

**SUPPORTING STATEMENT
ENVIRONMENTAL PROTECTION AGENCY**

NSPS for Portland Cement Plants (40 CFR Part 60, Subpart F) (Renewal)

1. Identification of the Information Collection

1(a) Title of the Information Collection

NSPS for Portland Cement Plants (40 CFR Part 60, Subpart F) (Renewal), EPA ICR Number 1051.14, OMB Control Number 2060-0025.

1(b) Short Characterization/Abstract

The New Source Performance Standards (NSPS) for Portland Cement Plants (40 CFR Part 60, Subpart F) were proposed on August 17, 1971, promulgated on December 23, 1971 and amended on: December 14, 1988; October 17, 2000; September 9, 2010; February 12, 2013; and most-recently on July 27, 2015. The 2015 amendment: 1) adds clarification to the definitions of rolling average, operating day, and run average; 2) restores a table of emission limit which apply until September 9, 2015; 3) makes corrections to equation 8 regarding sources with an alkali bypass or inline coal mill that include a separate stack; 4) provides a scaling alternative for sources that have a wet scrubber, tray tower, or dry scrubber relative to the HCl compliance demonstrations; 5) adds a temperature parameter to startup and shutdown requirements; 6) clarifies language related to span values for both Hg and HCl measurements; 7) corrects inadvertent typographical errors; and 8) removes regulatory affirmative defense provisions. Respondents are expected to install and operate the same or similar air pollution control technologies as those necessary to comply with the 2013 amendment; therefore, no additional costs or burden are associated with the 2015 amendment to the rule. These regulations apply to existing and new kilns, clinker coolers, raw mill systems, raw mill dryers, raw material storage, clinker storage, finished product storage, conveyor transfer points, bagging and bulk loading and unloading systems at Portland Cement Plants. New facilities include those that commenced construction, modification or reconstruction after the date of proposal. This information is being collected to assure compliance with 40 CFR Part 60, Subpart F.

In general, all NSPS standards require initial notification reports, performance tests, and periodic reports by the owners/operators of the affected facilities. They are also required to maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility, or any period during which the monitoring system is inoperative. These notifications, reports, and records are essential in determining compliance, and are required of all affected facilities subject to NSPS.

Any owner/operator subject to the provisions of this part shall maintain a file containing these documents, and retain the file for at least two years following the generation date of such maintenance reports and records. All reports are sent to the delegated state or local authority. In the event that there is no such delegated authority, the reports are sent directly to the U.S. Environmental Protection Agency (EPA) regional office.

All of the Portland cement facilities in the United States are owned and operated by the Portland cement industry (aka: the “Affected Public”). None of the facilities in the United States are owned by state, local, tribal or the Federal government. They are all owned and operated by privately-owned, for-profit businesses. We assume that they will all respond to EPA inquiries. The “burden” to the “Affected Public” may be found below in Table 1: Annual Respondent Burden and Cost – NSPS for Portland Cement Plants (40 CFR Part 60, Subpart F) (Renewal). The Federal Government’s “burden” is attributed entirely to work performed by either Federal employees or government contractors and may be found below in Table 2: Average Annual EPA Burden and Cost – NSPS for Portland Cement Plants (40 CFR Part 60, Subpart F) (Renewal).

Based on information reported to the Agency under the Greenhouse Gas Reporting Program in calendar year 2015, we determined that there were 95 Portland cement plants (respondents) in the United States. We assume that two plants per year will undergo modifications or reconstruction such that they will be subject to the initial notification reports and performance test requirement of the final NSPS.

The active (previous) ICR had the following Terms of Clearance (TOC):

In accordance with 5 CFR 1320, the information collection is approved for three years.

EPA has addressed each item of concern in the TOC by renewing this ICR at the end of the three-year approval period.

