establishment	:	1968
5	Date of the last environmental statement submitted	:	23rd September, 2017

MTPA: Million Tons per Annum

PART – B

Water and Raw Material Consumption

(I) Water consumption in m3/day.

Process : Nil (the plant is based on dry process technology)

Cooling : 169.97

Domestic : 252.66

Name of products	**Process Water consumption* per unit of product output**	
	During the previous financial year 2016-17	**During the current financial year 2017-18**
	(1)	**(2)**
Portland Cement (OPC + PPC)	0.0922 KL/Ton of Cement	00.071 KL/Ton of Cement

(II) Raw Material consumption

S. No.	**Name of raw material**	**Name of products**	**Consumption of raw material per unit output (Per Ton)**	
			During the previous financial year 2016-17 (MT/Ton of Cement)	**During the current financial year 2017-18 (MT/Ton of Cement)**
1.	Lime Stone	Cement (OPC/PPC)	1.0117	1.1141
2.	Red Ocher		0.0404	0.0317
3.	China Clay		0.0145	0.0136
4.	Alumina Clay		0.0495	0.0581

5.	Gypsum		0.0644	0.0565
6.	Fly Ash		0.3180	0.2495
7.	Copper Slag		NIL	0.0108

PART – C

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

S. No	**Pollutants**	**Quantity of Pollutants discharged (mass/day)**	**Quantity of Pollutants discharged (mass/volume)**	**Percentage of variation from prescribed standards with reason.**
a. Water				
	Industrial	NIL	NIL	Zero Discharge, no waste water is generated from the process; the plant is based on dry process technology.
	Domestic	NIL	NIL	Zero Discharge
b. Air (Stack emission) Particulate matter				
		(Avg. values for the year 17-18)		
		Stack Attached to	**Quantity of Pollutants discharged (kg/day)**	**Quantity of Pollutants discharged (mg/Nm3)**	Percentage of variation from prescribed standards with reason. (%)
		1. Kiln/VRM	179.23	11.73	-60.87 (Below Prescribed Standards)
		2. Cooler	177.96	15.89	-47.02 (Below Prescribed Standards)
		3. Coal Mill	18.25	19.78	-34.05 (Below Prescribed Standards)
		4. Cement Mill - 1	10.67	16.83	-43.87 (Below Prescribed Standards)
		5. Cement Mill - 2	8.96	15.49	-48.34 (Below Prescribed Standards)

PART - D

Hazardous Wastes

(As specified under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016)

S. No.	Hazardous Waste	Total quantity (Kg.)	
		During the previous financial year 2016-17	During the current financial year 2017-18
a.	From Process	NIL	NIL
b.	From pollution control facility	NIL	NIL

PART – E

Solid Waste

Sl. No.	Solid Waste	Total quantity (Tons)	
		During the previous financial year 2016-17	During the current financial year 2017-18
a.	From Process (Used/Scrapped Refractory Bricks from Pyro Process)	NIL	234.35
b.	From pollution control facility	NIL	NIL
c.	1. Quantity recycled or reutilized within the unit	NIL	234.35
	2. Sold	NIL	NIL
	3. Disposed	NIL	NIL

PART – F

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

As the major section of integrated cement plant has been commissioned recently in 2017, hence there was no generation of used oil.

There was no Solid waste generated from the process, dust collected by air pollution control equipment in the process is recycled back into process.

PART – G

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

Udaipur Cement Works Limited is cautious of environmental footprint arising out of its business and manufacturing practice. The company has followed a sustainable approach to production by adopting resource efficient technology and systems.

1. The cement manufacturing process is based on 100% dry technology hence there is no consumption of water in the process product, hence saving water.

2. Company utilizes waste derived raw materials and fuels, like flyash (Waste of coal based thermal power plants), Gypsum (Waste of chemical industries), pet coke (byproduct of petroleum refineries), china clay, etc. thereby conserving the natural virgin raw materials like limestone, mineral gypsum, coal etc.

3. Company has installed latest art of technology air pollution control equipment with efficiency of more than 99%., like Bag House and Electrostatic Precipitator that helps maintaining the environment clean and emissions under the standards as prescribed by regulatory bodies.

4. Raw and Product in the plant process is transferred via closed bucket elevators and covered conveyor belts, with installed efficient pollution control equipment at each material transfer point, thereby ensuring no fugitive emissions.

5. UCWL maintains ZERO waste water discharge by treating the domestic waste generated from toilets and colony in the existing sewage treatment plant. Treated water from STP is used for development of greenbelt and plantation and dust suppression, thereby reducing fresh water consumption.

6. Unit meets its maximum water requirement by sourcing the harvested rainwater stored in the mines pit that reduces the need of ground water abstraction thereby conserving GW resource.

7. Unit has installed one of its kind pipe structure based 6.00 KMs long Covered Over Land Belt Conveyor, from its mines crusher to plant site that eliminates the need of transportation of limestone vie trucks through roads, thereby saving fuel and mitigating associated carbon emissions.

8. Plant has provided process equipment interlock with the pollution control equipment as a measure to follow clean production.

More details regarding some of the Sustainable Environmental Practices are provided in ANNEXURE-A.

PART – H

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

- Green belt development and tree plantation is our ongoing process.
- Proposed Plantation in Plant and colony area for FY 2018-19: 4000 nos. Plants.
- Furthermore, about Rs. 252.68 lakhs were invested towards Environment Protection and improvement up to 31st March, 2018 including Cement Plant & Mines.

Any other particulars for improving the quality of the environment.

UCWL has undertaken various steps towards conservation of natural resources and energy through continuous improvement and various in-house modifications. Some of the major activities carried out in FY 2017-18 are as follows.

