BEFORE THE NATIONAL GREEN TRIBUNAL, 
PRINCIPAL BENCH, NEW DELHI

ORIGINAL APPLICATION NO. 1077 OF 2018

IN THE MATTER OF:
RESIDENTS OF SIKANDRABAD INDUSTRIAL AREA 
 .......... APPLICANT

VERSUS

STATE OF U.P. & ORS. 
 .......... RESPONDENTS

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</thead>
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</tbody>
</table>

NEW DELHI
DATE: 29.04.2019

(PRADEEP MISRA & DALEEP DHYANI)
Counsel for UPPCB, 
138, New Lawyers Chamber, Supreme Court of India, New Delhi-110001 (M.) 9810252518
Email: pradeepmisra@yahoo.com

With reference to the order dated 10.01.2019 in the OA No- 1077/2018 passed by Hon’ble NGT. The industries located at Sikandrabad, Bulandshahr were inspected by the officer’s of the Regional Office, Bulandshahr. The inspection note of the industries is as under:-

1. M/s Ultratech Cement Ltd., (Grinding Unit), 19, 20 Industrial Area, Sikandrabad, Bulandshahr. The Industry is using Clinker, Fly ash, Gypsum as raw material and producing PPC/OPC Cement. The installed capacity of Plant 2739.7 MT/Day. The emission generated from clinker silo, unloading silo, fly ash silo, cement mill, packaging sections being controlled through bag filters & bags houses. The stack connected & being monitored through approved laboratory and shown are within the prescribed norms. There is no use of any kind of fuel expect diesel in D.G. sets during power cut. Photographs of Air Pollution Control System are enclosed below.
2- M/s U.P. Grinding (Unit Shree Cement Ltd.), 12, Industrial Area, Sikandrabad, Bulandshahar. The Industry is using Clinker, Fly ash and Gypsum as raw material and producing PPC/OPC Cement. The installed capacity of Plant 10,000 MT/Day. The emission generated from clinker silo, unloading silo, fly ash silo, cement mill, packaging sections being controlled through bags house filter. The stack connected & being monitored through approved laboratory and shown are within the prescribed norms. There is no use of any kind of fuel except diesel in D.G. sets during power cut. Photographs of Air Pollution Control System are enclosed below.
M/s Shree Cement Ltd. (Aerated Autoclave Concrete Block Unit), 12, Industrial Area, Sikandrabad, Bulandshahar. The Industry is using Cement, Fly ash, Lime, Aluminum Power, and Gypsum as raw material and producing Aerated Autoclave Concrete Block. The installed capacity of Plant 821 Cubic MT/Day. The emission generated from 16 TPH Boiler being controlled through Mechanical Dust Collector, bag filters & I.D. Fan with stack height-50 meter from ground level connected & stack emission being monitored through approved laboratory and shown are within the prescribed norms. Industry used are coal as fuel in the Boiler. Photographs of Air Pollution Control System are enclosed below.
M/s Kajaria Ceramics Ltd., Plot No-A-27, 30, Industrial Area, Sikandrabad, Bulandshahar. The Industry is using Aluminum, Calcite Power, China Clay, Quartz, Zinc Oxide, soda Feldspar, Sodium Silicate, Ball Clay and Feldspar Powder as raw material and producing Glazed Vitrified Tiles. The installed capacity of Plant 630 MT/Day. The emission generated from Bod preparation Section being controlled through bags filter/ Dust collector. The stack connected & being monitored through approved laboratory and shown are well within the prescribed norms & Drier & Kiln being controlled through stack connected & being monitored through approved laboratory and shown are well within the prescribed norms. Industry are using Natural Gas as fuel in process. For dust emission control water spray in factory premises. Photographs of Air Pollution Control System are enclosed below.
5- M/s Orient Bell Ltd., Plot No-8, Industrial Area, Sikandrabad, Bulandshahar. The Industry is using Aluminum, Zircon, China Clay, Quartz, Zinc Oxide, soda Feldspar, Sodium Silicate, Ball Clay, Talc and Potash Powder as raw material and producing Ceramics Glazed Vitrified Tiles. The installed capacity of Plant 255 MT/Day. The emission generated from Spray Drier & Kiln being controlled through Bag Filter & stack connected & being monitored through approved laboratory and shown are well within the prescribed norms. Industry are using Natural Gas as fuel in process. Photographs of Air Pollution Control System are enclosed below.
Coal, Wood, Diesel, Natural Gas and LPG Gas etc. are being used as a fuel by industries operating in Sikandrabad industrial area Distt Bulandshahr. In the Sikandrabad industrial area of Distt Bulandshahr Rubber, Clothes & Plastics are being not used as fuel by the industries.

**Action taken so for against the industry.**

Besides this there are some Pyrolysis units using old Tyre as raw material for Pyrolysis process. In following 04 industries are closed due to non compliance of pollution control laws.

1- M/s Someshwar Alloys, Plot No-C-52, Industrial Area, Sikandabad, Distt Bulandshahr.

2- M/s Wave Max Payro Pvt Ltd, Plot No-E-42/43, Industrial Area, Sikandabad, Distt Bulandshahr.

3- M/s Shree Mohammad Islam, Plot No-R-31, Industrial Area, Sikandabad, Distt Bulandshahr.

4- M/s Raizada Exports, Plot No-D-6, Industrial Area, Sikandabad, Distt Bulandshahr.

After the rectifying the short comings by the industries than closure order suspended by the board conditionally of following industries.

1- M/s Someshwar Alloys, Plot No-C-52, Industrial Area, Sikandabad, Distt Bulandshahr.

2- M/s Wave Max Payro Pvt Ltd, Plot No-E-42/43, Industrial Area, Sikandabad, Distt Bulandshahr.

Remaining 02 industries M/s Shree Mohammad Islam, Plot No-R-31, Industrial Area, Sikandabad, Distt Bulandshahr & M/s Raizada Exports, Plot No-D-6, Industrial Area, Sikandabad, Distt Bulandshahr are lying closed due to non compliance. Notice has been issued to the industries to ensure the compliance of Pollution Control laws by Regional Office, U.P. Pollution Control Board, Bulandshahr. The board will keep regular watch the industries to ensure the compliance of Air & Water Pollution Control laws.

The above report submitted for to your information & necessary action please.

Regional Officer Sir,

(Qu. Santosh Kumar)  
Jr. Er.

(Ashtosh Chauhan)  
Asstt. Env. Engr.

CEO-4, Sir

[Signature]

[Signature]
## Stack Emission Analysis

**Sample Description**
- **Sample Drawn By:** UltraTech Cement Limited
- **Sample Received on:** 08/01/2019
- **Time of Sampling (Minutes):** 10/01/2019
- **Sampling Location:** Unit - Sikandrabad Cement Works (19 - 20 Industrial Area)
- **Stack Description:** Stack No. 1 & 2, Height - 550 ft
- **Source of Emission:** Ultratech Cement Limited
- **Stack Emission:** 08/01/2019
- **SOP-SE/08:** 10/01/2019 To 14/01/2019
- **Stack Attached To Roller Press:** NA
- **Operating Load:** Normal
- **As per requirement:** NA
- **Type of Stack:** NA
- **EPA:** NA
- **Fuel Consumed per Hour:** NA
- **Ambient Temperature (deg.C):** 18.0
- **Stack Temperature (deg.C):** 52.0
- **Stack Pressure (mmHg):** 14.5
- **Average Velocity of Flue Emission (m/sec):** 4.69
- **Average Flow Rate (lpm):** 20.5
- **Control Measures (if any):** Bag Filter
- **Remark (if any):** NA

