

# STAR CEMENT LIMITED

Ref: SCL/EHS/LUM/2023-24/49

Dated: 03/02/2024

To,

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

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

**Reference** : MPCB/ONLINE-RCTE-(R-1)/EJHD/2021/2023-2024/79, Dated Shillong, the 3<sup>rd</sup> October, 2023.

Dear Sir,

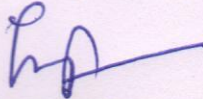
This is in reference to above cited subject, we are hereby submitting the monthly Environmental monitoring reports of Ambient Air Quality including meteorological data, Fugitive Emission, Noise Level, Surface water monitoring reports of **Star Cement Limited Line – II** for the month of **January, 2024**.

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

Thanking you,

Yours truly,

For **Star Cement Limited Line - II**



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 LIMITED Line II

Lumshnong, Meghalaya

| Date (DD-MM-YYYY) | Pressure (mmHg) | Relative Humidity (%) | Temp. (C) | Manual Rain (mm) |
|-------------------|-----------------|-----------------------|-----------|------------------|
| 01-01-2024        | 720.1           | 75.4                  | 19.7      | 0.0              |
| 02-01-2024        | 717.5           | 74.2                  | 19.0      | 0.0              |
| 03-01-2024        | 717.2           | 75.0                  | 19.9      | 0.0              |
| 04-01-2024        | 723.4           | 73.3                  | 19.7      | 0.0              |
| 05-01-2024        | 720.7           | 73.1                  | 19.6      | 0.0              |
| 06-01-2024        | 726.5           | 74.4                  | 19.0      | 0.0              |
| 07-01-2024        | 721.1           | 73.2                  | 20.0      | 0.0              |
| 08-01-2024        | 723.8           | 73.0                  | 19.0      | 0.0              |
| 09-01-2024        | 725.4           | 73.2                  | 19.5      | 0.0              |
| 10-01-2024        | 723.1           | 74.3                  | 19.9      | 0.0              |
| 11-01-2024        | 721.1           | 77.5                  | 20.0      | 0.0              |
| 12-01-2024        | 720.6           | 76.6                  | 21.7      | 0.0              |
| 13-01-2024        | 721.0           | 80.8                  | 19.8      | 0.0              |
| 14-01-2024        | 723.8           | 77.9                  | 19.9      | 0.0              |
| 15-01-2024        | 724.0           | 78.1                  | 20.8      | 0.0              |
| 16-01-2024        | 723.4           | 75.3                  | 20.4      | 0.0              |
| 17-01-2024        | 721.8           | 81.6                  | 17.6      | 0.0              |
| 18-01-2024        | 720.2           | 80.8                  | 16.2      | 0.0              |
| 19-01-2024        | 717.8           | 73.8                  | 17.9      | 0.0              |
| 20-01-2024        | 723.4           | 66.8                  | 17.8      | 0.0              |
| 21-01-2024        | 723.9           | 69.8                  | 19.3      | 0.0              |
| 22-01-2024        | 721.6           | 74.6                  | 19.6      | 0.0              |
| 23-01-2024        | 723.8           | 74.1                  | 19.7      | 0.0              |
| 24-01-2024        | 725.4           | 72.0                  | 20.9      | 0.0              |
| 25-01-2024        | 723.8           | 74.7                  | 19.7      | 0.0              |
| 26-01-2024        | 718.6           | 71.4                  | 18.9      | 0.0              |
| 27-01-2024        | 725.3           | 74.3                  | 19.4      | 0.0              |
| 28-01-2024        | 723.1           | 75.7                  | 19.9      | 0.0              |
| 29-01-2024        | 721.9           | 77.8                  | 16.6      | 0.0              |
| 30-01-2024        | 722.7           | 76.6                  | 19.0      | 0.0              |
| 31-01-2024        | 723.1           | 75.7                  | 19.9      | 0.0              |
|                   |                 |                       | Total     | 0.0              |

