

**Table 1: Annual Respondent Burden and  
NESHAP for Portland Cement Plants (40 CFR Part 63, §**

| <b>Burden Item</b>   | <b>(A)<br/>Hours per<br/>Occurrence</b> | <b>(B)<br/>Occurrences/<br/>Respondent/<br/>Year</b> | <b>(C)<br/>Hours/<br/>Respondent/<br/>Year<br/>(A x B)</b> |
|--|---|--|--|
| 1. APPLICATIONS (Not Applicable)                                       |   |  |  |
| 2. SURVEY AND STUDIES (Not Applicable)                                 |   |  |  |
| 3.ACQUISITION, INSTALLATION, AND UTILIZATION OF TECHNOLOGY AND SYSTEMS | 16                                      | 1  | 16   |
| 4. REPORT REQUIREMENTS   |   |  |  |
| A. Familiarize with regulatory requirement                             | 1                                       | 1  | 1  |
| B. Required Activities   |   |  |  |
| <u>Existing Sources</u>  |   |  |  |
| Initial Performance Test   | 24                                      | 1  | 24   |
| Reference Method 321 Test  | 8                                       | 1  | 8  |
| Repeat Performance Test (assumes 10% repeat test)                      | 24                                      | 1  | 24   |
| Initial THC Performance Test   | 8                                       | 1  | 8  |
| Repeat THC Performance Test  | 8                                       | 1  | 8  |
| Initial Hg Performance Test  | 40                                      | 1  | 40   |
| Repeat Hg Performance Test   | 8                                       | 1  | 8  |
| Initial HCl Performance Test   | 16                                      | 1  | 16   |
| Repeat HCl Performance Test  | 16                                      | 0.2  | 3.2  |
| Initial PM CEMS Performance Specification 11                           | 40                                      | 0.2  | 8  |
| Repeat PM CEMS Performance Specification 11                            | 40                                      | 0.2  | 8  |
| CEMS Monitoring*   | 0.5                                     | 1  | 0.5  |
| CEMS Quarterly Inspections*  | 2                                       | 4  | 8  |
| CEMS Daily Calibration Drift Tests*                                    | 0.3                                     | 330  | 99   |
| Daily monitoring (CEMS)*   | 2                                       | 4  | 8  |
| All CEMS must follow appropriate performance specifications*           | 0.3                                     | 330  | 99   |
| <u>New Sources</u>   |   |  |  |
| Initial Performance Test   | 0.3                                     | 330  | 99   |
| Reference Method 321 Test  | 8                                       | 1  | 8  |
| Repeat Performance Test (assumes 10% repeat test)                      | 8                                       | 1  | 8  |
| Initial THC Performance Test   | 24                                      | 1  | 24   |
| Repeat THC Performance Test  | 8                                       | 1  | 8  |
| Initial Hg Performance Test  | 8                                       | 1  | 8  |
| Repeat Hg Performance Test   | 40                                      | 1  | 40   |
| Initial HCl Performance Test   | 0                                       | 0  | 0  |
| Repeat HCl Performance Test  | 16                                      | 1  | 16   |
| Initial PM CEMS Performance Specification 11                           | 16                                      | 0.2  | 3.2  |
| Repeat PM CEMS Performance Specification 11                            | 40                                      | 1  | 40   |
| CEMS Monitoring*   | 40                                      | 0.2  | 8  |
| CEMS Quarterly Inspections*  | 0.5                                     | 1  | 0.5  |
| CEMS Daily Calibration Drift Tests*                                    | 2                                       | 4  | 8  |
| Daily monitoring (CEMS)*   | 2                                       | 4  | 8  |
| All CEMS must follow appropriate performance specifications*           | 0.3                                     | 330  | 99   |
| C. Create Information (Included in 4B)                                 |   |  |  |