### RESULTS

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>TEST METHOD</th>
<th>RESULT</th>
<th>UNIT</th>
<th>Limits as per EPA*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Particulate Matter (PM)</td>
<td>IS:11255 (P-1)</td>
<td>10.3</td>
<td>mg/Nm³</td>
<td>30.0</td>
</tr>
<tr>
<td>2 Absolute Pressure</td>
<td>IS:11255 (P-1)</td>
<td>709.8</td>
<td>mmHg</td>
<td>-</td>
</tr>
<tr>
<td>3 Moisture Content</td>
<td>IS:11255 (P-1)</td>
<td>4.1</td>
<td>%</td>
<td>-</td>
</tr>
<tr>
<td>4 Sulphur Dioxide (as SO₂)</td>
<td>IS:11255 (P-2)</td>
<td>&lt; 5.0</td>
<td>mg/Nm³</td>
<td>-</td>
</tr>
<tr>
<td>5 Oxides of Nitrogen (as NOₓ)</td>
<td>IS:11255 (P-7)</td>
<td>&lt; 2.0</td>
<td>mg/Nm³</td>
<td>-</td>
</tr>
<tr>
<td>6 Carbon Monoxide (as CO)</td>
<td>IS:13270</td>
<td>&lt; 0.2</td>
<td>% VV</td>
<td>1.0</td>
</tr>
<tr>
<td>7 Lead (as Pb)</td>
<td>USEPA (P-12)</td>
<td>&lt; 1.0</td>
<td>mg/Nm³</td>
<td>10.0</td>
</tr>
</tbody>
</table>

*Details as per CPCB Guidelines.

**Notes:**
1. The results given above are related to the tested sample, for various parameters, as observed at the time of sampling.
2. The customer asked for the above tests only.
3. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
4. The test report will not be used for any publicity/legal purpose.
5. The test samples will be disposed off after two weeks from the date of issue of test report, unless until specified by the customer.
6. Responsibility of the Laboratory is limited to the invoiced amount only.

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For EKO PRO ENGINEERS PVT. LTD.

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**End of Report**
TEST REPORT

Stack Emission Analysis

Test Report No. : EKO/EV-SEP111/100119
Issued To

Ultratech Cement Limited
(Unit-Sikandrabad Cement Works)
19-20 Industrial Area
Sikandrabad, Distt- Bulandshahr

Sample Description
Sample Drawn on
Sample Drawn by
Sample Received on
Time of Sampling (minutes)
Sampling Location
Sampling Plan & Procedure
Analysis Duration
Source of Emission
Capacity
Operating Load
Normal Operation Schedule
Type of Stack
Diameter of Stack (meter)
Height of Stack from Ground Level (meter)
Height of Stack from Roof Level (meter)
Height of Sampling Location (meter)
Type of Fuel Used
Fuel Consumed per Hour
Ambient Temperature (°C)
Stack Temperature (°C)
Average Velocity of Fuel Emission (m/sec)
Average Flow Rate (rpm)
Control Measures (if any)
Remark (if any)

Results

<table>
<thead>
<tr>
<th>S.No</th>
<th>PARAMETER</th>
<th>Test Methods</th>
<th>Results</th>
<th>Units</th>
<th>LIMITS AS PER EPA*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Particulate Matter (as PM)</td>
<td>IS : 11255 (P-1)</td>
<td>15.9</td>
<td>mg/Nm³</td>
<td>30.0</td>
</tr>
<tr>
<td>2</td>
<td>Sulphur Dioxide (as SO2)</td>
<td>IS : 11255 (P-2)</td>
<td>&lt;5.0</td>
<td>mg/Nm³</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Oxides of Nitrogen (as NOx)</td>
<td>IS : 11255 (P-7)</td>
<td>&lt;2.0</td>
<td>mg/Nm³</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Carbon monoxide (as CO)</td>
<td>IS :13270</td>
<td>&lt;0.2</td>
<td>% VW</td>
<td>1.0</td>
</tr>
<tr>
<td>5</td>
<td>Lead (as Pb)</td>
<td>USEPA (P-12)</td>
<td>&lt;1.0</td>
<td>mg/Nm³</td>
<td></td>
</tr>
</tbody>
</table>

For EKO PRO ENGINEERS LTD

Ultratech Cement Limited
(Unit-Sikandrabad Cement Works)
19-20 Industrial Area
Sikandrabad, Distt- Bulandshahr
# TEST REPORT

**Ambient Air Quality Monitoring**

**Test Report No.**
EX0EV-AA/113/100119

**Issued To**
Ultratech Cement Limited
(Unit-Sikandrabad Cement Works)
S-20 Industrial Area
Sikandrabad, Distt: Bulandshahr

**Sample Description**
Ambient Air

**Sample Drawn on**
09/01/2019

**Sample Drawn by**
EPEPL (Mr. Alok Kumar)

**Sample Received on**
10/01/2019

**Sampling Location**
Near STP Plant

**Sampling Plan & Procedure**
SOP-AAQ/15

**Analysis Duration**
09/01/2019 To 10/01/2019

**Sample Duration**
24.0 Hrs.

**Ambient Temperature (deg °C)**
18.0

**Average Flow Rate of SPM (m³/min)**
1.1

**Average Flow Rate of Gases (lpm.)**
1.0

**Weather Conditions**
Clear

**Remain (if any)**
NA

---

## RESULTS

<table>
<thead>
<tr>
<th>S.No.</th>
<th>PARAMETER</th>
<th>Test Methods</th>
<th>Results</th>
<th>Units</th>
<th>Limits as per EPA*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Particulate Matter (PM10)</td>
<td>IS: 5182 (P-23)</td>
<td>86.8</td>
<td>µg/m³</td>
<td>100.0</td>
</tr>
<tr>
<td>2</td>
<td>Particulate Matter (PM2.5)</td>
<td>EkoChemSOP/AAQ-01</td>
<td>50.3</td>
<td>µg/m³</td>
<td>60.0</td>
</tr>
<tr>
<td>3</td>
<td>Sulfur dioxide (as SO2)</td>
<td>IS: 5182 (P-2)</td>
<td>10.5</td>
<td>µg/m³</td>
<td>80.0</td>
</tr>
<tr>
<td>4</td>
<td>Nitrogen Dioxide (as NO2)</td>
<td>IS: 5182 (P-4)</td>
<td>28.7</td>
<td>µg/m³</td>
<td>80.0</td>
</tr>
<tr>
<td>5</td>
<td>Carbon Monoxide (as CO)</td>
<td>IS: 5182 (P-10)</td>
<td>&lt;1.15</td>
<td>mg/m³</td>
<td>4.0</td>
</tr>
<tr>
<td>6</td>
<td>Lead (as Pb)</td>
<td>IS: 5182 (P-22)</td>
<td>&lt;0.1</td>
<td>µg/m³</td>
<td>1.0</td>
</tr>
<tr>
<td>7</td>
<td>Nickel as Ni</td>
<td>EkoChemSOP/AAQ-02</td>
<td>&lt;15.0</td>
<td>µg/m³</td>
<td>20.0</td>
</tr>
<tr>
<td>8</td>
<td>Arsenic (as As)</td>
<td>EkoChemSOP/AAQ-02</td>
<td>&lt;6.0</td>
<td>µg/m³</td>
<td>1.0</td>
</tr>
<tr>
<td>9</td>
<td>Zinc (as Zn)</td>
<td>IS: 5182 (P-9)</td>
<td>&lt;10.0</td>
<td>µg/m³</td>
<td>100.0</td>
</tr>
<tr>
<td>10</td>
<td>Ammonia (as NH3)</td>
<td>APHA 3rd Ed. Method 401</td>
<td>&lt;20.0</td>
<td>µg/m³</td>
<td>400.0</td>
</tr>
<tr>
<td>11</td>
<td>Benzene (as C6H6)</td>
<td>IS: 5182 (P-11)</td>
<td>&lt;1.0</td>
<td>µg/m³</td>
<td>5.0</td>
</tr>
<tr>
<td>12</td>
<td>Benz (alpha) Pyrene Particulate Phase only</td>
<td>IS: 5182 (P-12)</td>
<td>&lt;1.0</td>
<td>µg/m³</td>
<td>1.0</td>
</tr>
</tbody>
</table>
# TEST REPORT

