

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

<b>Burden Item</b>	<b>(A) Hours per Occurrence</b>	<b>(B) Occurrences/ Respondent/ Year</b>	<b>(C) Hours/ Respondent/ Year (A x B)</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 <sup>c</sup></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 <sup>d</sup></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 <sup>e</sup></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
<b>Subtotal for Reporting Requirements</b>			
<b>5. RECORDKEEPING REQUIREMENTS</b>			
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			
<u>Existing Sources</u>			
Data Collection	0.1	330	33
Records of Startups, Shutdowns, malfunctions, etc	0.1	330	33
<u>New Sources</u>			
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		
<b>Subtotal for Recordkeeping Requirements</b>			
<b>Total Labor Burden and Cost (rounded) <sup>f</sup></b>			
<b>Total Capital and O&amp;M Cost (rounded) <sup>f</sup></b>			
<b>Grand TOTAL (rounded) <sup>f</sup></b>			

<sup>a</sup> We have assumed that there are approximately 40 respondents operating kilns and that 10% of the existing fac

<sup>b</sup> This ICR uses the following labor rates: \$147.40 per hour for Executive, Administrative, and Managerial labor. These rates are from the United States Department of Labor, Bureau of Labor Statistics, June 2018, "Table 2. Ci 1, "Total Compensation." The rates have been increased by 110% to account for the benefit packages available i

<sup>c</sup> New kilns test for PM, D/F, Hg, HCl, and THC or Total Organic HAP. New raw and finish mills test for opaci times for testing include calibration of the CEMS, COMS, or CPMS (temperature, pressure drop, air flow rate, s have assumed that 5 percent of respondents would repeat initial performance test due to failure.

<sup>d</sup> The rule requires existing kilns re-test annually for PM and Hg. New kilns and kilns that were modified or reced times for testing include calibration of the CEMS or CPMS (pressure drop, air flow rate, sorbent flow rate, activ percent of respondents would repeat annual performance test due to failure.

<sup>e</sup> Opacity checks are required monthly. Calibration drift checks on the air flow sensor on the Hg CEMS are perf

<sup>f</sup> 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 <sup>a</sup>	(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 <sup>b</sup>
0	0	0	0	\$0
40	40	2	4	\$5,239.68
4	192	9.6	19.2	\$25,150.46
0.2	10	0.48	0.96	\$1,257.52
4	32	1.6	3.2	\$4,191.74
0.2	2	0.08	0.16	\$209.59
4	64	3.2	6.4	\$8,383.49
0.2	3	0.16	0.32	\$419.17
4	32	1.6	3.2	\$4,191.74
0.2	2	0.08	0.16	\$209.59
4	32	1.6	3.2	\$4,191.74
0.2	2	0.08	0.16	\$209.59
4	32	1.6	3.2	\$4,191.74
0.2	2	0.08	0.16	\$209.59
4	32	1.6	3.2	\$4,191.74
0.2	2	0.08	0.16	\$209.59
40	1,920	96	192	\$251,504.64
2	96	4.8	9.6	\$12,575.23
40	320	16	32	\$41,917.44
2	16	0.8	1.6	\$2,095.87
40	320	16	32	\$41,917.44
2	16	0.8	1.6	\$2,095.87
40	3,960	198	396	\$518,728.32
40	240	12	24	\$31,438.08
4	8	0.4	0.8	\$1,047.94
4	8	0.4	0.8	\$1,047.94
4	8	0.4	0.8	\$1,047.94
4	8	0.4	0.8	\$1,047.94
4	8	0.4	0.8	\$1,047.94
4	8	0.4	0.8	\$1,047.94
4	8	0.4	0.8	\$1,047.94
4	8	0.4	0.8	\$1,047.94
4	192	9.6	19.2	\$25,150

Labor Rate
Management
Technical
Clerical
New
Reconstructed/modified
Existing

40	80	4	8	\$10,479.36
40	80	4	8	\$10,479.36
40	80	4	8	\$10,479.36
40	160	8	16	\$20,958.72
	<b>9,176</b>			<b>\$1,045,211</b>
40	1,320	66	132	\$172,909.44
40	1,320	66	132	\$172,909.44
0	0	0	0	\$0
0	0	0	0	\$0
0	0	0	0	\$0
0	0	0	0	\$0
	<b>3,036</b>			<b>\$345,819</b>
	<b>12,200</b>			<b>\$1,390,000</b>
				<b>\$4,730,000</b>
				<b>\$6,100,000</b>

ilities will have new construction/reconstruction.

