

ENVIRONMENTAL PROTECTION AGENCY

Supporting Statement
for

NESHAP for Portland Cement Plants (40 CFR part 63, subpart LLL)

Part A of the Supporting Statement

1. Identification of the Information Collection

(a) Title and Number of the Information Collection

“Recordkeeping and Reporting Requirements for Portland Cement Plants (40 CFR Part 63, Subpart LLL) (Proposed Rule).” The OMB has previously approved the information collection requirements for the existing rule. This is a revision to the existing approved information collection request (ICR). The Office of Management and Budget (OMB) has previously approved the information collection requirements in the existing rule (40 CFR part 63, subpart LLL) under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. OMB control number is 2060-0416 and the EPA ICR tracking number 1801.07 for this revision.

(b) Short Characterization

The National Emission Standards for Hazardous Air Pollutants (NESHAP) for the regulations published at 40 CFR part 63, subpart LLL were initially proposed on March 24, 1998, promulgated on June 14, 1999, and subsequently revised on December 20, 2006. These regulations apply to the following affected sources at each new and existing portland cement plant that is a major or area source: each kiln, in-line kiln/raw mill and raw material dryer at these facilities, except for kilns and in-line kiln/raw mills that burn hazardous waste and are subject to 40 CFR 63, subpart EEE. In addition, the rule applies to each new and existing clinker cooler; raw mill; finish mill; raw material, clinker or finished product storage bin; conveying system transfer point; and bagging system and bulk loading and unloading system at facilities that are major or area sources. This information is being collected to assure compliance with 40 CFR part 63, subpart LLL.

In general, all NESHAP standards require initial notifications, performance tests, and periodic reports. These notifications, reports, and records are essential in determining compliance, and are required of all sources subject to the NESHAP.

Any owner or operator subject to the provisions of this part shall maintain a file of these measurements, and retain the file for at least five years following the date of such measurements, 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 United States Environmental Protection Agency (EPA) regional office.

Potential respondents are owners or operators of portland cement manufacturing plants, except for kilns and in-line kiln/raw mills that burn hazardous waste and are subject to 40 CFR part 63, subpart EEE. The proposed amendments would establish or revise emission limits for total hydrocarbons (THC), mercury (Hg), hydrogen chloride (HCl), and particulate matter (PM). To demonstrate compliance with these emission limits, owners or operators of new, existing or reconstructed kilns would be required to continuously monitor THC, Hg, and HCl emissions and monitor baghouse performance for PM removal. Respondents would be required to maintain additional records to demonstrate compliance with THC, Hg, HCl, and PM limits and notify EPA of performance tests. These requirements are listed in Exhibit 1.

Exhibit 1. Source Data and Information Requirements

Requirement	Regulation Citation	General Provision Citation	Record Retention
Notifications			
Anticipated startup	63.1353(b)(1)	63.9(b)(3)	5 years
Actual startup	63.1353(b)(1)	63.9(b)(4)	5 years
Performance test	63.1353(b)(2)	63.7 and 63.9(e)	5 years
CEM performance evaluation	63.1353(b)(4)	63.8(e)	5 years
Compliance status	63.1353(b)(5)	63.9(h)	5 years
Reports			
Performance test	63.1354(b)(1)	63.10(d)	5 years
Monitoring exceedance	63.1354(b)(8)-(10)	63.10(e)(5)	5 years
Recordkeeping			
Record retention	63.1355(a)	63.10(b)(1)	5 years
General NESHAP records	63.1355(b)(1)-(3)	63.10(b)(2)-(3)	5 years
CMS performance records	63.1355(c)	63.10(c)	5 years

Approximately 93 facilities with 152 non-hazardous sources are currently subject to the regulation, and it is estimated that 20 new sources will be built over the next five years or 12 additional sources will become subject to the regulation over the next three years.

The Office of Management and Budget (OMB) approved the currently active Information Collection Request (ICR) without any “Terms of Clearance.”

2. Need for and Use of the Collection

(a) Need/Authority for the Collection

Section 112 of the CAA requires that EPA establish MACT standards for new or existing major or area sources according to the requirements in section 112(d). Certain records and reports are necessary for the Administrator to: (1) confirm the compliance status of major sources, identify

any non-major sources not subject to the standards, and identify new or reconstructed sources subject to the standards; and (2) ensure that the MACT standards are being achieved on a continuous basis. These recordkeeping and reporting requirements are specifically authorized by section 114 of the Clean Air Act (42 U.S.C. 7414) and set out in the General Provisions for national emission standards for hazardous air pollutants (NESHAP) in 40 CFR part 63, subpart A.

(b) Use/Users of the Data

The additional information will be used by Agency enforcement personnel to ensure that the emission limitations are being achieved. Based on review of the recorded information at the site and the reported information, EPA can identify facilities that may not be in compliance and decide which plants, records, or processes should be inspected.

3. Nonduplication, Consultations, and Other Collection Criteria

(a) Nonduplication

No other regulation currently requires the same information requested under this ICR from owners or operators of portland cement plants. In the event that certain reports required by State or local agencies may duplicate information required by the proposed amendments, a copy of the report submitted to the State or local agency can be provided to the Administrator in lieu of the information that would be required in the semi-annual compliance report. Therefore, no duplication exists.

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

This proposed rule will provide public notice of this ICR.

(c) Consultations

We did not specifically consult with stakeholders on the ICR requirements of these proposed amendments. However, all the basic requirements in the proposed amendments exist in the current rule. Participants in the development process for the current rule included the Portland Cement Association (PCA) and Earth Justice on behalf of the Sierra Club. Several meetings and conference calls with industry and environmental representatives were held in the period leading to proposal.

(d) Effects of Less Frequent Collection

If the relevant information were collected less frequently, EPA would not be reasonably assured that a plant is in compliance with the standards.

(e) General Guidelines

None of the guidelines in 5 CFR 1320.5 are being exceeded.

(f) Confidentiality

All 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 (see 40 CFR 2; 41 FR 36902, September 01, 1976; amended by 43 FR 39999, September 28, 1978; 43 FR 42251, September 28, 1978; 44 FR 17674, March 23, 1979).