**Ambient Air Quality Monitoring**

<table>
<thead>
<tr>
<th>Test Report No.</th>
<th>EXEVE-AA/115/100119</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issued To</td>
<td>Ultratech Cement Limited (Unit-Sikandrabad Cement Works), 19-20 Industrial Area, Sikandrabad, Dist- Bulandshahr</td>
</tr>
<tr>
<td>Issue Date</td>
<td>15/01/2019</td>
</tr>
</tbody>
</table>

**Sample Description**
- Ambient Air

**Sample Details**
- Sample Drawn on: 06/01/2019 To 09/01/2019
- Sample Drawn by: EPEPL (Mr. Alok Kumar)
- Sample Received on: 10/01/2019
- Sampling Location: Near CCR Building, SOP-AAQ/15
- Analysis Duration: 10/01/2019 To 14/01/2019
- Sampling Time: 24.0 Hrs.
- Ambient Temperature (deg °C): 18.0
- Average Flow Rate of SPM (m³/min): 1.1
- Average Flow Rate of Gas (lpm): 1.0
- Weather Conditions: Clear
- Remark (if any): NA

## RESULTS

<table>
<thead>
<tr>
<th>S.No.</th>
<th>PARAMETER</th>
<th>Test Methods</th>
<th>Results</th>
<th>Units</th>
<th>Limits as per EPA*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Particulate Matter (PM10)</td>
<td>IS:5162 (P-23)</td>
<td>95.1</td>
<td>µg/m³</td>
<td>100.0</td>
</tr>
<tr>
<td>2</td>
<td>Particulate Matter (PM2.5)</td>
<td>EkoChem SOP/AAP-01</td>
<td>57.4</td>
<td>µg/m³</td>
<td>60.0</td>
</tr>
<tr>
<td>3</td>
<td>Sulphur dioxide (as SO2)</td>
<td>IS:5162 (P-2)</td>
<td>11.4</td>
<td>µg/m³</td>
<td>80.0</td>
</tr>
<tr>
<td>4</td>
<td>Nitrogen Dioxide (as NO2)</td>
<td>IS:5162 (P-6)</td>
<td>28.8</td>
<td>µg/m³</td>
<td>80.0</td>
</tr>
<tr>
<td>5</td>
<td>Carbon Monoxide (as CO)</td>
<td>IS:5162 (P-10)</td>
<td>&lt;1.15</td>
<td>mg/m³</td>
<td>4.0</td>
</tr>
<tr>
<td>6</td>
<td>Lead (as Pb)</td>
<td>IS:5162 (P-22)</td>
<td>&lt;0.1</td>
<td>µg/m³</td>
<td>1.0</td>
</tr>
<tr>
<td>7</td>
<td>Nickel as Ni</td>
<td>EkoChem SOP/AAP-02</td>
<td>&lt;15.0</td>
<td>ng/m³</td>
<td>20.0</td>
</tr>
<tr>
<td>8</td>
<td>Arsenic (as As)</td>
<td>EkoChem SOP/AAP-02</td>
<td>&lt;5.0</td>
<td>ng/m³</td>
<td>10.0</td>
</tr>
<tr>
<td>9</td>
<td>Ozone (as O3)</td>
<td>IS:5162 (P-8)</td>
<td>&lt;10.0</td>
<td>µg/m³</td>
<td>100.0</td>
</tr>
<tr>
<td>10</td>
<td>Ammonia (as NH3)</td>
<td>APHA 3rd Ed. Method 491</td>
<td>&lt;20.0</td>
<td>µg/m³</td>
<td>400.0</td>
</tr>
<tr>
<td>11</td>
<td>Benzene (as C6H6)</td>
<td>IS:5162 (P-11)</td>
<td>&lt;1.0</td>
<td>µg/m³</td>
<td>5.0</td>
</tr>
<tr>
<td>12</td>
<td>Benzo(a) Pyrene-Particulate Phase only</td>
<td>IS:5162 (P-12)</td>
<td>&lt;1.0</td>
<td>ng/m³</td>
<td>1.0</td>
</tr>
</tbody>
</table>
TEST REPORT

Ambient Air Quality Monitoring

Test Report No.: EXO/EV-AA/115/2019
Issued To: Ultratech Cement Limited
(Unit-Sikandrapur Cement Works)
19-20 Industrial Area
Sikandrapur, Distt. Bulandshahr

Sample Description: Ambient Air
Sample Drawn on: 06/01/2019 To 09/01/2019
Sample Drawn by: EPEPL(Mr. Alok Kumar)
Sample Received on: 10/01/2019
Sampling Location: Near CCR Building
Sampling Plan & Procedure: SOP-AAQ/15
Analytical Duration: 10/01/2019 To 14/01/2019
Sampling Time: 24.0 Hrs.
Ambient Temperature (deg °C): 18.0
Average Flow Rate of SPm (m³/min): 1.1
Average Flow Rate of Gas(es) (lpm): 1.0
Weather Conditions: Clear
Remark (if any): NA

RESULTS

<table>
<thead>
<tr>
<th>S.No.</th>
<th>PARAMETER</th>
<th>Test Methods</th>
<th>Results</th>
<th>Units</th>
<th>Limits as per EPA*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Particulate Matter (PM10)</td>
<td>IS:5182 (P-23)</td>
<td>95.1</td>
<td>μg/m³</td>
<td>100.0</td>
</tr>
<tr>
<td>2</td>
<td>Particulate Matter (PM2.5)</td>
<td>EkoChem/SPAAQ-01</td>
<td>57.4</td>
<td>μg/m³</td>
<td>60.0</td>
</tr>
<tr>
<td>3</td>
<td>Sulphur dioxide (as SO2)</td>
<td>IS:5182 (P-2)</td>
<td>11.4</td>
<td>μg/m³</td>
<td>60.0</td>
</tr>
<tr>
<td>4</td>
<td>Nitrogen Dioxide (as NO2)</td>
<td>IS:5182 (P-6)</td>
<td>28.9</td>
<td>μg/m³</td>
<td>80.0</td>
</tr>
<tr>
<td>5</td>
<td>Carbon Monoxide (as CO)</td>
<td>IS:5182 (P-10)</td>
<td>&lt;1.15</td>
<td>mg/l</td>
<td>4.0</td>
</tr>
<tr>
<td>6</td>
<td>Lead (as Pb)</td>
<td>IS:5182 (P-22)</td>
<td>&lt;0.1</td>
<td>μg/l</td>
<td>1.0</td>
</tr>
<tr>
<td>7</td>
<td>Nickel as Ni</td>
<td>EkoChem/SPAAQ-02</td>
<td>&lt;15.0</td>
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<td>ng/l</td>
<td>6.0</td>
</tr>
<tr>
<td>9</td>
<td>Ozone (as O3)</td>
<td>IS:6182 (P-9)</td>
<td>&lt;10.0</td>
<td>μg/l</td>
<td>180.0</td>
</tr>
<tr>
<td>10</td>
<td>Ammonia (as NH3)</td>
<td>APHA 3rd Ed. Method 401</td>
<td>&lt;20.0</td>
<td>μg/l</td>
<td>400.0</td>
</tr>
<tr>
<td>11</td>
<td>Benzene (as C9H8)</td>
<td>IS:5182 (P-11)</td>
<td>&lt;1.0</td>
<td>μg/l</td>
<td>5.0</td>
</tr>
<tr>
<td>12</td>
<td>Benzene (alpha) Pyrene-Particulate Phases only</td>
<td>IS:5182 (P-12)</td>
<td>&lt;1.0</td>
<td>μg/l</td>
<td>1.0</td>
</tr>
</tbody>
</table>
**Noise Monitoring**