1. Various improvements in WHRS Circuit to increase generation like, dummy installation in Cooler Vent duct, reducing false air in Preheater, WHR operations from two fan system to one fan system to reduce auxiliary energy consumption, etc.

2. Optimization of VRM Main Drive Running Parameters to improve Mill Feed Rate with reduced energy.

3. Reduction of energy consumption in VRM product circuit by optimization of running of Air Slide blowers and reducing false air ingress.

4. Re-designing product mix of Raw Meal for smooth operation of VRM Circuit and increased efficiency, thereby reducing energy consumption.

5. Unit has a Full-fledged Environment management cell for looking into aspects of Environmental monitoring, maintenance of pollution control equipment and green belt development.

6. Regular house-keeping of plant and colony area is being done.

7. UCWL has various environmental monitoring equipment's such as Respirable Dust (PM 10) Sampler, Gaseous sampling attachment, Fine particulate(PM 2.5) sampler, sound level meter, UV-VIS spectrophotometer, TDS-Conductivity meter, pH meter etc.

8. Online Continuous Emission Monitoring Systems (OCEMS) are installed and commissioned. The emission data is provided to CPCB as well as RSPCB servers on real time basis.

9. Awareness promotion through various environmental competitions, presentations, mails, tree plantation etc. on world environment day, Earth Day etc.

10. Mechanized Handling of materials is done (i.e. Unloading, storage, loading and feeding).

11. Heavy Earth Moving Machines (HEMM) and all machine operators are provided required PPE's like dust masks, ear plugs etc.

12. Periodic Environmental monitoring is carried out by MoEF&CC approved laboratory.

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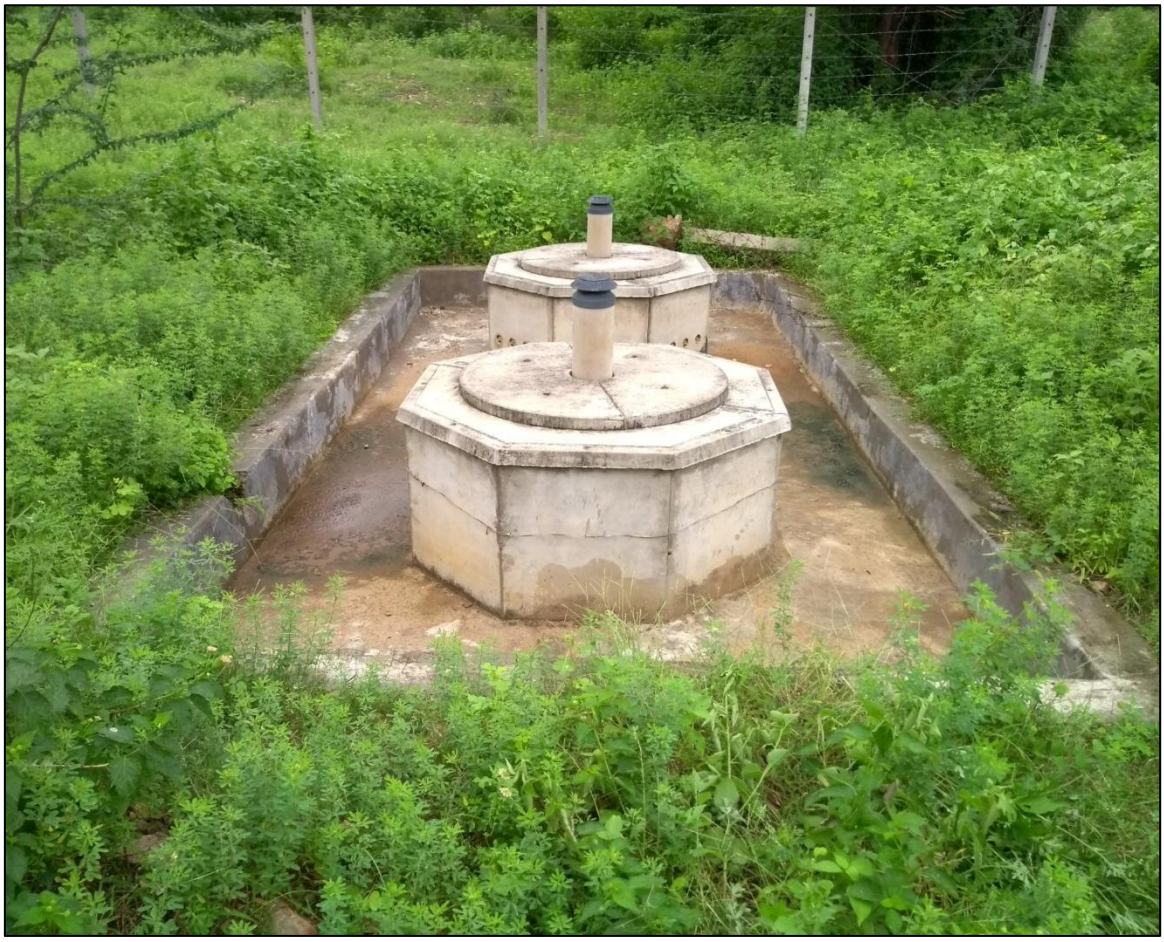
ANNEXURE- A

SUSTAINABLE ENVIRONMENT PRACTICES CARRIED OUT AT INTEGRATED CEMENT MANUFACTURING UNIT IN FY 2017-18

1. Innovative Rain Water Harvesting

Unit has implemented scientifically developed rain water harvesting in its plant colony and mines areas, adopting both artificial and natural means, thereby recharging groundwater.