2. Need for and Use of the Collection

2(a) Need/Authority for the Collection

The EPA is charged under Section 111 of the Clean Air Act (CAA), as amended, to establish standards of performance for new stationary sources that reflect:

. . . application of the best technological system of continuous emissions reduction which (taking into consideration the cost of achieving such emissions reduction, or any non-air quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated. Section 111(a)(1).

The Agency refers to this charge as selecting the best demonstrated technology (BDT). Section 111 also requires that the Administrator review and, if appropriate, revise such standards every eight years.

In addition, section 114(a) states that the Administrator may require any owner/operator

subject to any requirement of this Act to:

(A) Establish and maintain such records; (B) make such reports; (C) install, use, and maintain such monitoring equipment, and use such audit procedures, or methods; (D) sample such emissions (in accordance with such procedures or methods, at such locations, at such intervals, during such periods, and in such manner as the Administrator shall prescribe); (E) keep records on control equipment parameters, production variables or other indirect data when direct monitoring of emissions is impractical; (F) submit compliance certifications in accordance with Section 114(a)(3); and (G) provide such other information as the Administrator may reasonably require.

In the Administrator's judgment, NO_x, SO₂, and particulate matter (PM) emissions from Portland cement plants either cause or contribute to air pollution that may reasonably be anticipated to endanger public health and/or welfare. Therefore, the NSPS were promulgated for this source category at 40 CFR Part 60, Subpart F.

2(b) Practical Utility/Users of the Data

The recordkeeping and reporting requirements in these standards ensure compliance with the applicable regulations, which were promulgated in accordance with the Clean Air Act. The collected information is also used for targeting inspections and as evidence in legal proceedings.

Performance tests are required in order to determine an affected facility's initial capability to comply with the emission standards. Continuous emission monitors are used to ensure compliance with these same standards at all times. During the performance test a record of the operating parameters under which compliance was achieved may be recorded and used to determine compliance in place of a continuous emission monitor.

The notifications required in these standards are used to inform the Agency or delegated authority when a source becomes subject to the requirements of the regulations. The reviewing authority may then inspect the source to check if the pollution control devices are properly installed and operated, leaks are being detected and repaired and the standards are being met. The performance test may also be observed.

The required semiannual reports are used to determine periods of excess emissions, identify problems at the facility, verify operation/maintenance procedures and for compliance determinations.

3. Non-duplication, Consultations, and Other Collection Criteria

The requested recordkeeping and reporting are required under 40 CFR Part 60, Subpart F.

3(a) Non-duplication

If the subject standards have not been delegated, the information is sent directly to the appropriate EPA regional office. Otherwise, the information is sent directly to the delegated state or local agency. If a state or local agency has adopted its own similar standards to implement the Federal standards, a copy of the report submitted to the state or local agency can be sent to the Administrator in lieu of the report required by the Federal standards. Therefore, duplication does not exist.

3(b) Public Notice Required Prior to ICR Submission to OMB

An announcement of a public comment period for the renewal of this ICR was published in the Federal Register (82 FR 29552) on June 29, 2017. No comments were received on the burden published in the Federal Register.

3(c) Consultations

The Agency has consulted industry experts and internal data sources to project the number of affected facilities and industry growth over the next three years. The primary source of information as reported by industry, in compliance with the recordkeeping and reporting provisions in these standards, is the Integrated Compliance Information System (ICIS). ICIS is EPA's database for the collection, maintenance, and retrieval of compliance data for industrial and government-owned facilities.

Industry trade association(s) and other interested parties were provided an opportunity to comment on the burden associated with these standards as they were being developed and these same standards have been previously to determine the minimum information needed for compliance purposes. In developing this ICR, we contacted both: 1) the Portland Cement Association, at (202) 408-9494; and 2) the Concrete Foundation Association, at (319) 895-6940.

It is our policy to respond after a thorough review of comments received since the last ICR renewal, as well as those submitted in response to the first Federal Register notice. In this case, no comments were received.