**Test Report No.**: EKOEV-NM/11/100119  
**Issue Date**: 12/01/2019

- **Test Report by**: Ultratech Cement Limited  
- **Sample Description**: Ambient Noise (Day Time)
- **Sample Drawn on**: 09/01/2019
- **Sample Drawn by**: EPEPL (Mr. Alok Kumar)
- **Sample Received on**: 10/01/2019
- **Sampling Location**: Near CCR Building
- **Sampling Plan & Procedure**: SOP-N/01
- **Environmental Condition**: Normal
- **Analysis Duration**: 10/01/2019 To 11/01/2019
- **Remark (if any)**: NA

### RESULTS

<table>
<thead>
<tr>
<th>S.No.</th>
<th>PARAMETER</th>
<th>Test Methods</th>
<th>Results</th>
<th>Units</th>
<th>LIMITS AS PER EPA *</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Leq</td>
<td>Eko/Chem/SOP/SN-01</td>
<td>69.5</td>
<td>dB (A)</td>
<td>75.0</td>
</tr>
</tbody>
</table>

*Details as per EPA -1986 Ambient Noise Quality Standards, Schedule III, (Rule-3)*

Notes:

1. The results given above are related to the tested sample, as received & mentioned parameters.
2. This test report will not be generated again, either wholly or in part, without written permission of the Laboratory.
3. This test report will not be use for any public/leal purpose.
4. Responsibility of the Laboratory is limited to the invoiced amount only.

**End of Report**

For EK PRO ENGINEERS PVT LTD  
Authorized Signatory
**TEST REPORT**

Noise Monitoring

---

**Report No:** EKO/EV-NM/115/02/2019  
**Issue Date:** 05/01/2019

**Issued To:** U.P. GRINDING UNIT (A UNIT OF SHREE CEMENT LTD.)  
SIKANDRABAD  
DISTT - BULANDSHAHR  
(I.U.P.)

**Sample Description:** Ambient Noise  
**Sample Drawn on:** 31/12/2018 to 01/01/2019

**Sample Drawn by:** EPEPL (Mr. Alok Kumar)

---

**Sampling Plan & Procedure:** SOP-N/01

**Environmental Condition:** Normal

**Analysis Duration:** 02/01/2019 to 04/01/2019

---

**RESULTS**

<table>
<thead>
<tr>
<th>No.</th>
<th>PARAMETER</th>
<th>TEST METHOD</th>
<th>Plant Boundary Near Main Gate</th>
<th>Plant Boundary Near CCR Building</th>
<th>Plant Boundary Towards Rajarapur village</th>
<th>UNIT</th>
<th>LIMITS AS PER ENVIRONMENT (PROTECTION) ACT*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Leq (Day time)</td>
<td>SOP-N/04/01</td>
<td>63.8</td>
<td>60.2</td>
<td>56.9</td>
<td>dB (A)</td>
<td>75.0</td>
</tr>
<tr>
<td>2</td>
<td>Leq (Night time)</td>
<td>SOP-N/04/01</td>
<td>50.4</td>
<td>46.8</td>
<td>45.6</td>
<td>dB (A)</td>
<td>70.0</td>
</tr>
</tbody>
</table>

---

Details as per EPA-1986 Ambient Noise Quality Standards, Schedule-III, (Rule-3).

---

**End of Report**

The results given above are related to the observed values at the time of monitoring. The customer asked for the above tests only. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory. The test report will not be used for any publicity/legal purpose. Responsibility of the Laboratory is limited to the invoiced amount only.

---

For EKO PRO ENVIRONMENTAL LTD.

(Endorsed Signature)

---

Analytical Services - Analysis of Environment, Food, AYUSH, Cosmetics, Building Material, Petroleum & Material Samples in Redinol Chemical Electrical Mechanical & HMT Products.
# TEST REPORT

**Noise Monitoring**

**Report No:** EKO/EV-NM/115/02/2019  
**Issue Date:** 05/01/2019

**To:** U.P. GRINDING UNIT (A UNIT OF SHREE CEMENT LTD.)  
SIKANDRABAD  
DISTT - BULANDSHAHR  
(U.P.)

**Description:** Ambient Noise

**Drawn on:** 31/12/2018 To 01/01/2019

**Drawn by:** EPEPL (Mr. Alok Kumar)

**Received on:** 02/01/2019

**Sampling Plan & Procedure:** SOP-N/01

**Environmental Condition:** Normal

**Duration:** 02/01/2019 To 04/01/2019

**Work:** NA

---

## RESULTS

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>TEST METHOD</th>
<th>Plant Boundary Near Main Gate</th>
<th>Plant Boundary Near CCR Building</th>
<th>Plant Boundary Towards Rajarampur village</th>
<th>UNIT</th>
<th>LIMITS AS PER ENVIRONMENT (PROTECTION) ACT*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leq (Day time)</td>
<td>SOP-N/94/01</td>
<td>63.8</td>
<td>60.2</td>
<td>58.9</td>
<td>dB (A)</td>
<td>76.0</td>
</tr>
<tr>
<td>Leq (Night time)</td>
<td>SOP-N/94/01</td>
<td>50.4</td>
<td>46.8</td>
<td>45.6</td>
<td>dB (A)</td>
<td>70.0</td>
</tr>
</tbody>
</table>

As per EPA-1986 Ambient Noise Quality Standards, Schedule-III, (Rule-3).

**End of Report**

Results given above are related to the observed values at the time of monitoring. The customer asked for above tests only.

Test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.

Test report will not be used for any publicity/legal purpose.

Responsibility of the Laboratory is limited to the invoiced amount only.

---

For EKO PRO ENGINEERS PVT. LTD.

Page 1 of 1
## TEST REPORT

**Ambient Air Quality Analysis**

Report No: EKO/EV- AA/1106/2019  
Issue Date: 07/01/2019

**To:** U.P. GRINDING UNIT (A UNIT OF SHREE CEMENT LTD.)  
SIKANDRABAD  
DISTT - BULANDSHAHAR  
(U.P.)

- **Sample Description:** Ambient Air
- **Sample Drawn on:** 31/12/2018 To 01/01/2019
- **Sample Drawn By:** EPEPL (Mr. Alok Kumar)
- **Sample Received on:** 02/01/2019
- **Sample Plan & Procedure:** SOP-AAQ/15
- **Analysis Duration:** 02/01/2019 To 05/01/2019
- **Sampling Time:** 24 Hrs.
- **Airflow Rate (m³/min):** 1.1
- **Airflow Rate of Gases (lpm):** 1.0
- **Other Conditions:** Clear
- **Mark (if any):** NA

### RESULTS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Test Method</th>
<th>Sampling Location</th>
<th>Plant Boundary</th>
<th>Plant Boundary</th>
<th>Plant Boundary</th>
<th>LIMITS AS PER EPA*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Particulate Matter (PM₁₀)</td>
<td>IS: 5182 (P-23)</td>
<td>96.8</td>
<td>92.1</td>
<td>89.7</td>
<td>µg/m³</td>
<td>100.0</td>
</tr>
<tr>
<td>Particulate Matter (PM₂.₅)</td>
<td>SOP-AAQ/89/01</td>
<td>55.1</td>
<td>52.6</td>
<td>48.6</td>
<td>µg/m³</td>
<td>60.0</td>
</tr>
<tr>
<td>Sulphur dioxide (as SO₂)</td>
<td>IS: 5182 (P-2) Improved West &amp; Geske</td>
<td>10.6</td>
<td>8.4</td>
<td>7.8</td>
<td>µg/m³</td>
<td>80.0</td>
</tr>
<tr>
<td>Nitrogen dioxide (as NO₂)</td>
<td>IS: 5182 (P-6)</td>
<td>26.2</td>
<td>23.1</td>
<td>20.4</td>
<td>µg/m³</td>
<td>80.0</td>
</tr>
</tbody>
</table>

Details as per EPA-1986 National Ambient Air Quality Standards, date 18.11.1986.

