O/C – Acknowledgement

ACL/EMD/F22/2014/ 358 - 73812/5 **16.09.2014**

Member Secretary,
Gujarat Pollution Control Board,
Paryavaran Bhavan,
Sector-10A,
Gandhinagar – 382010

Sub.: Environmental Statement of Bulk Cement Terminal (Unit of Ambuja Cements Ltd.) for the year 2013-14.

Sir,

This has reference to Rule 14 of Environment Protection Act 1986. We are submitting herewith Environmental Statement in prescribed Form-V of Bulk Cement Terminal (Unit of Ambuja Cements Ltd.) for the financial year April 2013 to March 2014.

Kindly acknowledge receipt for the same.

Thanking You,

Yours truly,
For **Ambuja Cements Ltd.**

A Rai 16/9/14

Dr. Anand K. Rai
HOD - Environment

26/9/14
Gujarat Pollution Control Board
Sector No. 10 A,
Gandhinagar - 382 010.

Encl.: Form V with Annexure.

Copy to: Regional Officer,
Gujarat Pollution Control Board,
Opp. Saint Anne's Church
Station Road, Junagadh

[FORM-V]
(See rule 14)

Environmental statement for the financial year ending the 31st March 2014

PART- A

(i) Name and address of the owner/occupier of the industry operation or process:

Bulk Cement Terminal (BCT), Village – Muldwarka,
Unit of Ambuja Cements Ltd., PO: Ambujanagar, Tal: Kodinar,
District – Gir Somnath, Gujarat. PIN: 362 715.

(ii) Industry category primary-(STC code) Secondary-(STS Code) : Red

(iii) Production capacity :

BCT-Muldwarka is captive port of Ambuja Cements Ltd. for storage & handling of following commodities:

Product	Quantity
Cement	4.0 Million ton per annum (MTPA)
Clinker	As per requirement
Coal	1.0 MTPA
Furnace Oil	0.2 MTPA
Mineral Gypsum	0.1 MTPA
Mineral Gypsum	0.2 MTPA
Fly Ash/Slag	2.0 MTPA
Rubber Scrap	0.2 MTPA

(iv) Year of Establishment : 1993

(v) Date of last environmental statement submitted : 25th Sep 2013

PART- B

Water and Raw Material Consumption

(i) Water consumption m^3/d

Process: --
Cooling } 176.01 (Cooling, dust suppression & fire fighting)
Domestic } 93.22 (Domestic purpose)

Bulk Cement Terminal is Material Handling and storage facility, therefore no water is required in process. Water is used only for domestic purpose, gardening, dust suppression, fire fighting and for distribution to villagers as CSR activity.

Name of Products	Process water consumption per unit of product output.	
	During the previous Financial year	During the current Financial year
	(1)	(2)

Not applicable, as Bulk Cement terminal is Material Handling and storage facility, therefore no water is required in process.

(ii) Raw material consumption

BCT-Muldwarka is captive port for material handling, details of material handled is given below.

* 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
Cement		2731462.04	2690563.96
Clinker		0	165497
Coal		625399	244329
Furnace Oil		0	0
Mineral Gypsum		99209	0
Fly Ash/Slag		0	0
Rubber Scrap		0	0
Total		3456070.04	3100389.96

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

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

(1) Pollutants	Quality of pollutants discharged (mass/day)	Concentrations of pollutants discharges (Mass/volume)	Percentage of variation from prescribed standards with reasons.
(a) Water	No waste water discharge. Only domestic waste water generated is being disposed off through septic tank. **Note**: RO Plant, with production capacity 1200 m^3/d potable water (CCA No. W-57323 valid upto 16.06.2018), is not in operation since 2008. Hence, no waste water generation.	Not applicable	Not applicable
(b) Air	Pl. refers **Annexure I** for environment monitoring results.		

PART- D

HAZARDOUS WASTES

(As specified under Hazardous Waste Management, Handling & Transboundry movement rules 2008)

Hazardous Wastes	Total Quantity	
	During the previous financial year	During the current financial year
(a) From process Used Oil	2.00 MT	1.00 MT
(c) From pollution control Facilities	Nil	Nil

PART- E

Solid Wastes

Waste Generation	Total Quantity	
	During the previous financial year	**During the current financial year**
(a) From process	No solid waste generated from process	
(b) From pollution control Facilities	Not applicable	
(c) (1) Quantity recycled or re-utilized within unit.	Dust collected from all pollution control equipments is being continuously recyled in to the process.	
(2) Sold	Not applicable	
(3) Disposed	Not applicable	

PART- F

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

- Hazardous waste

  (1) **Used Oil** – (Category - 5.1)

  Main source of Used Oil generation in BCT - Muldwarka is Plant machineries. Full-fledged storage & handling facility is available at BCT which is earmarked and stored properly in closed barrels. The storage area is provided with roofing and impervious flooring. BCT - Muldwarka has valid authorization of GPCB for collection, storage, transportation and disposal of used/waste oil by selling to authorized recycler/ Co-incineration at own cement kiln.