Scientifically developed Artificial Rainwater Harvesting Structure for recharge of Ground water resource

ANNEXURE- A

2. Utilizing stored rainwater of mines pit in place of groundwater

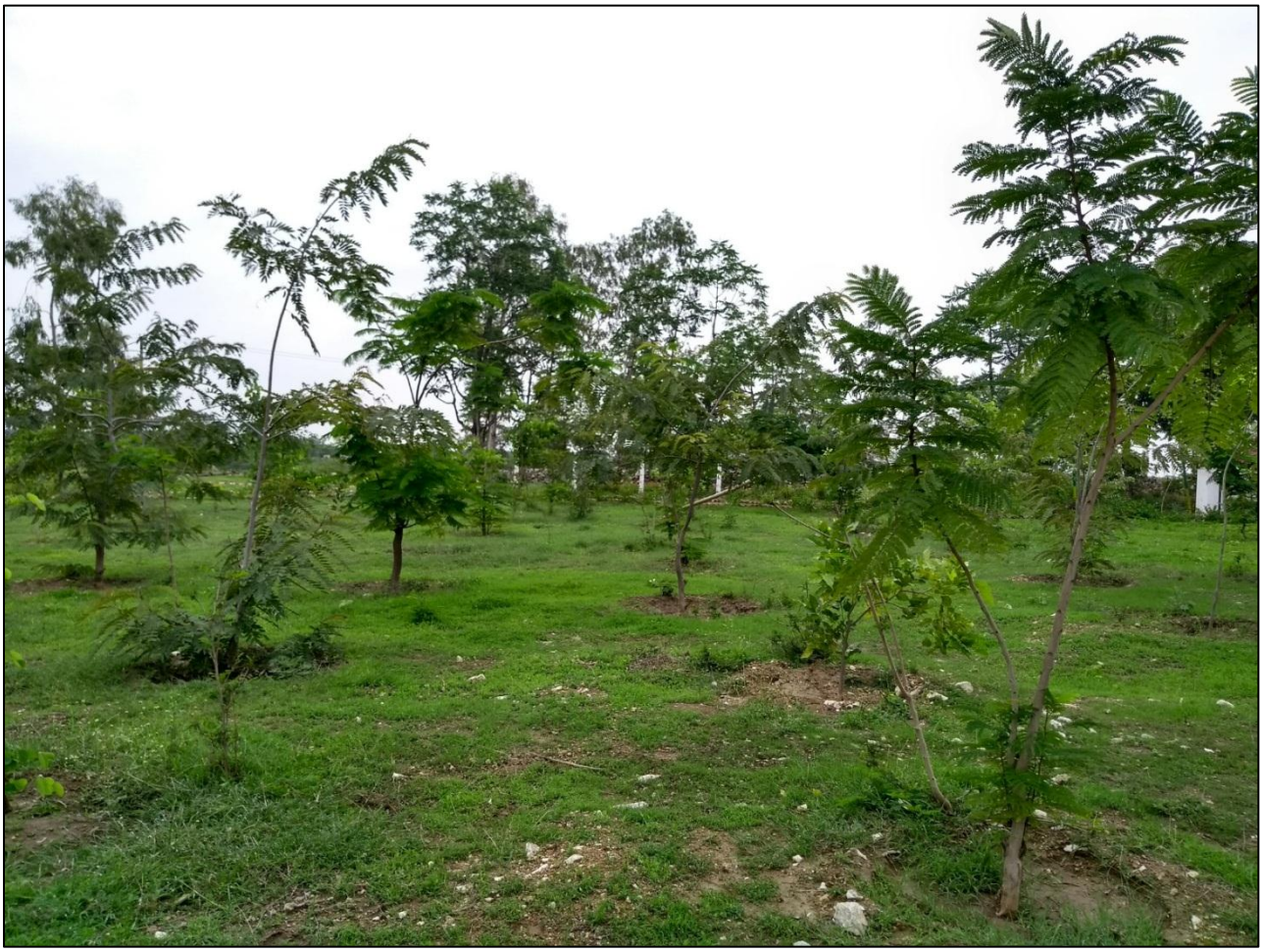
Unit utilizes the rainwater stored in mines pit for industrial and domestic purposes in place of groundwater thereby saving the natural resource i.e. groundwater. This has helped us to reduce the use of fresh water for domestic and industrial process.

Harvested Rain Water Stored in the Mines Pit

ANNEXURE- A

3. Development of Greenbelt and plantation in Plant and Mines areas

Unit has undertaken greenbelt development and massive plantation in Plant and Mines areas.



View of plantation done at Mines site

ANNEXURE- A

4. Green Power Generation from Waste Heat Recovery System

Unit has a 6 MW Waste Heat Recovery System which helps us to generate Green Power. It utilizes the waste gases to generate power which otherwise would have been vented in the atmosphere. This has helped us to reduce carbon footprint of the company.