(g) Sensitive Questions

This section is not applicable because this ICR does not involve matters of a sensitive nature.

4. The Respondents and the Information Requested

(a) Respondents/NAICS Codes

In the proposed amendments, respondents are 93 owners or operators of existing portland cement manufacturing plants and any new portland cement plants. It is estimated that 20 new kilns located at an existing plants will be built over 5 years (or 4 new kilns per year) after promulgation of the amendments. All respondents will be subject to the monitoring, recordkeeping, and reporting requirements. The NAICS code for this industry is 327310, Cement Manufacturing.

(b) Information Requested

(i) Data Items, Including Recordkeeping Requirements.

Exhibit 1 (Source Data and Information Requirements) summarizes the final recordkeeping and reporting requirements.

(ii) Respondent Activities.

The respondent activities required by the final amendments are introduced in section 6(a).

(iii) Electronic Reporting.

EPA is proposing that portland cement plants have the option of submitting to an EPA electronic database an electronic copy of their required stack test. This electronic database should become available as of December 31, 2011. Currently, sources are using monitoring equipment that provides automated parameter data (e.g., continuous opacity monitoring). Although personnel at the affected facility must evaluate these data, this type of monitoring equipment has significantly reduced the burden associated with monitoring and recordkeeping. In addition, some regulatory agencies are setting up electronic reporting systems to allow sources to report such data electronically which also reduces the reporting burden. It is estimated that approximately 10 percent of the respondents currently use electronic reporting.

5. The Information Collected: Agency Activities, Collection Methodology, and Information Management

(a) Agency Activities

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

Agency Activities
Observe initial performance tests and repeat performance tests, if necessary.
Review notifications and reports, including performance test reports, and excess emissions reports, required to be submitted by industry.
Audit plant records.
Input, analyze, and maintain data in the AIRS Facility Subsystem (AFS) database.

(b) Collection Methodology and Management

Following notification of startup, the reviewing authority might 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 standard. Data and records maintained by the respondents are tabulated and published for use in compliance and enforcement programs. The semi-annual reports are used for problem identification, as a check on source operation and maintenance, and for compliance determinations.

Information contained in the reports is entered into the AIRS Facility Subsystem (AFS) which is operated and maintained by EPA's Office of Compliance. AFS is EPA's database for the collection, maintenance, and retrieval of compliance and annual emission inventory data for over 125,000 industrial and government-owned facilities. EPA uses the AFS 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 or operator for five years.

(c) Small Entity Flexibility

There is a distribution of business sizes for the business that operate portland cement plants. A majority of the affected plants are large entities (e.g., large businesses). However, the impact on potential small entities (i.e., small business) was taken into consideration during the development of the regulation. One consideration in the development of the proposed rule was that the size of the business does not necessarily correlate with emissions potential. Even a small entity can and do operate cement kilns that emit large quantities of HAP. Due to technical considerations involving the process operation 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 requirements the minimum needed to ensure compliance and, therefore, cannot reduce them further for small entities. To the extent that larger business can use economies of scale to reduce their burden, the overall burden will be reduced.

(d) Collection Schedule

The specific frequency for each information collection activity within this request is shown in Tables 1a-c and Exhibit 2: Respondent Burden of Reporting and Recordkeeping Requirements, NESHAP for Portland Cement Plants (40 CFR Part 63, Subpart LLL).

6. Estimating the Burden and Cost of the Collection

Tables 1a, 1b, and 1c document the computation of individual burdens for the recordkeeping and reporting requirements applicable to the industry for the subpart included in this ICR for each of the first 3 years. Exhibit 2 contains a summary of the respondent burden hours and costs detailed in Tables 1a, 1b, and 1c.

Exhibit 2. Summary of Respondent Burden

Year	Total Annual Labor Burden (hours)	Total Annual Labor Costs (\$)
1	93,953	8,781,789
2	19,647	1,836,380
3	20,369	1,903,773
Total	133,969	12,521,941
3-Year Average	44,656	4,173,980

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 not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB Control Number.

(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 44,656 hours per year (Total Labor Hours from Tables 1a, 1b, and 1c). These hours are based on Agency studies and background documents from the development of the regulation, Agency knowledge, and experience with the NESHAP program, the previously approved ICR, and any comments received.

(b) Estimating Respondent Costs

Respondent costs are divided into four categories. These categories include labor costs, capital costs (includes startup costs), operations and maintenance costs, and annualized capital costs. The total respondent costs

per kiln (\$583,502) have been calculated as the sum of the capital costs (including startup) (\$488,316) and the annual operation and maintenance costs (\$95,186).

(i) Estimating Labor Costs

Labor rates and associated costs are based on Bureau of Labor Statistics (BLS) data. Technical, management, and clerical average hourly rates for private industry workers were taken from the United States Department of Labor, Bureau of Labor Statistics, March 2009, "Table 2. Civilian Workers, by occupational and industry group," available at www.bls.gov/news.release/ecec.t02.htm. Wages for occupational groups are used as the basis for the labor rates with a total compensation of \$46.18 per hour for technical, \$54.64 per hour for managerial, and \$22.74 per hour for clerical. These rates represent salaries plus fringe benefits and do not include the cost of overhead. An overhead rate of 110 percent is used to account for these costs. The fully-burdened hourly wage rates used to represent respondent labor costs are: technical at \$96.98, management at \$114.74, and clerical at \$47.75.

(ii) Estimating Capital Costs

The capital costs associated with the information collection requirements will include the costs to conduct performance tests, startup costs for CEMS, and startup costs for bag leak detectors. The rule will require an initial performance test for each portland cement plant.

The annual total capital (including startup) costs for CEMS that will be used to monitor THC, Hg, and HCl and bag leak detectors is \$488,316 per kiln (costs derived from EPA's CEM.xls spreadsheet and Hg costs from 69FR4694). The costs will be incurred for each year of the three-year period.

