

ICR Summary Information

Hours per Response	54
Number of Respondents	91
Total Estimated Burden Hours	27,800
Total Estimated Costs	\$14,100,000
Annualized Capital O&M	\$10,800,000
Total Annual Responses	519
Form Number	5900-610

Table 1: Annual Respondent Burden and Cost – NESHAP for Portland Cement Manufa

Burden Item	(A) Hours per Occurrence	(B) Occurrences/ Respondent/ Year	(C) Hours/ Respondent/ Year (A x B)
1. APPLICATIONS	NA		
2. SURVEY AND STUDIES	NA		
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			
<i>New, Reconstructed, Modified Sources - Testing ^c</i>			
Initial PM Performance Test (kiln and cooler)	24	2	48
Repeat PM Performance Test	24	2	48
Initial D/F Performance Test (kiln)	8	1	8
Repeat D/F Performance Test	8	1	8
Initial THC/HAP Performance Test (kiln and dryer)	8	2	16
Repeat THC/HAP Performance Test	8	2	16
Initial Hg Performance Test (kiln)	8	1	8
Repeat Hg Performance Test	8	1	8
Initial HCl Performance Test (Method 321) (kiln)	8	1	8
Repeat HCl Performance Test	8	1	8
Initial Opacity Performance Test (mills)	8	1	8
Repeat Opacity Performance Test	8	1	8
<i>Existing Sources - Annual Testing ^d</i>			
Annual PM Performance Test (kiln and cooler)	24	2	48
Repeat PM Performance Test	24	2	48
Annual Hg Performance Test (kiln)	8	1	8
Repeat Hg Performance Test	8	1	8
Annual HCl Performance Test (Method 321) (new, modified, reconstructed kilns)	8	1	8
Repeat HCl Performance Test	8	1	8
<i>New and Existing Sources - Monitoring ^e</i>			
Daily Calibration Drift Tests - Hg CEMS	0.3	330	99
Monthly Opacity Checks (Method 22) (mills)	0.5	12	6
C. Create Information (Included in 4B)	See 4B		
D. Gather Existing Information (Included in 4E)	See 4E		
E. Write Report			
<i>New, Reconstructed, Modified 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
Notification of Opacity Observations	2	1	2
Notification of Initial Performance Test	2	1	2
Report of Performance Tests	2	1	2
Semi-Annual Reports	24	2	48

<i>Existing Sources</i>			
Notification of Demonstration of CEMS	2	1	2
Notification of Annual Performance Test	2	1	2
Report of Annual Performance Test Results	2	1	2
Semi-Annual Reports	2	2	4
Subtotal for Reporting Requirements			
5. RECORDKEEPING REQUIREMENTS			
A. Familiarize with regulatory requirement	See 4A		
B. Plan Activities	See 4B		
C. Implement Activities	See 4B		
D. Record Data	NA		
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	NA		
Subtotal for Recordkeeping Requirements			
Total Labor Burden and Cost (rounded) ^f			
Total Capital and O&M Cost (rounded) ^f			
Grand TOTAL (rounded) ^f			

^a We have assumed that there are approximately 91 respondents operating kilns and that 10% of the existing facilities

^b This ICR uses the following labor rates: \$157.61 (\$75.05 + 110%) per hour for Executive, Administrative, and Professional labor; \$62.52 (\$29.77 + 110%) per hour for Clerical labor. These rates are from the United States Department of Labor occupational and industry group.” The rates are from column 1, “Total compensation.” The rates have been increased to include overhead business costs of employing workers beyond their wages and benefits, including business expenses associated with the rule.

^c New kilns test for PM, D/F, Hg, HCl, and THC or Total Organic HAP. New raw and finish mills test for opacity. Times for testing include calibration of the CEMS, COMS, or CPMS (temperature, pressure drop, air flow rate, sorbent flow rate, active carbon flow rate). We have assumed that 5 percent of respondents would repeat initial performance test due to failure.

^d The rule requires existing kilns re-test annually for PM and Hg. New kilns and kilns that were modified or reconstructed test annually. Times for testing include calibration of the CEMS or CPMS (pressure drop, air flow rate, sorbent flow rate, active carbon flow rate). We have assumed that 5 percent of respondents would repeat annual performance test due to failure.

^e Opacity checks are required monthly. Calibration drift checks on the air flow sensor on the Hg CEMS are performed quarterly.