3(d) Effects of Less-Frequent Collection

Less-frequent information collection would decrease the margin of assurance that facilities are continuing to meet these standards. Requirements for information gathering and recordkeeping are useful techniques to ensure that good operation and maintenance practices are applied and emission limitations are met. If the information required by these standards was collected less-frequently, the proper operation and maintenance of control equipment and the possibility of detecting violations would be less likely.

3(e) General Guidelines

These reporting or recordkeeping requirements do not violate any of the regulations promulgated by OMB under 5 CFR Part 1320, Section 1320.5.

3(f) Confidentiality

Any information submitted to the Agency for which a claim of confidentiality is made will be safeguarded according to the Agency policies set forth in Title 40, chapter 1, part 2, subpart B - Confidentiality of Business Information (CBI) (see 40 CFR 2; 41 FR 36902, September 1, 1976; amended by 43 FR 40000, September 8, 1978; 43 FR 42251, September 20, 1978; 44 FR 17674, March 23, 1979).

3(g) Sensitive Questions

The reporting or recordkeeping requirements in these standards do not include sensitive questions.

4. The Respondents and the Information Requested

4(a) Respondents/SIC Codes

The respondents to the recordkeeping and reporting requirements are Portland cement plants. The United States Standard Industrial Classification (SIC) code for the respondents affected by these standards is SIC 3241 which corresponds to the North American Industry Classification System (NAICS) 327310 for Cement Manufacturing.

4(b) Information Requested

(i) Data Items

In this ICR, all the data that is recorded or reported is required by the NSPS for Portland Cement Plants (40 CFR Part 60, Subpart F).

A source must make the following reports:

Notifications/Reports	
Notification of construction/reconstruction	60.7(a)(1)
Notification of construction/reconstruction	60.7(a)(1)
Notification of actual startup	60.7(a)(3)

Notifications/Reports	
Notification of physical or operational change which may increase the emission rate	60.7(a)(4)
Notification of demonstration of continuous monitoring system	60.7(a)(5)
Notification of initial performance tests	60.8(d)
Report of initial and repeat performance test results	60.8(a), 60.64(d)
Semiannual malfunction report	60.65(b)
Semiannual report on excess emissions	60.7(c), 60.65(a)
Site-specific monitoring plan	60.63(i)

A source must keep the following records:

Recordkeeping	
Startup, shutdown, malfunctions, periods where the continuous monitoring system is inoperative	60.7(b)
Records of ongoing monitoring	60.7(f)
Record daily production and kiln feed rates	60.63(b)
Records of exceedance	60.65(a)
Maintain all records for two years	60.7(f)

Electronic Reporting

Some of the respondents are using monitoring equipment that automatically records parameter data. Although personnel at the affected facility must still evaluate the data, internal automation has significantly reduced the burden associated with monitoring and recordkeeping at a plant site.

As of February 12, 2013, the standard requires that respondents submit electronic copies of required performance test reports, through EPA's Central Data Exchange (CDX) using the Compliance and Emissions Data Reporting Interface (CEDRI). The CDX is the EPA's portal for submittal of electronic data using the EPA-provided electronic reporting tool (ERT) to generate electronic reports of performance tests and evaluations. The ERT generates an electronic report package that will be submitted using the CEDRI. The submitted report package will be stored in the CDX archive (the official copy of record) and the EPA's public database called WebFIRE. For any performance test conducted using test methods that are not listed on the ERT website the written report must be submitted to the Administrator at the appropriate address.

(ii) Respondent Activities

Respondent Activities
Familiarization with the regulatory requirements.
Install, calibrate, maintain, and operate SO ₂ and NO _x Continuous Emission Monitoring Systems (CEMS), flow meters, and PM continuous parametric monitoring system (CPMS).
Perform initial performance test, Reference Method 5 or 5I test, and repeat performance tests if necessary.
Write the notifications and reports listed above.
Enter information required to be recorded above.
Submit the required reports developing, acquiring, installing, and utilizing technology and systems for the purpose of collecting, validating, and verifying information.
Develop, acquire, install, and utilize technology and systems for the purpose of processing and maintaining information.
Develop, acquire, install, and utilize technology and systems for the purpose of disclosing and providing information.
Train personnel to be able to respond to a collection of information.
Transmit, or otherwise disclose the information.

