

# STAR CEMENT MEGHALAYA LIMITED

Ref: SCML/EHS/LUM/2024-25/40

Dated: 23/11/2024

To,

The Member Secretary  
Meghalaya State Pollution Control Board  
'ARDEN', Lumpyngngad,  
Shillong, Meghalaya – 793014

**Subject** : Submission of Environmental Monitoring Report for the month of October, 2024.

**Reference** : MPCB/CON-54/2007/2024-2025/89, Dtd: Shillong, the 19<sup>th</sup> June, 2024.

Dear Sir,

This is in reference to above cited subject, we are hereby submitting the monthly Environmental monitoring reports of Ambient Air Quality monitoring including meteorological data, Stack Emission, Fugitive Emission & Water (Ground, Surface, STP & ETP) quality monitoring reports of **Star Cement Meghalaya Limited** (formerly known as *Meghalaya Power Limited - 43 MW*) for the month of **October, 2024**.

This is for your kind information, record and kindly acknowledge receipt of the same.

Thanking You,

Yours truly,  
For **STAR CEMENT MEGHALAYA LIMITED**



**Laxmaiah Munjala**  
Unit Head

Enclosed: a/a

**Copy To:** The Regional Director, Central Pollution Control Board (CPCB), North Eastern Zonal Office, 'TUMSIR', Lower Motinagar, Shillong, Meghalaya-790314.



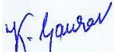
**STAR CEMENT MEGHALAYA LIMITED**  
**(Thermal Power Plant)**  
**Lumshnong, Meghalaya**

| Date (DD-MM-YYYY) | Pressure (mmHg) | Relative Humidity (%) | Temp. (C)    | Manual Rain (mm) |
|-------------------|-----------------|-----------------------|--------------|------------------|
| 01-10-2024        | 718.3           | 72.9                  | 19.4         | 0.0              |
| 02-10-2024        | 715.7           | 71.7                  | 18.7         | 0.0              |
| 03-10-2024        | 715.4           | 72.5                  | 19.6         | 0.0              |
| 04-10-2024        | 721.6           | 70.8                  | 19.4         | 0.0              |
| 05-10-2024        | 718.9           | 70.6                  | 19.3         | 0.0              |
| 06-10-2024        | 724.7           | 71.9                  | 18.7         | 0.0              |
| 07-10-2024        | 719.3           | 70.7                  | 20.0         | 0.0              |
| 08-10-2024        | 722.0           | 70.5                  | 19.0         | 0.0              |
| 09-10-2024        | 723.6           | 70.7                  | 19.2         | 0.0              |
| 10-10-2024        | 721.3           | 71.8                  | 19.6         | 0.0              |
| 11-10-2024        | 719.3           | 75.0                  | 19.7         | 0.0              |
| 12-10-2024        | 718.8           | 74.1                  | 21.4         | 0.0              |
| 13-10-2024        | 719.2           | 78.3                  | 19.5         | 0.0              |
| 14-10-2024        | 722.0           | 75.4                  | 19.6         | 0.0              |
| 15-10-2024        | 722.2           | 75.6                  | 20.5         | 0.0              |
| 16-10-2024        | 721.6           | 72.8                  | 20.1         | 0.0              |
| 17-10-2024        | 720.0           | 79.1                  | 17.3         | 0.0              |
| 18-10-2024        | 718.4           | 78.3                  | 15.9         | 0.0              |
| 19-10-2024        | 716.0           | 71.3                  | 17.6         | 0.0              |
| 20-10-2024        | 721.6           | 64.3                  | 17.5         | 0.0              |
| 21-10-2024        | 722.1           | 67.3                  | 19.0         | 0.0              |
| 22-10-2024        | 719.8           | 72.1                  | 19.3         | 0.0              |
| 23-10-2024        | 722.0           | 71.6                  | 19.4         | 0.0              |
| 24-10-2024        | 723.6           | 69.5                  | 20.6         | 0.0              |
| 25-10-2024        | 722.0           | 72.2                  | 19.4         | 0.0              |
| 26-10-2024        | 716.8           | 68.9                  | 18.6         | 0.0              |
| 27-10-2024        | 723.5           | 71.8                  | 19.1         | 0.0              |
| 28-10-2024        | 721.3           | 73.2                  | 19.6         | 0.0              |
| 29-10-2024        | 720.1           | 75.3                  | 16.3         | 0.0              |
| 30-10-2024        | 720.1           | 75.3                  | 16.3         | 0.0              |
| 31-10-2024        | 720.1           | 75.3                  | 16.3         | 0.0              |
|                   |                 |                       | <b>Total</b> | <b>0.0</b>       |