The average annual cost for capital (including startup) costs to industry each year over the next three years of the ICR are estimated to be \$486,316. The continuous monitoring costs that are included in this section consist only of those capital costs that a source incurs as a result of the standard. Some continuous monitoring costs may not be included in this section. For instance, if a particular industry typically utilizes a control device that must have a continuous monitor (e.g., temperature, pressure drop, etc.) to function properly, and the recordation of additional measurements beyond the minimum are required by the standard, then there is no capital cost; but, there is a labor cost to record the additional readings. Such a cost would not appear in this section, but in the industry burden Section 6(d) below.

All portland cement plants are assumed to consist of kiln, clinker cooler, raw mill system, finish mill system, raw mill dryer, raw material storage, clinker storage, finished product storage, convey transfer points, and bagging and bulk loading and unloading systems. In the future, the Agency assumes that no new COMS/Method 9 testing will be used. Fabric

filter performance tests at Portland cement plants include an initial Method 5 test. Method 5 testing is usually conducted by a contractor such that the cost of the emissions testing is a capital cost. A testing cost of \$7,000 for Method 5 tests was used. It is anticipated that new kilns will use continuous emission monitoring systems (CEMS) for compliance with the proposed new or revised THC, Hg, HCl, and PM emission limits and bag leak detectors for baghouse performance. Initial CEMS testing is usually conducted by an installation contractor such that the cost of the emissions testing is a capital cost. A testing cost of \$81,308 per kiln for initial CEMS testing was used. The total costs for performance testing were calculated for this industry sector. Note that there are no testing costs for BLDs. The anticipated number of new sources in this sector combined with the number of tests required for each type of model plant resulted in a total capital cost of approximately \$13,195,390 for Method 5 and CEMS testing over the next three years as shown in Exhibit 3.

Exhibit 3. Total Testing Costs by Year

Year	Method 5 (\$)	CEMS and Flow Meters (\$)
1	1,064,000	11,480,927
2	28,000	297,232
3	28,000	297,232
Total	1,120,000	12,075,390
Grand Total		13,195,390

(iii) Estimating Operations and Maintenance (O&M) Costs

The annual operation and maintenance costs are the ongoing costs to maintain the monitors and other costs such as photocopying and postage. The total annual operations and maintenance costs for CEMS that will be used to monitor THC, Hg, HCl and bag leak detectors is \$95,186 per kiln per year (costs derived from EPA’s CEM.xls spreadsheet and Hg costs from 69FR4694).

The average annual cost for operation and maintenance costs to industry each year over the next three years of the ICR are estimated to be \$95,186 per kiln. The continuous monitoring costs that are included in this section consist only of those O&M costs that a source incurs as a result of the standard. Some continuous monitoring costs may not be included in this section. For instance, if a particular industry typically utilizes a control device that must have a continuous monitor (e.g., temperature, pressure drop, etc.) to function properly, and the recordation of additional measurements beyond the minimum are required by the standard, then there is O&M cost, but there is a labor cost to record the additional readings. Such a cost would not appear in this section, but in the industry burden Section 6(d) below.

(iv) Annualizing Capital Costs

The annualized capital costs include the costs for Method 5 performance tests, CEMS, BLD, and flow meters. The total annualized capital costs total \$53,524,136. A copy of the CEMS Monitoring Costs Spreadsheet can be found in the docket (See Section 6(g) for docket information).

(c) Estimating Agency Burden and Cost

Because the information collection requirements were developed as an incidental part of standards development, no costs can be attributed to the development of the information collection requirements. Because reporting and recordkeeping requirements on the part of the respondents are required under the NESHAP General Provisions, no operational costs will be incurred by the Federal Government. Publication and distribution of the information are part of the Compliance Data System, with the result that no Federal costs can be directly attributed to the ICR. Examination of records to be maintained by the respondents will occur incidentally as part of the periodic inspection of sources that is part of EPA's overall compliance and enforcement program, and, therefore, is not attributable to the ICR. The only costs that the Federal government will incur are user costs associated with the analysis of the reported information, as presented in Tables 2a, 2b, and 2c. Exhibit 4 contains a summary of the agency burden costs and houses detailed in Tables 2a, 2b, and 2c. The average annual Agency costs during the three years of the ICR is estimated to be \$120,679.

Exhibit 4. Summary of the Agency Burden

Year	Total Annual Labor Burden (Hours)	Total Annual Costs (\$)
1	2,958	162,692
2	1,713	94,380
3	1,906	104,966
Total	6,576	362,038
3-Year Average	2,192	120,679

The Agency labor rates are from the Office of Personnel Management (OPM) 2003 General Schedule which excludes locality rates of pay. These rates can be obtained from Salary Table 2009-GS available on the OPM website (www.opm.gov/oca/09tables/html/g_s_h.asp). The government employee labor rates are \$16.04/hour for clerical (GS-7, Step 1), \$33.84 for technical (GS-13, Step 1), and \$47.03/hr for management (GS-15, Step 1). These rates represent salaries plus fringe benefits and do not include the cost of overhead. An overhead rate of 110 percent is used to account for these costs. The fully-burdened wage rates used to represent Agency labor costs are: clerical at \$25.66; technical at \$54.14, and management at \$75.25.

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

Approximately 93 portland cement plants are currently subject to the current regulation. Growth in this sector was estimated using data compiled by the Portland Cement Association showing capacity expansion estimates for the industry. Using this information it is estimated that an additional 20 new portland cement kilns will become subject to the regulation over the 5-year NESHAP review period. Thus, it is estimated that an additional 12 portland cement kilns per year will become subject to the regulation over the three year ICR period ($20/5 \times 3 = 12$). All 20 new kilns are estimated to be newly constructed at existing portland cement plants.

The total annual number of responses for the new monitoring, recordkeeping, and reporting requirements in subpart LLL is 1,476 for the existing 152 kilns that will follow the proposed amendments and the additional 12 newly constructed portland cement kilns.

The total annual labor costs are \$4,173,980. Details upon which this estimate is based appear in Tables 1a, 1b, and 1c.

