



AMBIENT AIR QUALITY TEST RESULTS

M/s HILLS CEMENT COMPANY LIMITED
Vill: Mynkree, 116 KM Stone, NH- 44
Sub Division: Khliehriat; Dist: Jaintia Hills

<u>Meghalaya</u>

(JULY - 2015)

| LOCATIONS | Date of Sampling | PM 2.5 (μg/m³) | PM 10 (μg/m³) | NO ₂ (μg/m³) | SO ₂ (μg/m³) |
|--|------------------|--------------------------------|---------------------------------|--------------------------------|--------------------------------|
| LIMITS | | 60 (24 hrs. Average) | 100 (24 hrs. Average) | 80 (24 hrs. Average) | 80 (24 hrs. Average) |
| In- Front of Guest House | 28.08.2015 | 22.18 | 60.17 | 07.36 | ND |
| Near Crusher Area | 28.08.2015 | 45.44 | 72.91 | 15.45 | 06.31 |
| In- Front of Compressor House (Cement Mill) | 29.08.2015 | 42.28 | 69.36 | 14.45 | 05.36 |

Analysis Protocol: IS 5182

Checked By: Pankaj Baroi; ENVIROCON

NOTE:

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<u>Meghalaya</u>

(JULY - 2015)

| 01 | Stack Emission Ref. No. | ENV/HCCL/01/July/2015 |
|----|---------------------------------|-----------------------|
| 02 | Date of Sampling | 28.07.2015 |
| 03 | Material of Construction | M.S. |
| 04 | Stack Attached To | B.F. of Crusher |
| 05 | Flue Gas Temperature (°C) | 38 |
| 06 | Exit Velocity of Gas (m/sec) | 6.1 |
| 07 | Flow Rate (Nm ³ /hr) | 16,529 |
| 08 | Type of Fuel Used | NA |
| 09 | Analysis Result of Flue Gas | |
| | 1. Particulate Matter (mg/Nm³) | 43.6 |



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(JULY-2015)

| 01 | Stack Emission Ref. No. | ENV/HCCL/02/July/2015 |
|----|---------------------------------|-----------------------|
| 02 | Date of Sampling | 28.07.2015 |
| 03 | Material of Construction | M.S. |
| 04 | Stack Attached To | R.A.B.H |
| 05 | Flue Gas Temperature (°C) | 172 |
| 06 | Exit Velocity of Gas (m/sec) | 14.2 |
| 07 | Flow Rate (Nm ³ /hr) | 2,42,011 |
| 08 | Type of Fuel Used | NA |
| 09 | Analysis Result of Flue Gas | |
| | 1. Particulate Matter (mg/Nm³) | 36.1 |



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(JULY-2015)

| 01 | Stack Emission Ref. No. | ENV/HCCL/03/July/2015 |
|----|--------------------------------|-----------------------|
| 02 | Date of Sampling | 28.07.2015 |
| 03 | Material of Construction | M.S |
| 04 | Stack Attached To | Coal Mill |
| 05 | Flue Gas Temperature (°C) | 64 |
| 06 | Exit Velocity of Gas (m/sec) | 9.2 |
| 07 | Flow Rate (Nm³/hr) | 33,127 |
| 08 | Type of Fuel Used | Coal |
| 09 | Analysis Result of Flue Gas | |
| | 1. Particulate Matter (mg/Nm³) | 40.3 |



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<u>Meghalaya</u>

(JULY-2015)

| 01 | Stack Emission Ref. No. | ENV/HCCL/04/July/2015 |
|----|---------------------------------|-----------------------|
| 02 | Date of Sampling | 29.07.2015 |
| 03 | Material of Construction | M.S |
| 04 | Stack Attached To | Cooler E.S.P |
| 05 | Flue Gas Temperature (°C) | 235 |
| 06 | Exit Velocity of Gas (m/sec) | 16.4 |
| 07 | Flow Rate (Nm ³ /hr) | 2,13,285 |
| 08 | Type of Fuel Used | Coal |
| 09 | Analysis Result of Flue Gas | |
| | 1. Particulate Matter (mg/Nm³) | 30.8 |