|                                                                                                                                                      |                                                                                                          |                                                                                                             |                                      |                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------------------|
|                                                                     | <b>STAR CEMENT LIMITED LINE II</b><br><b>Lumshnong, Meghalaya</b>                                        |                                                                                                             | Reference No.                        | SCL/Env/F – 01                       |
|                                                                                                                                                      |                                                                                                          |                                                                                                             | Issue No.                            | 1                                    |
|                                                                                                                                                      | <b>AMBIENT AIR QUALITY MONITORING REPORT</b>                                                             |                                                                                                             | Date of Issue:                       | 24.08.2013                           |
|                                                                                                                                                      |                                                                                                          |                                                                                                             | Revision No.                         | 5                                    |
|                                                                                                                                                      |                                                                                                          | Date of Rev.                                                                                                | 01.12.2020                           |                                      |
| Reference No.: SCL/ENV/AAQM/MONTHLY/2023-24/10                                                                                                       |                                                                                                          |                                                                                                             | Month : January                      |                                      |
| Location of Sampling: Project South Direction                                                                                                        |                                                                                                          | GPS Coordinate: 25°10'26"N 92°23'22"E 931 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> ) |
| 03.01.2024                                                                                                                                           | 60.33                                                                                                    | 41.69                                                                                                       | 14.56                                | 19.78                                |
| 05.01.2024                                                                                                                                           | 66.06                                                                                                    | 42.33                                                                                                       | 13.31                                | 21.04                                |
| 08.01.2024                                                                                                                                           | 62.36                                                                                                    | 40.34                                                                                                       | 15.63                                | 18.74                                |
| 10.01.2024                                                                                                                                           | 60.95                                                                                                    | 42.52                                                                                                       | 12.56                                | 18.98                                |
| 12.01.2024                                                                                                                                           | 64.14                                                                                                    | 41.54                                                                                                       | 14.69                                | 21.37                                |
| 15.01.2024                                                                                                                                           | 66.27                                                                                                    | 39.62                                                                                                       | 13.78                                | 17.04                                |
| 17.01.2024                                                                                                                                           | 66.40                                                                                                    | 43.53                                                                                                       | 13.95                                | 18.37                                |
| 19.01.2024                                                                                                                                           | 65.33                                                                                                    | 44.58                                                                                                       | 13.18                                | 19.69                                |
| 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><b>Analysed by</b>                                            | <br><b>Checked by</b> | <br><b>Verified By</b> |                                      |                                      |

|                                                                                                                                                      |                                                            |                                                                                                   |                                      |                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------------------------------------------------|--------------------------------------|------------------------------------------------------------------------------------------------------|
|                                                                     | <b>STAR CEMENT LIMITED LINE II</b><br>Lumshnong, Meghalaya |                                                                                                   | Reference No.                        | SCL/Env/F – 01                                                                                       |
|                                                                                                                                                      |                                                            |                                                                                                   | Issue No.                            | 1                                                                                                    |
|                                                                                                                                                      | <b>AMBIENT AIR QUALITY MONITORING REPORT</b>               |                                                                                                   | Date of Issue:                       | 24.08.2013                                                                                           |
|                                                                                                                                                      |                                                            |                                                                                                   | Revision No.                         | 5                                                                                                    |
|                                                                                                                                                      |                                                            | Date of Rev.                                                                                      | 01.12.2020                           |                                                                                                      |
| Reference No.: SCL/ENV/AAQM/MONTHLY/2023-24/10                                                                                                       |                                                            |                                                                                                   | Month : January                      |                                                                                                      |
| Location of Sampling: Project North Direction                                                                                                        |                                                            | GPS Coordinate: 25°10'25"N 92°23'20"E 935 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> )                                                                 |
| 03.01.2024                                                                                                                                           | 61.44                                                      | 40.78                                                                                             | 15.95                                | 24.09                                                                                                |
| 05.01.2024                                                                                                                                           | 67.17                                                      | 41.42                                                                                             | 16.05                                | 21.03                                                                                                |
| 08.01.2024                                                                                                                                           | 63.47                                                      | 39.43                                                                                             | 14.26                                | 19.66                                                                                                |
| 10.01.2024                                                                                                                                           | 62.06                                                      | 41.61                                                                                             | 14.05                                | 21.66                                                                                                |
| 12.01.2024                                                                                                                                           | 65.25                                                      | 40.63                                                                                             | 15.23                                | 23.53                                                                                                |
| 15.01.2024                                                                                                                                           | 67.38                                                      | 38.71                                                                                             | 14.08                                | 24.04                                                                                                |
| 17.01.2024                                                                                                                                           | 67.51                                                      | 42.62                                                                                             | 13.95                                | 21.12                                                                                                |
| 19.01.2024                                                                                                                                           | 66.44                                                      | 36.40                                                                                             | 13.18                                | 19.68                                                                                                |
| 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 |