(e) Bottom Line Burden Hours and Cost Tables

The bottom line burden hours and cost tables for both the Agency and the respondents are attached. The annual public reporting and recordkeeping burden for this collection of information is estimated to average 2,828 hours per response. The increased average annual burden for the proposed amendments is 22,971 person hours with an annual labor cost of \$4,173,980 for technical, management, and clerical hours with annualized capital cost of \$53,524,136 and annual O&M cost of \$174,169 for a total cost of \$57,872,285. The total annual average burden for the ICR, including the final amendments will be 44,656 (21,685+22,971) person hours with a total annualized capital/startup cost of \$54,651,977 (\$953,672+\$53,698,305).

(f) Reasons for Change in Burden.

The increase in burden is primarily due to the additional performance testing, monitoring, recordkeeping, and reporting costs attributable to the proposed amendments. It is also due to the use of more current labor rates for calculating the industry and Agency burden.

(g) Burden Statement

The annual public reporting and recordkeeping burden for this collection of information is estimated to average 2,828 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 not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations in 40 CFR part 63 are listed in 40 CFR part 9.

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-OAR-2002-0051, which is available for online viewing at www.regulations.gov, or in person viewing at the Air and Radiation Docket and Information Center in the EPA Docket Center (EPA/DC), EPA West, Room 3334, 1301 Constitution Avenue, NW, Washington, D.C. 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 Air and Radiation Docket and Information Center is (202) 566-1742. An electronic version of the public docket is available at www.regulations.gov. This site can be used to submit or view public comments, access the index listing of the contents of the public 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 above. Also, you can send comments to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW, Washington, D.C. 20503, Attention: Desk Officer for EPA. Please include the EPA Docket ID Number EPA-HQ-OAR-2002-0051 and OMB Control number 2060-0416 in any correspondence.

PART B

This section is not applicable because statistical methods are not used in data collection associated with the final amendments.

**Table 1a Year 1 Respondent Burden of Reporting and Recordkeeping Requirements, NESHAP
for Portland Cement Plants (40 CFR part 63, subpart LLL)**

Year 1 Activities	(A) Hours per Occurrence	(B) Occurrences/ Respondent/ Year	(C) Hours/ Respondent/ Year (A x B)	(D) Respondents/ Year	(E) Technical Hours/Year (C x D)	(F) Managerial Hours/Year (E x 0.05)	(G) Clerical Hours/Year (E x 0.10)	(H) Cost/ Year
1. APPLICATIONS (Not Applicable)								
2. SURVEY AND STUDIES (Not Applicable)								
3. ACQUISITION, INSTALLATION, AND UTILIZATION OF TECHNOLOGY AND SYSTEMS	16	1	16	93	1,488.0	74.4	148.8	\$159,946
4. REPORT REQUIREMENTS								
A. Read Instructions								
Existing Sources	1	1	1	93	93.0	4.7	9.3	\$9,997
New Sources	1	1	1	4	4.0	0.2	0.4	\$430
B. Required Activities*								
New Sources - Initial Performance Test	24	1	24	152	3,648.0	182.4	364.8	\$392,126
New Sources - Reference Method 5 Test	8	1	8	152	1,216.0	60.8	121.6	\$130,709
New Sources - Repeat Performance Test	24	1	24	152	3,648.0	182.4	364.8	\$392,126
New Sources - Initial THC Performance Test	8	1	8	152	1,216.0	60.8	121.6	\$130,709
New Sources - Repeat THC Performance Test	8	1	8	152	1,216.0	60.8	121.6	\$130,709
New Sources - Initial Hg Performance Test**	40	1	40	156	6,240.0	312.0	624.0	\$670,741
New Sources - Repeat Hg Performance Test**	0	0	0	156	0	0	0	\$0
New Sources - Initial HCl Performance Test**	16	1	16	156	2,496.0	124.8	249.6	\$268,297
New Sources - Repeat HCl Performance Test**	16	0.2	3.2	156	499.2	25.0	49.9	\$53,659
New Sources - CEMS Monitoring	0.5	1	0.5	152	76.0	3.8	7.6	\$8,169
New Sources - CEMS Quarterly Inspections	2	4	8	152	1,216.0	60.8	121.6	\$130,709
New Sources - CEMS Daily Calibration Drift Tests	0.3	300	90	152	13,680.0	684.0	1,368.0	\$1,470,471
New Sources - BLD Quarterly (Seasonal) Adjustments	2	4	8	152	1,216.0	60.8	121.6	\$130,709
New Sources - Daily monitoring (CEMS and BLD)	0.3	300	90	152	13,680.0	684.0	1,368.0	\$1,470,471
New Sources -- All CEMS must follow appropriate performance specifications	0.3	300	90	152	13,680.0	684.0	1,368.0	\$1,470,471
C. Create Information (Included in 4B)								
D. Gather Existing Information (Included in 4E)								
E. Write Report								
New Sources - Notification of construction/reconstruction	2	1	2	4	8.0	0.4	0.8	\$860
New Sources - Notification of actual startup	2	1	2	4	8.0	0.4	0.8	\$860
New Sources - Physical or Operational Change	2	1	2	4	8.0	0.4	0.8	\$860
New Sources - Notification of Demonstration of CEMS	2	1	2	4	8.0	0.4	0.8	\$860
New Sources - Report of Performance Test (included in 4B)								
New Sources - Notification of Initial Performance Test	2	1	2	4	8.0	0.4	0.8	\$860

