

**J.K. Cement WORKS, MANGROL (RAJ) (Unit-1)**  
**DATA SHEET FOR PARTICULATE MATTER EMISSION FROM POINT SOURCE**  
**October' 2014 - March' 2015**

| DATE       | NAME OF THE<br>STACK / DUCT<br>ATTACHED WITH UNIT<br>AND MONTH | CROSS<br>SECTIONAL<br>AREA OF<br>DUCT ( M2 ) | STACK<br>GASES<br>TEMP.<br>( <sup>0</sup> K ) | STACK<br>GASES<br>VELOCITY<br>(M / Sec.) | FLOW OF<br>GASES IN<br>STACK<br>(NM³/Sec.) | DUST<br>CONC.<br>(Mg/NM³) | MEAN<br>DUST<br>CONC.<br>(Mg/NM³) | EMISSION<br>RATE<br>(Ts/DAY) | REMARK |  |
|------------|----------------------------------------------------------------|----------------------------------------------|-----------------------------------------------|------------------------------------------|--------------------------------------------|---------------------------|-----------------------------------|------------------------------|--------|--|
|            | OCTOBER' 2014                                                  |                                              |                                               |                                          |                                            |                           |                                   |                              |        |  |
| 03.10.2014 | KILN + RAW MILL (E.S.P)                                        | 5.23                                         | 390                                           | 15.35                                    | 61.34                                      | 73.4                      | 72.0                              | 0.389                        |        |  |
| 11.10.2014 | KILN + RAW MILL (E.S.P)                                        | 5.23                                         | 391                                           | 15.56                                    | 62.02                                      | 63.6                      |                                   | 0.341                        |        |  |
| 18.10.2014 | KILN + RAW MILL (E.S.P)                                        | 5.23                                         | 394                                           | 15.75                                    | 62.30                                      | 82.4                      |                                   | 0.444                        |        |  |
| 27.10.2014 | KILN + RAW MILL (E.S.P)                                        | 5.23                                         | 392                                           | 15.44                                    | 61.39                                      | 68.6                      |                                   | 0.364                        |        |  |
|            | NOVEMBER' 2014                                                 |                                              |                                               |                                          |                                            |                           |                                   |                              |        |  |
| 04.11.2014 | KILN + RAW MILL (E.S.P)                                        | 5.23                                         | 393.00                                        | 16.44                                    | 65.20                                      | 75.20                     | 75.20                             | 0.424                        |        |  |
| 11.11.2014 | KILN + RAW MILL (E.S.P)                                        | Kiln Under Maintenance                       |                                               |                                          |                                            |                           |                                   |                              |        |  |
| 18.11.2014 | KILN + RAW MILL (E.S.P)                                        |                                              |                                               |                                          |                                            |                           |                                   |                              |        |  |