5. The Information Collected: Agency Activities, Collection Methodology, and Information Management**5(a) Agency Activities**

EPA conducts the following activities in connection with the acquisition, analysis, storage, and distribution of the required information:

Agency Activities
Review notifications and reports, including performance test reports, and excess emissions reports, required to be submitted by industry.
Audit facility records.

Agency Activities

Input, analyze, and maintain data in the Enforcement and Compliance History Online (ECHO) and ICIS.

5(b) Collection Methodology and Management

Following notification of startup, the reviewing authority could inspect the source to determine whether the pollution control devices are properly installed and operated. Performance test reports are used by the Agency to discern a source's initial capability to comply with the emission standards and note the operating conditions under which compliance was achieved. Data and records maintained by the respondents are tabulated and published for use in compliance and enforcement programs. The semiannual reports are used for problem identification, as a check on source operation and maintenance, and for compliance determinations.

Information contained in the reports is reported by state and local governments in the ICIS Air database, which is operated and maintained by EPA's Office of Compliance. ICIS is EPA's database for the collection, maintenance, and retrieval of compliance data for industrial and government-owned facilities. EPA uses ICIS for tracking air pollution compliance and enforcement by local and state regulatory agencies, EPA regional offices and EPA headquarters. EPA and its delegated Authorities can edit, store, retrieve and analyze the data.

The records required by this regulation must be retained by the owner/operator for two years.

5(c) Small Entity Flexibility

A majority of the respondents are large entities (i.e., large businesses). However, the impact on small entities (i.e., small businesses) was taken into consideration during the development of the regulation. Due to technical considerations involving the process operations and the types of control equipment employed, the recordkeeping and reporting requirements are the same for both small and large entities. The Agency considers these to be the minimum requirements needed to ensure compliance and, therefore, cannot reduce them further for small entities. To the extent that larger businesses can use economies of scale to reduce their burden, the overall burden will be reduced.

5(d) Collection Schedule

The specific frequency for each information collection activity within this request is shown below in Table 1: Annual Respondent Burden and Cost – NSPS for Portland Cement

Plants (40 CFR Part 60, Subpart F) (Renewal).

6. Estimating the Burden and Cost of the Collection

Table 1 documents the computation of individual burdens for the recordkeeping and reporting requirements applicable to the industry for the subpart included in this ICR. The individual burdens are expressed under standardized headings believed to be consistent with the concept of burden under the Paperwork Reduction Act. Where appropriate, specific tasks and major assumptions have been identified. Responses to this information collection are mandatory.

The Agency may neither conduct nor sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB Control Number.

6(a) Estimating Respondent Burden

The average annual burden to industry over the next three years from these recordkeeping and reporting requirements is estimated to be 14,500 hours (Total Labor Hours from Table 1 below). These hours are based on Agency studies and background documents from the development of the regulations, Agency knowledge and experience with the NSPS program, the previously-approved ICR, and any comments received.

6(b) Estimating Respondent Costs

(i) Estimating Labor Costs

This ICR uses the following labor rates:

Managerial	\$144.33 (\$68.73+ 110%)
Technical	\$108.28 (\$51.56 + 110%)
Clerical	\$53.34 (\$25.40 + 110%)

These rates are from the United States Department of Labor, Bureau of Labor Statistics, September 2016, "Table 2. Civilian Workers, by occupational and industry group." The rates are from column 1, "Total compensation." The rates have been increased by 110 percent to account for the benefit packages available to those employed by private industry.