|                                                                                                                                        |                                                                                                   |                                                                                                   |                                      |                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|--------------------------------------|------------------------------------------------------------------------------------------------------|
|                                                       | <b>STAR CEMENT MEGHALAYA LIMITED</b><br><b>THERMAL POWER PLANT (43MW)</b><br>Lumshnong, Meghalaya |                                                                                                   | Reference No.                        | MPL/Env/F – 01                                                                                       |
|                                                                                                                                        |                                                                                                   |                                                                                                   | Issue No.                            | 1                                                                                                    |
|                                                                                                                                        |                                                                                                   |                                                                                                   | Date of Issue:                       | 24.08.2013                                                                                           |
|                                                                                                                                        |                                                                                                   |                                                                                                   | Revision No.                         | 5                                                                                                    |
|                                                                                                                                        | AMBIENT AIR QUALITY MONITORING REPORT                                                             |                                                                                                   | Date of Rev.                         | 01.12.2020                                                                                           |
| Reference No.: MPL (43 MW)/ENV/AAQM/MONTHLY/2024-25/19                                                                                 |                                                                                                   |                                                                                                   | Month : October                      |                                                                                                      |
| Location of Sampling: Near ADM Office (South)                                                                                          |                                                                                                   | GPS Coordinate: 25°10'34"N 92°23'46"E 907 m                                                       |                                      |                                                                                                      |
| Sampling Duration:                                                                                                                     | 24 Hrs.                                                                                           | 24 Hrs.                                                                                           | 24 Hrs.                              | 24 Hrs.                                                                                              |
| Date of Sampling                                                                                                                       | PM <sub>10</sub> (µg/m <sup>3</sup> )                                                             | PM <sub>2.5</sub> (µg/m <sup>3</sup> )                                                            | SO <sub>2</sub> (µg/m <sup>3</sup> ) | NO <sub>2</sub> (µg/m <sup>3</sup> )                                                                 |
| 01.10.2024                                                                                                                             | 50.32                                                                                             | 33.89                                                                                             | 15.68                                | 17.97                                                                                                |
| 03.10.2024                                                                                                                             | 52.68                                                                                             | 31.86                                                                                             | 16.98                                | 19.71                                                                                                |
| 05.10.2024                                                                                                                             | 48.54                                                                                             | 36.39                                                                                             | 16.36                                | 18.86                                                                                                |
| 08.10.2024                                                                                                                             | 50.41                                                                                             | 33.89                                                                                             | 18.98                                | 21.85                                                                                                |
| 10.10.2024                                                                                                                             | 49.24                                                                                             | 35.07                                                                                             | 15.34                                | 18.90                                                                                                |
| 12.10.2024                                                                                                                             | 47.39                                                                                             | 30.73                                                                                             | 17.38                                | 19.82                                                                                                |
| 15.10.2024                                                                                                                             | 48.06                                                                                             | 37.39                                                                                             | 16.01                                | 20.65                                                                                                |
| 17.10.2024                                                                                                                             | 46.24                                                                                             | 34.89                                                                                             | 14.56                                | 19.79                                                                                                |
| NAAQS permissible limits for Rural,<br>Industrial, Residential Area                                                                    | 100 (µg/m <sup>3</sup> )                                                                          | 60 (µg/m <sup>3</sup> )                                                                           | 80 (µg/m <sup>3</sup> )              | 80 (µg/m <sup>3</sup> )                                                                              |
| Remarks: All the analyzed parameters are well within the permissible limits of NAAQ Standards , Notification dated 18th November 2009. |                                                                                                   |                                                                                                   |                                      |                                                                                                      |
| <br>Analysed by                                     |                                                                                                   | <br>Checked by |                                      | <br>Verified By |

|                                                                                                                                                      |                                                                                                   |                                                                                                   |                                      |                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|--------------------------------------|------------------------------------------------------------------------------------------------------|
|                                                                     | <b>STAR CEMENT MEGHALAYA LIMITED</b><br><b>THERMAL POWER PLANT (43MW)</b><br>Lumshnong, Meghalaya |                                                                                                   | Reference No.                        | MPL/Env/F – 01                                                                                       |
|                                                                                                                                                      |                                                                                                   |                                                                                                   | Issue No.                            | 1                                                                                                    |
|                                                                                                                                                      |                                                                                                   |                                                                                                   | Date of Issue:                       | 24.08.2013                                                                                           |
|                                                                                                                                                      |                                                                                                   |                                                                                                   | Revision No.                         | 5                                                                                                    |
| AMBIENT AIR QUALITY MONITORING REPORT                                                                                                                |                                                                                                   | Date of Rev.                                                                                      | 01.12.2020                           |                                                                                                      |
| Reference No.: MPL (43 MW)/ENV/AAQM/MONTHLY/2024-25/19                                                                                               |                                                                                                   |                                                                                                   | Month : October                      |                                                                                                      |
| Location of Sampling: Near STP                                                                                                                       |                                                                                                   | GPS Coordinate: 25°10'49"N 92°23'58"E 947 m                                                       |                                      |                                                                                                      |
| Sampling Duration:                                                                                                                                   | 24 Hrs.                                                                                           | 24 Hrs.                                                                                           | 24 Hrs.                              | 24 Hrs.                                                                                              |
| Date of Sampling                                                                                                                                     | PM <sub>10</sub> (µg/m <sup>3</sup> )                                                             | PM <sub>2.5</sub> (µg/m <sup>3</sup> )                                                            | SO <sub>2</sub> (µg/m <sup>3</sup> ) | NO <sub>2</sub> (µg/m <sup>3</sup> )                                                                 |
| 01.10.2024                                                                                                                                           | 43.02                                                                                             | 34.62                                                                                             | 16.50                                | 20.72                                                                                                |
| 03.10.2024                                                                                                                                           | 45.02                                                                                             | 35.82                                                                                             | 17.70                                | 24.22                                                                                                |
| 05.10.2024                                                                                                                                           | 46.34                                                                                             | 38.15                                                                                             | 15.02                                | 16.85                                                                                                |
| 08.10.2024                                                                                                                                           | 50.69                                                                                             | 39.31                                                                                             | 15.64                                | 18.85                                                                                                |
| 10.10.2024                                                                                                                                           | 48.31                                                                                             | 37.67                                                                                             | 16.32                                | 20.72                                                                                                |
| 12.10.2024                                                                                                                                           | 46.01                                                                                             | 36.13                                                                                             | 17.04                                | 18.51                                                                                                |
| 15.10.2024                                                                                                                                           | 50.24                                                                                             | 33.66                                                                                             | 16.32                                | 19.75                                                                                                |
| 17.10.2024                                                                                                                                           | 48.53                                                                                             | 31.83                                                                                             | 15.37                                | 17.76                                                                                                |
| NAAQS permissible limits for Rural, Industrial, Residential Area                                                                                     | 100 (µg/m <sup>3</sup> )                                                                          | 60 (µg/m <sup>3</sup> )                                                                           | 80 (µg/m <sup>3</sup> )              | 80 (µg/m <sup>3</sup> )                                                                              |
| <p><b>Remarks:</b> All the analyzed parameters are well within the permissible limits of NAAQ Standards , Notification dated 18th November 2009.</p> |                                                                                                   |                                                                                                   |                                      |                                                                                                      |
| <br>Analysed by                                                   |                                                                                                   | <br>Checked by |                                      | <br>Verified By |