Waste heat recovery Power generating Boiler Unit

ANNEXURE- A

5. Efficient Pollution Control Equipment for Air Quality Management

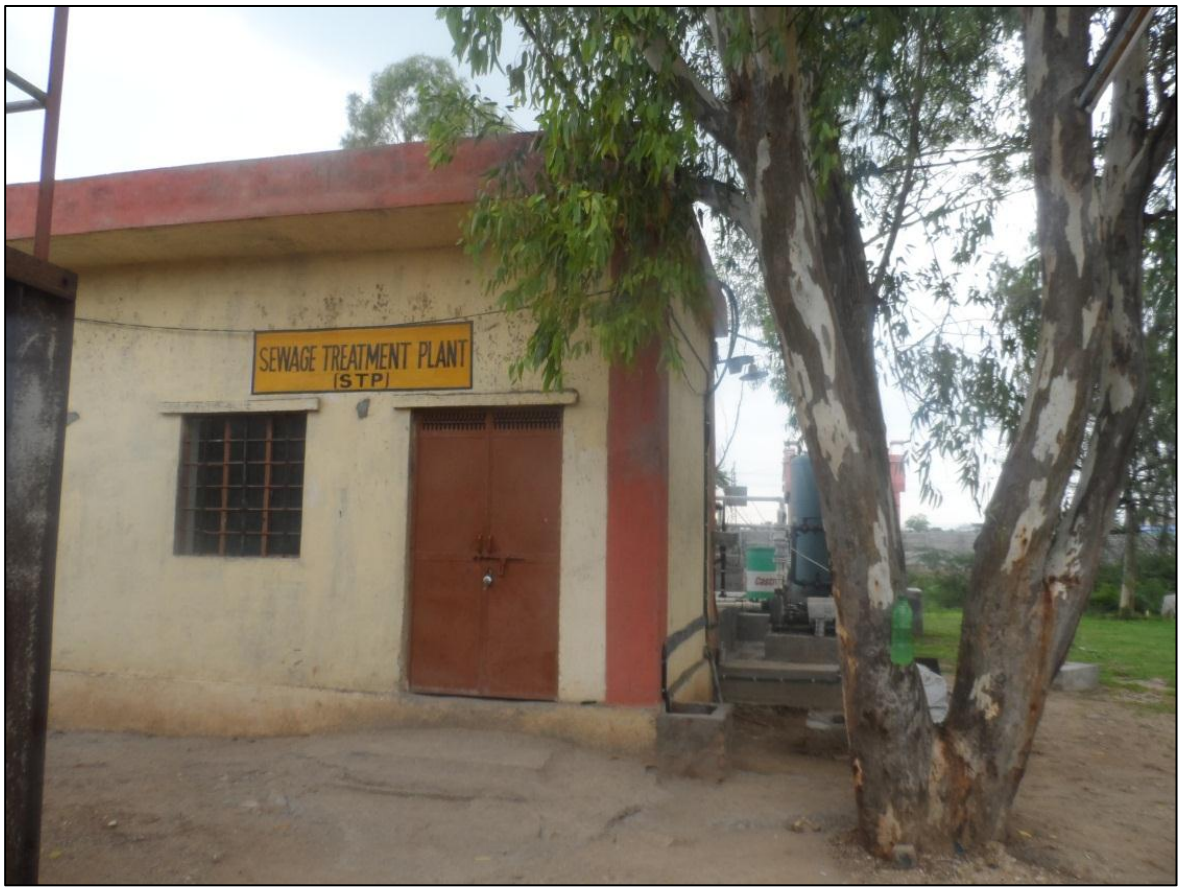
The unit has installed pollution control equipment in plant and mines like efficient bag filters at all material transfer points in order to control any related fugitive emissions, thereby ensuring cleaner production.

Bag filter installed at material transfer points

ANNEXURE- A

6. Zero waste water discharge : Sewage Treatment Plant

Unit has a Sewage Treatment Plant to treat the domestic waste water generated from the plant and colony. The treated wastewater is utilized for greenbelt development and plantation thereby reducing the consumption of fresh water for gardening and horticulture.

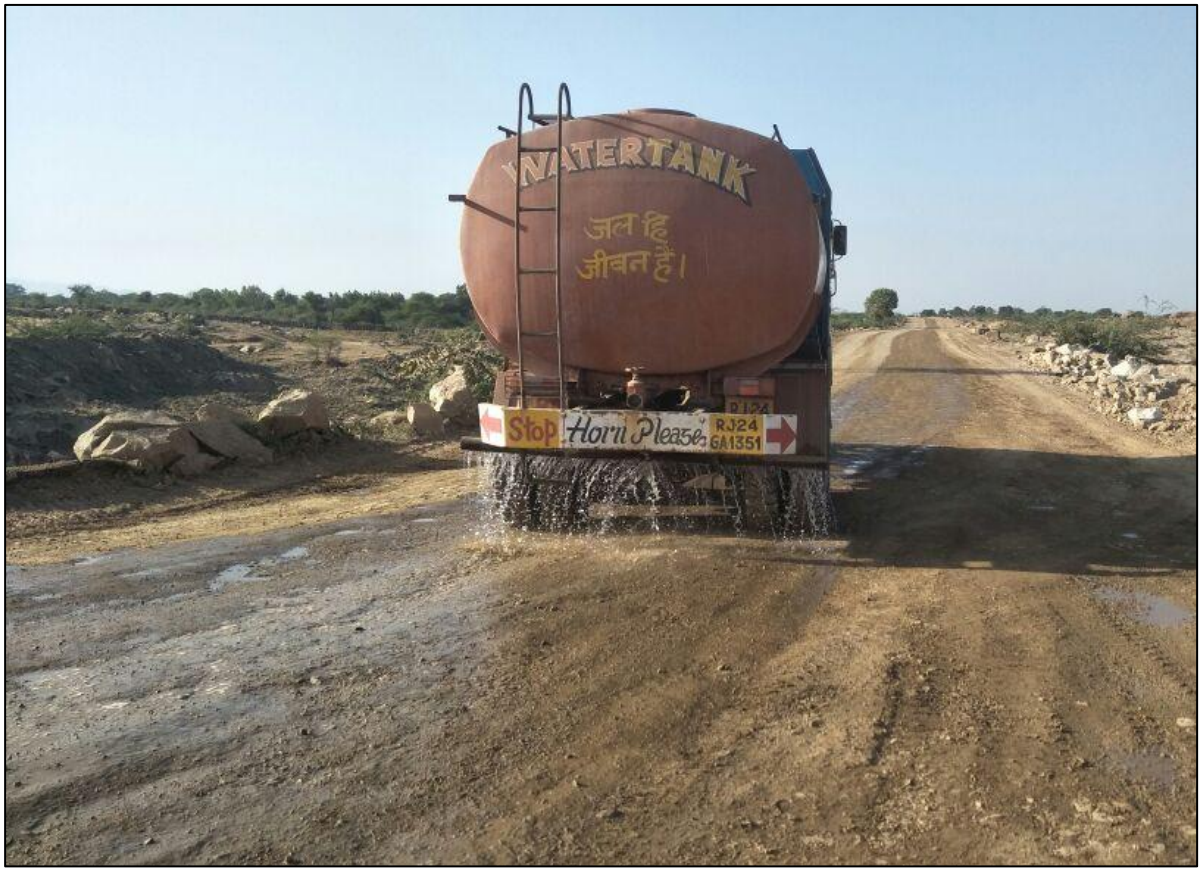


Site of Sewage Treatment Plant (STP)