(ii) Estimating Capital/Startup and Operation and Maintenance Costs

The type of industry costs associated with the information collection activities in the subject standards are both labor costs which are addressed elsewhere in this ICR and the costs associated with continuous monitoring. The capital/startup costs are one-time costs when a facility becomes subject to these regulations. The annual operation and maintenance costs are the ongoing costs to maintain the monitor(s) and other costs such as photocopying and postage.

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

Capital/Startup vs. Operation and Maintenance (O&M) Costs						
(A) Continuous Monitoring Device	(B) Capital/Startup Cost for One Respondent	(C) Number of New Respondents	(D) Total Capital/Startup Cost, (B X C)	(E) Annual O&M Costs for One Respondent	(F) Number of Respondents with O&M	(G) Total O&M, (E X F)
CEMS	\$19,507	2	\$39,014	\$7,490	95	\$711,550
Flow Meter	\$8,090	2	\$16,180	\$0	0	\$0
Total			\$55,200			\$712,000

Note: Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

The total capital/startup costs for this ICR are \$55,200. This is the total of column D in the above table.

The total operation and maintenance (O&M) costs for this ICR are \$712,000. This is the total of column G.

The average annual cost for capital/startup and operation and maintenance costs to industry over the next three years of the ICR is estimated to be \$767,000. These are the recordkeeping costs.

6(c) Estimating Agency Burden and Cost

The only costs to the Agency are those costs associated with analysis of the reported information. EPA's overall compliance and enforcement program includes such activities as the examination of records maintained by the respondents, periodic inspection of sources of emissions, and the publication and distribution of collected information.

The average annual Agency cost during the three years of the ICR is estimated to be \$43,100.

This cost is based on the average hourly labor rate as follows:

Managerial	\$64.80 (GS-13, Step 5, \$40.50 + 60%)
Technical	\$48.08 (GS-12, Step 1, \$30.05 + 60%)
Clerical	\$26.02 (GS-6, Step 3, \$16.26 + 60%)

These rates are from the Office of Personnel Management (OPM), 2017 General Schedule, which excludes locality rates of pay. The rates have been increased by 60 percent to account for the benefit packages available to government employees. Details upon which this estimate is based appear below in Table 2: Average Annual EPA Burden and Cost – NSPS for Portland Cement Plants (40 CFR Part 60, Subpart F) (Renewal).

6(d) Estimating the Respondent Universe and Total Burden and Costs

Based on our research for this ICR, on average over the next three years, approximately 95 existing respondents will be subject to these standards. It is estimated that no additional respondents per year will become subject to these same standards. However, we estimate that two existing respondents per year will undergo reconstruction. The overall average number of respondents, as shown in the table below, is 95 per year.

The number of respondents is calculated using the following table that addresses the three years covered by this ICR:

Number of Respondents					
	Respondents That Submit Reports		Respondents That Do Not Submit Any Reports		
Year	(A) Number of New Respondents ¹	(B) Number of Existing Respondents	(C) Number of Existing Respondents that keep records but do not submit reports	(D) Number of Existing Respondents That Are Also New Respondents	(E) Number of Respondents (E=A+B+C-D)
1	2	95	0	2	95
2	2	95	0	2	95
3	2	95	0	2	95
Average	2	95	0	2	95

¹ New respondents include sources with constructed, reconstructed and modified affected facilities.

Column D is subtracted to avoid double-counting respondents. As shown above, the average Number of Respondents over the three-year period of this ICR is 95.

The total number of annual responses per year is calculated using the following table:

Total Annual Responses				
(A) Information Collection Activity	(B) Number of Respondents	(C) Number of Responses	(D) Number of Existing Respondents That Keep Records But Do Not Submit Reports	(E) Total Annual Responses E=(BxC)+D
Notification of construction/reconstruction	2	1	0	2
Notification of actual startup	2	1	0	2
Notification of physical or operational change	2	1	0	2
Notification of demonstration of CEMS	2	1	0	2

Total Annual Responses				
Notification of initial performance test ^a	2	1.5	0	3
Report of performance test ^a	2	1.5	0	3
Semiannual reports	95	2	0	190
			Total	204

^a We assume a total of 3 performance tests per year (2 initial and 1 repeat) resulting in an average of 1.5 tests per respondent (3 tests / 2 respondents = 1.5 test/respondent).