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(JULY-2015)

| 01 | Stack Emission Ref. No. | ENV/HCCL/05/July/2015 |
|----|---------------------------------|-----------------------|
| 02 | Date of Sampling | 29.07.2015 |
| 03 | Material of Construction | M.S |
| 04 | Stack Attached To | Cement Mill |
| 05 | Flue Gas Temperature (°C) | 63 |
| 06 | Exit Velocity of Gas (m/sec) | 8.7 |
| 07 | Flow Rate (Nm ³ /hr) | 31,420 |
| 08 | Type of Fuel Used | NA |
| 09 | Analysis Result of Flue Gas | |
| | 1. Particulate Matter (mg/Nm³) | 42.5 |



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(JULY-2015)

| 01 | Stack Emission Ref. No. | ENV/HCCL/06/July/2015 |
|----|--------------------------------|-----------------------|
| 02 | Date of Sampling | 29.07.2015 |
| 03 | Material of Construction | M.S |
| 04 | Stack Attached To | Cement Packing House |
| 05 | Flue Gas Temperature (°C) | 33 |
| 06 | Exit Velocity of Gas (m/sec) | 4.1 |
| 07 | Flow Rate (Nm³/hr) | 7,226 |
| 08 | Type of Fuel Used | NA |
| 09 | Analysis Result of Flue Gas | |
| | 1. Particulate Matter (mg/Nm³) | 41.5 |



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NOISE LEVEL MEASUREMENT RESULTS

M/s HILLS CEMENT COMPANY LIMITED

Vill: Mynkree, 116 KM Stone, NH- 44
Sub Division: Khliehriat; Dist: Jaintia Hills
<u>Meghalaya</u>

(JULY-2015)

Measurement Date: 29.07.2015

(Day Time)

| Sl. No. | Location | Maximum (dB-A) | Minimum (dB-A) | L _{eq} (dB-A) |
|---------|--------------------|-------------------|-------------------|---------------------------|
| 1 | Near Kiln Area | 80 | 71 | 76 |
| 2 | Near CCR Building | 70 | 63 | 66 |
| 3 | Main Gate | 71 | 63 | 68 |
| 4 | Near Main Building | 68 | 56 | 64 |

(Night Time)

| Sl. No. | Location | Maximum (dB-A) | Minimum (dB-A) | L _{eq} (dB-A) |
|---------|--------------------|-------------------|-------------------|---------------------------|
| 1 | Near Kiln Area | 74 | 65 | 69 |
| 2 | Near CCR Building | 62 | 51 | 56 |
| 3 | Main Gate | 68 | 52 | 64 |
| 4 | Near Main Building | 61 | 48 | 54 |

Checked By: Pankaj Baroi; ENVIROCON

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AMBIENT NOISE LEVEL STANDARDS

SCHEDULE

[Rule 3(1) and 4(1) of Noise Pollution (Regulation & Control) Rules, 2000]

| Area Code | Category of Area/Zone | Limit in dB (A) in L _{eq} | | |
|-----------|-----------------------|------------------------------------|------------|--|
| Area Code | | Day Time | Night Time | |
| A | Industrial Area | 75 | 70 | |
| В | Commercial Area | 65 | 55 | |
| С | Residential Area | 55 | 45 | |
| D | Silence Zone | 50 | 40 | |

<u>NB</u>:

Silence Zone is an area comprising an area not less than 100 m around Hospitals, Educational Institutions, Courts, Religious Places or any other area which is declared as such by the competent authority.

Specific SHE Standard: Workplace Noise

| Ambient Noise Level | Personal Noise Exposure < 85 dB (A) Leq (8h) | Personal Noise Exposure => 85 dB (A) Leq (8h) |
|------------------------------------|---|--|
| < 85 dB (A) Leq | No action required | PPE Mandatory |
| => 85dB (A) Leq < 90 dB (A) Leq | Hearing protection zone. PPE Advisory. | Hearing protection zone. PPE Mandatory. |
| => 90 dB (A) Leq | Hearing protection zone. PPE Mandatory. | Hearing protection zone. PPE Mandatory. |