Year 1 Activities		(A) Hours per Occurrence	(B) Occurrences/ Respondent/ Year	(C) Hours/ Respondent/ Year (A x B)	(D) Respondents/ Year	(E) Technical Hours/Year (C x D)	(F) Managerial Hours/Year (E x 0.05)	(G) Clerical Hours/Year (E x 0.10)	(H) Cost/ Year
	New Sources - Report of Performance Test	2	1	2	4	8.0	0.4	0.8	\$860
	New Sources - Report of Semi-Annual Reports	24	2	48	4	192.0	9.6	19.2	\$20,638
	New Sources - BLD - site-specific monitoring plan**	40	1	40	156	6,240.0	312.0	624.0	\$670,741
5. RECORDKEEPING REQUIREMENTS									
	A. Read Instructions (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								
	New Sources - Data Collection**	0.1	300	30	156	4,680.0	234.0	468.0	\$503,056
	New Sources - Records of Startups, Shutdowns, malfunctions, etc**	1.5	1	1.5	156	234.0	11.7	23.4	\$25,153
	F. Time to Train Personnel**	16	2	32	156	4,992.0	249.6	499.2	\$536,593
	G. Time for Audits (Not Applicable)								
TOTAL ANNUAL LABOR BURDEN AND COST			1231.2		3,138	81,698	4,085	8,170	\$8,781,789
							93,953	Hours	
ANNUALIZED CAPITAL COSTS									
	Total annualized capital								\$152,647,371
TOTAL ANNUAL COSTS (O&M)									\$174,169
TOTAL ANNUALIZED COSTS (Annualized capital + O&M costs)									\$152,821,540

*Includes 152 existing sources that must comply with the new regulations

**Includes 152 existing sources that must comply with the new regulations and 4 new anticipated sources.

**Table 1b Year 2 Respondent Burden of Reporting and Recordkeeping Requirements, NESHAP
for Portland Cement Plants (40 CFR part 63, subpart LLL)**

Year 2 Activities	(A) Hours per Occurrence	(B) Occurrences/ Respondent/Year	(C) Hours/ Respondent/ Year (A x B)	(D) Respondents/ Year	(E) Technical Hours/Year (C x D)	(F) Managerial Hours/Year (E x 0.05)	(G) Clerical Hours/Year (E x 0.10)	(H) Cost/ Year
1. APPLICATIONS (Not Applicable)								
2. SURVEY AND STUDIES (Not Applicable)								
3. ACQUISITION, INSTALLATION, AND UTILIZATION OF TECHNOLOGY AND SYSTEMS -- New Sources	16	1	16	4	64.0	3.2	6.4	\$6,879
4. REPORT REQUIREMENTS								
A. Read Instructions								
New Sources	1	1	1	4	4.0	0.2	0.4	\$430
B. Required Activities								
Existing Sources - Initial Performance Test*	24	1	24	9	216.0	10.8	21.6	\$23,218
Existing Sources - Reference Method 5 Test*	8	1	8	9	72.0	3.6	7.2	\$7,739
Existing Sources - Repeat Performance Test*	24	1	24	9	216.0	10.8	21.6	\$23,218
Existing Sources - Initial THC Performance Test*	8	1	8	9	72.0	3.6	7.2	\$7,739
Existing Sources - Repeat THC Performance Test*	8	1	8	9	72.0	3.6	7.2	\$7,739
Existing Sources - Initial Hg Performance Test*	40	1	40	9	360.0	18.0	36.0	\$38,697
Existing Sources - Repeat Hg Performance Test*	0	0	0	9	0	0	0	\$0
Existing Sources - Initial HCl Performance Test*	16	1	16	9	144.0	7.2	14.4	\$15,479
Existing Sources - Repeat HCl Performance Test*	16	0.2	3.2	9	28.8	1.4	2.9	\$3,096
Existing Sources - CEMS Monitoring*	0.5	1	0.5	9	4.5	0.2	0.5	\$484
Existing Sources - CEMS Quarterly Inspections*	2	4	8	9	72.0	3.6	7.2	\$7,739
Existing Sources - CEMS Daily Calibration Drift Tests*	0.3	300	90	9	810.0	40.5	81.0	\$87,067
Existing Sources - BLD Quarterly (Seasonal) Adjustments*	2	4	8	9	72.0	3.6	7.2	\$7,739
Existing Sources - Daily monitoring (CEMS and BLD)*	0.3	300	90	9	810.0	40.5	81.0	\$87,067
Existing Sources -- All CEMS must follow appropriate performance specifications*	0.3	300	90	9	810.0	40.5	81.0	\$87,067
New Sources - Initial Performance Test	24	1	24	4	96.0	4.8	9.6	\$10,319
New Sources - Reference Method 5 Test	8	1	8	4	32.0	1.6	3.2	\$3,440
New Sources - Repeat Performance Test	24	1	24	4	96.0	4.8	9.6	\$10,319
New Sources - Initial THC Performance Test	8	1	8	4	32.0	1.6	3.2	\$3,440
New Sources - Repeat THC Performance Test	8	1	8	4	32.0	1.6	3.2	\$3,440
New Sources - Initial Hg Performance Test	40	1	40	4	160.0	8.0	16.0	\$17,198
New Sources - Repeat Hg Performance Test	0	0	0	4	0	0	0	\$0
New Sources - Initial HCl Performance Test	16	1	16	4	64.0	3.2	6.4	\$6,879
New Sources - Repeat HCl Performance Test	16	0.2	3.2	4	12.8	0.6	1.3	\$1,376
New Sources - CEMS Monitoring	0.5	1	0.5	4	2.0	0.1	0.2	\$215
New Sources - CEMS Quarterly Inspections	2	4	8	4	32.0	1.6	3.2	\$3,440
New Sources - CEMS Daily Calibration Drift Tests	0.3	300	90	4	360.0	18.0	36.0	\$38,697
New Sources - BLD Quarterly (Seasonal) Adjustments	2	4	8	4	32.0	1.6	3.2	\$3,440