|   |     |     |     |
|---|-----|-----|-----|
| D. Gather Existing Information (Included in 4E)             |     |     |     |
| E. Write Report   |     |     |     |
| <i>Existing Sources</i>                                     |     |     |     |
| Notification of construction/reconstruction                 | 2   | 1   | 2   |
| Notification of actual startup                              | 2   | 1   | 2   |
| Physical or Operational Change                              | 2   | 1   | 2   |
| Notification of Demonstration of CEMS                       | 2   | 1   | 2   |
| Report of Performance Test (included in 4B)                 |     |     |     |
| Notification of Initial Performance Test                    | 2   | 1   | 2   |
| Report of Performance Test                                  | 2   | 1   | 2   |
| Report of Semi-Annual Reports                               | 2   | 2   | 4   |
| <i>New Sources</i>  |     |     |     |
| Notification of construction/reconstruction                 | 2   | 1   | 2   |
| Notification of actual startup                              | 2   | 1   | 2   |
| Physical or Operational Change                              | 2   | 1   | 2   |
| Notification of Demonstration of CEMS                       | 2   | 1   | 2   |
| Report of Performance Test (included in 4B)                 |     |     |     |
| Notification of Initial Performance Test                    | 2   | 1   | 2   |
| Report of Performance Test                                  | 2   | 1   | 2   |
| Report of Semi-Annual Reports                               | 24  | 2   | 48  |
| <b>Subtotal for Reporting Requirements<sup>c</sup></b>      |     |     |     |
| <b>5. RECORDKEEPING REQUIREMENTS</b>                        |     |     |     |
| A. Familiarize with regulatory requirement (Included in 4A) |     |     |     |
| B. Plan Activities (Included in 4B)                         |     |     |     |
| C. Implement Activities (Included in 4B)                    |     |     |     |
| D. Record Data ( Not Applicable)                            |     |     |     |
| E. Time to Transmit or Disclose Information                 |     |     |     |
| <i>Existing Sources</i>                                     |     |     |     |
| Data Collection   | 0.1 | 330 | 33  |
| Records of Startups, Shutdowns, malfunctions, etc           | 0.1 | 330 | 33  |
| <i>New Sources</i>  |     |     |     |
| Data Collection   | 1.5 | 330 | 495 |
| Records of Startups, Shutdowns, malfunctions, etc           | 0.1 | 330 | 33  |
| Coal mill parameter monitoring                              | 2   | 4   | 8   |
| F. Time to Train Personnel                                  | 80  | 1   | 80  |
| G. Time for Audits (Not Applicable)                         |     |     |     |
| <b>Subtotal for Recordkeeping Requirements<sup>c</sup></b>  |     |     |     |
| <b>TOTAL ANNUAL LABOR BURDEN AND COST<sup>c</sup></b>       |     |     |     |
| Total Capital and O&M Cost <sup>c</sup>                     |     |     |     |
| <b>GRAND TOTAL<sup>c</sup></b>                              |     |     |     |

<sup>a</sup> We have assumed that there are approximately 87 respondents, 10% of the 87 existing facilities (8.7 facilities) will be required to complete performance tests and new/revised reports over the next three years.

- <sup>b</sup> This ICR uses the following labor rates: \$129.93 per hour for Executive, Administrative, and Managerial labor; \$1 rates are from the United States Department of Labor, Bureau of Labor Statistics, June 2014 “Table 2. Civilian work compensation.” The rates have been increased by 110 percent to account for the benefit packages available to those
- <sup>c</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

