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# SHREE CEMENT LTD.

*Regd.Office & Works :*
**BANGUR NAGAR, POST BOX NO.33, BEAWAR 305 901, RAJASTHAN, INDIA**

SCL/BWR/ENV/SPP-3/2011-12/ Date.15/9/2011

Regd. A.D

The Member Secretary
Rajasthan Pollution Control Board
4, Institutional Area, Jhalana Doongri Road
JAIPUR (Rajasthan)

Sub: - Environmental Status Report of Shree Power for the period from **April, 2010 to March, 2011.**

Ref: - Consent to Operate Letter No. F(Tech)/Ajmer(Beawar)/4(1)/2008-2009/299 dated 20/04/2010.

Dear Sir,

We are submitting herewith the Environmental Status Report for the period from **April, 2010 to March, 2011** for Shree Power (A Unit of M/s Shree Cement Limited, Beawar (Raj.).

This is for your kind information please.

Thanking you,

Yours faithfully,
For Shree Power
(A Unit of Shree Cement Ltd.)
R Bhargava
(Rakesh Bhargava)
Jt Vice President (Environment)

Copy to: 1) The In-Charge (Regional Office), Rajasthan State Pollution Control Board, RIICO Industrial Area, Phase-III, Madangunj, Kishangarh (Raj.).

2) The Chief Conservator of Forest (C), Ministry of Environment & Forest, Regional Office (Central Region), Kendriya Bhavan, 5th Floor,Sector 'H' Aliganj, Lucknow (U.P.),



**JAIPUR OFFICE :** A-6, Yudhishter Marg, Opp. Yojana Bhawan, C-Scheme, Jaipur 302 005
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**NEW DELHI OFFICE :** 128-129, Hans Bhawan, 1, Bahadurshah Zafar Marg, New Delhi 110 002

# ENVIRONMENTAL STATEMENT

## FORM-V

## SHREE POWER
## (A Unit of M/s Shree Cement Limited,)
## BEAWAR (RAJASTHAN)
## (APRIL, 2010 to MARCH, 2011)

## PART – A

| | | |
|---|---|---|
| 1. | Name and address of the Owner / Occupier of the Industry operation or process | Shree Power<br>(A Unit of M/s Shree Cement Limited)<br>Bangur Nagar<br>Post Box No. 33<br>BEAWAR – 305 901<br>Distt. Ajmer (Rajasthan) |
| 2. | Industry Category<br>Primary (S.T.C. Code)<br>Secondary (S.I.C. Code) | Red Category |
| 3. | Production Capacity | 62 MW |
| 4. | Year of Establishment | 2003 |
| 5. | Date of the last Environmental Audit Report submitted | 15/9/2010 |

## PART – B

## WATER AND RAW MATERIAL CONSUMPTION

(I) **WATER CONSUMPTION** :

Process & Cooling : 465645 KL

Domestic : Common colony for existing Cement Plant, Shree Power and Mines.

| Name of Product | Process Water Consumption per Unit of Product Output | |
|---|---|---|
| | During Previous Financial Year | During Current Financial Year |
| Power | 0.00367 KL / Kwh | 0.00118 KL / Kwh |

**(II) RAW MATERIAL CONSUMPTION:**

| Name of Raw Material | Name of Product | Consumption of Raw Material Per Unit of Output (Power) | |
|---|---|---|---|
| | | During Previous Financial Year | During Current Financial Year |
| 1. Water | Power | 0.00367 KL / Kwh | 0.00118 KL / Kwh |
| 2. Coal / Fuel (Indian & Imported) | | 0.000386 | 0.000377 |

**(III) POWER CONSUMPTION (KWH/KWH OF POWER):**

| During Previous Financial Year | During Current Financial Year |
|---|---|
| 0.0665 | 0.0594 |

## (IV) TOTAL POWER PRODUCTION (KWH):

| During Previous Financial Year | During Current Financial Year |
|---|---|
| 374639181 | 393652447 |

## PART – C
## DISCHARGED TO ENVIRONMENTAL / UNIT OF OUTPUT

| Pollutants | Quantity of Pollutants Discharged (Mass/Day) | Concentration of Pollutants in Discharge (Mass/Value) | Percentage of variation from prescribed standard with reasons |
|---|---|---|---|
| (a) | Water | Domestic waste water generated from residential colony and office toilets is treated in STP and treated water is used in existing cement plant process. Total quantity of treated domestic wastewater during the year 2010-2011 was 42237 KL. Residential colony is common for Shree Cement Limited Unit I & II, Mines, Power plants.<br><br>During the year 2010-2011, 8764 KL waste water was generated from the Shree Power plant which was after neutralization used for Crusher spray, ash quenching & cement plant process. | |
| (b) | Air | Please refer Annexure –I & II | |