The number of Total Annual Responses is 204.

The total annual labor costs are \$1,520,000.00 (rounded). Details regarding these estimates may be found below in Table 1: Annual Respondent Burden and Cost – NSPS for Portland Cement Plants (40 CFR Part 60, Subpart F) (Renewal).

6(e) Bottom Line Burden Hours and Cost Tables

The detailed bottom line burden hours and cost calculations for the respondents and the Agency are shown in Tables 1 and 2 below, respectively, and summarized below.

(i) Respondent Tally

The total annual labor hours are 14,500 hours. Details regarding these estimates may be found below in Table 1: Annual Respondent Burden and Cost – NSPS for Portland Cement Plants (40 CFR Part 60, Subpart F) (Renewal).

We assume that burdens for managerial tasks take 5% of the time required for technical tasks because the typical tasks for managers are to review and approve reports. Clerical burdens are assumed to take 10% of the time required for technical tasks because the typical duties of clerical staff are to proofread the reports, make copies and maintain records.

Furthermore, the annual public reporting and recordkeeping burden for this collection of information is estimated to average 71 hours per response.

The total annual capital/startup and O&M costs to the regulated entity are \$767,000. The cost calculations are detailed in Section 6(b)(iii), Capital/Startup vs. Operation and Maintenance (O&M) Costs.

(ii) The Agency Tally

The average annual Agency burden and cost over next three years is estimated to be 918 labor hours at a cost of \$43,100; see below in Table 2: Average Annual EPA Burden and Cost – NSPS for Portland Cement Plants (40 CFR Part 60, Subpart F) (Renewal).

We assume that burdens for managerial tasks take 5% of the time required for technical tasks because the typical tasks for managers are to review and approve reports. Clerical burdens are assumed to take 10% of the time required for technical tasks because the typical duties of clerical staff are to proofread the reports, make copies and maintain records.

6(f) Reasons for Change in Burden

There is a small adjustment decrease in the respondent labor hours and the total capital and O&M costs from the most- recently approved ICR. This decrease is not due to any program changes. The change in burden hours and capital and O&M cost is due to a decrease in the number of respondents. Consistent with past ICRs, this ICR uses the most recent data from EPA's Greenhouse Gas Reporting Program to estimate the respondent universe. The most recent data shows a decrease of 1 respondent as compared to the previous ICR.

6(g) Burden Statement

The annual public reporting and recordkeeping burden for this collection of information is estimated to average 71 hours per response. "Burden" means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may neither conduct nor sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB Control Number. The OMB Control Numbers for EPA regulations are listed at 40 CFR Part 9 and 48 CFR Chapter 15.

To comment on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including the use of automated collection techniques, EPA has established a public docket for this ICR under Docket ID Number EPA-HQ-OECA-2013-0327. An electronic version of the public docket is available at <http://www.regulations.gov/>, which may be used to obtain a copy of the draft collection of information, submit or view public comments, access the index listing of the contents of the docket, and to access those documents in the public docket that are available electronically. When in the system, select "search," then key in the docket ID number identified in this document. The documents are also available for public viewing at the Enforcement and Compliance Docket and Information Center in the EPA Docket Center (EPA/DC), EPA West, Room 3334, 1301 Constitution Ave., NW, Washington, DC. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal

holidays. The telephone number for the Reading Room is (202) 566-1744, and the telephone number for the docket center is (202) 566-1752. Also, you can send comments to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW, Washington, DC 20503, Attention: Desk Officer for EPA. Please include the EPA Docket ID Number EPA-HQ-OECA-2013-0327 and OMB Control Number 2060-0025 in any correspondence.