**d Cost –  
Subpart LLL) (Renewal)**

\$103.97  
\$129.93

| (D)<br>Respondents/<br>Year <sup>a</sup> | (E)<br>Technical<br>Hours/Year<br>(C x D) | (F) Managerial<br>Hours/Year<br>(E x 0.05) | (G)<br>Clerical<br>Hours/Year<br>(E x 0.10) | (H)<br>Cost/ Year <sup>b</sup> |
|--|---|--|---|--------------------------------|
|  |   |  |   |                                |
|  |   |  |   |                                |
| 5  | 80  | 4  | 8   | \$9,251.64                     |
|  |   |  |   |                                |
| 87                                       | 87  | 4.35                                       | 8.7   | \$10,061.16                    |
|  |   |  |   |                                |
|  |   |  |   |                                |
| 8.7                                      | 208.8                                     | 10.44                                      | 20.88                                       | \$24,146.78                    |
| 8.7                                      | 69.6                                      | 3.48                                       | 6.96  | \$8,048.93                     |
| 1  | 24  | 1.2  | 2.4   | \$2,775.49                     |
| 8.7                                      | 69.6                                      | 3.48                                       | 6.96  | \$8,048.93                     |
| 1  | 8   | 0.4  | 0.8   | \$925.16                       |
| 8.7                                      | 348                                       | 17.4                                       | 34.8  | \$40,244.63                    |
| 1  | 8   | 0.4  | 0.8   | \$925.16                       |
| 8.7                                      | 139.2                                     | 6.96                                       | 13.92                                       | \$16,097.85                    |
| 1  | 3.2                                       | 0.16                                       | 0.32  | \$370.07                       |
| 8.7                                      | 69.6                                      | 3.48                                       | 6.96  | \$8,048.93                     |
| 1  | 8   | 0.4  | 0.8   | \$925.16                       |
| 138                                      | 69  | 3.45                                       | 6.9   | \$7,979.54                     |
| 138                                      | 1,104                                     | 55.2                                       | 110.4                                       | \$127,672.63                   |
| 138                                      | 13,662                                    | 683.1                                      | 1366.2                                      | \$1,579,948.82                 |
| 138                                      | 1,104                                     | 55.2                                       | 110.4                                       | \$127,672.63                   |
| 138                                      | 13,662                                    | 683.1                                      | 1366.2                                      | \$1,579,948.82                 |
|  |   |  |   |                                |
| 5  | 495                                       | 24.75                                      | 49.5  | \$57,244.52                    |
| 5  | 40  | 2  | 4   | \$4,625.82                     |
| 1  | 8   | 0.4  | 0.8   | \$925.16                       |
| 5  | 120                                       | 6  | 12  | \$13,877.46                    |
| 1  | 8   | 0.4  | 0.8   | \$925.16                       |
| 5  | 40  | 2  | 4   | \$4,625.82                     |
| 1  | 40  | 2  | 4   | \$4,625.82                     |
| 5  | 0   | 0  | 0   | \$0.00                         |
| 1  | 16  | 0.8  | 1.6   | \$1,850.33                     |
| 5  | 16  | 0.8  | 1.6   | \$1,850.33                     |
| 1  | 40  | 2  | 4   | \$4,625.82                     |
| 5  | 40  | 2  | 4   | \$4,625.82                     |
| 5  | 2.5                                       | 0.13                                       | 0.25  | \$289.11                       |
| 5  | 40  | 2  | 4   | \$4,625.82                     |
| 5  | 40  | 2  | 4   | \$4,625.82                     |
| 5  | 495                                       | 24.75                                      | 49.5  | \$57,244.52                    |
|  |   |  |   |                                |
|  |   |  |   |                                |

\$51.79

Average number of existing kilns over  
(=133), so Year 1 of this ICR period =  
plus 5 new kilns.