ANNEXURE- A

7. Fugitive Dust Emission Control in Plant and Mines areas

To control fugitive dust emissions at haulage roads due to movement of trucks and vehicles, regular water sprinkling is done to suppress the dust.



Water tanker sprinkling water on the truck haulage roads at mines site

****

o/c

UCWL UDAIPUR CEMENT WORKS LIMITED

PLATINUM HEAVY DUTY CEMENT

UCWL/ENV&SUST /2018-19/635

25th September, 2018

The Member Secretary,
Rajasthan State Pollution Control Board,
4, Paryavaran Marg,
Institutional Area, Jhalana Doongari,
Jaipur, Rajasthan-312004

Sub: Submission of Environmental statement for the financial year 2017-18 for our Waste Heat Recovery System located at Udaipur Cement Works Limited (UCWL) C.F.A, Shripati nagar, Dabok, Udaipur- 313021

Ref: Consent to Operate Letter No. F(CPM)/Udaipur(Girwa)/9(1)/2013-2014/10972-10974 dated 27/02/2017.

Dear Sir,

With reference to the aforesaid subject, please find enclosed herewith the **ENVIRONMENTAL STATEMENT** for the financial year 2017-18, ending **31st March 2018,** for our Waste Heat Recovery System.

Hope you find the above in line with the requirement. This is for your kind record, please.

Thanking you,

Yours faithfully,
For UDAIPUR CEMENT WORKS LTD.,
For Udaipur Cement Works Ltd.

P. K. Chouhan Authorised Signatory
(General Manager – QC)

Encl: As Above

CC:

1. **Regional Officer, RSPCB-Udaipur**
   F-470, Near UCCI Bhavan, Madri Industrial Area, Udaipur (Rajasthan)- 313001

2. **Ministry of Environment, Forest and Climate Change,**
   Regional Office (CZ), Kendriya Bhawan, 5th Floor, Sector "H", Aliganj, Lucknow – 226020

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Regd. & Works Office: Shripati Nagar, CFA, P.O. Dabok, Udaipur-313 022 (Rajasthan); Phone: 0294-2655076; Fax: 0294-2655077;
E-Mail: ucwl@ucwl.jkmail.com; Website: udaipurcement.com; CIN: L26943RJ1993PLC007267

UCWL UDAIPUR CEMENT WORKS LIMITED

ENVIRONMENT STATEMENT

(FORM V)

Udaipur Cement Works Limited

Waste Heat Recovery System

YEAR 2017-18

Udaipur Cement Works Limited

SHRIPATINAGAR, P.O. CFA: DABOK,
DISTRICT – UDAIPUR (RAJASTHAN)-313021

Udaipur Cement Works Limited, Environmental Statement for the financial year ending the **31st March, 2018.**

FORM – V
(See rule 14)

Environmental statement for the financial year ending the 31st March 2018

PART – A

1.	Name and address of the Owner/Occupier of the Industry, operation of the process.	:	**M/s UDAIPUR CEMENT WORKS LIMITED,** SHRIPATINAGAR, P.O. CFA: DABOK, DISTRICT – UDAIPUR (RAJASTHAN)-313021
2.	Industry category	:	LARGE
3.	Production Capacity	:	12 MW / Installed: 6 MW
4	Year of establishment	:	2017
5	Date of the last environmental statement submitted	:	NOT APPLICABLE

MW: Megawatt

PART – B

Water and Raw Material Consumption

(I) Water consumption in m3/day.

Process : 68.2

Washing/Greenery : NIL

Domestic : Common Colony for Cement Plant and WHRS

Name of products	**Process Water consumption* per unit of product output**	
	During the previous financial year 2016-17	**During the current financial year 2017-18**
	(1)	**(2)**
Electrical Energy	NIL/NA	0.6047 M^3/MWH

(II) Raw Material consumption : NOT APPLICABLE

S. No.	**Name of raw material**	**Name of products**	**Consumption of raw material per unit output**	
			During the previous financial year 2016-17	**During the current financial year 2017-18**
	NA	**NA**	**NIL/NA**	**NA**

PART – C

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

S. No	Pollutants	Quantity of Pollutants discharged (mass/day)	Quantity of Pollutants discharged (mass/volume)	Percentage of variation from prescribed standards with reason.
a. Water				
	Industrial	NIL	NIL	NIL
	Domestic	NIL	NIL	NIL
b. Air (Stack emission)				
		(Avg. values for the year 17-18)		
		Stack Attached to	**Quantity of Pollutants discharged (kg/day)**	**Quantity of Pollutants discharged (mg/Nm3)**	**Percentage of variation from prescribed standards with reason.**
		NOT APPLICABLE	NIL	NIL	NIL

Domestic effluent generated from office premises is disposed via soak pits

Treated water from neutralization pit located at WHR site is used for industrial cooling purpose.