| 30.11.2014 | KILN + RAW MILL (E.S.P)                                        |                                              |                                               |                                          |                                            |                           |                                   |                              |        |  |
|            | DECEMBER' 2014                                                 |                                              |                                               |                                          |                                            |                           |                                   |                              |        |  |
| 05.12.2014 | KILN + RAW MILL (E.S.P)                                        | Kiln Under Maintenance                       |                                               |                                          |                                            |                           |                                   |                              |        |  |
| 12.12.2014 | KILN + RAW MILL (E.S.P)                                        |                                              |                                               |                                          |                                            |                           |                                   |                              |        |  |
| 19.12.2014 | KILN + RAW MILL (E.S.P)                                        |                                              |                                               |                                          |                                            |                           |                                   |                              |        |  |
| 31.12.2014 | KILN + RAW MILL (E.S.P)                                        |                                              |                                               |                                          |                                            |                           |                                   |                              |        |  |
|            | JANUARY' 2015                                                  |                                              |                                               |                                          |                                            |                           |                                   |                              |        |  |
| 07.01.2015 | KILN + RAW MILL (E.S.P)                                        | Kiln Under Maintenance                       |                                               |                                          |                                            |                           | 70.80                             |                              |        |  |
| 14.01.2015 | KILN + RAW MILL (E.S.P)                                        |                                              |                                               |                                          |                                            |                           |                                   |                              |        |  |
| 20.01.2015 | KILN + RAW MILL (E.S.P)                                        |                                              |                                               |                                          |                                            |                           |                                   |                              |        |  |
| 30.01.2015 | KILN + RAW MILL (E.S.P)                                        | 5.23                                         | 390.00                                        | 15.31                                    | 61.18                                      | 70.80                     |                                   | 0.374                        |        |  |