|     |               |        |       |                     |
|-----|---------------|--------|-------|---------------------|
|     |               |        |       |                     |
|     |               |        |       |                     |
|     |               |        |       |                     |
| 8.7 | 17.4          | 0.87   | 1.74  | \$2,012.23          |
| 8.7 | 17.4          | 0.87   | 1.74  | \$2,012.23          |
| 8.7 | 17.4          | 0.87   | 1.74  | \$2,012.23          |
| 8.7 | 17.4          | 0.87   | 1.74  | \$2,012.23          |
|     |               |        |       |                     |
| 8.7 | 17.4          | 0.87   | 1.74  | \$2,012.23          |
| 8.7 | 17.4          | 0.87   | 1.74  | \$2,012.23          |
| 87  | 348           | 17.4   | 34.8  | \$40,244.63         |
|     |               |        |       |                     |
| 5   | 10            | 0.5    | 1     | \$1,156.46          |
| 5   | 10            | 0.5    | 1     | \$1,156.46          |
| 5   | 10            | 0.5    | 1     | \$1,156.46          |
| 5   | 10            | 0.5    | 1     | \$1,156.46          |
|     |               |        |       |                     |
| 5   | 10            | 0.5    | 1     | \$1,156.46          |
| 5   | 10            | 0.5    | 1     | \$1,156.46          |
| 5   | 240           | 12     | 24    | \$27,754.92         |
|     | <b>37,854</b> |        |       | <b>\$3,806,691</b>  |
|     |               |        |       |                     |
|     |               |        |       |                     |
|     |               |        |       |                     |
|     |               |        |       |                     |
|     |               |        |       |                     |
|     |               |        |       |                     |
|     |               |        |       |                     |
| 138 | 4,554         | 227.7  | 455.4 | \$526,649.61        |
| 138 | 4,554         | 227.7  | 455.4 | \$526,649.61        |
|     |               |        |       |                     |
| 5   | 2,475         | 123.75 | 247.5 | \$286,222.61        |
| 5   | 165           | 8.25   | 16.5  | \$19,081.51         |
| 26  | 208           | 10.4   | 20.8  | \$24,054.26         |
| 87  | 6,960         | 348    | 696   | \$804,892.68        |
|     |               |        |       |                     |
|     | <b>21,753</b> |        |       | <b>\$2,187,550</b>  |
|     | <b>59,600</b> |        |       | <b>\$5,990,000</b>  |
|     |               |        |       | \$19,800,000        |
|     |               |        |       | <b>\$25,800,000</b> |

have new construction/reconstruction, and 5 new portland cement kilns per year

\$103.97 per hour for Technical labor, and \$51.79 per hour for Clerical labor. These rates are from column 1, "Total employed by private industry."

|          | Number of kilns | Number of Plants |
|----------|-----------------|------------------|
| New      | 5               |                  |
| Existing | 138             | 87               |

er 3-year period. Last ICR (1801.11) assumed 117 existing kilns plus 16 new kilns  
= 133 existing plus 5 new kiln, yr2=138 existing plus 5 new, year 3 =143 existing

233 hr/response



**Table 2: Average Annual EPA Burden and Cost -  
NESHAP for Portland Cement Plants (40 CFR part 63, subpart I)**

| Activity  | (A)                             | (B)                                   | (C)                                 | (D)                          | (E)                             |
|---|---------------------------------|---------------------------------------|-------------------------------------|------------------------------|---------------------------------|
|   | EPA person-hours per occurrence | No. of occurrences per plant per year | EPA person-hours per plant per year | Plants per year <sup>a</sup> | Technical person-hours per year |
|   |                                 |                                       | (C=AxB)                             |                              | (E=CxD)                         |
| Initial performance tests <sup>c</sup>          | 24                              | 1                                     | 24                                  | 13.7                         | 328.8                           |
| Repeat performance test <sup>d</sup>            | 24                              | 0.2                                   | 4.8                                 | 1                            | 4.8                             |
| Report Review                                   |                                 |                                       |                                     |                              |                                 |
| Notification of construction                    | 0.5                             | 1                                     | 0.5                                 | 13.7                         | 6.9                             |
| Notification of actual startup                  | 0.5                             | 1                                     | 0.5                                 | 13.7                         | 6.9                             |
| Notification of performance test <sup>c</sup>   | 0.5                             | 1.1                                   | 0.55                                | 13.7                         | 7.5                             |
| Notification of Physical or Operational Change  | 0.5                             | 1                                     | 0.5                                 | 13.7                         | 6.9                             |
| Review test results/CEMS Results                | 8                               | 1                                     | 8                                   | 13.7                         | 109.6                           |
| Review semi-annual summary report               | 8                               | 2                                     | 16                                  | 87                           | 1392                            |
| <b>Subtotals Labor Burden and cost</b>          |                                 |                                       |                                     |                              | <b>1,863.29</b>                 |
| <b>TOTAL ANNUAL BURDEN AND COST (rounded) e</b> |                                 |                                       |                                     |                              |                                 |