# PART – D

## HAZARDOUS WASTE

(As specified under Hazardous Wastes (Management, Handling & Transboundary Movement) Rules amended up to 2010)

| Hazard-ous Waste | Total Quantity (Ltrs.) | |
|---|---|---|
| | During Previous Financial Year April, 2009 to March,2010 | During Current Financial Year April,2010 to March,2011 |
| From Process | We are having a common Authorization for Hazardous waste management and handling for both SCL Unit-I & II, D.G. Sets, Power plants and Mines. | |
| | Total quantity generated from April-2009 to March-2010 = 41920 Ltrs.<br>Old stock = 3050 Ltrs.<br>Total used oil received =44970 ltrs<br><br>Self used=27035 Ltrs.<br>Sell to recyclers=9240 Ltrs.<br>Balance quantity=8695 ltrs | Total quantity generated from April-2010 to March-2011 = 19138 Ltrs.<br>Old stock = 8695 Ltrs.<br>Total used oil received =27833 ltrs<br><br>Sell to recyclers=19950 Ltrs.<br>Balance quantity=7883 ltrs |
| (b) From Pollution Control Facilities | N.A. | N.A. |

## PART – E
## SOLID WASTE

| | | Total Quantity | |
|---|---|---|---|
| | | During Previous Financial Year | During Current Financial Year |
| (a) | From Process | 5406 Tonnes (Boiler Bed Ash) | 4637 Tonnes (Boiler Bed Ash) |
| (b) | From Pollution Control Facility | 48222 Tonnes (Fly Ash) | 34913 Tonnes (Fly Ash) |
| (c) | 1) Quantity rejected for re-utilized within the unit | 100% Recycled in existing Cement plant process | 100% Recycled in existing Cement plant process |
| | 2) Solid | | |
| | 3) Disposed | | |

## 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 the categories of wastes:

**Hazardous Wastes**

No Hazardous waste is generated from the process except used oil which is drained from Machineries / Equipments. It is used for lubrication in chains, Stacker and Reclaimer etc and partly sold to the registered recycler.

**Solid Wastes**:

Only Fly ash and Bed ash is generated from the power plant as a solid waste which is used in the process of existing cement plants. Quantity of generation of both solid wastes is mentioned in part-E.

## PART – G

## IMPACT OF THE POLLUTION CONTROL MEASURES ON CONSERVATION OF NATURAL RESOURCES AND CONSEQUENTLY ON THE COST OF PRODUCTION

Shree power is being operated on environmentally clean technology. The stack emissions from the plant are controlled by ESP's & Bag Houses. Bag filters have been installed at various material transfer points to clean the process and arrest the fugitive emissions. The boiler ash collected in the pollution control equipments 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 / INVESTMENTS PROPOSAL FOR ENVIRONMENT PROTECTION INCLUDING ABATEMENT OF POLLUTION

Green belt development and tree plantation is our ongoing process. Every year we are growing new tree plantation. In the year 2010-11, 4725 new trees have been planted. Up to March 2011 total green area is 82.83 hectare with around 180534 trees which is around 35 % green area of total plant and colony area (231.94 hectare).

## PART – I

## ANY OTHER PARTICULATES FOR IMPROVING THE QUALITY OF ENVIRONMENT

1. We have full-fledged Environment Department with three separate cells, one for monitoring and one for maintenance of pollution control equipment and one for Green Belt development.

2. Monitoring of stack emission, ambient air, noise 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 dept is taking care of House keeping.

5. Horticulture Department is taking care of tree plantation and green belt development.

On support of above, we are enclosing herewith following:-

| | | |
|---|---|---|
| Annexure – I | : | Ambient Air Quality Report |
| Annexure – II | : | Stack Emission Level Report |
| Annexure – III | : | Noise Level Report |

Annexure-I

AMBIENT AIR QUALITY (μg/M3) FOR PERIOD FROM APRIL 2010 TO SEP 2010

| Location Month | Plant boundary near village sarakana | | | Plant boundary near Coal yard | | | Railway siding | | | Satkar guest house | | | | Main gate | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | SPM | SO2 | NOx | SPM | SO2 | NOx | SPM | SO2 | NOx | RSPM | SPM | SO2 | NOx | SPM | SO2 | NOx |
| Apr-10 | 178 | 9 | 10 | 367 | 9 | 11 | 163 | 9 | 12 | 53 | 144 | 8 | 11 | 313 | 10 | 12 |
| May-10 | 188 | 9 | 11 | 383 | 10 | 11 | 175 | 9 | 11 | 58 | 151 | 9 | 10 | 319 | 10 | 11 |
| Jun-10 | 168 | 8 | 10 | 366 | 10 | 11 | 166 | 8 | 11 | 55 | 153 | 8 | 10 | 328 | 9 | 11 |
| Jul-10 | 166 | 8 | 11 | 368 | 10 | 11 | 168 | 8 | 11 | 54 | 151 | 9 | 11 | 330 | 9 | 11 |
| Aug-10 | 162 | 8 | 11 | 361 | 9 | 10 | 160 | 8 | 10 | 51 | 150 | 8 | 10 | 315 | 9 | 10 |
| Sep-10 | 171 | 8 | 11 | 365 | 9 | 11 | 165 | 9 | 11 | 54 | 152 | 8 | 10 | 322 | 10 | 11 |
| **Average** | **172** | **8** | **11** | **368** | **10** | **11** | **166** | **9** | **11** | **54** | **150** | **8** | **10** | **321** | **10** | **11** |