Year 2 Activities		(A) Hours per Occurrence	(B) Occurrences/ Respondent/Year	(C) Hours/ Respondent/ Year (A x B)	(D) Respondents/ Year	(E) Technical Hours/Year (C x D)	(F) Managerial Hours/Year (E x 0.05)	(G) Clerical Hours/Year (E x 0.10)	(H) Cost/ Year
	New Sources - Daily monitoring (CEMS and BLD)	0.3	300	90	4	360.0	18.0	36.0	\$38,697
	New Sources -- All CEMS must follow appropriate performance specifications	0.3	300	90	4	360.0	18.0	36.0	\$38,697
	C. Create Information (Included in 4B)								
	D. Gather Existing Information (Included in 4E)								
	E. Write Report								
	Existing Sources - Notification of construction/reconstruction*	2	1	2	9	18.0	0.9	1.8	\$1,935
	Existing Sources - Notification of actual startup*	2	1	2	9	18.0	0.9	1.8	\$1,935
	Existing Sources - Physical or Operational Change*	2	1	2	9	18.0	0.9	1.8	\$1,935
	Existing Sources - Notification of Demonstration of CEMS*	2	1	2	9	18.0	0.9	1.8	\$1,935
	Existing Sources - Report of Performance Test (included in 4B)								
	Existing Sources - Notification of Initial Performance Test*	2	1	2	9	18.0	0.9	1.8	\$1,935
	Existing Sources - Report of Performance Test*	2	1	2	9	18.0	0.9	1.8	\$1,935
	Existing Sources - Report of Semi-Annual Reports*	24	2	48	9	432.0	21.6	43.2	\$46,436
	Existing Sources - BLD - site-specific monitoring plan*	40	1	40	9	360.0	18.0	36.0	\$38,697
	New Sources - Notification of construction/reconstruction	2	1	2	4	8.0	0.4	0.8	\$860
	New Sources - Notification of actual startup	2	1	2	4	8.0	0.4	0.8	\$860
	New Sources - Physical or Operational Change	2	1	2	4	8.0	0.4	0.8	\$860
	New Sources - Notification of Demonstration of CEMS	2	1	2	4	8.0	0.4	0.8	\$860
	New Sources - Report of Performance Test (included in 4B)								
	New Sources - Notification of Initial Performance Test	2	1	2	4	8.0	0.4	0.8	\$860
	New Sources - Report of Performance Test	2	1	2	4	8.0	0.4	0.8	\$860
	New Sources - Report of Semi-Annual Reports	24	2	48	4	192.0	9.6	19.2	\$20,638
	New Sources - BLD - site-specific monitoring plan	40	1	40	4	160.0	8.0	16.0	\$17,198
	5. RECORDKEEPING REQUIREMENTS								
	A. Read Instructions (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								
	Existing Sources - Data Collection	0.1	300	30	160	4,800.0	240.0	480.0	\$515,955
	Existing Sources - Records of Startups, Shutdowns, malfunctions, etc	1.5	1	1.5	160	240.0	12.0	24.0	\$25,798
	New Sources - Data Collection	0.1	300	30	4	120.0	6.0	12.0	\$12,899

Year 2 Activities		(A) Hours per Occurrence	(B) Occurrences/ Respondent/Year	(C) Hours/ Respondent/ Year (A x B)	(D) Respondents/ Year	(E) Technical Hours/Year (C x D)	(F) Managerial Hours/Year (E x 0.05)	(G) Clerical Hours/Year (E x 0.10)	(H) Cost/ Year
	New Sources - Records of Startups, Shutdowns, malfunctions, etc	1.5	1	1.5	4	6.0	0.3	0.6	\$645
	F. Time to Train Personnel	16	2	32	160	5,120.0	256.0	512.0	\$550,352
	G. Time for Audits (Not Applicable)								
TOTAL ANNUAL LABOR BURDEN AND COST			2456.4		795	17,084	854	1,708	\$1,836,380
ANNUALIZED CAPITAL COSTS							19,647	Hours	\$3,962,519
	Total annualized capital								\$3,962,519
TOTAL ANNUAL COSTS (O&M)									\$174,169
TOTAL ANNUALIZED COSTS (Annualized capital + O&M costs)									\$4,136,688

*Assumes that 10% of the 93 facilities (9 facilities) will have new construction/reconstruction and will be required to complete performance tests and new/revised reports.

**Table 1c Year 3 Respondent Burden of Reporting and Recordkeeping Requirements, NESHAP
for Portland Cement Plants (40 CFR part 63, subpart LLL)]**

Year 3 Activities	(A) Hours per Occurrence	(B) Occurrences/ Respondent/ Year	(C) Hours/ Respondent/ Year (A x B)	(D) Respondents/ Year	(E) Technical Hours/Year (C x D)	(F) Managerial Hours/Year (E x 0.05)	(G) Clerical Hours/Year (E x 0.10)	(H) Cost/ Year
1. APPLICATIONS (Not Applicable)								
2. SURVEY AND STUDIES (Not Applicable)								
3. ACQUISITION, INSTALLATION, AND UTILIZATION OF TECHNOLOGY AND SYSTEMS -- New Sources	16	1	16	4	64.0	3.2	6.4	\$6,879
4. REPORT REQUIREMENTS								
A. Read Instructions								
New Sources	1	1	1	4	4.0	0.2	0.4	\$430
B. Required Activities								
Existing Sources - Initial Performance Test*	24	1	24	9	216.0	10.8	21.6	\$23,217
Existing Sources - Reference Method 5 Test*	8	1	8	9	72.0	3.6	7.2	\$7,739
Existing Sources - Repeat Performance Test*	24	1	24	9	216.0	10.8	21.6	\$23,217
Existing Sources - Initial THC Performance Test*	8	1	8	9	72.0	3.6	7.2	\$7,739
Existing Sources - Repeat THC Performance Test*	8	1	8	9	72.0	3.6	7.2	\$7,739
Existing Sources - Initial Hg Performance Test*	40	1	40	9	360.0	18.0	36.0	\$38,694
Existing Sources - Repeat Hg Performance Test*	0	0	0	9	0	0	0	\$0
Existing Sources - Initial HCl Performance Test*	16	1	16	9	144.0	7.2	14.4	\$15,478
Existing Sources - Repeat HCl Performance Test*	16	0.2	3.2	9	28.8	1.4	2.9	\$3,096
Existing Sources - CEMS Monitoring*	0.5	1	0.5	9	4.5	0.2	0.5	\$484
Existing Sources - CEMS Quarterly Inspections*	2	4	8	9	72.0	3.6	7.2	\$7,739
Existing Sources - CEMS Daily Calibration Drift Tests*	0.3	300	90	9	810.0	40.5	81.0	\$87,062
Existing Sources - BLD Quarterly (Seasonal) Adjustments*	2	4	8	9	72.0	3.6	7.2	\$7,739
Existing Sources - Daily monitoring (CEMS and BLD)*	0.3	300	90	9	810.0	40.5	81.0	\$87,062
Existing Sources -- All CEMS must follow appropriate performance specifications*	0.3	300	90	9	810.0	40.5	81.0	\$87,062
New Sources - Initial Performance Test	24	1	24	4	96.0	4.8	9.6	\$10,318
New Sources - Reference Method 5 Test	8	1	8	4	32.0	1.6	3.2	\$3,439
New Sources - Repeat Performance Test	24	1	24	4	96.0	4.8	9.6	\$10,318
New Sources - Initial THC Performance Test	8	1	8	4	32.0	1.6	3.2	\$3,439
New Sources - Repeat THC Performance Test	8	1	8	4	32.0	1.6	3.2	\$3,439
New Sources - Initial Hg Performance Test	40	1	40	4	160.0	8.0	16.0	\$17,197
New Sources - Repeat Hg Performance Test	0	0	0	4	0	0	0	\$0
New Sources - Initial HCl Performance Test	16	1	16	4	64.0	3.2	6.4	\$6,879
New Sources - Repeat HCl Performance Test	16	0.2	3.2	4	12.8	0.6	1.3	\$1,376
New Sources - CEMS Monitoring	0.5	1	0.5	4	2.0	0.1	0.2	\$215
New Sources - CEMS Quarterly Inspections	2	4	8	4	32.0	1.6	3.2	\$3,439
New Sources - CEMS Daily Calibration Drift Tests	0.3	300	90	4	360.0	18.0	36.0	\$38,694
New Sources - BLD Quarterly (Seasonal) Adjustments	2	4	8	4	32.0	1.6	3.2	\$3,439