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|                                                       | <b>STAR CEMENT MEGHALAYA LIMITED</b><br><b>THERMAL POWER PLANT (43MW)</b><br>Lumshnong, Meghalaya |                                                                                                   | Reference No.                        | MPL/Env/F – 01                                                                                       |
|                                                                                                                                        |                                                                                                   |                                                                                                   | Issue No.                            | 1                                                                                                    |
|                                                                                                                                        |                                                                                                   |                                                                                                   | Date of Issue:                       | 24.08.2013                                                                                           |
|                                                                                                                                        |                                                                                                   |                                                                                                   | Revision No.                         | 5                                                                                                    |
|                                                                                                                                        | AMBIENT AIR QUALITY MONITORING REPORT                                                             |                                                                                                   | Date of Rev.                         | 01.12.2020                                                                                           |
| Reference No.: MPL (43 MW)/ENV/AAQM/MONTHLY/2024-25/19                                                                                 |                                                                                                   |                                                                                                   | Month : October                      |                                                                                                      |
| Location of Sampling: Near Piezometer Well                                                                                             |                                                                                                   | GPS Coordinate: 25°10'35"N 92°23'53"E 348 m                                                       |                                      |                                                                                                      |
| Sampling Duration:                                                                                                                     | 24 Hrs.                                                                                           | 24 Hrs.                                                                                           | 24 Hrs.                              | 24 Hrs.                                                                                              |
| Date of Sampling                                                                                                                       | PM <sub>10</sub> (µg/m <sup>3</sup> )                                                             | PM <sub>2.5</sub> (µg/m <sup>3</sup> )                                                            | SO <sub>2</sub> (µg/m <sup>3</sup> ) | NO <sub>2</sub> (µg/m <sup>3</sup> )                                                                 |
| 01.10.2024                                                                                                                             | 52.71                                                                                             | 39.99                                                                                             | 14.58                                | 20.35                                                                                                |
| 03.10.2024                                                                                                                             | 51.33                                                                                             | 34.57                                                                                             | 16.12                                | 19.15                                                                                                |
| 05.10.2024                                                                                                                             | 54.97                                                                                             | 36.79                                                                                             | 15.77                                | 21.14                                                                                                |
| 08.10.2024                                                                                                                             | 56.47                                                                                             | 40.47                                                                                             | 13.70                                | 20.01                                                                                                |
| 10.10.2024                                                                                                                             | 55.33                                                                                             | 36.99                                                                                             | 12.77                                | 20.65                                                                                                |
| 12.10.2024                                                                                                                             | 49.68                                                                                             | 38.64                                                                                             | 13.77                                | 19.61                                                                                                |
| 15.10.2024                                                                                                                             | 50.33                                                                                             | 33.64                                                                                             | 14.80                                | 21.04                                                                                                |
| 17.10.2024                                                                                                                             | 46.95                                                                                             | 32.63                                                                                             | 12.12                                | 21.13                                                                                                |
| NAAQS permissible limits for Rural, Industrial, Residential Area                                                                       | 100 (µg/m <sup>3</sup> )                                                                          | 60 (µg/m <sup>3</sup> )                                                                           | 80 (µg/m <sup>3</sup> )              | 80 (µg/m <sup>3</sup> )                                                                              |
| Remarks: All the analyzed parameters are well within the permissible limits of NAAQ Standards , Notification dated 18th November 2009. |                                                                                                   |                                                                                                   |                                      |                                                                                                      |
| <br>Analysed by                                     |                                                                                                   | <br>Checked by |                                      | <br>Verified By |