AMBIENT AIR QUALITY (μg/M3) FOR PERIOD FROM OCT 2010 TO MARCH 2011

| Location Month | Plant boundary near village sarakana | | | | Plant boundary near Coal yard | | | | Railway siding | | | | Satkar guest house | | | | Main gate | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PM 10 | PM 2.5 | SO2 | NOx | PM 10 | PM 2.5 | SO2 | NOx | PM 10 | PM 2.5 | SO2 | NOx | PM 10 | PM 2.5 | SO2 | NOx | PM 10 | PM 2.5 | SO2 | NOx |
| Oct-10 | - | 39 | 8 | 11 | - | 43 | 9 | 11 | - | 36 | 8 | 11 | - | 31 | 7 | 10 | - | 33 | 9 | 12 |
| Nov-10 | - | 36 | 9 | 12 | - | 39 | 9 | 12 | - | 33 | 7 | 10 | - | 32 | 8 | 11 | - | 36 | 8 | 11 |
| Dec-10 | 64 | 37 | 9 | 12 | 74 | 40 | 8 | 12 | 68 | 34 | 7 | 11 | 62 | 30 | 8 | 11 | 71 | 34 | 8 | 12 |
| Jan-11 | 78 | 40 | 8 | 11 | 76 | 36 | 8 | 13 | 72 | 31 | 6 | 11 | 60 | 28 | 7 | 12 | 68 | 35 | 9 | 12 |
| Feb-11 | 76 | 39 | 9 | 12 | 75 | 35 | 8 | 13 | 73 | 31 | 8 | 11 | 61 | 29 | 8 | 12 | 70 | 33 | 8 | 12 |
| Mar-11 | 60 | 35 | 8 | 12 | 65 | 36 | 8 | 12 | 64 | 30 | 8 | 12 | 57 | 29 | 8 | 11 | 63 | 31 | 8 | 12 |
| **Average** | **70** | **38** | **8** | **12** | **73** | **38** | **8** | **12** | **69** | **33** | **7** | **11** | **60** | **30** | **8** | **11** | **68** | **34** | **8** | **12** |

## Annexure-II

### Stack Emission Level PM (Mg/Nm3) For Year, 2010-2011

| MONTH | Boiler-I | Boiler-II |
|---|---|---|
| Apr-10 | 43 | 38 |
| Jul-10 | 45 | 39 |
| Oct-10 | 29 | 27 |
| Jan-11 | 33 | 36 |
| **AVG.** | **38** | **35** |

## Annexure-III

### Noise Level (Leq-dB(A) For year 2010-2011

| Monitoring Location Month | Plant boundary near village Sarkana | | Plant boundary near Coal yard | | Railway Siding near Shree Power | | Satkar guest house | | Main Gate | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Day Time | Night Time | Day Time | Night Time | Day Time | Night Time | Day Time | Night Time | Day Time | Night Time |
| Apr-10 | 59.2 | 54.1 | 60.3 | 52.7 | 61.3 | 54.3 | 53.2 | 43.7 | 68.9 | 62.5 |
| May-10 | 59.7 | 54.4 | 60.5 | 52.5 | 61.8 | 54.8 | 53.6 | 43.5 | 68.9 | 62.3 |
| Jun-10 | 58.9 | 54.6 | 60.1 | 52.6 | 61.6 | 54.7 | 53.4 | 43.6 | 68.7 | 62.4 |
| Jul-10 | 58.8 | 54.5 | 60.3 | 51.8 | 61.1 | 54.5 | 53.2 | 43.3 | 64.1 | 62.1 |
| Aug-10 | 58.6 | 54.4 | 60.4 | 52.5 | 61.5 | 54.3 | 53.3 | 43.4 | 66.8 | 62.5 |
| Sep-10 | 58.7 | 54.5 | 60.3 | 52.6 | 61.3 | 54.5 | 53.3 | 43.6 | 66.7 | 62.3 |
| Oct-10 | 57.6 | 53.6 | 61.2 | 53.2 | 60.5 | 54.9 | 53.4 | 43.7 | 67.2 | 62.6 |
| Nov-10 | 61.5 | 55.6 | 64.2 | 58.2 | 63.5 | 57.1 | 53.2 | 43.5 | 68.9 | 63.1 |
| Dec-10 | 67.8 | 56.8 | 68.5 | 59.2 | 61.8 | 56.8 | 53.0 | 43.2 | 69.2 | 63.4 |
| Jan-11 | 68.9 | 55.9 | 70.6 | 58.9 | 62.5 | 57.3 | 54.1 | 43.2 | 70.2 | 63.2 |
| Feb-11 | 67.8 | 54.6 | 70.2 | 58.9 | 63.2 | 58.1 | 53.8 | 43.4 | 68.9 | 63.5 |
| Mar-11 | 68.5 | 56.8 | 69.8 | 57.6 | 62.9 | 56.1 | 53.4 | 43.7 | 67.8 | 62.8 |
| **Average** | **62.2** | **55.0** | **63.9** | **55.1** | **61.9** | **55.6** | **53.4** | **43.5** | **68.0** | **62.7** |