|            |                         |                        |        |       |       |       |       |       |  |
|------------|-------------------------|------------------------|--------|-------|-------|-------|-------|-------|--|
|            | FEBRUARY' 2015          |                        |        |       |       |       |       |       |  |
| 04.02.2015 | KILN + RAW MILL (E.S.P) | 5.23                   | 392.00 | 16.25 | 64.61 | 75.90 | 72.98 | 0.424 |  |
| 11.02.2015 | KILN + RAW MILL (E.S.P) | 5.23                   | 389.00 | 15.92 | 63.78 | 82.50 |       | 0.455 |  |
| 18.02.2015 | KILN + RAW MILL (E.S.P) | 5.23                   | 391.00 | 16.01 | 63.82 | 69.60 |       | 0.384 |  |
| 25.02.2015 | KILN + RAW MILL (E.S.P) | 5.23                   | 393.00 | 15.82 | 62.74 | 63.90 |       | 0.346 |  |
|            |                         |                        |        |       |       |       |       |       |  |
|            | MARCH' 2015             |                        |        |       |       |       |       |       |  |
| 02.03.2015 | KILN + RAW MILL (E.S.P) | 5.23                   | 393.00 | 16.00 | 63.45 | 61.80 | 72.00 | 0.339 |  |
| 09.03.2015 | KILN + RAW MILL (E.S.P) | 5.23                   | 388.00 | 15.99 | 64.23 | 86.30 |       | 0.479 |  |
| 16.03.2015 | KILN + RAW MILL (E.S.P) | 5.23                   | 390.00 | 15.72 | 62.82 | 67.80 |       | 0.368 |  |
| 24.03.2015 | KILN + RAW MILL (E.S.P) | 5.23                   | 391.00 | 15.65 | 62.38 | 72.10 |       | 0.39  |  |
|            | OCTOBER' 2014           |                        |        |       |       |       |       |       |  |
| 03.10.2014 | FOLAX COOLER (E.S.P)    | 7.07                   | 524    | 9.16  | 36.83 | 73.7  | 63.0  | 0.235 |  |
| 11.10.2014 | FOLAX COOLER (E.S.P)    | 7.07                   | 525    | 9.27  | 37.20 | 66.8  |       | 0.215 |  |
| 18.10.2014 | FOLAX COOLER (E.S.P)    | 7.07                   | 526    | 9.49  | 38.01 | 58.3  |       | 0.191 |  |
| 27.10.2014 | FOLAX COOLER (E.S.P)    | 7.07                   | 528    | 9.80  | 39.10 | 53.3  |       | 0.180 |  |
|            | NOVEMBER' 2014          |                        |        |       |       |       |       |       |  |
| 04.11.2014 | FOLAX COOLER (E.S.P)    | 7.07                   | 526.00 | 9.69  | 38.81 | 61.70 | 61.70 | 0.207 |  |
| 11.11.2014 | FOLAX COOLER (E.S.P)    | Kiln Under Maintenance |        |       |       |       |       |       |  |
| 18.11.2014 | FOLAX COOLER (E.S.P)    |                        |        |       |       |       |       |       |  |
| 30.11.2014 | FOLAX COOLER (E.S.P)    |                        |        |       |       |       |       |       |  |

|            |                       |                        |        |      |       |       |       |       |  |
|------------|-----------------------|------------------------|--------|------|-------|-------|-------|-------|--|
|            | <b>DECEMBER' 2014</b> |                        |        |      |       |       |       |       |  |
| 05.12.2014 | FOLAX COOLER (E.S.P)  | Kiln Under Maintenance |        |      |       |       |       |       |  |
| 12.12.2014 | FOLAX COOLER (E.S.P)  |                        |        |      |       |       |       |       |  |
| 19.12.2014 | FOLAX COOLER (E.S.P)  |                        |        |      |       |       |       |       |  |
| 31.12.2014 | FOLAX COOLER (E.S.P)  |                        |        |      |       |       |       |       |  |
|            | <b>JANUARY' 2015</b>  |                        |        |      |       |       |       |       |  |
| 07.01.2015 | FOLAX COOLER (E.S.P)  | Kiln Under Maintenance |        |      |       |       | 65.50 |       |  |
| 14.01.2015 | FOLAX COOLER (E.S.P)  |                        |        |      |       |       |       |       |  |