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|                                                       | <b>STAR CEMENT MEGHALAYA LIMITED</b><br><b>THERMAL POWER PLANT (43MW)</b><br>Lumshnong, Meghalaya |                                                                                                   | Reference No.                        | MPL/Env/F – 01                                                                                       |
|                                                                                                                                        |                                                                                                   |                                                                                                   | Issue No.                            | 1                                                                                                    |
|                                                                                                                                        |                                                                                                   |                                                                                                   | Date of Issue:                       | 24.08.2013                                                                                           |
|                                                                                                                                        |                                                                                                   |                                                                                                   | Revision No.                         | 5                                                                                                    |
| GROUND LEVEL AMBIENT AIR QUALITY MONITORING REPORT                                                                                     |                                                                                                   |                                                                                                   | Date of Rev.                         | 01.12.2020                                                                                           |
| Reference No.: MPL (43 MW)/ENV/AAQM/MONTHLY/2024-25/19                                                                                 |                                                                                                   |                                                                                                   | Month : October                      |                                                                                                      |
| Location of Sampling: Near ADM Office                                                                                                  |                                                                                                   | GPS Coordinate: 25°10'34"N 92°23'46"E 907 m                                                       |                                      |                                                                                                      |
| Sampling Duration:                                                                                                                     | 24 Hrs.                                                                                           | 24 Hrs.                                                                                           | 24 Hrs.                              | 24 Hrs.                                                                                              |
| Date of Sampling                                                                                                                       | PM <sub>10</sub> (µg/m <sup>3</sup> )                                                             | PM <sub>2.5</sub> (µg/m <sup>3</sup> )                                                            | SO <sub>2</sub> (µg/m <sup>3</sup> ) | NO <sub>2</sub> (µg/m <sup>3</sup> )                                                                 |
| 02.10.2024                                                                                                                             | 44.38                                                                                             | 29.11                                                                                             | 12.77                                | 16.69                                                                                                |
| 04.10.2024                                                                                                                             | 46.14                                                                                             | 27.08                                                                                             | 11.74                                | 15.66                                                                                                |
| 07.10.2024                                                                                                                             | 42.60                                                                                             | 31.61                                                                                             | 14.07                                | 17.99                                                                                                |
| 09.10.2024                                                                                                                             | 44.47                                                                                             | 29.11                                                                                             | 15.23                                | 19.15                                                                                                |
| 11.10.2024                                                                                                                             | 43.30                                                                                             | 30.29                                                                                             | 15.77                                | 17.51                                                                                                |
| 14.10.2024                                                                                                                             | 31.90                                                                                             | 20.77                                                                                             | 12.05                                | 15.97                                                                                                |
| 16.10.2024                                                                                                                             | 42.12                                                                                             | 32.61                                                                                             | 13.34                                | 16.70                                                                                                |
| 20.10.2024                                                                                                                             | 40.30                                                                                             | 30.11                                                                                             | 14.78                                | 17.03                                                                                                |
| NAAQS permissible limits for Rural, Industrial, Residential Area                                                                       | 100 (µg/m <sup>3</sup> )                                                                          | 60 (µg/m <sup>3</sup> )                                                                           | 80 (µg/m <sup>3</sup> )              | 80 (µg/m <sup>3</sup> )                                                                              |
| Remarks: All the analyzed parameters are well within the permissible limits of NAAQ Standards , Notification dated 18th November 2009. |                                                                                                   |                                                                                                   |                                      |                                                                                                      |
| <br>Analysed by                                     |                                                                                                   | <br>Checked by |                                      | <br>Verified By |

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|                                                       | <b>STAR CEMENT MEGHALAYA LIMITED</b><br><b>THERMAL POWER PLANT (43MW)</b><br>Lumshnong, Meghalaya |                                                                                                   | Reference No.                        | MPL/Env/F – 01                                                                                       |
|                                                                                                                                        |                                                                                                   |                                                                                                   | Issue No.                            | 1                                                                                                    |
|                                                                                                                                        |                                                                                                   |                                                                                                   | Date of Issue:                       | 24.08.2013                                                                                           |
|                                                                                                                                        |                                                                                                   |                                                                                                   | Revision No.                         | 5                                                                                                    |
| GROUND LEVEL AMBIENT AIR QUALITY MONITORING REPORT                                                                                     |                                                                                                   |                                                                                                   | Date of Rev.                         | 01.12.2020                                                                                           |
| Reference No.: MPL (43 MW)/ENV/AAQM/MONTHLY/2024-25/19                                                                                 |                                                                                                   |                                                                                                   | Month : October                      |                                                                                                      |
| Location of Sampling: Behind DM Plant                                                                                                  |                                                                                                   | GPS Coordinate: 25°10'43"N 92°23'50"E 348 m                                                       |                                      |                                                                                                      |
| Sampling Duration:                                                                                                                     | 24 Hrs.                                                                                           | 24 Hrs.                                                                                           | 24 Hrs.                              | 24 Hrs.                                                                                              |
| Date of Sampling                                                                                                                       | PM <sub>10</sub> (µg/m <sup>3</sup> )                                                             | PM <sub>2.5</sub> (µg/m <sup>3</sup> )                                                            | SO <sub>2</sub> (µg/m <sup>3</sup> ) | NO <sub>2</sub> (µg/m <sup>3</sup> )                                                                 |
| 02.10.2024                                                                                                                             | 39.81                                                                                             | 30.99                                                                                             | 14.91                                | 18.44                                                                                                |
| 04.10.2024                                                                                                                             | 40.11                                                                                             | 28.96                                                                                             | 13.88                                | 17.41                                                                                                |
| 07.10.2024                                                                                                                             | 41.22                                                                                             | 33.49                                                                                             | 16.21                                | 19.74                                                                                                |
| 09.10.2024                                                                                                                             | 39.27                                                                                             | 30.99                                                                                             | 17.37                                | 20.90                                                                                                |
| 11.10.2024                                                                                                                             | 37.78                                                                                             | 32.17                                                                                             | 15.73                                | 19.26                                                                                                |
| 14.10.2024                                                                                                                             | 36.27                                                                                             | 27.83                                                                                             | 14.19                                | 17.72                                                                                                |
| 16.10.2024                                                                                                                             | 37.79                                                                                             | 34.49                                                                                             | 10.26                                | 15.25                                                                                                |
| 20.10.2024                                                                                                                             | 34.99                                                                                             | 31.99                                                                                             | 9.89                                 | 13.42                                                                                                |
| NAAQS permissible limits for Rural, Industrial, Residential Area                                                                       | 100 (µg/m <sup>3</sup> )                                                                          | 60 (µg/m <sup>3</sup> )                                                                           | 80 (µg/m <sup>3</sup> )              | 80 (µg/m <sup>3</sup> )                                                                              |
| Remarks: All the analyzed parameters are well within the permissible limits of NAAQ Standards , Notification dated 18th November 2009. |                                                                                                   |                                                                                                   |                                      |                                                                                                      |
| <br>Analysed by                                     |                                                                                                   | <br>Checked by |                                      | <br>Verified By |