**End of Report**

The results given above are related to the tested sample, for various parameters, as observed at the time of Sampling. The customer asked for the above tests only. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory. The test report will not be used for any public/illegal purpose. The test samples will be disposed off after two weeks from the date of issue of test report, unless until specified by the customer. Responsibility of the Laboratory is limited to the invoiced amount only.
### TEST REPORT

**Ambient Air Quality Analysis**

**Site Report No:** EKO/EV-AA/110/020119  
**Issue Date:** 07/01/2019

**Purpose:** Ambient Air Quality Monitoring

**Sampled To:** U.P. GRINDING UNIT (A UNIT OF SHREE CEMENT LTD.)  
SIKANDRABAD  
DISTT - BULANDSHAHAR (U.P.)

**Sample Description:**
- Ambient Air
- Sampled on: 31/12/2018 to 01/01/2019
- Drawn By: EPEPL (Mr. Alok Kumar)
- Received on: 02/01/2019
- Sample Duration: SOP-AAQ/15
- Sampling Time: 24 Hrs.
- Ambient Temperature (deg C): 16.0
- Average Flow Rate of SPM (m³/min): 1.1
- Average Flow Rate of Gases (lpm): 1.0
- Weather Conditions: Clear
- Mark (if any): NA

### RESULTS

<table>
<thead>
<tr>
<th>No.</th>
<th>Parameter</th>
<th>TEST METHOD</th>
<th>Sampling Location</th>
<th>LIMITS AS PER EPA*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Particulate Matter (PM₁₀)</td>
<td>IS: 5182 (P-23)</td>
<td>Plant Boundary Near Main Gate Area, CCR Building, Plant Boundary Towards Village, Rejarampura Village</td>
<td>µg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>96.8, 82.1, 85.7</td>
<td>100.0</td>
</tr>
<tr>
<td>2</td>
<td>Particulate Matter (PM₂.₅)</td>
<td>SOP-AAQ/89/01</td>
<td>Plant Boundary Towards CCR Building, Plant Boundary Towards Village, Rejarampura Village</td>
<td>µg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>55.1, 62.8, 48.6</td>
<td>60.0</td>
</tr>
<tr>
<td>3</td>
<td>Sulphur dioxide (as SO₂)</td>
<td>IS: 5182 (P-2)</td>
<td>Plant Boundary Towards CCR Building, Plant Boundary Towards Village, Rejarampura Village</td>
<td>µg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Improved West &amp; Gaikye</td>
<td>10.6, 8.4, 7.8</td>
<td>80.0</td>
</tr>
<tr>
<td>4</td>
<td>Nitrogen dioxide (as NO₂)</td>
<td>IS: 5182 (P-6)</td>
<td>Plant Boundary Towards CCR Building, Plant Boundary Towards Village, Rejarampura Village</td>
<td>µg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>26.2, 23.1, 20.4</td>
<td>80.0</td>
</tr>
</tbody>
</table>

Details as per EPA-1986 National Ambient Air Quality Standards, date 18.11.2009.

**End of Report**

**Notes:**

The results given above are related to the tested sample, for various parameters, as observed at the time of Sampling. The customer asked for the above tests only.

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Responsibility of the Laboratory is limited to the invoiced amount only.

For EKO PRO ENGINEERS PVT LTD.

Page 1 of 1
## TEST REPORT

### Ambient Air Quality Analysis

- **Test Report No.:** EKO/EV-AA/119/300319  
- **Issue Date:** 04/04/2019

**Sample Description:** Ambient Air

**Sample Drawn on:** 29/03/2019 To 30/03/2019

**Sample Drawn By:** EREPL (Mr. Alok Kumar)

**Sample Received on:** 30/03/2019

**Sampling Plan & Procedure:** SOP-AAQ/15

**Analysis Duration:** 30/03/2019 To 03/04/2019

**Sampling Time:** 24 Hrs.

**Ambient Temperature (degC):** 29.0

**Average Flow Rate of SPM (m³/min):** 1.1

**Average Flow Rate of Gases (lpm):** 1.0

**Weather Conditions:** Clear

**Remark (if any):** NA

### RESULTS

<table>
<thead>
<tr>
<th>S.No.</th>
<th>PARAMETER</th>
<th>TEST METHOD</th>
<th>Sampling Location</th>
<th>LIMITS AS PER EPA*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Particulate Matter (PM_{10})</td>
<td>IS : 5182 (P-23)</td>
<td>Plant Boundary Near Main Gate Area</td>
<td>µg/m³</td>
</tr>
<tr>
<td>2</td>
<td>Particulate Matter (PM_{2.5})</td>
<td>SOP-AAQ/89/01</td>
<td>Plant Boundary Towards CCR Building</td>
<td>µg/m³</td>
</tr>
<tr>
<td>3</td>
<td>Sulphur dioxide (as SO₂)</td>
<td>IS : 5182 (P-2) Improved West &amp; Geake</td>
<td>Plant Boundary Towards Rajarampura village</td>
<td>µg/m³</td>
</tr>
<tr>
<td>4</td>
<td>Nitrogen dioxide (as NO₂)</td>
<td>IS : 5182 (P-6)</td>
<td>Plant Boundary Near Main Gate Area</td>
<td>µg/m³</td>
</tr>
</tbody>
</table>

* Details as per EPA-1986 National Ambient Air Quality Standards, date 18.11.2009.

**End of Report**

Notes:
1. The results given above are related to the tested sample, for various parameters, as observed at the time of Sampling.
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4. The test samples will be disposed off after two weeks from the date of issue of test report, unless until specified by the customer.
5. Responsibility of the Laboratory is limited to the invoiced amount only.

For EKO PRO ENGINEERS PVT. LTD.

GHAZIABAD

Authorized Signatory
## TEST REPORT

### Noise Monitoring

**Test Report No:** EKO/EV-NM/128/300319  
**Issue Date:** 04/04/2019

**Tested To:** U.P. GRINDING UNIT (A UNIT OF SHREE CEMENT LTD.)  
**Location:** KANDRABAD  
**District:** BULANDSHAAR  
**Laboratory:** U.P.