| 20.01.2015 | FOLAX COOLER (E.S.P)  |                        |        |      |       |       |       |       |  |
| 30.01.2015 | FOLAX COOLER (E.S.P)  | 7.07                   | 525.00 | 9.27 | 37.20 | 65.50 |       | 0.211 |  |
|            | <b>FEBRUARY' 2015</b> |                        |        |      |       |       |       |       |  |
| 04.02.2015 | FOLAX COOLER (E.S.P)  | 7.07                   | 523.00 | 8.94 | 36.01 | 71.80 | 62.03 | 0.223 |  |
| 11.02.2015 | FOLAX COOLER (E.S.P)  | 7.07                   | 518.00 | 8.69 | 35.34 | 57.40 |       | 0.175 |  |
| 18.02.2015 | FOLAX COOLER (E.S.P)  | 7.07                   | 515.00 | 9.19 | 37.60 | 64.70 |       | 0.210 |  |
| 25.02.2015 | FOLAX COOLER (E.S.P)  | 7.07                   | 520.00 | 9.02 | 36.55 | 54.20 |       | 0.171 |  |
|            | <b>MARCH' 2015</b>    |                        |        |      |       |       |       |       |  |
| 02.03.2015 | FOLAX COOLER (E.S.P)  | 7.07                   | 385.00 | 8.12 | 44.44 | 76.70 | 67.03 | 0.294 |  |
| 09.03.2015 | FOLAX COOLER (E.S.P)  | 7.07                   | 386.00 | 8.38 | 45.74 | 57.70 |       | 0.228 |  |
| 16.03.2015 | FOLAX COOLER (E.S.P)  | 7.07                   | 389.00 | 8.07 | 43.71 | 63.90 |       | 0.241 |  |
| 24.03.2015 | FOLAX COOLER (E.S.P)  | 7.07                   | 384.00 | 7.75 | 42.52 | 69.80 |       | 0.256 |  |

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|            | <b>OCTOBER' 2014</b>  |                        |        |       |      |       |       |       |  |
| 03.10.2014 | COAL MILL (B.F.)      | 0.45                   | 335.00 | 23.43 | 9.38 | 66.30 | 52.88 | 0.054 |  |
| 11.10.2014 | COAL MILL (B.F.)      | 0.45                   | 334.00 | 23.34 | 9.37 | 55.00 |       | 0.045 |  |
| 18.10.2014 | COAL MILL (B.F.)      | 0.45                   | 338.00 | 23.50 | 9.32 | 48.40 |       | 0.039 |  |
| 27.10.2014 | COAL MILL (B.F.)      | 0.45                   | 336.00 | 23.51 | 9.38 | 41.80 |       | 0.034 |  |
|            | <b>NOVEMBER' 2014</b> |                        |        |       |      |       |       |       |  |
| 04.11.2014 | COAL MILL (B.F.)      | 0.45                   | 334.00 | 23.26 | 9.34 | 54.60 | 54.60 | 0.044 |  |
| 11.11.2014 | COAL MILL (B.F.)      | Mill Under Maintenance |        |       |      |       |       |       |  |
| 18.11.2014 | COAL MILL (B.F.)      |                        |        |       |      |       |       |       |  |
| 30.11.2014 | COAL MILL (B.F.)      |                        |        |       |      |       |       |       |  |
|            | <b>DECEMBER' 2014</b> |                        |        |       |      |       |       |       |  |
| 05.12.2014 | COAL MILL (B.F.)      | Mill Under Maintenance |        |       |      |       |       |       |  |
| 12.12.2014 | COAL MILL (B.F.)      |                        |        |       |      |       |       |       |  |
| 19.12.2014 | COAL MILL (B.F.)      |                        |        |       |      |       |       |       |  |
| 31.12.2014 | COAL MILL (B.F.)      |                        |        |       |      |       |       |       |  |
|            | <b>JANUARY' 2015</b>  |                        |        | -     |      |       |       |       |  |
| 07.01.2015 | COAL MILL (B.F.)      | Mill Under Maintenance |        |       |      |       | 42.5  |       |  |
| 14.01.2015 | COAL MILL (B.F.)      |                        |        |       |      |       |       |       |  |
| 20.01.2015 | COAL MILL (B.F.)      |                        |        |       |      |       |       |       |  |
| 30.01.2015 | COAL MILL (B.F.)      | 0.45                   | 334    | 22.33 | 8.97 | 42.5  |       | 0.033 |  |

|            |                        |                        |        |       |      |       |       |       |  |
|------------|------------------------|------------------------|--------|-------|------|-------|-------|-------|--|
|            | FEBRUARY' 2015         |                        |        | -     |      |       |       |       |  |