PART - D

Hazardous Wastes

(As specified under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016)

S. No.	Hazardous Waste	Total quantity (Kg.)	
		During the previous financial year 2016-17	**During the current financial year 2017-18**
a.	From Process	NIL/NA	NIL
b.	From pollution control facility	NIL/NA	NIL

PART – E

Solid Waste

Sl. No.	Solid Waste	Total quantity (Kg.)	
		During the previous financial year 2016-17	**During the current financial year 2017-18**
a.	From Process (Used/Scrapped Refractory Bricks from Pyro Process)	NIL/NA	NIL
b.	From pollution control facility	NIL/NA	NIL
c.	1. Quantity recycled or reutilized within the unit	NIL/NA	NIL

	2. Sold	NIL/NA	NIL
	3. Disposed	NIL/NA	NIL

PART – F

Please specify the characterization (in terms of composition & quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.
No Hazardous waste was generated during FY 2017-18.

PART – G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production.
At Udaipur Cement Works Limited, we have taken an approach to boost sustainability by installation of Air Cooled Condensers in place of conventional water cooled condensers, thereby saving about 3 times the water resource that is consumed in conventional water cooling system. More details regarding some of the Sustainable Environmental Practices are provided in ANNEXURE-A.

PART – H

Additional measures/ investment proposal for environmental protection including abatement of pollution / prevention of pollution.
It is a waste heat recovery based power plant that generates power from waste heat available in the process, thereby saving natural resource coal, which is otherwise consumed for generation of conventional power. For FY 2017-18 the WHRS Unit at UCWL has mitigated about 16475.61 Tons of CO2 equivalent.

PART – I

Any other particulars for improving the quality of the environment.
1. Installed WHRS system is based on utilization of available waste heat for generation of electricity. 2. Air Cooled condensers are installed. 3. Kiln feeding system was modified from 5^{th} Stage to 4^{th} stage to increase SP boiler flue gas temperature. This has resulted in increase in Green Power i.e. WHRS generation. 4. Dummy plate has been installed in ESP bypass Duct to prevent bypass of flue gas from ESP duct thereby improving the WHRS generation.

ANNEXURE- A

SUSTAINABLE ENVIRONMENT PRACTICES CARRIED OUT AT INTEGRATED CEMENT MANUFACTURING UNIT IN FY 2017-18

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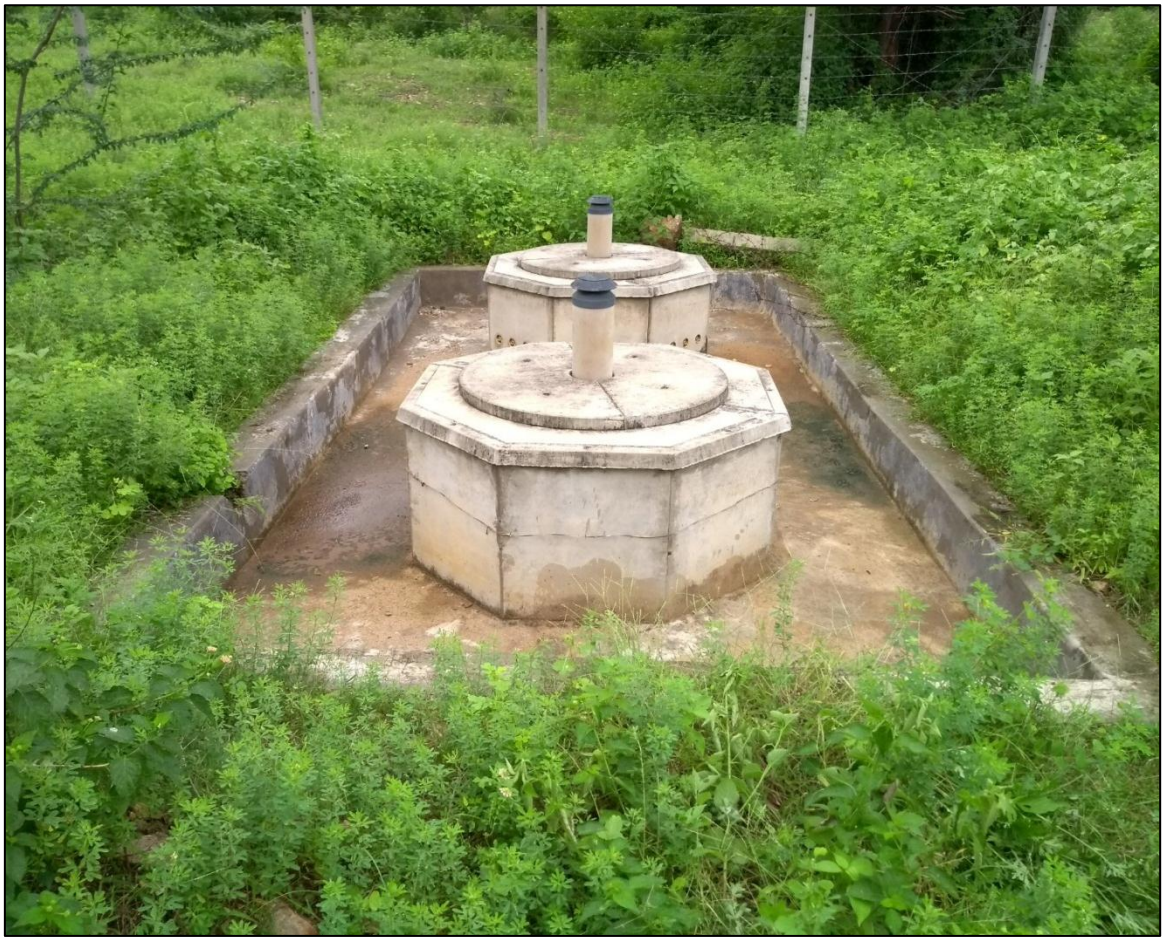

