



SDCCL/EHS/F-08

Date: 19.06.2023

ID 17132 (Cement Plant)

ID 44546 (STP)

ID 44547 (Jetty)

**MEMBER SECRETARY,
GUJARAT POLLUTION CONTROL BOARD
PARYAVARAN BHAVAN, SECTOR -10-A
GANDHINAGAR – 382 010**

Sub: Submission of Environmental Statement Report (Form V) for our 1.2 MMTPA Cement Plant including 8.5 MW Waste Heat Recovery System (WHRS), 300 KLD STP & operation of Jetty for period April 2022 - March 2023.

Ref: 1. AWH – 102081 dated 03/06/2019
2. W – 108661 dated 08/07/2020
3. AW - 108463 dated 23/06/2020

Dear Sir,

Please find enclosed herewith the Environmental Statement Report for the period ending March 2023 (FY 2022-23) in Form V for our 1.2 MMTPA Cement Plant including 8.5 MW Waste Heat Recovery System, 300 KLD STP and operation of the Jetty.

Hope, the above is in order.

Thanking you,

Yours Faithfully,

For **Shree Digvijay Cement Company Limited**

(R. Krishna Kumar)
Plant Head

19/06/2023
GUJARAT POLLUTION CONTROL BOARD
Sardar Patel Bhavan, Rameshwar Nagar
Jamnagar-361008

Encls: A/a

**Cc: REGIONAL OFFICER
Gujarat Pollution Control Board
Sardar Patel Bhavan, T B Hospital Road
Jamnagar – 361 008**

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FORM V
(See Rule 14)

Environmental Statement for the financial year ending on 31st March on or before 30th of September every year

Environmental Statement for the financial year ending 31st March, 2023 (FY:2022-23)

PART A

(i)	Name and address of the owner/ occupier of the industry operation or process	:	Shree Digvijay Cement Company Limited PO: Digvijaygram, Sikka – 361 140 Jamnagar, Gujarat
(ii)	Industry category Primary: (STC Code) Secondary: (STC Code)	:	Large – Cement manufacturing Red R26
(iii)	Production capacity (MT)	:	1200000 MT/year (1.2 MMTPA)
(iv)	Year of establishment	:	1985
(v)	Date of the last environmental statement submitted	:	27/June/2022

PART – B

WATER AND RAW MATERIAL CONSUMPTION:

1. Water consumption m³/d

Process: 51,570 m³/year ~ 159 m³/day

Domestic: 1,04,622 m³ /year ~ 287 m³/day (Township consumption water)

Name of products	Process water consumption per unit of product output	
	During the previous financial year	During the current financial year
(1) Cement	0.042 m ³ /MT	0.040 m ³ /MT

2. Raw material consumption:

	Name of raw materials	Name of products	Consumption of raw material per unit of output	
			During the previous financial year	During the current financial year
1.	Limestone	Cement	1.154	1.102
2.	Sandstone		0.0273	0.034
3.	Copper Slag/Spent Catalyst		0.0229	0.013
4.	Marl		0.331	0.000
5.	Flyash		0.167	0.175
6.	Gypsum/Chemical Gypsum		0.07	0.050
7.	Iron Ore/Iron Sludge		0.213	0.001
8.	Ground Granulated Blast		0.00	0.000
9.	Coal	Clinker	0.149	0.085
10.	Petcoke		0.00687	0.046
11.	AFR		0.00461	0.0109
12.	Loading/Unloading	Jetty	0.00	0.00
13.	Wastewater Treatment (Domestic)	STP	Avg 95 KL/Day	Avg 99 KL/Day

PART – C
Pollution discharged to environment / units of output

(Parameter as specified in the consent issued)