| 04.02.2015 | COAL MILL (B.F.)       | 0.45                   | 330    | 23.30 | 9.47 | 39.0  | 30.0  | 0.032 |  |
| 11.02.2015 | COAL MILL (B.F.)       | 0.45                   | 331    | 23.26 | 9.42 | 22.6  |       | 0.018 |  |
| 18.02.2015 | COAL MILL (B.F.)       | 0.45                   | 333    | 23.36 | 9.41 | 25.2  |       | 0.020 |  |
| 25.02.2015 | COAL MILL (B.F.)       | 0.45                   | 332    | 22.93 | 9.26 | 33.2  |       | 0.027 |  |
|            | MARCH' 2015            |                        |        | -     |      |       |       |       |  |
| 02.03.2015 | COAL MILL (B.F.)       | 0.45                   | 332    | 23.35 | 9.43 | 24.5  | 27.0  | 0.020 |  |
| 09.03.2015 | COAL MILL (B.F.)       | 0.45                   | 330    | 23.20 | 9.43 | 26.0  |       | 0.021 |  |
| 16.03.2015 | COAL MILL (B.F.)       | 0.45                   | 333    | 22.73 | 9.15 | 29.2  |       | 0.023 |  |
| 24.03.2015 | COAL MILL (B.F.)       | 0.45                   | 331    | 22.97 | 9.31 | 28.1  |       | 0.023 |  |
|            |                        |                        |        |       |      |       |       |       |  |
|            | OCTOBER' 2014          |                        |        |       |      |       |       |       |  |
| 02.10.2014 | CEMENT MILL - 1 (B.F.) | 0.33                   | 350.00 | 6.70  | 1.88 | 62.20 | 56.17 | 0.010 |  |
| 09.10.2014 | CEMENT MILL - 1 (B.F.) | 0.33                   | 351.00 | 6.40  | 1.79 | 57.90 |       | 0.009 |  |
| 15.10.2014 | CEMENT MILL - 1 (B.F.) | Mill under Maintenance |        |       |      |       |       |       |  |
| 24.10.2014 | CEMENT MILL - 1 (B.F.) | 0.33                   | 352.00 | 6.57  | 1.84 | 48.40 |       | 0.008 |  |
|            | NOVEMBER' 2014         |                        |        |       |      |       |       |       |  |
| 02.11.2014 | CEMENT MILL - 1 (B.F.) | 0.33                   | 351.00 | 7.01  | 1.96 | 52.10 | 52.10 | 0.009 |  |
| 11.11.2014 | CEMENT MILL - 1 (B.F.) | Mill Under Maintenance |        |       |      |       |       |       |  |
| 18.11.2014 | CEMENT MILL - 1 (B.F.) |                        |        |       |      |       |       |       |  |
| 30.11.2014 | CEMENT MILL - 1 (B.F.) |                        |        |       |      |       |       |       |  |

|            |                        |                        |        |      |      |       |       |       |  |
|------------|------------------------|------------------------|--------|------|------|-------|-------|-------|--|
|            | DECEMBER' 2014         |                        |        |      |      |       | 44.40 |       |  |
| 05.12.2014 | CEMENT MILL - 1 (B.F.) | Mill Under Maintenance |        |      |      |       |       |       |  |
| 12.12.2014 | CEMENT MILL - 1 (B.F.) |                        |        |      |      |       |       |       |  |
| 19.12.2014 | CEMENT MILL - 1 (B.F.) | 0.33                   | 350.00 | 6.47 | 1.82 | 44.40 |       | 0.007 |  |
| 31.12.2014 | CEMENT MILL - 1 (B.F.) | Mill Under Maintenance |        |      |      |       |       |       |  |
|            | JANUARY' 2015          |                        |        | -    |      |       |       |       |  |
| 08.01.2015 | CEMENT MILL - 1 (B.F.) | 0.33                   | 348    | 6.45 | 1.82 | 40.10 | 43.6  | 0.006 |  |
| 12.01.2015 | CEMENT MILL - 1 (B.F.) | 0.33                   | 346    | 6.27 | 1.78 | 47.00 |       | 0.007 |  |
| 20.01.2015 | CEMENT MILL - 1 (B.F.) | Mill Under Maintenance |        |      |      |       |       |       |  |
| 31.01.2015 | CEMENT MILL - 1 (B.F.) |                        |        |      |      |       |       |       |  |
|            | FEBRUARY' 2015         |                        |        | -    |      |       |       |       |  |
| 04.02.2015 | CEMENT MILL - 1 (B.F.) | Mill Under Maintenance |        |      |      |       |       |       |  |
| 11.02.2015 | CEMENT MILL - 1 (B.F.) |                        |        |      |      |       |       |       |  |