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Harvested Rain Water Stored in the Mines Pit

ANNEXURE- A

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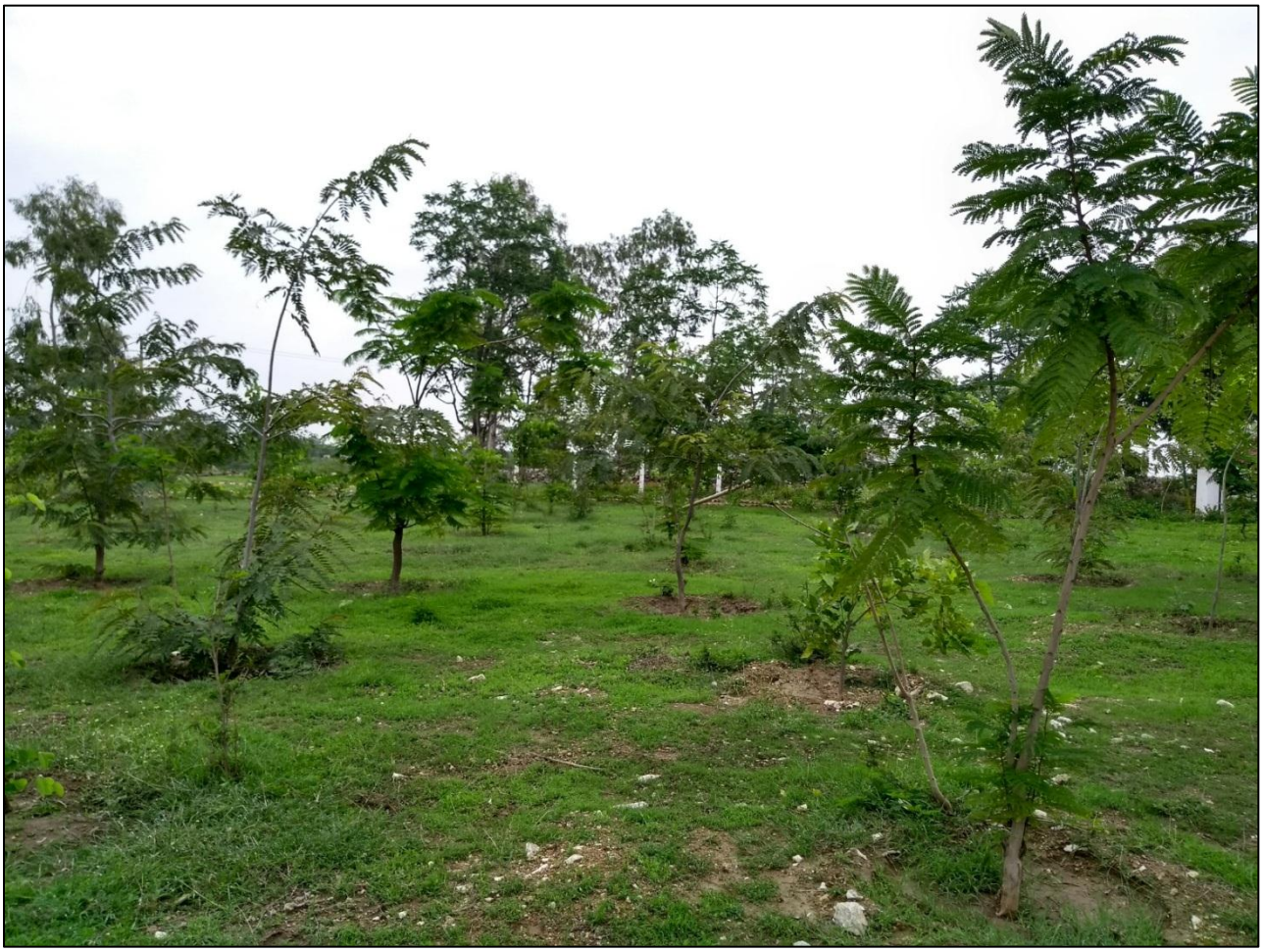

View of plantation done at Mines site

ANNEXURE- A

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Waste heat recovery Power generating Boiler Unit

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Bag filter installed at material transfer points