**Sample Description:** Ambient Noise

**Sample Drawn on:** 20/03/2019 To 30/03/2019

**Sample Drawn by:** EPEPL (Mr. Alok Kumar)

**Sample Received on:** 20/03/2019

**Sampling Plan & Procedure:** SOP-N/01

**Environmental Condition:** Normal

**Analysis Duration:** 30/03/2019 To 03/04/2019

**Remark (if any):** NA

### RESULTS

<table>
<thead>
<tr>
<th>S.No.</th>
<th>PARAMETER</th>
<th>Test Method</th>
<th>Plant Boundary Near Main Gate</th>
<th>Plant Boundary Near CCR Building</th>
<th>Plant Boundary Towards Rajarampur a village</th>
<th>UNIT</th>
<th>LIMITS AS PER ENVIRONMENT (PROTECTION) ACT*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Leq (Day time)</td>
<td>SOP-N/04/01</td>
<td>62.5</td>
<td>69.4</td>
<td>57.8</td>
<td>dB (A)</td>
<td>75.0</td>
</tr>
<tr>
<td>2</td>
<td>Leq (Night time)</td>
<td>SOP-N/04/01</td>
<td>51.3</td>
<td>45.8</td>
<td>43.8</td>
<td>dB (A)</td>
<td>70.0</td>
</tr>
</tbody>
</table>

*Details as per EPA-1986 Ambient Noise Quality Standards, Schedule-III, (Rule-3).

**Notes:**
1. The results given above are related to the observed values at the time of monitoring. The customer asked for the above tests only.
2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
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4. Responsibility of the Laboratory is limited to the invoiced amount only.

**End of Report**
TEST REPORT
Stack Emission Analysis

Test Report No.: EKOFV-S1/128/300310

Issued To: U.P Grinding Unit (A Unit of Shree Cement Ltd.)
Sikandarabad
Dist- Bulandshahr
U.P.

Sample Description

Sample Drawn on
Sample Drawn by
Sample Received on
Time of Sampling (minutes)
Sampling Location
Sampling Plan & Procedure
Analysis Duration
Source of Emission
Capacity
Operating Load
Normal Operation Schedule
Type of Stack
Diameter of Stack (meter)
Height of Stack from Ground Level (meter)
Height of Stack from Roof Level (meter)
Height of Sampling Location (meter)
Type of Fuel Used
Fuel Consumed per Hour
Stack Temperature (°C)
Average Velocity of Fuel Emission (m/sec)
Average Flow Rate (lpm)
Control Measures (if any)
Remark (if any)

Stock Emission
29/03/2019
EFEPL (Mr. Alok Kumar)
30/03/2019
30.0
NA
SCP-W66
30/03/2019 To 03/04/2019
Stack Attached To Boiler Bag Filter
16.0 Ton
Normal
As per requirement
Metal/Circular
1.4
50.0
40.0
22.3 From Ground Level
Coal
-20.0
90.0
5.2
20.7
Bag House
NA

RESULTS

<table>
<thead>
<tr>
<th>S.No.</th>
<th>PARAMETER</th>
<th>Test Methods</th>
<th>Results</th>
<th>Units</th>
<th>LIMITS AS PER EPA*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>O2 (at 12% CO2 Correction)</td>
<td>IS : 11255 (P-1)</td>
<td>31.9</td>
<td>mg/Nm³</td>
<td>50.0</td>
</tr>
<tr>
<td>2</td>
<td>Sulphur Dioxide (as SO2)</td>
<td>IS : 11255 (P-2)</td>
<td>226.2</td>
<td>mg/Nm³</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Oxides of Nitrogen (as NOx)</td>
<td>IS : 11255 (P-7)</td>
<td>64.8</td>
<td>mg/Nm³</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Moisture Content</td>
<td>Gravimetric Method</td>
<td>3.6</td>
<td>% w/w</td>
<td></td>
</tr>
</tbody>
</table>

For Any Query Contact
Group: A-971159337

For EKO PRO ENGINEERS PVT. LTD.

Authorized Signature

Analytical Services - Analysis of Environment, Food, Ayurvedic Plants, Building Material, Petroleum & Material Samples in Biological Limbsd, Soil, Geospatial, Mechanical & NDT Disciplines
Newcon Consultants & Laboratories
NABL ISO/IEC 17025:2005 (Testing, Cert. No. TC-SS26) Accredited Laboratory,
Recognized with MOEFCC & U.P. Pollution Control Board
Website: www.newconlab.in

TEST CERTIFICATE

AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

TEST REPORT NO: NCL/KCSB/008/25/09/2018

DATE OF REPORT: 27/09/2018

Name And Address Of Customer: KAJARIA CERAMICS LTD., PLOT NO-A-27-30, UPSIDC INDUSTRIAL AREA, SIKANDRABAD, BULANDSHAHR, U.P., INDIA

SAMPLING DETAIL

- **Analysis Start Date:** 25/09/2018
- **Date Of Sampling:** 24/09/2018
- **Time Of Sampling:** 14:50
  - **To:** 22:50
  - **From:** 24/09/2018
- **Sampling Location:** NEAR MID AREA OF GYV PLANT
- **Sampling Protocol:** IS:5182(PART-9) AS PER CPCB GUIDELINES
- **Sample Flow Rate For SP(M):** 1.120 m³/min
- **Sample Flow Rate For Gas:** 1.0 LPM
- **Equipments Used:** RDS APM-460-2246-OTK-2017
- **Ambient Temperature:** 25°C
- **Weather Condition:** Cloudy

**Sampling Machine:** 1.5 mtr
**Placed At Height (From Ground):** Sample Duration: 8-Hrs

**PHYSICAL OBSERVATIONS**
- **Wind Direction:** West To East

**TEST RESULT**

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Parameter</th>
<th>Unit</th>
<th>Protocol</th>
<th>Result</th>
<th>Specification/ Limit (As Per CPCB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Particulate Matters (Size Less Than 10µm)</td>
<td>µg/m³</td>
<td>IS 5182 (Part 23)</td>
<td>72</td>
<td>For 24 Hrs=100</td>
</tr>
<tr>
<td>2</td>
<td>Sulphur Dioxide</td>
<td>µg/m³</td>
<td>IS 5182 (Part 2)</td>
<td>14.0</td>
<td>For 24 hrs= 80</td>
</tr>
<tr>
<td>3</td>
<td>Carbon Monoxide (CO)</td>
<td>mg/m³</td>
<td>IS 5182 (Part 10)</td>
<td>0.21</td>
<td>For 08 Hrs= 02 For 01 hrs=04</td>
</tr>
<tr>
<td>4</td>
<td>Nitrogen Dioxide</td>
<td>µg/m³</td>
<td>IS 5182 (Part 6)</td>
<td>28.0</td>
<td>For 24 hrs=80</td>
</tr>
</tbody>
</table>

**FOR NEWCON CONSULTANTS & LABORATORIES**

**CHECKED BY**

M. Shafque Khan

**PREPARED BY**

**AUTHORIZED SIGNATORY**

**NOTE:** 1. The Results reported above pertain to the Tested parameters only. Endorsement of the same is neither inferred nor implied. 2. All disputes subject to GHAZIABAD JURISDICTION. 3. The Report shall not be reproduced except in full without the permission of CHIEF ANALYST. 4. Our liability is limited to invoiced value only.