(1)	Pollutants	Name of source	Quantity of pollutants discharged (Kg. / day)	Concentrations of pollutants in discharged (mg / Nm ³)	Percentage of Variation from prescribed standards with reasons
(a)	Water (Industrial)	Not Applicable since no wastewater is generated from the process			NA
	Pollutants	Name of source	Quantity of pollutants discharged (Kg. / day)	Concentrations of pollutants in discharged (mg / Nm ³) (Annual Avg.)	Percentage of Variation from prescribed standards with reasons
(b)	Air	Kiln/Raw mill BH	~ 101	10.8	Within Prescribed Limits
		Coal mill	~ 65	14.41	
		Kiln cooler ESP	~ 15	13.11	
		Cement mill – I	~ 35	16.3	

PART – D

HAZARDOUS WASTES

(As specified under Hazardous Wastes / Management and Handling Rule 1989)

Hazardous Waste	Total quantity (Kg)		
		During the previous financial year	During the current financial year
1.From Process	1. Used Oil & Used Grease	11520 Kg	5600 Kg
	2. FO Sludge	Nil	Nil
2.From pollution control facilities	NA	-	-
	Total (Kg)	11520 Kg	5600 Kg

PART – E

SOLID WASTES

	Total quantity (Kg)	
	During the previous financial year	During the current financial year
a) From Process	NA	NA
b) From pollution control facilities	NA	NA
c) (1) Quantity recycled or re – Utilized within the unit.	NA	NA
(2) Sold	NA	NA
(3) Disposed	NA	NA

PART – F

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

- a) The types of hazardous waste being handling belong to the category 5.1 only. Various AFRs is being utilized as per CCA order. Regularly, the monthly AFR consumption report is being submitted to GPCB. Compile sheet is attached herewith as **Annexure – I**.
- b) The own hazardous waste as generated from process is being re-utilized internally in the process it-self.

PART – G

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

1. Recycling of raw material: -

Due to efficient working of air pollution control equipment (APCE) like ESP/ Bag house/Jet pulse Filters in the different sections like Raw mill, Cooler house, Cement mill, etc., the dust generated (raw material, Clinker, Cement) is recycled and used in the process. This results in prevention of loss of material, which directly affects the cost of production.

2. Energy Conservation: -

SDCCL evaluates the performance of the equipment critically and if found, inadequate either with respect to process or energy, then suitable replacements are made with energy efficient equipment. This process is done on continuous basis as the improvement in technology is limitless and the company keeps itself abreast of these technologies to enable it to use them as and when required. This aspect is critical for energy efficient processes which are essential for production / process management so that the entire production activities are carried out at maximum efficiency levels resulting in considerable savings in raw materials, fuel and power. In the same concept, SDCCL has installed the WHRS in the year 2012 to take care of green power.

3. Control of Fugitive Emission: -

The plant is equipped with state of art Air Pollution Control devices such as ESP, Baghouse, Jet Pulse Filters etc. designed to control the emission (PM) levels <30 mg/Nm³ from any of the stacks installed at our plant. In addition of the above, we are successfully managing the ambient SPM levels to below the prescribed levels by way of putting up Jet Pulse Filters at each of transfer points, fully mechanized system for fly ash handling, covered conveyors, water sprinklings of raw materials & coal conveyors and paved surfaces for vehicular movement inside the plant premises.

All these systems have proved to be very effective in arresting and putting back the recovered material into the production line thus preventing the precious raw material, fuel, intermediates & finished products from getting lost in the atmosphere.