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

Manufacturing Industry (40 CFR Part 63, Subpart LLL) (Renewal)

(D) Respondents/ Year ^a	(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 ^b
0	0	0	0	\$0
91	91	4.55	9.1	\$12,564.60
9.1	437	21.84	43.68	\$60,310.07
0.455	22	1.092	2.184	\$3,015.50
9.1	73	3.64	7.28	\$10,051.68
0.455	4	0.182	0.364	\$502.58
9.1	146	7.28	14.56	\$20,103.36
0.455	7	0.364	0.728	\$1,005.17
9.1	73	3.64	7.28	\$10,051.68
0.455	4	0.182	0.364	\$502.58
9.1	73	3.64	7.28	\$10,051.68
0.455	4	0.182	0.364	\$502.58
9.1	73	3.64	7.28	\$10,051.68
0.455	4	0.182	0.364	\$502.58
91	4,368	218.4	436.8	\$603,100.68
4.55	218	10.92	21.84	\$30,155.03
91	728	36.4	72.8	\$100,516.78
4.55	36	1.82	3.64	\$5,025.84
91	728	36.4	72.8	\$100,516.78
4.55	36	1.82	3.64	\$5,025.84
91	9,009	450.45	900.9	\$1,243,895.15
91	546	27.3	54.6	\$75,387.59
9.1	18.2	0.91	1.82	\$2,512.92
9.1	18.2	0.91	1.82	\$2,512.92
9.1	18.2	0.91	1.82	\$2,512.92
9.1	18.2	0.91	1.82	\$2,512.92
9.1	18.2	0.91	1.82	\$2,512.92
9.1	18.2	0.91	1.82	\$2,512.92
9.1	18.2	0.91	1.82	\$2,512.92
9.1	18.2	0.91	1.82	\$2,512.92
9.1	436.8	21.84	43.68	\$60,310

Labor Rate
Management
Technical
Clerical
New
Reconstructed/modified
Existing

91	182	9.1	18.2	\$25,129.20
91	182	9.1	18.2	\$25,129.20
91	182	9.1	18.2	\$25,129.20
91	364	18.2	36.4	\$50,258.39
	20,876			\$2,506,386
91	3,003	150.15	300.3	\$414,631.72
91	3,003	150.15	300.3	\$414,631.72
0	0	0	0	\$0
0	0	0	0	\$0
0	0	0	0	\$0
0	0	0	0	\$0
	6,907			\$829,263
	27,800			\$3,340,000
				\$10,800,000
				\$14,100,000

ilities will have new construction/reconstruction.

1 Managerial labor; \$123.94 (\$59.02 + 110%) per hour for Technical labor, and , Bureau of Labor Statistics, September 2021, “Table 2. Civilian Workers, by ased by 110 percent to account for varying industry wage rates and the additional ociated with hiring, training, and equipping their employees.

ty. New coolers test for PM. New dryers test for THC or Total Organic HAP. All orbent flow rate, activated carbon injection rate) monitors on this equipment. We

onstructed after the rule was promulgated must also re-test annually for HCl. All ated carbon injection rate) monitors on this equipment. We have assumed that 5

ormed daily.

s:
\$157.61
\$123.94
\$62.52

Number of kilns
0
9.1
91

hr/response

Table 2: Average Annual EPA Burden and Cost - NESHAP for Portland Cement Manufacture (Renewal)

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 ^a	Technical person-hours per year
			(C=AxB)		(E=CxD)
Initial performance tests ^c	24	1	24	9.1	218.4
Repeat performance test ^d	24	1	24	0	0
Report Review					
Notification of construction	0.5	1	0.5	9.1	4.6
Notification of actual startup	0.5	1	0.5	9.1	4.6
Notification of performance test ^e	0.5	1.1	0.55	100	55.0
Notification of Physical or Operational Change	0.5	1	0.5	9.1	4.6
Notification of Demonstration of CEMS ^e	0.5	1	0.5	100	50.0
Notification of Opacity Observations ^e	0.5	1	0.5	9.1	4.6
Review test results/CEMS Results ^e	8	1	8	100	800.0
Review semi-annual summary report ^f	8	2	16	91	1456
TOTAL (rounded) ^g					

Assumptions:

^a We have assumed that there are approximately 91 respondents with kilns and that 10% of the existing facilities will be reconstructed or modified.

^b This cost is based on the following hourly labor rates: \$70.56 (GS-13, Step 5, \$44.10 + 60%) for Managerial, \$52.37 for Technical, and \$28.34 (GS-6, Step 3, \$17.71 + 60%) Clerical. These rates are from the Office of Personnel Management and exclude locality rates of pay. The rates have been increased by 60 percent to account for the benefit packages available to federal employees.

^c We have assumed that EPA personnel will attend the initial performance tests for facilities that are re-constructed or modified and will not attend performance tests for existing facilities.

^d We have assumed that 5 percent of respondents would repeat performance test due to failure, but that EPA would not attend the repeat test.

^e Modified or reconstructed facilities conduct initial testing, and existing facilities (kilns and coolers) conduct annual testing.

^f We have assumed that EPA will review two semiannual reports per year for the 91 respondents. Table 1 accounts for the reporting requirements by facilities that are reconstructed or modified.