Part B of the Supporting Statement

This part is not applicable because no statistical methods were used in collecting this information.

Table 1: Annual Respondent Burden and Cost – NSPS for Portland Cement Plants (40 CFR Part 60, Subpart F) (Renewal)

Burden item	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Person hours per occurrence	No. of occurrences per respondent per year	Person hours per respondent per year (C=AxB)	Respondent per year ^a	Technical person-hours per year (E=CxD)	Management person-hours per year (F=Ex0.05)	Clerical person hours per year (G=Ex0.1)	Total Cost per year ^b
1. Applications	N/A							
2. Surveys and studies	N/A							
3. Reporting requirements								
A. Familiarize with regulatory requirements ^c	1	1	1	95	95	4.75	9.5	\$11,478.90
B. Required activities								
Initial performance test ^d	36	1	36	2	72	3.6	7.2	\$8,699.80
Repeat performance test ^e	36	1	36	1	36	1.8	3.6	\$4,349.90
CEMS initial performance test ^f	8	1	8	2	16	0.8	1.6	\$1,933.29
CEMS quarterly inspections ^g	2	4	8	2	16	0.8	1.6	\$1,933.29
CEMS daily calibration drift tests ^h	0.3	330	99	2	198	9.9	19.8	\$23,924.44
Daily monitoring (CEMS) ⁱ	0.5	330	165	2	330	16.5	33	\$39,874.07
C. Create information	See 3B							
D. Gather existing information	See 3E							
E. Write report								
Notification of construction/reconstruction	2	1	2	2	4	0.2	0.4	\$483.32
Notification of actual startup	2	1	2	2	4	0.2	0.4	\$483.32
Notification of physical or operational change	2	1	2	2	4	0.2	0.4	\$483.32
Notification of demonstration of CEMS	2	1	2	2	4	0.2	0.4	\$483.32
Notification of initial performance test ^j	2	1.5	3	2	6	0.3	0.6	\$724.98
Report of performance test ^j	2	1.5	3	2	6	0.3	0.6	\$724.98
Semiannual reports ^k	24	2	48	95	4,560	228	456	\$550,987.0

								8
Subtotal for Reporting Requirements						6,154		\$646,564
4. Recordkeeping requirements								
A. Familiarize with regulatory requirements	See 3A							
B. Plan activities	See 3B							
C. Implement activities	See 3B							
D. Develop record system	N/A							
E. Time to enter information								
Daily production and kiln feed rates ¹	0.125	330	41.25	95	3,919	195.9375	391.875	\$473,504.5 2
Data Collection ^m	0.1	330	33	95	3,135	156.75	313.5	\$378,803.6 2
Records of startup, shutdown malfunction ⁿ	1.5	1	1.5	95	142.5	7.125	14.25	\$17,218.35
F. Train personnel for CEMS maintenance ^o	16	2	32	2	64	3.2	6.4	\$7,733.15
G. Audits	16	1	16	0	0	0	0	\$0
Subtotal for Recordkeeping Requirements						8,349		\$877,260
TOTAL LABOR BURDEN AND COST (rounded) ^p						14,500		\$1,520,000
TOTAL CAPITAL AND O&M COST (rounded) ^p								\$767,000
GRAND TOTAL (rounded) ^p								\$2,290,000

Assumptions:

^a We have assumed that the average number of respondents that will be subject to the rule will be 95 existing plants, operating 135 kilns. There will be no additional sources over the three-year period of this ICR. However, we assume that two existing plants will undergo modification or reconstruction which will require re-submittal or notifications and retesting.

^b This ICR uses the following labor rates: \$144.33 per hour for Executive, Administrative, and Managerial labor; \$108.28 per hour for Technical labor, and \$53.34 per hour for Clerical labor. These rates are from the United States Department of Labor, Bureau of Labor Statistics, September 2016, Table 2. Civilian Workers, by Occupational and Industry group. The rates are from column 1, Total Compensation. The rates have been increased by 110 percent to account for the benefit packages available to those employed by private industry.