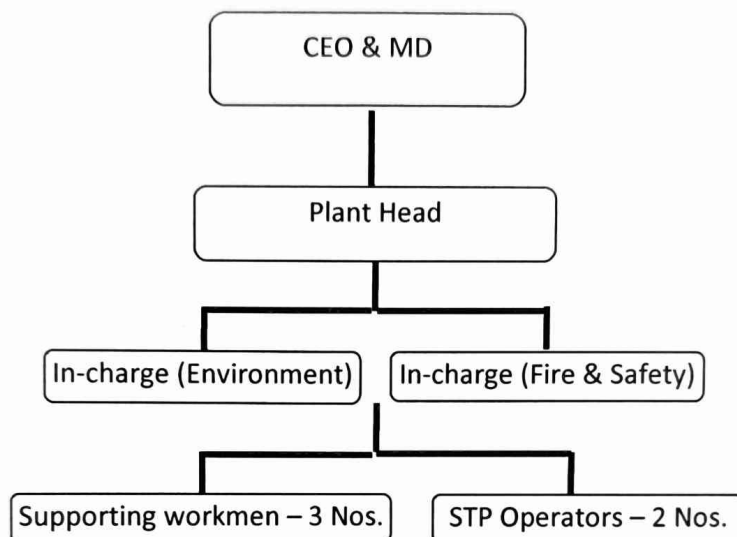
Additionally, over the years, the company has undertaken various energy efficiency improvement measures & process modifications which helped to significantly reduce the overall energy consumption to enable us to achieve our ultimate goal of GHG emission reduction and positive contribution towards reversing the effects of Climate Change.

Thus, the pollution abatement & other energy conservation practices adopted by us save the precious raw material/products and greatly help in conserving the valuable Natural Resources.

4. Environmental, Health & Safety Department: -

The Environmental, Health & Safety (EH&S) of SDCCL has experts in the field of Environmental & Safety management from different disciplines. This department is also supported by sufficient qualified staff for maintenance of pollution control equipment from the Civil, Mechanical, Automation, Electrical & Instrument Departments.

Organization Structure for Environment Management Division



5. Air, Water & Noise Monitoring:

5.1 Ambient Air Monitoring: -

Air is the major shareholder of environment and gets affected immediately by each activity. So, keeping in view of this, an air surveillance program has been designed to monitor the air quality in and around plant by fixed four numbers of ambient air quality monitoring stations including at Jetty area as per the GPCB guidelines. **Please refer annexure # II.**

5.2 Wastewater treatment & monitoring: -

We have installed 300 m³/day capacity Sewage Treatment Plant for treatment of domestic sewage generated from the Township. The treated water is being utilized for greenbelt development and dust suppression purposes.

The average quality parameters for the year of 2020-21 are tabulated below.

Sr. No.	Parameters	Treated Water (Outlet)
1	pH	7.48
2	Suspended Solids, mg/L	14.54
3	BOD, mg/L	8.27
4	FC	<02

5.3 Noise Monitoring

Noise is considered to be one of the dimensions of pollution, which leads to degradation of the environment and also poses health and communication hazards. Although noise levels are within prescribed limits, for better protection protective equipments such as earplug/earmuff are being provided in specific areas.

6. Minimization of Health Hazards: -

As a result of different pollution abatement measures being adopted, the health hazards to the workers have been minimized. This has indirectly reduced the cost of production.

7. On-Line Stack Monitoring Equipments: -

In order to monitor the stack emission continuously four-opacity meter has been installed which are working efficiently. The stacks provided with on-line monitoring system are given below:

- Stack attached with Raw/Kiln Bag house
- Stack attached Clinker Cooler ESP
- Stack attached with Coal Mill Bag filter
- Stack attached with Cement Mill Bag filter

8. Plantation/Greenbelt development:

At SDCCL plantation is an integral part of our activities for environmental protection and balancing the ecosystem. This also helps us in providing an additional aesthetic look in and around our works including our residential areas. We have started plantation in various areas since the installation of the plant. In the financial year 2022-23, > 65000 Nos. of saplings have been planted in the Plant & Colony. The survival rate is 80% considering our plant situated in the Saurashtra region and also scanty rainfall the survival rate is quite satisfactory.

9. Water Harvesting:

The plant site falls in semi-arid zone with the approximate average rainfall of 600 mm/yr. Considering the importance of water as an essential natural resource, we are not only optimizing our process water requirements but also creating large water storage structures in our township and mines area in order to maximize the groundwater harvesting initiatives. We have been created four nos. of water pounds in township area to catch maximum surface runoff. Similarly, in the mines area several water collections pits have been created and maintained.