|                                                                                                                          |                                                                                                          |                                                                                                          |                |                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|----------------|----------------------------------------------------------------------------------------------------------------------|
|                                         | <b>STAR CEMENT MEGHALAYA LIMITED</b><br><b>THERMAL POWER PLANT (43MW)</b><br><b>Lumshnong, Meghalaya</b> |                                                                                                          | Reference No.  | MPL/Env/F-02                                                                                                         |
|                                                                                                                          |                                                                                                          |                                                                                                          | Issue No.      | 1                                                                                                                    |
|                                                                                                                          |                                                                                                          |                                                                                                          | Date of Issue: | 01.05.2019                                                                                                           |
|                                                                                                                          |                                                                                                          |                                                                                                          | Revision No.   | 5                                                                                                                    |
| STACK EMISSION MONITORING ANALYSIS REPORT                                                                                |                                                                                                          | Date of Rev.                                                                                             | 01.06.2021     |                                                                                                                      |
| Report No: MPL(43MW)/ENV/STACK/MONTHLY/2024-25/19                                                                        |                                                                                                          |                                                                                                          | Month: October |                                                                                                                      |
| <b><u>Analysis Result</u></b>                                                                                            |                                                                                                          |                                                                                                          |                |                                                                                                                      |
| <b>A. General Information About Stack</b>                                                                                |                                                                                                          |                                                                                                          |                |                                                                                                                      |
| 1                                                                                                                        | Stack Identification No                                                                                  |                                                                                                          |                | <b>43 MW</b>                                                                                                         |
| 2                                                                                                                        | Stack Connected to                                                                                       |                                                                                                          |                | Boiler                                                                                                               |
| 3                                                                                                                        | Material of Construction (Stack/Duct)                                                                    |                                                                                                          |                | RCC                                                                                                                  |
| 4                                                                                                                        | Shape of duct                                                                                            |                                                                                                          |                | Circular                                                                                                             |
| 5                                                                                                                        | Whether duct is provided with permanent platform & ladder                                                |                                                                                                          |                | Yes                                                                                                                  |
| <b>B. Physical characteristic of stack</b>                                                                               |                                                                                                          |                                                                                                          |                |                                                                                                                      |
| 1                                                                                                                        | Stack Height from ground level (meter)                                                                   |                                                                                                          |                | 81.0                                                                                                                 |
| 2                                                                                                                        | Duct diameter at sampling point (meter)                                                                  |                                                                                                          |                | 2.75                                                                                                                 |
| 3                                                                                                                        | Sampling height point from ground level (meter)                                                          |                                                                                                          |                | 45.5                                                                                                                 |
| 4                                                                                                                        | Cross sectional area of Duct/Stack (m <sup>2</sup> )                                                     |                                                                                                          |                | 5.94                                                                                                                 |
| <b>C. Pollution Control Device</b>                                                                                       |                                                                                                          |                                                                                                          |                |                                                                                                                      |
| 1                                                                                                                        | Details of pollution control device attached to stack                                                    |                                                                                                          |                | ESP                                                                                                                  |
| <b>D. Result of Sampling &amp; Analysis of Gaseous Emission</b>                                                          |                                                                                                          |                                                                                                          |                |                                                                                                                      |
| 1                                                                                                                        | Date of Sampling                                                                                         |                                                                                                          |                | 07-10-2024                                                                                                           |
| 2                                                                                                                        | Ambient Temp (°C)                                                                                        |                                                                                                          |                | 30                                                                                                                   |
| 3                                                                                                                        | Stack Gas Temp (°C)                                                                                      |                                                                                                          |                | 129                                                                                                                  |
| 4                                                                                                                        | Exit Velocity of Gas (m/sec.)                                                                            |                                                                                                          |                | 16.0                                                                                                                 |
| 5                                                                                                                        | Flow Rate (Nm <sup>3</sup> / sec.)                                                                       |                                                                                                          |                | 65.4                                                                                                                 |
| 6                                                                                                                        | Quantity of Emission (Nm <sup>3</sup> / Hr)                                                              |                                                                                                          |                | 235369.5                                                                                                             |
| 7                                                                                                                        | Concentration of PM (mg/Nm <sup>3</sup> )                                                                |                                                                                                          |                | 35.3                                                                                                                 |
| 8                                                                                                                        | Concentration of SO <sub>2</sub> (mg/Nm <sup>3</sup> )                                                   |                                                                                                          |                | 483                                                                                                                  |
| 9                                                                                                                        | Concentration of NO <sub>x</sub> (mg/Nm <sup>3</sup> )                                                   |                                                                                                          |                | 237                                                                                                                  |
| 10                                                                                                                       | Oxygen (O <sub>2</sub> ) (%)                                                                             |                                                                                                          |                | 10.4                                                                                                                 |
| <b>E. Remarks:</b>                                                                                                       |                                                                                                          |                                                                                                          |                |                                                                                                                      |
| <b>Standard</b>                                                                                                          |                                                                                                          |                                                                                                          |                |                                                                                                                      |
| PM - 50 mg/Nm <sup>3</sup>                                                                                               |                                                                                                          | SO <sub>2</sub> - 600 mg/Nm <sup>3</sup>                                                                 |                | NO <sub>x</sub> - 300 mg/Nm <sup>3</sup>                                                                             |
| Particulate Matter (PM), Sulphur di-oxide (SO <sub>2</sub> ), Oxide of Nitrogen (Nox), Electro Static Precipitator (ESP) |                                                                                                          |                                                                                                          |                |                                                                                                                      |
| <br><b>Analysis by</b>                |                                                                                                          | <br><b>Checked by</b> |                | <br><b>Authorized Signatory</b> |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                          |                                |                                |                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>STAR CEMENT MEGHALAYA LIMITED</b><br><b>THERMAL POWER PLANT (43MW)</b><br><b>Lumshnong, Meghalaya</b> |                                | Document No.                   | MPL/EHS/Env/F-04 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                          |                                | Date of Issued                 | 01-05-2019       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                          |                                | Revision No.                   | 2                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | FUGITIVE EMISSION MONITORING REPORT                                                                      |                                | Revision Date                  | 01-01-2021       |
| Ref: MPL(43MW)/ENV/FUGITIVE/MONTHLY/2024-25/19                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                          |                                |                                |                  |
| Month - October                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                          |                                |                                |                  |
| Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Location                                                                                                 | Fugitive Emission Results      | As per CPCB/BIS Guideline      |                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                          |                                | Limit                          |                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                          | (in $\mu\text{g}/\text{m}^3$ ) | (in $\mu\text{g}/\text{m}^3$ ) |                  |
| 09.10.2024                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Coal Storage Section                                                                                     | 1501                           | 2000                           |                  |
| <div style="display: flex; justify-content: space-around; align-items: flex-end; margin-top: 100px;"> <div style="text-align: center;"> <br/> <b>Analyzed By</b> </div> <div style="text-align: center;"> <br/> <b>Checked By</b> </div> <div style="text-align: center;"> <br/> <b>Verified By</b> </div> </div> |                                                                                                          |                                |                                |                  |