| 18.02.2015 | CEMENT MILL - 1 (B.F.) |                        |        |      |      |       |       |       |  |
| 28.02.2015 | CEMENT MILL - 1 (B.F.) |                        |        |      |      |       |       |       |  |
|            | MARCH' 2015            |                        |        | -    |      |       |       |       |  |
| 07.03.2015 | CEMENT MILL - 1 (B.F.) | Mill Under Maintenance |        |      |      |       |       |       |  |
| 12.12.2014 | CEMENT MILL - 1 (B.F.) |                        |        |      |      |       |       |       |  |
| 19.12.2014 | CEMENT MILL - 1 (B.F.) |                        |        |      |      |       |       |       |  |
| 31.12.2014 | CEMENT MILL - 1 (B.F.) |                        |        |      |      |       |       |       |  |

|            |                         |      |        |      |      |       |       |       |  |
|------------|-------------------------|------|--------|------|------|-------|-------|-------|--|
|            | <b>OCTOBER' 2014</b>    |      |        |      |      |       |       |       |  |
| 02.10.2014 | CEMENT MILL - 2 (E.S.P) | 0.50 | 367.00 | 7.09 | 2.88 | 70.00 | 62.53 | 0.017 |  |
| 09.10.2014 | CEMENT MILL - 2 (E.S.P) | 0.50 | 370.00 | 6.73 | 2.71 | 62.00 |       | 0.015 |  |
| 15.10.2014 | CEMENT MILL - 2 (E.S.P) | 0.50 | 369.00 | 6.88 | 2.78 | 65.00 |       | 0.016 |  |
| 22.10.2014 | CEMENT MILL - 2 (E.S.P) | 0.50 | 368.00 | 7.03 | 2.85 | 53.10 |       | 0.013 |  |
|            | <b>NOVEMBER' 2014</b>   |      |        |      |      |       |       |       |  |
| 04.11.2014 | CEMENT MILL - 2 E.S.P   | 0.50 | 365.00 | 6.92 | 2.82 | 66.10 | 64.25 | 0.016 |  |
| 11.11.2014 | CEMENT MILL - 2 E.S.P   | 0.50 | 370.00 | 6.73 | 2.71 | 78.70 |       | 0.018 |  |
| 18.11.2014 | CEMENT MILL - 2 E.S.P   | 0.50 | 369.00 | 7.19 | 2.90 | 52.00 |       | 0.013 |  |
| 29.11.2014 | CEMENT MILL - 2 E.S.P   | 0.50 | 367.00 | 6.78 | 2.75 | 60.20 |       | 0.014 |  |
|            | <b>DECEMBER' 2014</b>   |      |        |      |      |       |       |       |  |
| 05.12.2014 | CEMENT MILL - 2 E.S.P   | 0.50 | 368.00 | 6.79 | 2.75 | 65.90 | 60.23 | 0.016 |  |
| 11.12.2014 | CEMENT MILL - 2 E.S.P   | 0.50 | 366.00 | 7.08 | 2.88 | 52.80 |       | 0.013 |  |
| 19.12.2014 | CEMENT MILL - 2 E.S.P   | 0.50 | 367.00 | 6.70 | 2.72 | 76.90 |       | 0.018 |  |
| 25.12.2014 | CEMENT MILL - 2 E.S.P   | 0.50 | 365.00 | 7.00 | 2.86 | 45.30 |       | 0.011 |  |
|            | <b>JANUARY' 2015</b>    |      |        |      |      |       |       |       |  |
| 07.01.2015 | CEMENT MILL - 2 (E.S.P) | 0.50 | 367.00 | 7.17 | 2.91 | 60.00 | 57.38 | 0.015 |  |
| 14.01.2015 | CEMENT MILL - 2 (E.S.P) | 0.50 | 365.00 | 6.69 | 2.73 | 56.30 |       | 0.013 |  |
| 20.01.2015 | CEMENT MILL - 2 (E.S.P) | 0.50 | 368.00 | 7.25 | 2.94 | 40.50 |       | 0.010 |  |
| 28.01.2015 | CEMENT MILL - 2 (E.S.P) | 0.50 | 364.00 | 6.83 | 2.80 | 72.70 |       | 0.018 |  |

|            |                       |      |        |      |      |       |       |       |  |
|------------|-----------------------|------|--------|------|------|-------|-------|-------|--|
|            | <b>FEBRUARY' 2015</b> |      |        |      |      |       |       |       |  |
| 04.02.2015 | CEMENT MILL - 2 E.S.P | 0.50 | 366.00 | 6.93 | 2.82 | 54.70 | 45.03 | 0.013 |  |
| 11.02.2015 | CEMENT MILL - 2 E.S.P | 0.50 | 362.00 | 6.97 | 2.87 | 42.10 |       | 0.010 |  |
| 19.02.2015 | CEMENT MILL - 2 E.S.P | 0.50 | 365.00 | 7.15 | 2.92 | 35.80 |       | 0.009 |  |
| 25.02.2015 | CEMENT MILL - 2 E.S.P | 0.50 | 367.00 | 6.70 | 2.72 | 47.50 |       | 0.011 |  |
|            | <b>MARCH' 2015</b>    |      |        |      |      |       |       |       |  |
| 02.03.2015 | CEMENT MILL - 2 E.S.P | 0.50 | 366.00 | 7.30 | 2.97 | 27.00 | 35.00 | 0.007 |  |
| 09.03.2015 | CEMENT MILL - 2 E.S.P | 0.50 | 364.00 | 7.14 | 2.92 | 33.40 |       | 0.008 |  |
| 16.03.2015 | CEMENT MILL - 2 E.S.P | 0.50 | 367.00 | 7.02 | 2.85 | 41.10 |       | 0.010 |  |
| 24.03.2015 | CEMENT MILL - 2 E.S.P | 0.50 | 363.00 | 6.90 | 2.83 | 38.50 |       | 0.009 |  |