Achievements of Water harvesting efforts: -

The plant being nearer to sea, it is observed that the underground water table has turned brackish over the years with increase in salinity. The impact of interventions is remarkable and resulted into;

- The storage and recharge structures we have been able to slightly decrease the salinity and curtailed the backward flow of sea water in the fresh underground water pockets.
- This has contributed to a large extent to help the local dwellers in the nearby community to get access to reduced level of salinity, and with our continuous efforts we are sure that this brackishness / salinity can one day be totally curtailed and the water below the earth can remain free from sea salinity.
- Moreover, the water collected in the artificial recharge structures not only helps to recharge the groundwater table of the area but is also contributing greatly to increase biodiversity of the region. The availability of water in the reservoirs help to the proliferation of biodiversity by attracting various species, overall improving the species diversity in the region. It has been observed that the stored water body attracts many local as well migratory birds, which overall shows positive impact on biodiversity.

PART – H

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

These are the following investment have already made for conservation of natural resources, environmental protection and pollution abatement as below;

Online Continuous Emission Monitoring System (OCEMS)

The OCEMS & Opacity meters have already been installed at all the monitored stacks of Raw Mill & Kiln, Cement Mill, Coal Mill & Clinker Cooler.

SNCR: To control the NO_x the SNCR has been installed & complying with the GPCB/CPCB norms/guidelines.

S. No.	Expenses for Environmental Improvements 2020-21	Expenses (Rs.)
1	Horticulture Expenses including Gardening	189163
2	STP Operation & Maintenance	513599
3	Others like Environment Day Celebration, World Water Day Celebration, Environment Monitoring, Housekeeping etc.	2170674
	Total	2873436

PART – I

Any other particulars for improving the quality of the environment.

1. World Environment Day: -

The "World Environment Day" is celebrated on 5th June of every year with full enthusiasm by involving of our all workers & staff. On this occasion environmental awareness programs are conducted like plantation, oath ceremony by ladies and school children, plantation by executives & workmen, environmental quiz, slogan competition, poster competition and section wise housekeeping competitions etc.

2. Rural Development and Socio – Economic Environment: -

The Company undertakes special initiatives and projects in the areas of eradication of poverty, women empowerment, health care (including preventive health care and sanitation), providing safe drinking water & education. Company also engage in skill development leading to creation of alternative employment. Company ensures environmental sustainability through forestry, conservation of natural resources and maintaining quality of soil, air and water, all directed towards helping neighbouring communities, including disadvantaged, vulnerable and marginalized stakeholders and being instrumental in cultivating their progress. The Company was the first industrial unit in the region, who started providing free drinking water and free medical amenities to all nearby villagers, particularly disadvantaged, vulnerable and marginalized population, whosoever residing around Company's plant and mining locations. The Company also has a well-established CSR policy which reflects the objective of economic and social development to create a positive impact.

During COVID-19 pandemic, Company took various initiatives to provide the employment to the local woman to produce the face mask and other products. The produced mask distributed among communities near the plant. In addition to this, sanitisation was carried out among communities near the plant. Mass scale awareness drives in communities conducted on the usage of masks, social distancing, importance of hand washing, vaccination etc.

During the year, an amount of Rs.165.14 lakhs was spent on CSR activities. This represents ~ 2% of average net profit for three financial year immediately preceding the financial year 2020-21.

3. Environment, Social and Governance (ESG) Policy: -

The Company through its Environment, Social and Governance (ESG) Policy, inter alia:

- a) Established systems to manage environmental and social impact of business activities across the value chain.
- b) Established, implemented and maintained an effective monitoring and reporting systems for continuous improvement of ESG performance.
- c) Implemented mechanisms to achieve an equitable, healthy, and safe working environment for employees
- d) Supported the local communities for an inclusive development of the society.
- e) Consulting and sought feedback from relevant stakeholders to ensure continued relevance of policy.

For more details, you may refer our **Environmental Audit Report** for the period April'22 to March'23 as prepared & submitted under Schedule I audit scheme.

For **Shree Digvijay Cement Company Limited**



(R Krishna Kumar)
Plant Head