- Solid Waste

  No solid waste generated from process.
  - Only dust collected from all APCEs is continuously recycled in the process.
  - Garbage generated from housing colony/ Township, (which is common for Cement Plants, Mines etc.) is segregated at source, out of which bio-degradable waste is used as compost by vermicomposting, whereas non-biodegradable wastes is sold to third party.
  - E-waste generated in ACL is segregated at source and sold to authorized third party.

PART- G

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

The installation of high efficiency air pollution control equipments and provision of fully closed material conveying system prevents the occurrence of any fugitive emission. The maintenance of good house keeping and paving of all the roads within the premises further prevents the occurrence of any fugitive emission. Gardens and roadside plantations developed in good shape, which helps for abatement of fugitive emission.

PART- H

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

Pl. refer **Annexure II**

PART- I

Any other particulars for improving the quality of the environment.

ACL has well established Integrated Management System (IMS):

- **ISO 14001:2004 (Environmental Management System),**
- **ISO-9001:2008 (Quality Management Systems)**
- **BS OHSAS 18001:2007 (Occupational Health & Safety).**

Beyond that for self evaluation of environmental performance, ACL has PEP system (Plant Environmental Profile), through which we are evaluating our environmental performance on annual basis and sets new goal every year for continual improvement in all sphere of activities.

Ambuja Cements Ltd. has set milestone in the field of pollution control & environmental protection, which is reflected through the various awards won by the Ambuja Cement Ltd.

To impart the awareness among Employees, Workers, Students and community every year Ambuja Cement is Celebrating various Environment Awareness programs such as World Environment Day, Ozone Day, Water Day, Earth Hour, Earth Day, Biodiversity Day etc. Some glimpses of Celebrations are enclosed as **Annexure III**

For the socio-economic development of the surrounding areas, Ambuja Cement Foundation (ACF), a corporate social responsibility wing of Ambuja Cements Ltd. has left positive footprints by initiating and implementing various community developments works in the surrounding area. Major focus areas of ACF are Water Resource Development & Management, Integrated Agriculture Development, Women Empowerment, Community Health, Animal Husbandry etc. Some glimpses of activities of Ambuja Cement Foundation are enclosed as **Annexure IV**

Ambuja Cements Ltd. has initiated Water Positive Mission under which various projects for rain water harvesting, minimization in water consumption & water recycling are implemented due to which ACL is Water Positive which was audited and certified by an independent agency DNV (Det Norske Veritas).

(Signature of a person carrying out an Industry-operation or process)

16/9/14

Name : Dr Anand K Rai
Designation : DGM-Environment
Address : Ambuja Cements Ltd.
Ambujanagar,
Tal:-Kodinar,
Dist: Gir Somnath. (Guj)

Annex

Ambient Air Quality Monitoring Results (April 2013 - March 2014)

Month	Average Ambient Air Quality Monitoring Stations											
	At Loading Point				ADM Building				Muldwarka Village			
	PM2.5 (µg/m3)	PM10 (µg/m3)	SO2 (µg/m3)	NOx (µg/m3)	PM2.5 (µg/m3)	PM10 (µg/m3)	SO2 (µg/m3)	NOx (µg/m3)	PM2.5 (µg/m3)	PM10 (µg/m3)	SO2 (µg/m3)	NOx (µg/m3)
Apr-13	30.00	52.00	13.80	23.10	28.00	50.00	12.40	22.60	20.00	42.00	11.90	22.90
May-13	31.00	54.00	14.30	22.50	26.00	47.00	12.10	20.80	23.00	45.00	12.60	23.40
Jun-13	31.00	54.00	14.30	22.50	26.00	47.00	12.10	20.80	23.00	45.00	12.60	23.40
Jul-13	31.00	54.00	14.30	22.50	26.00	47.00	12.10	20.80	23.00	45.00	12.60	23.40
Aug-13	32.00	56.00	11.50	17.80	27.00	52.00	10.10	19.80	25.00	48.00	10.80	20.50
Sep-13	34.00	51.00	10.90	18.80	25.00	47.00	11.20	17.20	27.00	53.00	11.50	19.50
Oct-13	23.00	45.00	12.30	16.30	31.00	48.00	11.20	17.40	29.00	50.00	12.70	18.50
Nov-13	29.00	45.00	12.70	18.40	26.00	49.00	11.20	17.80	32.00	47.00	13.30	17.30
Dec-13	24.00	46.00	12.30	16.50	26.00	42.00	13.20	17.80	29.00	43.00	12.40	18.60
Jan-14	29.00	45.00	12.90	17.20	28.00	41.00	12.10	16.10	31.00	48.00	13.20	17.70
Feb-14	34.00	49.00	12.10	18.40	32.00	44.00	13.20	17.40	37.00	42.00	11.50	16.50
Mar-14	32.00	46.00	12.70	17.70	30.00	48.00	11.20	16.60	33.00	45.00	12.30	17.20
Minimum	23.00	45.00	10.90	16.30	25.00	41.00	10.10	16.10	20.00	42.00	10.80	16.50
Maximum	34.00	56.00	14.30	23.10	32.00	52.00	13.20	22.60	37.00	53.00	13.30	23.40
Average	30.00	49.75	12.84	19.31	27.58	46.83	11.84	18.76	27.67	46.08	12.28	19.91