|                                                                                                                                               |                                                                   |                                                                                                          |                                      |                                                                                                             |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|--------------------------------------|-------------------------------------------------------------------------------------------------------------|
|                                                              | <b>STAR CEMENT LIMITED LINE II</b><br><b>Lumshnong, Meghalaya</b> |                                                                                                          | Reference No.                        | SCL/Env/F – 01                                                                                              |
|                                                                                                                                               |                                                                   |                                                                                                          | Issue No.                            | 1                                                                                                           |
|                                                                                                                                               | <b>AMBIENT AIR QUALITY MONITORING REPORT</b>                      |                                                                                                          | Date of Issue:                       | 24.08.2013                                                                                                  |
|                                                                                                                                               |                                                                   |                                                                                                          | Revision No.                         | 5                                                                                                           |
|                                                                                                                                               |                                                                   | Date of Rev.                                                                                             | 01.12.2020                           |                                                                                                             |
| Reference No.: SCL/ENV/AAQM/MONTHLY/2023-24/10                                                                                                |                                                                   |                                                                                                          | Month : January                      |                                                                                                             |
| Location of Sampling: Approach Road                                                                                                           |                                                                   | GPS Coordinate: 25°10'30"N 92°23'21"E 928 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> )                                                                        |
| 03.01.2024                                                                                                                                    | 79.11                                                             | 48.26                                                                                                    | 15.80                                | 21.94                                                                                                       |
| 05.01.2024                                                                                                                                    | 73.76                                                             | 49.14                                                                                                    | 16.82                                | 20.52                                                                                                       |
| 08.01.2024                                                                                                                                    | 75.99                                                             | 49.80                                                                                                    | 17.28                                | 21.85                                                                                                       |
| 10.01.2024                                                                                                                                    | 79.98                                                             | 48.13                                                                                                    | 16.73                                | 20.47                                                                                                       |
| 12.01.2024                                                                                                                                    | 77.31                                                             | 45.96                                                                                                    | 15.25                                | 21.87                                                                                                       |
| 15.01.2024                                                                                                                                    | 78.81                                                             | 48.33                                                                                                    | 13.57                                | 19.16                                                                                                       |
| 17.01.2024                                                                                                                                    | 80.56                                                             | 53.78                                                                                                    | 15.73                                | 20.92                                                                                                       |
| 19.01.2024                                                                                                                                    | 76.67                                                             | 47.00                                                                                                    | 14.82                                | 20.59                                                                                                       |
| 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> )                                                                                     |
| <b>Remarks:</b> All the analyzed parameters are well within the permissible limits of NAAQ Standards , Notification dated 18th November 2009. |                                                                   |                                                                                                          |                                      |                                                                                                             |
| <br><b>Analysed by</b>                                     |                                                                   | <br><b>Checked by</b> |                                      | <br><b>Verified By</b> |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>STAR CEMENT LIMITED LINE II</b><br>Lumshnong, Meghalaya | Document No.                   | SCL/EHS/Env/F-04               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|--------------------------------|--------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                            | Date of Issued                 | 01-05-2019                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                            | Revision No.                   | 2                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | FUGITIVE EMISSION MONITORING REPORT                        | Revision Date                  | 01-01-2021                     |
| Ref: SCL(II)/ENV/FUGITIVE/MONTHLY/2023-24/10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                            |                                |                                |
| Month - January                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                            |                                |                                |
| Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Location                                                   | Fugitive Emission Results      | As per CPCB/BIS Guideline      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                            |                                | Limit                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                            | (in $\mu\text{g}/\text{m}^3$ ) | (in $\mu\text{g}/\text{m}^3$ ) |
| 03.01.2024                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Coal Storage Section                                       | 1237                           | 2000                           |
| 03.01.2024                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Limestone Storage Section                                  | 1155                           | 5000                           |
| <div style="display: flex; justify-content: space-around; align-items: flex-end; margin-top: 100px;"> <div style="text-align: center;"> <br/> Analyzed By </div> <div style="text-align: center;"> <br/> Checked by </div> <div style="text-align: center;"> <br/> Verified By </div> </div> |                                                            |                                |                                |