|                                                                                                                                                                                                                                                                 | STAR CEMENT MEGHALAYA LIMITED<br>THERMAL POWER PLANT (43MW)<br>Lumshnong, Meghalaya |                                                       |      |      |                   | Document No.                                            |      | MPL/EHS/Env/F-03 |                   |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------|------|------|-------------------|---------------------------------------------------------|------|------------------|-------------------|--|
|                                                                                                                                                                                                                                                                                                                                                  |                                                                                     |                                                       |      |      |                   | Date of Issued                                          |      | 01-05-2019       |                   |  |
|                                                                                                                                                                                                                                                                                                                                                  |                                                                                     |                                                       |      |      |                   | Revision No.                                            |      | 04               |                   |  |
|                                                                                                                                                                                                                                                                                                                                                  |                                                                                     |                                                       |      |      |                   | Revision Date                                           |      | 01-01-2021       |                   |  |
| NOISE LEVEL MONITORING REPORT                                                                                                                                                                                                                                                                                                                    |                                                                                     |                                                       |      |      |                   |                                                         |      |                  |                   |  |
| Ref: MPL(43MW)/ENV/NOISE/MONTHLY/2024-25/019                                                                                                                                                                                                                                                                                                     |                                                                                     |                                                       |      |      |                   | Date:                                                   |      | 09.10.2024       |                   |  |
| Month - October                                                                                                                                                                                                                                                                                                                                  |                                                                                     |                                                       |      |      |                   |                                                         |      |                  |                   |  |
| S. No.                                                                                                                                                                                                                                                                                                                                           | Location                                                                            | Measured Values dB(A)<br>Day time (6:00am to 10:00pm) |      |      | Norms<br>In dB(A) | Measured Values dB(A)<br>Night time (10:00pm to 6:00am) |      |                  | Norms<br>in dB(A) |  |
|                                                                                                                                                                                                                                                                                                                                                  |                                                                                     | Min.                                                  | Max. | Avg. |                   | Min.                                                    | Max. | Avg.             |                   |  |
| A                                                                                                                                                                                                                                                                                                                                                | Plant                                                                               |                                                       |      |      |                   |                                                         |      |                  |                   |  |
| 1                                                                                                                                                                                                                                                                                                                                                | Turbine House Ground Floor                                                          | 60.1                                                  | 64.6 | 62.4 | 75                | 56.3                                                    | 60.2 | 58.3             | 70                |  |
| 2                                                                                                                                                                                                                                                                                                                                                | Turbine House 9 Mt.                                                                 | 57.2                                                  | 67.0 | 62.1 |                   | 53.4                                                    | 62.4 | 57.9             |                   |  |
| 3                                                                                                                                                                                                                                                                                                                                                | RO – MCC                                                                            | 61.5                                                  | 67.9 | 64.7 |                   | 57.1                                                    | 61.9 | 59.5             |                   |  |
| 4                                                                                                                                                                                                                                                                                                                                                | Boiler Ground Floor                                                                 | 60.9                                                  | 66.0 | 63.5 |                   | 54.8                                                    | 60.7 | 57.8             |                   |  |
| 5                                                                                                                                                                                                                                                                                                                                                | CHP – MCC                                                                           | 59.9                                                  | 66.4 | 63.2 |                   | 48.5                                                    | 52.3 | 50.4             |                   |  |
| 6                                                                                                                                                                                                                                                                                                                                                | Office Area                                                                         | 55.6                                                  | 64.8 | 60.2 |                   | 47.4                                                    | 60.9 | 54.2             |                   |  |
| <div><div><br/>Analyzed by</div><div><br/>Checked By</div><div><br/>Verified By</div></div> |                                                                                     |                                                       |      |      |                   |                                                         |      |                  |                   |  |

|                                                                                   |                                                                                              |  |              |                |              |
|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--|--------------|----------------|--------------|
|  | <b>CEMENT MEGHALAYA LIMITED</b><br><b>THERMAL POWER PLANT</b><br><b>Lumshnong, Meghalaya</b> |  |              | Reference No.  | MPL/EHS/F-04 |
|                                                                                   |                                                                                              |  |              | Issue No.      | 1            |
|                                                                                   | <b>WATER TESTING REPORT</b>                                                                  |  |              | Date of Issue: | 24.08.2013   |
|                                                                                   |                                                                                              |  |              | Revision No.   | 3            |
|                                                                                   |                                                                                              |  | Date of Rev. | 01.06.2019     |              |