ANNEXURE – II

Additional measures taken for environmental protection at **Bulk Cement Terminal** including abatement of pollution, prevention of pollution are as follows:

1. All loading and unloading points have been provided with appropriate pollution control equipments.

2. Material handling at Bulk Cement Terminal is being done through closed conveyor belts in order to prevent fugitive dusting.

3. All the machineries and moving equipments including Air Pollution Control equipments are being regularly checked for efficient operation.

4. Cement is being transported from cement plant to Bulk Cement Terminal through closed cement bulkers.

5. Well established Pneumatic conveying system is used for unloading of cement bulkers at Bulk Cement Terminal.

6. Tippers used for coal raw material handling from Bulk Cement Terminal to Cement Plant is being covered with tarpaulin to prevent fugitive dusting.

7. All roads inside plant premises being regularly cleaned by road sweeping machine or by manual sweeping to minimize fugitive dusting.

8. Dense green belt has been developed in and around the periphery of the Bulk Cement Terminal, which enhances the aesthetic beauty of the plant & helps in abatement of the fugitive emissions.

9. Following Air Pollution Control Equipment has been installed at material transfer points to prevent fugitive emission.

S.NO.	LOCATION / APPLICATION	AIR POLLTION CONTROL EQUIPMENT
1	SILO-1 TOP	BAG FILTER
2	SILO-2 TOP	BAG FILTER
3	SILO-3 TOP	BAG FILTER
4	VERT SCREW VENTING (BIN-01)	BAG FILTER
5	TANKER UNLG BDS 1	BAG FILTER
6	TANER UNLG BDS 2	BAG FILTER
7	TANER UNLG BDS 3**	BAG FILTER
8	TANKER UNLG BDS 4	BAG FILTER
9	TANER UNLG BDS 5**	BAG FILTER
10	SILO 4 ELEVATOR INLET	BAG FILTER
11	SILO 4 TOP	BAG FILTER
12	SILO 4 EXTRACTION	BAG FILTER
13	TANKER UNLG BDS 6/CLINKER HOPPER (SILO -04 SIDE)	BAG FILTER
14	TANKER UNLG BDS 7CLINKER HOPPER (BC-16 SIDE)	BAG FILTER
15	BDS 6 EXTRACTION / CLINKER HOPPER (SILO -04 SIDE)	BAG FILTER
16	BDS 7 EXTRACTION/ CLINKER HOPPER (BC-16 SIDE)	BAG FILTER
17	SILO-1 EXTRACTION	BAG FILTER
18	CONVEYOR BC-2 INLET	BAG FILTER
19	CONVEYOR BC-2 DISCH.	BAG FILTER
20	BETWEEN SILO 1 & 3	BAG FILTER
21	BETWEEN SILO 1 & 2	BAG FILTER
22	TRANSFER TOWER -6	BAG FILTER
23	TRANSFER TOWER-1	BAG FILTER
24	TRANSFER TOWER-2	BAG FILTER
25	TRANSFER TOWER-3	BAG FILTER
26	TRANSFER TOWER-4	BAG FILTER
27	TRANSFER TOWER -5	BAG FILTER
28	SHIP LOADER DC-1	BAG FILTER
29	SHIP LOADER DC-2	BAG FILTER
30	SHIP LOADER DC-3	BAG FILTER
31	SHIP LOADER DC-4	BAG FILTER
32	TRANSFET TOWER -08 -GYPSUM	BAG FILTER
33	TRANSFET TOWER -07 -GYPSUM	BAG FILTER
34	TRANSFET TOWER -02 -GYPSUM	BAG FILTER
35	TRANSFET TOWER -03 -GYPSUM	BAG FILTER
36	TRANSFET TOWER -04 -GYPSUM	BAG FILTER