**Assumptions:**

<sup>a</sup> We have assumed that there are approximately 87 respondents, 10% of the 87 existing facilities (8.7 facilities) will and 5 new portland cement kilns per year will be required to complete performance tests and new/revised reports over

<sup>b</sup> This cost is based on the following hourly labor rates times a 1.6 benefits multiplication factor to account for government: Managerial (GS-13, Step 5, \$39.31 x 1.6), \$46.67 for Technical (GS-12, Step 1, \$29.17 x 1.6) and \$25.25 Clerical (GS-11, Step 1, \$15.78 x 1.6). Rates are from the Office of Personnel Management (OPM) "2014 General Schedule" which excludes locality rates.

<sup>c</sup> We have assumed that it will take twenty-four hours for each new respondent to perform the initial performance test.

<sup>d</sup> We have assumed that 10 percent of respondents would repeat performance test due to failure.

<sup>e</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

LL)

46.67

62.9

25.25

| (F)                              | (G)                            | (H)                   |
|----------------------------------|--------------------------------|-----------------------|
| Management person-hours per year | Clerical person-hours per year | Cost, \$ <sup>b</sup> |
| (Ex0.05)                         | (Ex0.1)                        |                       |
| 16.4                             | 32.9                           | \$17,209.39           |
| 0.2                              | 0.5                            | \$251.23              |
|                                  |                                |                       |
| 0.3                              | 0.7                            | \$358.53              |
| 0.3                              | 0.7                            | \$358.53              |
| 0.4                              | 0.8                            | \$394.38              |
| 0.3                              | 0.7                            | \$358.53              |
| 5.48                             | 10.96                          | \$5,736.46            |
| 69.6                             | 139.2                          | \$72,857.28           |
| <b>93.2</b>                      | <b>186.3</b>                   | <b>\$97,524.34</b>    |
| <b>2,140</b>                     |                                | <b>\$97,500</b>       |

I have new construction/reconstruction, over the next three years.

Government overhead expenses: \$62.90 for GS-6, Step 3, \$15.78 x 1.6). These are for the cost of pay.

Cost.

**Capital/Startup vs. Operation and Maintenance (O&M) Costs**

| (A)                                   | (B)                                     | (C)                       | (D)                                 | (E)                                 | (F)                            |
|---------------------------------------|---|---------------------------|-------------------------------------|-------------------------------------|--------------------------------|
| Continuous Monitoring Device          | Capital/Startup Cost for One Respondent | Number of New Respondents | Total Capital/Startup Cost, (B X C) | Annual O&M Costs for One Respondent | Number of Respondents with O&M |
| Continuous Emission Monitors          | \$604,456                               | 5                         | \$3,022,280                         | \$116,459                           | 138                            |
| Initial CEMS testing                  | \$131,222                               | 5                         | \$656,110                           |                                     |                                |
| Flow monitoring device for coal mills | \$35,780                                | 0                         | \$0                                 | \$2,589                             | 26                             |
| Coal mill testing                     | \$50,800                                | 0                         | \$0                                 |                                     |                                |
| <b>TOTAL</b>                          |   |                           | \$3,680,000                         |                                     |                                |

Total capital and O&M

(G)

|                    |
|--------------------|
| Total O&M, (E X F) |
|--------------------|

|              |
|--------------|
| \$16,071,342 |
|--------------|

|          |
|----------|
| \$67,314 |
|----------|

|              |
|--------------|
| \$16,100,000 |
|--------------|

\$19,800,000