Reference No.: MPL/ENV/WATER/MONTHLY/2024-25/19
Date of sample collection: 15.10.2024
Date of Analysis: 15.10..2024 to 18.10.2024

| Sl.No. | Parameter                                          | Unit | ETP Outlet | Standard Norms For Discharge of Environment Pollution<br>(Notification Date:- 19th May 1993) & Consent To Operate vide letter no. MPCB/TB-900 (Pt-II)/2014-2015/34 – dated Shillong, the 3rd SEP , 2014. |
|--------|----------------------------------------------------|------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1      | pH                                                 | -    | 7.2        | 5.5 to 9.0                                                                                                                                                                                               |
| 2      | Suspended Solids                                   | mg/L | 28         | 100                                                                                                                                                                                                      |
| 3      | Total Dissolve Solids                              | mg/L | 395        | -                                                                                                                                                                                                        |
| 4      | Chemical Oxygen Demand                             | mg/L | 45         | 250                                                                                                                                                                                                      |
| 5      | Biochemical Oxygen Demand<br>(For 3 days at 27 °C) | mg/L | 16         | 30                                                                                                                                                                                                       |
| 6      | Oil & Grease                                       | mg/L | <3.0       | 10                                                                                                                                                                                                       |


  
Analysis By


  
Checked By


  
Verified By

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>CEMENT MEGHALAYA LIMITED</b><br><b>THERMAL POWER PLANT</b><br><b>Lumshnong, Meghalaya</b> |       |           |            | Reference No.                                                                                                                                                                                                             | MPL/EHS/F-04 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-------|-----------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                              |       |           |            | Issue No.                                                                                                                                                                                                                 | 1            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                              |       |           |            | Date of Issue:                                                                                                                                                                                                            | 24.08.2013   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>WATER TESTING REPORT</b>                                                                  |       |           |            | Revision No.                                                                                                                                                                                                              | 3            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                              |       |           |            | Date of Rev.                                                                                                                                                                                                              | 01.06.2019   |
| Reference No.: MPL/ENV/WATER/MONTHLY/2024-25/19                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                              |       |           |            | Date of sample collection: 15.10.2024                                                                                                                                                                                     |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                              |       |           |            | Date of Analysis: 15.10..2024 to 18.10.2024                                                                                                                                                                               |              |
| Sl.No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Parameter                                                                                    | Unit  | STP Inlet | STP Outlet | <b>Standard Norms For Discharge of Environment Pollution</b><br><b>(Notification Date: - 19th May 1993) &amp; Consent To Operate vide letter no. MPCB/TB-900 (Pt-II)/2014- 2015/34 - dated Shillong, the 3rd Sep,2014</b> |              |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | pH                                                                                           | -     | 7.4       | 7.3        | 5.5 to 9.0                                                                                                                                                                                                                |              |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Colour                                                                                       | Hazen | Yellowish | Colourless | -                                                                                                                                                                                                                         |              |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Odour                                                                                        | -     | Odourless | Odourless  | -                                                                                                                                                                                                                         |              |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Chloride                                                                                     | mg/L  | 83.0      | 71.3       | -                                                                                                                                                                                                                         |              |
| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Total Hardness as CaCO <sub>3</sub>                                                          | mg/L  | 58.3      | 34.7       | -                                                                                                                                                                                                                         |              |
| 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Suspended Solids                                                                             | mg/L  | 82        | 41.4       | 100                                                                                                                                                                                                                       |              |
| 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Total Dissolve Solids                                                                        | mg/L  | 316       | 217        | -                                                                                                                                                                                                                         |              |
| 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Chemical Oxygen Demand                                                                       | mg/L  | 221       | 46         | 250                                                                                                                                                                                                                       |              |
| 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Biochemical Oxygen Demand (For 3 days at 27 °C)                                              | mg/L  | 79        | 14         | 30                                                                                                                                                                                                                        |              |
| 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Oil & Grease                                                                                 | mg/L  | 6.4       | < 3.0      | 10                                                                                                                                                                                                                        |              |
| 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Temperature                                                                                  | ° C   | 22        | 18         | Shall not exceed 5.0°C above the receiving water temperature                                                                                                                                                              |              |
| 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Conductivity                                                                                 | µS/cm | 528       | 511        | -                                                                                                                                                                                                                         |              |
| <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;"> <br/> <b>Analysis By</b> </div> <div style="text-align: center;"> <br/> <b>Checked By</b> </div> <div style="text-align: center;"> <br/> <b>Verified By</b> </div> </div> |                                                                                              |       |           |            |                                                                                                                                                                                                                           |              |