^c We have assumed that all new and existing respondents will take one hour to familiarize with the regulatory requirements each year.

^d We have assumed that each respondent will take 36 hours to perform initial performance tests.

^e We have assumed that one respondent will have to repeat initial performance tests..

^f We have assumed that it will take each respondent eight hours to perform CEMS performance test.

- ^g We have assumed that it will take each respondent 2 hours 4 times per year to perform CEMS inspections.
- ^h We have assumed that it will take each respondent 0.3 hours 330 times per year to perform daily calibration drift tests.
- ⁱ We have assumed that it will take each respondent 0.5 hours 330 times per year to perform daily CEMS monitoring.
- ^j There will be a total of 3 performance tests per year (2 initial and 1 repeat) for two existing plants undergoing modification or reconstruction ($3/2 = 1.5$ tests/plant).
- ^k We have assumed that it will take each respondent 24 hours two times per year to prepare semiannual reports.
- ^l We have assumed that it will take each respondent 0.125 hours 330 times per year to enter daily production and kiln feed rates information.
- ^m We have assumed that it will take each respondent 0.1 hours 330 times per year to enter data collection information.
- ⁿ We have assumed that it will take each respondent 1.5 hours once per year to record SSM.
- ^o We have assumed that it will take respondents 16 hours twice a year to train personnel on how to maintain the CEMS.
- ^p Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

Table 2: Average Annual EPA Burden and Cost – NSPS for Portland Cement Plants (40 CFR Part 60, Subpart F) (Renewal)

Activity	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	EPA person-hours per occurrence	No. of occurrences per plant per year	EPA person-hours per plant per year (C=AxB)	Plants per year ^a	Technical person-hours per year (E=CxD)	Management person-hours per year (F=Ex0.05)	Clerical person-hours per year (G=Ex0.1)	Cost, \$ ^b
Report review								
Notification of construction/reconstruction ^c	2	1	2	2	4	0.2	0.4	\$215.69
Notification of actual startup ^{c,d}	0.5	1	0.5	2	1	0.05	0.1	\$53.92
Notification of physical and operational change ^c	2	1	2	2	4	0.2	0.4	\$215.69
Notification of demonstration of CEMS	2	1	2	2	4	0.2	0.4	\$215.69
Notification of initial performance test ^{c,e}	0.5	1.5	0.75	2	1.5	0.075	0.15	\$80.88
Review test results ^{c,f}	8	1.5	12	2	24	1.2	2.4	\$1,294.13
Review of semiannual reports ^g	4	2	8	95	760	38	76	\$40,980.72
TOTAL LABOR BURDEN AND COST (rounded) ^h						918		\$43,100

Assumptions:

^a We have assumed that the average number of respondents that will be subject to the rule will be 95 existing plants, operating 135 kilns. There will be no additional sources over the three-year period of this ICR. However, we assume that two existing plants will undergo modification or reconstruction which will require re-submittal or notifications and retesting.

^b This cost is based on the following labor rates which incorporates a 1.6 benefits multiplication factor to account for government overhead expenses: \$64.80 Managerial rate (GS-13, Step 5, \$40.50 x 1.6), \$48.08 Technical rate (GS-12, Step 1, \$30.05 x 1.6), and \$26.02 Clerical rate (GS-6, Step 3, \$16.26 x 1.6). These rates are from the Office of Personnel Management (OPM) “2017 General Schedule”, which excludes locality rates of pay.

^c We have assumed that the number of existing plants that undergo construction or reconstruction will be two.

^d We have assumed that it will take each 0.5 hours to review each notification of actual startup.

^e We have assumed that it will take 0.5 hours to review each notification of performance test.

^f We have assumed that it will take 8 hours to review each performance test report.

^g We have assumed that it will take 4 hours two times per year to review semiannual reports.

^h Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.