Laboratory: 8th K.M. Store, NH-58, Delhi Meerut Road, Morba (Copp. Mayaram Mandir) GHAZIABAD - 201 003 (U.P.) Telefax: (0120) 2675225, Mobile: 9871494881
Newcon Consultants & Laboratories

AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

TEST REPORT NO: NCL/KC/SB/008/25/09/2018

KAJARIA CERAMICS LTD.
PLOT NO-A-27-30, U/P SIDC INDUSTRIAL AREA, SIKANDRABAD,

DATE OF REPORT: 27/09/2018

Stalamshahar, U.P., INDIA

SAMPLING DETAIL

Analysis Start Date: 25/09/2018
Date Of Sampling: 24/09/2018
Time Of Sampling: 14.50 to 22.50
Sampling Location: NEAR MID AREA OF GVT PLANT
Sampling Protocol: IS:5182(PART 6) AS PER CPCB GUIDELINES
Sample Flow Rate: 1.120 m³/min
Sample Flow Rate For Gas: 1.0 LPM
Sampling Machine: 1.5 mtr
Placed At Height (From Ground): 8-Hrs
Sample Duration: 8-Hrs

PHYSICAL OBSERVATIONS

Wind Direction: West To East

Ambient Temperature: 29°C
Weather Condition: Cloudy

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Parameter</th>
<th>Unit</th>
<th>Protocol</th>
<th>Result</th>
<th>Specification/ Limit (As Per CPCB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Particulate Matters (Size Less Than 10µm)</td>
<td>µg/m³</td>
<td>IS:5182 (Part 23)</td>
<td>72</td>
<td>For 24 Hrs=100</td>
</tr>
<tr>
<td>2</td>
<td>Sulphur Dioxide</td>
<td>µg/m³</td>
<td>IS:5182 (Part 2)</td>
<td>14.0</td>
<td>For 24 hrs= 80</td>
</tr>
<tr>
<td>3</td>
<td>Carbon Monoxide (CO)</td>
<td>mg/m³</td>
<td>IS:5182 (Part 10)</td>
<td>0.21</td>
<td>For 08 Hrs= 02 For 01 Hrs=04</td>
</tr>
<tr>
<td>4</td>
<td>Nitrogen Dioxide</td>
<td>µg/m³</td>
<td>IS:5182 (Part 6)</td>
<td>20.0</td>
<td>For 24 hrs=80</td>
</tr>
</tbody>
</table>

NOTE: 1. The Results reported above pertain to the Tested parameters only. Endorsement of the same is neither inferred nor implied. 2. All disputes subject to Ghaziabad Jurisdiction. 3. The Report shall not be reproduced except in full without the permission of Chief Analyst. 4. Our liability is limited to invoiced value only.

FOR NEWCON CONSULTANTS & LABORATORIES

INTEKHIM JHAN

CHECKED BY

Prepared By

AUTHORISED SIGNATORY

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Format NO NCL/QSP-28/TC-AAQ/FMT-02 Rev No 1 Date 18.07.2011
TEST REPORT

Stack Emission Analysis

Test Report No.: EKO/EV-SE/118/21/1218
Issued To: ORIENT BELL LIMITED
(FORMERLY: ORIENT CERAMICS & INDUSTRIES LTD.)
8, INDUSTRIAL AREA
SIKANDRAHBAD
U.P.

Sample Description:
Sample Drawn on: 20/12/2018
Sample Drawn by: EPEPL(Mr. Rahul Kashyap)
Sample Received on: 21/12/2018
Time of Sampling (minutes): 30.0
Sampling Location:
Sampling Plan & Procedure:
Analysis Duration: 21/12/2018 To 24/12/2018
Source of Emission:
Stack Attached To Kiln Emission RHK (MF-1)
Capacity:
Operating Load:
Normal Operation Schedule:
Type of Stack:
Diameter of Stack (meter):
Height of Stack from Ground Level (meter):
Height of Stack from Roof Level (meter):
Height of Sampling Location (meter):
Type of Fuel Used:
Fuel Consumed per Hour:
Ambient Temperature (°C):
Stack Temperature (°C):
Stack Gas Velocity of Fuel Emission (m/sec):
Average Flow Rate (lpm):
Control Measures (if any):
Remark (if any):

RESULTS

<table>
<thead>
<tr>
<th>S.No</th>
<th>PARAMETER</th>
<th>Test Methods</th>
<th>Results</th>
<th>Units</th>
<th>LIMITS AS PER EPA*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Particulate Matter (as PM)</td>
<td>IS : 11255 (P-1)</td>
<td>24.6</td>
<td>mg/Nm³</td>
<td>150.0</td>
</tr>
<tr>
<td>2</td>
<td>Carbon monoxide (as CO)</td>
<td>IS : 13270</td>
<td>&lt;0.2</td>
<td>% V/V</td>
<td>1.0</td>
</tr>
<tr>
<td>3</td>
<td>Lead (as Pb)</td>
<td>USEPA (P-12)</td>
<td>&lt;1.0</td>
<td>mg/Nm³</td>
<td>10.0</td>
</tr>
</tbody>
</table>
TEST REPORT

Stack Emission Analysis

Test Report No.: EXGVEV-SE/11/9/218
Issued To: ORIENT BELL LIMITED
(FORMERLY: ORIENT CERAMICS & INDUSTRIES LTD.)
8, INDUSTRIAL AREA
SIKANDRABAD
U.P.

Sample Description: Stack Emission
Sample Taken on: 20/12/2018
Sample Taken by: EPEPL (Mr. Rahul Kashyap)
Sample Received on: 21/12/2018
Time of Sampling (minutes): 30.0
Sampling Location: NA
Sampling Plan & Procedure: SOP-SE/09
Analysis Duration: 21/12/2018 to 24/12/2018
Source of Emission: Stack Attached To Kiln Emission RHK (MF-2)
Capacity: Normal
Operating Load: As per requirement
Normal Operation Schedule: Metal/Circular
Type of Stack: Diameter of Stack (meter): 0.66
Height of Stack from Ground Level (meter): 11.5
Height of Stack from Roof Level (meter): 9.0
Height of Sampling Location (meter): Top From Roof Level
Fuel Consumed per Hour: RNF
Ambient Temperature (°C): 17.0
Stack Temperature (°C): 102.0
Average Velocity of Fuel Emission (m/sec): 5.72
Average Flow Rate (lpm): 23.6
Control Measures (if any): Nil
Remark (if any): NA

RESULTS

<table>
<thead>
<tr>
<th>S.No.</th>
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<th>Results</th>
<th>Units</th>
<th>LIMITS AS PER EPA*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Particulate Matter (as PM)</td>
<td>IS : 11255 (P-1)</td>
<td>29.8</td>
<td>mg/Nm³</td>
<td>150.0</td>
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<tr>
<td>2</td>
<td>Carbon monoxide (as CO)</td>
<td>IS : 13270</td>
<td>&lt;0.2</td>
<td>% V/V</td>
<td>1.0</td>
</tr>
<tr>
<td>3</td>
<td>Lead (as Pb)</td>
<td>USEPA (P-12)</td>
<td>&lt;1.0</td>
<td>mg/Nm³</td>
<td>10.0</td>
</tr>
</tbody>
</table>

Page No: 1/2
TEST REPORT
Stack Emission Analysis

Test Report No.: EKO/EV-SE/123/21/218
Issued To: ORIENT BELL LIMITED
(FORMERLY: ORIENT CERAMICS & INDUSTRIES LTD.)
8, INDUSTRIAL AREA
SINANDABAD

Sample Description
Sample Taken On:
Sample Taken by:
Sample Received On:
Time of Sampling (minutes):
Sampling Location:
Sampling Plan & Procedure:
Analysis Duration:
Source of Emission:
Capacity:
Operating Load:
Normal Operation Schedule:
Type of Stack:
Diameter of Stack (meter):
Height of Stack from Ground Level (meter):
Height of Stack from Roof Level (meter):
Height of Sampling Location (meter):
Type of Fuel Used:
Ambient Temperature (°C):
Stack Temperature (°C):
Average Velocity of Fuel Emission (m/s):
Average Flow Rate (lpm):
Control Measures (if any):
Remark (if any):

Results:

<table>
<thead>
<tr>
<th>S.No.</th>
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<th>Results</th>
<th>Units</th>
<th>LIMITS AS PER EPA*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Particulate Matter (as PM)</td>
<td>IS : 11255 (P-1)</td>
<td>18.2</td>
<td>mg/Nm³</td>
<td>150.0</td>
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<tr>
<td>2</td>
<td>Carbon monoxide (as CO)</td>
<td>IS : 13270</td>
<td>&lt;0.2</td>
<td>% V/V</td>
<td>1.0</td>
</tr>
<tr>
<td>3</td>
<td>Lead (as Pb)</td>
<td>USEPA (P-12)</td>
<td>&lt;1.0</td>
<td>mg/Nm³</td>
<td>10.0</td>
</tr>
</tbody>
</table>
# TEST REPORT

## Stack Emission Analysis

**Test Report No.:** EKO/EV-SE/12022/2212

**Issued To:** ORIENT BELL LIMITED  
(FOREMRLY: ORIENT CERAMICS & INDUSTRIES LTD.)  
8, INDUSTRIAL AREA  
SIKANDRBAD  
U.P.