|                                                                                                                                                                                                                                                                                                                                                        |                                                                                                         |         |                  |             |               |             |             |            |           |            |                                   |                                             |                |              |                                   |                                       |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|---------|------------------|-------------|---------------|-------------|-------------|------------|-----------|------------|-----------------------------------|---------------------------------------------|----------------|--------------|-----------------------------------|---------------------------------------|--|
|                                                                                                                                                                                                                                                                        | <div>STAR CEMENT MEGHALAYA LIMITED</div> <div>THERMAL POWER PLANT</div> <div>Lumshnong, Meghalaya</div> |         |                  |             |               |             |             |            |           |            |                                   |                                             | Reference No.  | MPL/EHS/F-04 |                                   |                                       |  |
|                                                                                                                                                                                                                                                                                                                                                        |                                                                                                         |         |                  |             |               |             |             |            |           |            |                                   |                                             | Issue No.      | 1            |                                   |                                       |  |
|                                                                                                                                                                                                                                                                                                                                                        |                                                                                                         |         |                  |             |               |             |             |            |           |            |                                   |                                             | Date of Issue: | 24.08.2013   |                                   |                                       |  |
|                                                                                                                                                                                                                                                                                                                                                        |                                                                                                         |         |                  |             |               |             |             |            |           |            |                                   |                                             | Revision No.   | 3            |                                   |                                       |  |
|                                                                                                                                                                                                                                                                                                                                                        | WATER TESTING REPORT                                                                                    |         |                  |             |               |             |             |            |           |            |                                   |                                             | Date of Rev.   | 01.06.2019   |                                   |                                       |  |
| Reference No.: MPL/ENV/WATER/MONTHLY/2024-25/19                                                                                                                                                                                                                                                                                                        |                                                                                                         |         |                  |             |               |             |             |            |           |            |                                   | Surface Water Analysis Results              |                |              |                                   | Date of sample collection: 15.10.2024 |  |
|                                                                                                                                                                                                                                                                                                                                                        |                                                                                                         |         |                  |             |               |             |             |            |           |            |                                   | Date of Analysis: 15.10..2024 to 18.10.2024 |                |              |                                   |                                       |  |
| S.No.                                                                                                                                                                                                                                                                                                                                                  | Parameter                                                                                               | Unit    | Umtyrngai Nallah |             | Umutha Nallah |             | Umso Nalah  | Seshympa   | Lunar     | Lukha      | Umbadoh                           | Tongseng                                    | Lumshnong      | Wahiajer     | Standards norms<br>as per IS 2296 |                                       |  |
|                                                                                                                                                                                                                                                                                                                                                        |                                                                                                         |         | Up Stream        | Down Stream | Up Stream     | Down Stream | Down Stream |            |           |            | Seasonal Spring / Seasonal Nallah |                                             |                |              |                                   |                                       |  |
| 1                                                                                                                                                                                                                                                                                                                                                      | pH                                                                                                      | -       | 7.2              | 7.0         | 8.3           | 7.2         | 8.1         | -          | -         | -          | 7.4                               | 7.1                                         | 8.5            | 8.0          | 6.5 - 8.5                         |                                       |  |
| 2                                                                                                                                                                                                                                                                                                                                                      | Colour                                                                                                  | Hazen   | Colourless       | Colourless  | Colourless    | Colourless  | Colourless  | Colourless | Yellowish | Colourless | Yellowish                         | Yellowish                                   | Yellowish      | Yellowish    | 10                                |                                       |  |
| 3                                                                                                                                                                                                                                                                                                                                                      | Odour                                                                                                   | -       | Unobjectionable  |             |               |             |             |            |           |            |                                   |                                             |                |              |                                   |                                       |  |
| 4                                                                                                                                                                                                                                                                                                                                                      | Chloride                                                                                                | mg/L    | 27.3             | 33.5        | 32.1          | 29.7        | 34.0        | -          | -         | -          | 24.0                              | 24.3                                        | 25.0           | 25.4         | 250                               |                                       |  |
| 5                                                                                                                                                                                                                                                                                                                                                      | Total Hardness as CaCO <sub>3</sub>                                                                     | mg/L    | 55.2             | 64.7        | 76.5          | 75.0        | 72.6        | -          | -         | -          | 60.4                              | 47.2                                        | 47.6           | 40.7         | 300                               |                                       |  |
| 6                                                                                                                                                                                                                                                                                                                                                      | Suspended Solids                                                                                        | mg/L    | 40.1             | 52.4        | 45.3          | 52.0        | 60.5        | -          | -         | -          | 46.7                              | 39.0                                        | 33.2           | 30.5         | -                                 |                                       |  |
| 7                                                                                                                                                                                                                                                                                                                                                      | Total Dissolve Solids                                                                                   | mg/L    | 202.3            | 225.1       | 217.6         | 388.3       | 349.9       | -          | -         | -          | 87.5                              | 70.5                                        | 64.4           | 218.2        | 500                               |                                       |  |
| 8                                                                                                                                                                                                                                                                                                                                                      | Biochemical Oxygen Demand<br>(For 3 days at 27 °C)                                                      | mg/L    | ND               | ND          | ND            | ND          | ND          | -          | -         | -          | ND                                | ND                                          | ND             | ND           | 2.0                               |                                       |  |
| 9                                                                                                                                                                                                                                                                                                                                                      | Oil & Grease                                                                                            | mg/L    | ND               | ND          | ND            | ND          | ND          | -          | -         | -          | ND                                | ND                                          | ND             | ND           | -                                 |                                       |  |
| 10                                                                                                                                                                                                                                                                                                                                                     | Temperature                                                                                             | ° C     | 22.0             | 22.0        | 22.0          | 22.0        | 22.0        | -          | -         | -          | 22.0                              | 22.0                                        | 22.0           | 22.0         | -                                 |                                       |  |
| 11                                                                                                                                                                                                                                                                                                                                                     | Conductivity                                                                                            | µS/cm   | 186.7            | 211.8       | 316.8         | 416.5       | 351.4       | -          | -         | -          | 149.3                             | 131.2                                       | 111.7          | 447.9        | -                                 |                                       |  |
| 12                                                                                                                                                                                                                                                                                                                                                     | Flow                                                                                                    | L / Min | 1501.1           | 1496.4      | 256.2         | 476.2       | 2688.2      | -          | -         | -          | 1698.5                            | 1212.0                                      | 1581.7         | 1403.6       |                                   |                                       |  |
| <div><div><br/>Analyzed by</div><div><br/>Checked by</div><div><br/>Verified by</div></div> |                                                                                                         |         |                  |             |               |             |             |            |           |            |                                   |                                             |                |              |                                   |                                       |  |