ANNEXURE- A

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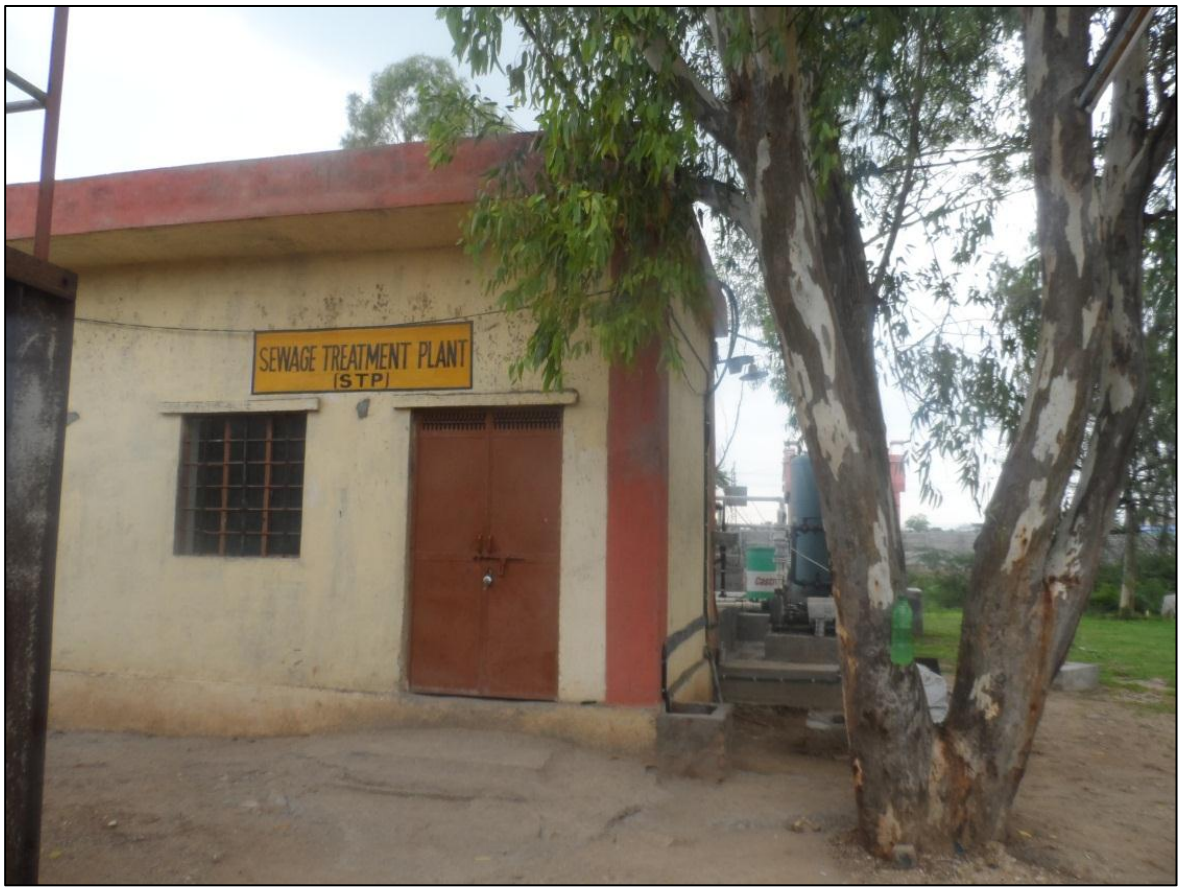
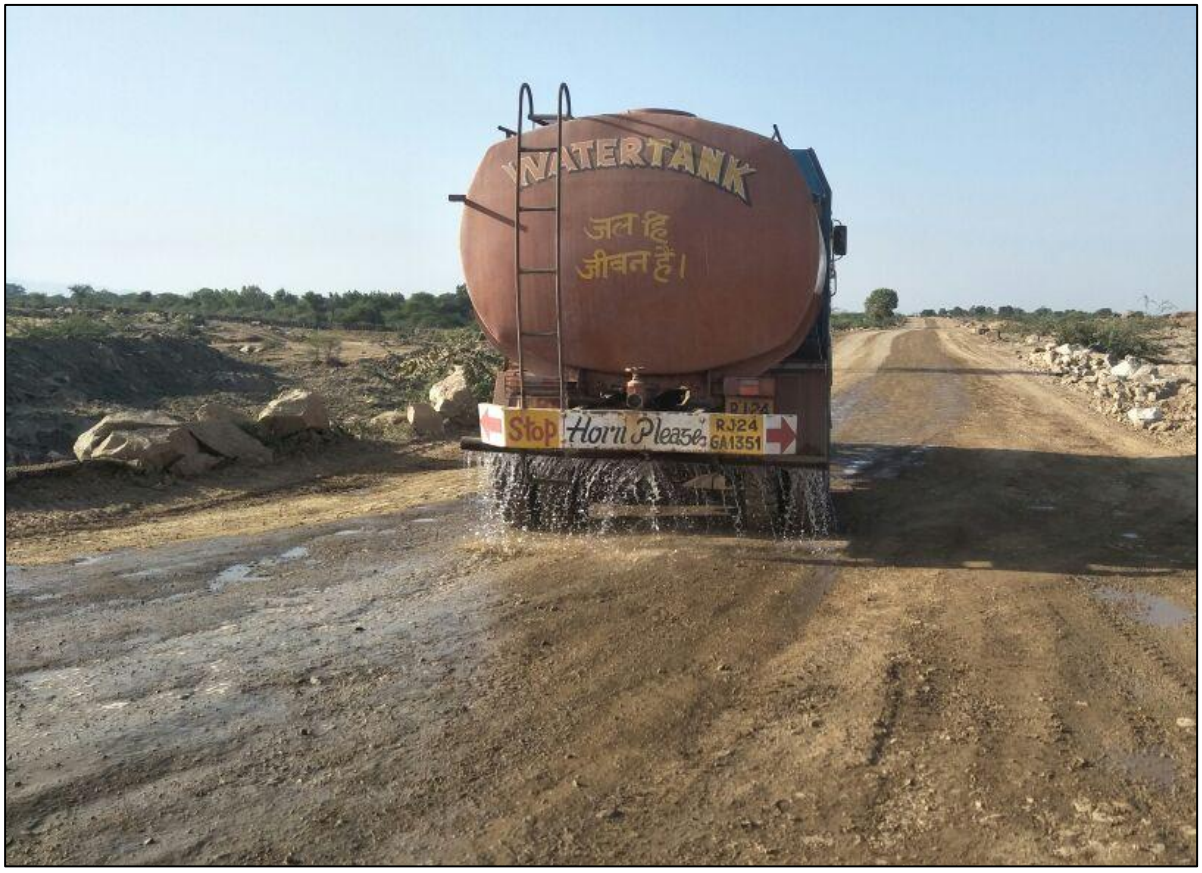


Site of Sewage Treatment Plant (STP)

ANNEXURE- A

7. Fugitive Dust Emission Control in Plant and Mines areas

To control fugitive dust emissions at haulage roads due to movement of trucks and vehicles, regular water sprinkling is done to suppress the dust.



Water tanker sprinkling water on the truck haulage roads at mines site

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