|                                                                                  |                                                                        |  |  |  |  |  |  |  |  |                |              |
|----------------------------------------------------------------------------------|------------------------------------------------------------------------|--|--|--|--|--|--|--|--|----------------|--------------|
|  | <div>STAR CEMENT LIMITED LINE II</div> <div>Lumshnong, Meghalaya</div> |  |  |  |  |  |  |  |  | Reference No.  | SCL/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.: SCL(II)/ENV/WATER/MONTHLY/2023-24/10 |  |  | Surface Water Analysis Results |  |  |  |  | Date of sample collection: 06.01.2024 |  |  |
| Date of Analysis: 06.01.2024 to 09.01.2024          |  |  |                                |  |  |  |  |                                       |  |  |

| S.No. | Parameter                                          | Unit    | Umtyrngai Nallah |             | Umutha Nallah |             | Umso Nalah  | Seshympa   | 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                                                 | -       | 7.5              | 8.2         | 7.6           | 8.0         | 8.5         | 7.4        | Water source<br>not found         |          |           |          | 7.8                               | 6.5 - 8.5       |
| 2     | Colour                                             | Hazen   | Colourless       | Colourless  | Colourless    | Colourless  | Colourless  | Colourless |                                   |          |           |          | 10                                |                 |
| 3     | Odour                                              | -       | Unobjectionable  |             |               |             |             |            |                                   |          |           |          | Unobjectionable                   | Unobjectionable |
| 4     | Chloride                                           | mg/L    | 25.0             | 29.7        | 28.0          | 27.1        | 31.5        | 25.2       |                                   |          |           |          | 24.9                              | 250             |
| 5     | Total Hardness as CaCO <sub>3</sub>                | mg/L    | 53.2             | 68.6        | 76.9          | 84.8        | 88.4        | 50.1       |                                   |          |           |          | 48.1                              | 300             |
| 6     | Suspended Solids                                   | mg/L    | 2.0              | 3.7         | 2.5           | 5.0         | 8.0         | 1.0        |                                   |          |           |          | 2.5                               | -               |
| 7     | Total Dissolve Solids                              | mg/L    | 258.0            | 190.0       | 268.1         | 321.0       | 310.7       | 140.0      |                                   |          |           |          | 225.0                             | 500             |
| 8     | Biochemical Oxygen Demand<br>(For 3 days at 27 °C) | mg/L    | ND               | ND          | ND            | ND          | ND          | ND         |                                   |          |           |          | ND                                | 2.0             |
| 9     | Oil & Grease                                       | mg/L    | ND               | ND          | ND            | ND          | ND          | ND         |                                   |          |           |          | ND                                | -               |
| 10    | Temperature                                        | ° C     | 25.0             | 25.0        | 25.0          | 25.0        | 25.0        | 25.0       |                                   |          |           |          | 25.0                              | -               |
| 11    | Conductivity                                       | µS/cm   | 450.0            | 330.0       | 435.4         | 520.7       | 536.7       | 222.0      |                                   |          |           |          | 430.7                             | -               |
| 12    | Flow                                               | L / Min | 1577.6           | 1836.0      | 343.4         | 677.7       | 1224.0      | 39372.0    |                                   |          |           |          | -                                 | -               |

|                                                                                                    |                                                                                                    |                                                                                                      |
|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| <br>Analyzed by | <br>Checked by | <br>Verified by |
|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|