**Sample Description**

**Sample Drawn on:** 20/12/2018  
**Sample Drawn by:** EPEPL (Mr. Rahul Kashyap)  
**Sample Received on:** 22/12/2018  
**Time of Sampling (minutes):** 30.0  
**Sampling Location:** NA  
**Sampling Plan & Procedure:** SOP-SE/09  
**Analysis Duration:** 22/12/2018 To 25/12/2018  
**Source of Emission:** Stack Attached To Horizontal Dryer (MP-1)  
**Capacity:** Normal  
**Operating Load:** As per requirement  
**Normal Operation Schedule:** Metal/Circular  
**Type of Stack:** 0.5  
**Diameter of Stack (meter):** 12.0  
**Height of Stack from Ground Level (meter):** 2.5  
**Height of Stack from Roof Level (meter):** Top From Roof Level  
**Height of Sampling Location (meter):** RLNG  
**Type of Fuel Used:** NA  
**Fuel Consumed per Hour:** -  
**Ambient Temperature (°C):** 16.0  
**Wind Temperature (°C):** 78.0  
**Average Velocity of Fuel Emission (m/sec):** 5.76  
**Average Flow Rate (lpm):** 21.2  
**Control Measures (if any):** NA

## RESULTS

<table>
<thead>
<tr>
<th>S.No.</th>
<th>PARAMETER</th>
<th>Test Methods</th>
<th>Results</th>
<th>Units</th>
<th>LIMITS AS PER EPA*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Particulate Matter (as PM)</td>
<td>IS : 11255 (P-1)</td>
<td>24.8</td>
<td>mg/Nm³</td>
<td>150.0</td>
</tr>
<tr>
<td>2</td>
<td>Carbon monoxide (as CO)</td>
<td>IS : 13270</td>
<td>&lt;0.2</td>
<td>% V/V</td>
<td>1.0</td>
</tr>
<tr>
<td>3</td>
<td>Lead (as Pb)</td>
<td>USEPA (P-12)</td>
<td>&lt;1.0</td>
<td>mg/Nm³</td>
<td>10.0</td>
</tr>
</tbody>
</table>

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*Emission Standards as per Environmental Protection Agency (EPA)*

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**Contact:** +91 - 9810243870

**Office & Laboratory:** 32/41, South Side of G. T. Road, UPSIDC Industrial Area, Ghaziabad - 201 009 (Delhi-NCR) INDIA.  
**Contact No.:** 9711592158, 9711594222  
**WhatsApp No.:** 9711953422  
**E-mail:** email@ekopro.in, ekoproengineers@gmail.com  
**Website:** www.ekopro.in
TEST REPORT

Stack Emission Analysis

Test Report No.: EKO/EV-SE/119/2218
Issued To: ORIENT BELL LIMITED
            (FORMERLY: ORIENT CERAMICS & INDUSTRIES LTD.)
            8, INDUSTRIAL AREA
            SIKANDRABAD

Sample Description:
- Stack Emission
- 21/12/2018

Sample Drawn on:
- EPEPL (Mr. Rahul Kashyap)
- 22/12/2018

Sample Received on:
- 30.0

Time of Sampling (minutes):
- NA

Sampling Location:
- NA

Sampling Plan & Procedure:
- SOP-SE/09
- 22/12/2018 To 25/12/2018

Analysis Duration:
- Stack Attached To Horizontal Dryer (MP-4)

Source of Emission:
- Normal

Capacity:
- As per requirement

Operating Load:
- Metal/Circular

Normal Operation Schedule:
- 0.0

Type of Stack:
- 11.5

Height of Stack from Ground Level (meter):
- Top From Roof Level

Height of Stack from Roof Level (meter):
- 2 R

Height of Sampling Location (meter):
- 16.0

Type of Fuel Used:
- NG

Fuel Consumed per Hour:
- 4.27

Ambient Temperature (°C):
- 110.0

Stack Temperature (°C):
- 21.5

Average Velocity of Fuel Emission (m/s)
- 0.0

Average Flow Rate (lpm):
- Nil

Control Measures (if any):
- NA

RESULT:

<table>
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<tbody>
<tr>
<td>1</td>
<td>Particulate Matter (PM)</td>
<td>IS : 11255 (P-1)</td>
<td>23.4</td>
<td>mg/Nm³</td>
<td>150.0</td>
</tr>
<tr>
<td>2</td>
<td>Carbon monoxide (CO)</td>
<td>IS : 13270</td>
<td>&lt;0.2</td>
<td>% Vol</td>
<td>1.0</td>
</tr>
<tr>
<td>3</td>
<td>Lead (as Pb)</td>
<td>USEPA (P-12)</td>
<td>&lt;1.0</td>
<td>mg/Nm³</td>
<td>10.0</td>
</tr>
</tbody>
</table>
TEST REPORT

Stack Emission Analysis

Test Report No.: EKO/EV-SE/22/21218

issued To: ORIENT BELL LIMITED
           (FORMERLY: ORIENT CERAMICS & INDUSTRIES LTD.)
           8, INDUSTRIAL AREA
           SIKANDRABAD

Issue Date: 25/12/2018

Sample Description: Stack Emission
Sample Drawn on: 20/12/2018
Sample Drawn by: EPEPL (Mr. Rahul Kashyap)
Sample Received on: 21/12/2018
Time of Sampling (minutes): 30.0
Sampling Location: NA
Sampling Plan & Procedure: SOP-SE/09
Analysis Duration: 21/12/2018 To 24/12/2018
Source of Emission: Stack Attached To Vertical Dryer (MF-1)
Capacity: U.P.
Operating Load: Normal
Normal Operation Schedule: As per requirement
Type of Stack: Metal/Circular
Diameter of Stack (meter): 0.31
Height of Stack from Ground Level (meter): 17.0
Height of Stack from Roof Level (meter): 2.0
Height of Sampling Location (meter): Top From Roof Level
Type of Fuel Used: RLNG
Fuel Consumed per Hour: -
Ambient Temperature (°C): 17.0
Stack Temperature (°C): 85.0
Average Velocity of Fuel Emission (m/sec): 7.48
Average Flow Rate (rpm): 19.2
Control Measures (if any): Nil
Remark (if any): NA

RESULTS

<table>
<thead>
<tr>
<th>S.No</th>
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<tbody>
<tr>
<td>1</td>
<td>Particulate Matter (as PM)</td>
<td>IS : 11265 (P-1)</td>
<td>27.4</td>
<td>mg/Nea²</td>
<td>150.0</td>
</tr>
<tr>
<td>2</td>
<td>Carbon monoxide (as CO)</td>
<td>IS : 13270</td>
<td>&lt;0.2</td>
<td>% VW</td>
<td>1.0</td>
</tr>
<tr>
<td>3</td>
<td>Lead (as Pb)</td>
<td>USEPA (P-12)</td>
<td>&lt;1.0</td>
<td>mg/Nea²</td>
<td>10.0</td>
</tr>
</tbody>
</table>

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