Year 3 Activities		(A) Hours per Occurrence	(B) Occurrences/ Respondent/ Year	(C) Hours/ Respondent/ Year (A x B)	(D) Respondents/ Year	(E) Technical Hours/Year (C x D)	(F) Managerial Hours/Year (E x 0.05)	(G) Clerical Hours/Year (E x 0.10)	(H) Cost/ Year
	New Sources - Daily monitoring (CEMS and BLD)	0.3	300	90	4	360.0	18.0	36.0	\$38,694
	New Sources -- All CEMS must follow appropriate performance specifications	0.3	300	90	4	360.0	18.0	36.0	\$38,694
	C. Create Information (Included in 4B)								
	D. Gather Existing Information (Included in 4E)								
	E. Write Report								
	Existing Sources - Notification of construction/reconstruction*	2	1	2	9	18.0	0.9	1.8	\$1,935
	Existing Sources - Notification of actual startup*	2	1	2	9	18.0	0.9	1.8	\$1,935
	Existing Sources - Physical or Operational Change*	2	1	2	9	18.0	0.9	1.8	\$1,935
	Existing Sources - Notification of Demonstration of CEMS*	2	1	2	9	18.0	0.9	1.8	\$1,935
	Existing Sources - Report of Performance Test (included in 4B)*								
	Existing Sources - Notification of Initial Performance Test*	2	1	2	9	18.0	0.9	1.8	\$1,935
	Existing Sources - Report of Performance Test*	2	1	2	9	18.0	0.9	1.8	\$1,935
	Existing Sources - Report of Semi-Annual Reports*	24	2	48	9	432.0	21.6	43.2	\$46,433
	Existing Sources - BLD - site-specific monitoring plan*	40	1	40	9	360.0	18.0	36.0	\$38,694
	New Sources - Notification of construction/reconstruction	2	1	2	9	18.0	0.9	1.8	\$1,935
	New Sources - Notification of actual startup	2	1	2	9	18.0	0.9	1.8	\$1,935
	New Sources - Physical or Operational Change	2	1	2	9	18.0	0.9	1.8	\$1,935
	New Sources - Notification of Demonstration of CEMS	2	1	2	9	18.0	0.9	1.8	\$1,935
	New Sources - Report of Performance Test (included in 4B)								
	New Sources - Notification of Initial Performance Test	2	1	2	9	18.0	0.9	1.8	\$1,935
	New Sources - Report of Performance Test	2	1	2	9	18.0	0.9	1.8	\$1,935
	New Sources - Report of Semi-Annual Reports	24	2	48	9	432.0	21.6	43.2	\$46,433
	New Sources - BLD - site-specific monitoring plan	40	1	40	9	360.0	18.0	36.0	\$38,694
	5. RECORDKEEPING REQUIREMENTS								
	A. Read Instructions (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								
	Existing Sources - Data Collection	0.1	300	30	160	4,800.0	240.0	480.0	\$515,925
	Existing Sources - Records of Startups, Shutdowns, malfunctions, etc	1.5	1	1.5	160	240.0	12.0	24.0	\$25,796
	New Sources - Data Collection	0.1	300	30	4	120.0	6.0	12.0	\$12,898
	New Sources - Records of Startups, Shutdowns, malfunctions, etc	1.5	1	1.5	4	6.0	0.3	0.6	\$645

Year 3 Activities		(A) Hours per Occurrence	(B) Occurrences/ Respondent/ Year	(C) Hours/ Respondent/ Year (A x B)	(D) Respondents/ Year	(E) Technical Hours/Year (C x D)	(F) Managerial Hours/Year (E x 0.05)	(G) Clerical Hours/Year (E x 0.10)	(H) Cost/ Year
	F. Time to Train Personnel	16	2	32	164	5,248.0	262.4	524.8	\$564,078
	G. Time for Audits (Not Applicable)								
TOTAL ANNUAL LABOR BURDEN AND COST			2456.4		839	17,712	886	1,771	\$1,903,773
							20,369	Hours	
ANNUALIZED CAPITAL COSTS									\$3,962,519
	Total annualized capital								\$3,962,519
TOTAL ANNUAL COSTS (O&M)									\$174,169
TOTAL ANNUALIZED COSTS (Annualized capital + O&M costs)									\$4,136,688

*Assumes that 10% of the 93 facilities (9 facilities) will have new construction/reconstruction and will be required to complete performance tests and new/revised reports.