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

ring Industry (40 CFR Part 63,

(F)	(G)	(H)
Managem ent person- hours per year	Clerical person- hours per year	Cost, \$^b
(Ex0.05)	(Ex0.1)	
10.9	21.8	\$12,827.07
0	0	\$0
0.2	0.5	\$267.23
0.2	0.5	\$267.23
2.8	5.5	\$3,230.26
0.2	0.5	\$267.23
2.5	5.0	\$2,936.60
0.2	0.5	\$267.23
40.00	80.00	\$46,985.60
72.8	145.6	\$85,513.79
2,990		\$153,000

Labor Rates:	
Management	\$70.56
Technical	\$52.37
Clerical	\$28.34

be reconstructed or modified.

(GS-12, Step 1, \$32.73 + 60%) for
ent (OPM), 2022 General Schedule, which
e to government employees.

modified, but will not attend the annual

attend repeat performance tests.

esting.

additional burden incurred for semiannual

Capital/Startup vs. Operation and Maintenance			
(A)	(B)	(C)	(D)
Continuous Monitoring Device	Capital/Startup Cost for One Respondent	Number of New Respondents	Total Capital/Startup Cost, (B X C)
Kilns Using CMS for Compliance			
Continuous emission monitoring system (CEMS) ^a	\$604,456	0	\$0
Initial CEMS testing ^b	\$131,222	0	\$0
Kilns With Integrated Coal Mills With Stand-Alone Stacks			
Flow monitoring device for coal mills ^c	\$35,780	0	\$0
Coal mill testing	\$50,800	0	\$0
Totals (rounded) ^d			\$0

^a The annual total capital (including startup) cost for CEMS will be used to monitor THC, Hg, HCl, and PM (CEMS for these parameters is \$116,459 per kiln per year. These costs are derived from EPA's CEM.xls spreadsheet (January 30, 2004). These costs would apply only to new respondents constructing new kilns.

^b It is anticipated that new kilns will use CEMS for compliance with the THC, Hg, HCl (or Method 321 for soot testing cost is estimated to be \$131,222 per kiln, and would only apply to new respondents constructing new kilns.

^c An estimated 59 kilns have integrated coal mills with stand-alone stacks. For these kilns, the capital costs are \$35,780 per kiln for flow monitoring device, and \$50,800 per kiln for HCl, THC, and Hg testing. These costs are only applicable to new kilns. Total cost is \$86,580 per facility. These costs are derived from 78 FR 10006 (February 2013).

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

(O&M) Costs		
(E)	(F)	(G)
Annual O&M Costs for One Respondent	Number of Respondents with O&M	Total O&M, (E X F)
\$116,459	91	\$10,597,769
N/A	N/A	N/A
\$2,589	59	\$152,751
\$0	0	\$0
		\$10,800,000

\$10,800,000

plus flow CEMS) is \$604,456 per kiln. The annual O&M costs for
 dsheet, Method 321 costs from EPA, and Hg costs from 69 FR 4694

rubber-equipped kilns), and PM emission limits. The initial CEMS
 kilns.

re estimated at \$35,780 per kiln for purchase and installation of a flow
 w respondents constructing new kilns. O&M costs for flow meters is

Number of Respondents				
	Respondents That Submit Reports		Respondents That Do Not Submit Any Reports	
	(A)	(B)	(C)	(D)
Year	Number of New Respondents ^a	Number of Existing Respondents	Number of Existing Respondents that keep records but do not submit reports	Number of Existing Respondents That Are Also New Respondents
1	9.1	91	0	9.1
2	9.1	91	0	9.1
3	9.1	91	0	9.1
Average	9.1	91	0	9.1

^a New respondents include sources with constructed and reconstructed affected facilities.

(E)
Number of Respondents (E=A+B+C-D)
91
91
91
91

Total Annual Responses				
(A)	(B)	(C)	(D)	(E)
Information Collection Activity	Number of Respondents ^a	Number of Responses	Number of Existing Respondents That Keep Records But Do Not Submit Reports	Total Annual Responses E=(BxC)+D
<u><i>New, Reconstructed, Modified Sources</i></u>				
Notification of construction/reconstruction ^a	9.1	1	0	9.1
Notification of actual startup ^a	9.1	1	0	9.1
Physical or Operational Change ^a	9.1	1	0	9.1
Notification of Demonstration of CEMS ^a	9.1	1	0	9.1
Notification of Opacity Observations ^a	9.1	1	0	9.1
Notification of Initial Performance Test ^a	9.1	1	0	9.1
Report of Initial Performance Test Results ^a	9.1	1	0	9.1
Semiannual Reports ^b	9.1	0	0	0
<u><i>Existing Sources</i></u>				
Notification of Demonstration of CEMS	91	1	0	91
Notification of Annual Performance Test	91	1	0	91
Report of Annual Performance Test Results	91	1	0	91
Semiannual Reports	91	2	0	182
			Total	519

^a Approximately 10% of the 91 existing sources (9.1) are expected to undergo construction, reconstruction, or modification of equipment each year, resulting in notifications and reports for testing and evaluation of CEMS/COMS systems.

^b The responses for semiannual reports for modified sources are accounted for in the responses shown for semiannual reports for existing sources.