Table 2a Year 1 Agency Burden and Cost, NESHAP for Portland Cement Plants (40 CFR part 63, subpart LLL)]

Activities -- Year 1	(A) EPA Hours/ Occurrence	(B) Occurrences / Plant/Year	(C) EPA Hours/ Plant/Year (A x B)	(D) Plants/ Year	(E) EPA Technical Hours/Year (C x D)	(F) EPA Managerial Hours/Year	(G) EPA Clerical Hours/Year	(H) Cost, \$
Observe Initial Performance Tests	24	1	24	1	24	1.2	0.24	\$1,396
Observe Repeat Performance Tests	24	0.2	4.8	1	4.8	0.24	0.048	\$279
Notification of construction/reconstruction commencement	0.5	1	0.5	9	4.5	0.225	0.045	\$262
Notification of actual startup	0.5	14	7	9	63	3.15	0.63	\$3,664
Notification of performance test	0.5	14	7	9	63	3.15	0.63	\$3,664
Notification of Physical or Operational Change	0.5	14	7	9	63	3.15	0.63	\$3,664
Review Test/CEMS Results	8	1	8	156	1248	62.4	12.48	\$72,587
Review BLD site specific monitoring plan	8	1	8	9	72	3.6	0.72	\$4,188
Review Semi-Annual reports	8	1	8	156	1248	62.4	12.48	\$72,587
Total Annual Hours					2,790	139.515	27.903	\$162,292
						2,957.72	hours	
Travel Expenses								\$400
Total								\$162,692

Travel Expenses = (1 person x 1 plant/year x 3 days/plant x \$50 per diem) + (\$250 round trip/plant x 1 plant/year) = \$400/year

Assumes EPA will visit 1 plant per year

Performance test assumes 10% failure rate or 1 extra plant

Assumes that 10% of the 93 facilities (9 facilities) will have new construction/reconstruction and will be required to complete performance tests and new/revised reports.

Table 2bYear 2 Agency Burden and Cost, NESHAP for Portland Cement Plants (40 CFR part 63, subpart LLL)]

Activity -- Year 2	(A) EPA Hours/ Occurrence	(B) Occurrences/ Plant/Year	(C) EPA Hours/ Plant/Year (A x B)	(D) Plants/ Year	(E) EPA Technical Hours/ Year (C x D)	(F) EPA Managerial Hours/Year	(G) EPA Clerical Hours/Year	(H) Cost, \$
Observe Initial Performance Tests	24	1	24	1	24	1.2	0.24	\$1,396
Observe Repeat Performance Tests	24	0.2	4.8	1	4.8	0.24	0.048	\$279
Notification of construction/reconstruction commencement	0.5	1	0.5	8	4	0.2	0.04	\$233
Notification of actual startup	0.5	14	7	8	56	2.8	0.56	\$3,257
Notification of performance test	0.5	14	7	9	63	3.15	0.63	\$3,664
Notification of Physical or Operational Change	0.5	14	7	8	56	2.8	0.56	\$3,257
Review Test Results	8	1	8	8	64	3.2	0.64	\$3,722
Review BLD site specific monitoring plan	8	1	8	8	64	3.2	0.64	\$3,722
Review Semi-Annual reports	8	1	8	160	1280	64	12.8	\$74,449
Total Annual Hours					1,616	80.79	16.158	\$93,980
						1,712.75	hours	
Travel Expenses								\$400
Total								\$94,380

Travel Expenses = (1 person x 1 plant/year x 3 days/plant x \$50 per diem) + (\$250 round trip/plant x 1 plants/year) = \$400/year

Assumes EPA will visit 1 plant per year

Performance test assumes 10% failure rate or 1 extra plant

Assumes that 10% of the 93 facilities (9 facilities) will have new construction/reconstruction and will be required to complete performance tests and new/revised reports.

Table 2c Year 3 Agency Burden and Cost, NESHAP for Portland Cement Plants (40 CFR part 63, subpart LLL)]

Activity -- Year 3	(A) EPA Hours/ Occurrence	(B) Occurrences/ Plant/Year	(C) EPA Hours/ Plant/Year (A x B)	(D) Plants/ Year	(E) EPA Technical Hours/Year (C x D)	(F) EPA Managerial Hours/Year	(G) EPA Clerical Hours/Year	(H) Cost, \$
Observe Initial Performance Tests	24	1	24	1	24	1.2	0.24	\$1,396
Observe Repeat Performance Tests	24	0.2	4.8	1	4.8	0.24	0.048	\$279
Notification of construction/reconstruction commencement	0.5	1	0.5	12	6	0.3	0.06	\$349
Notification of actual startup	0.5	14	7	12	84	4.2	0.84	\$4,886
Notification of performance test	0.5	14	7	13	91	4.55	0.91	\$5,293
Notification of Physical or Operational Change	0.5	14	7	12	84	4.2	0.84	\$4,886
Review Test Results	8	1	8	12	96	4.8	0.96	\$5,584
Review BLD site specific monitoring plan	8	1	8	12	96	4.8	0.96	\$5,584
Review Semi-Annual reports	8	1	8	164	1312	65.6	13.12	\$76,310
Total Annual Hours					1,798	89.89	17.978	\$104,566
						1,905.67	hours	
Travel Expenses								\$400
Total								\$104,966

Travel Expenses = (1 person x 1 plant/year x 3 days/plant x \$50 per diem) + (\$250 round trip/plant x 1 plants/year) = \$400/year

Assumes EPA will visit 1 plant per year

Performance test assumes 10% failure rate or 1 extra plant

Assumes that 10% of the 93 facilities (9 facilities) will have new construction/reconstruction and will be required to complete performance tests and new/revised reports.