; \$117.92 per hour for Technical labor, and \$57.02 per hour for Clerical labor. vilian Workers, by Occupational and Industry group.” The rates are from column to those employed by private industry.

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:
\$147.40
\$117.92
\$57.02

These rates were updated 2/4/19 to match the United States Department of Labor, Bureau of Labor Stati:

Number of kilns
0
4
40

hr/response

stics, June 2018, "Table 2. Civilian Workers, by occupational and industry group

**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 <sup>a</sup>	Technical person-hours per year
			(C=AxB)		(E=CxD)
Initial performance tests <sup>c</sup>	24	1	24	4	96.0
Repeat performance test <sup>d</sup>	24	1	24	0	0
Report Review					
Notification of construction	0.5	1	0.5	4	2.0
Notification of actual startup	0.5	1	0.5	4	2.0
Notification of performance test <sup>e</sup>	0.5	1.1	0.55	44	24.2
Notification of Physical or Operational Change	0.5	1	0.5	4	2.0
Review test results/CEMS Results <sup>e</sup>	8	1	8	44	352.0
Review semi-annual summary report	8	2	16	40	640
<b>TOTAL (rounded) <sup>f</sup></b>					<b>1,290</b>

**Assumptions:**

<sup>a</sup> We have assumed that there are approximately 40 respondents with kilns and that 10% of the existing facilities will be reconstructed or modified.

<sup>b</sup> This cost is based on the following labor rates which incorporates a 1.6 benefits multiplication factor to account for general wage increase: General rate of \$65.71 (GS-13, Step 5, \$41.07 + 60%), Technical rate of \$48.75 (GS-12, Step 1, \$30.47 + 60%), and Clerical rate of \$32.50 (GS-11, Step 1, \$20.31 + 60%). These rates are from the Office of Personnel Management (OPM) “2018 General Schedule” which excludes locality rates.

<sup>c</sup> We have assumed that EPA personnel will attend the initial performance tests for facilities that are re-constructed or modified and annual performance tests for existing facilities.

<sup>d</sup> We have assumed that 5 percent of respondents would repeat performance test due to failure, but that EPA would not repeat the test.

<sup>e</sup> Modified or reconstructed facilities conduct initial testing, and existing facilities (kilns and coolers) conduct annual testing.

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



**iring Industry (40 CFR Part 63,**

(F)	(G)	(H)
<b>Managem ent person- hours per year</b>	<b>Clerical person- hours per year</b>	<b>Cost, \$<sup>b</sup></b>
<b>(Ex0.05)</b>	<b>(Ex0.1)</b>	
4.8	9.6	\$5,248.66
0	0	\$0
0.1	0.2	\$109.35
0.1	0.2	\$109.35
1.2	2.4	\$1,323.10
0.1	0.2	\$109.35
17.60	35.20	\$19,245.07
32.0	64.0	\$34,991.04
		<b>\$61,100</b>

Labor Rates:	
Management	\$65.71
Technical	\$48.75
Clerical	\$26.38

These rates were updated 2/4/19 to m:

be re-constructed or modified.

government overhead expenses: Managerial  
rate of \$26.38 (GS-6, Step 3, \$16.49 + 60%).  
rates of pay.

modified, but will not attend the annual

to attend repeat performance tests.

testing.

atch the rates from the Office of Personnel Management (OPM), 2018 General Schedule.

**NESHAP for Portland Cement Manufacturing Industry (40 CFR Part 63, Subpart LL)  
Capital/Startup vs. Operation and Maintenance (O&M) Costs**

(A)	(B)	(C)	(D)	(E)	(F)
Continuous Monitoring Device	Capital/Startup Cost for One Respondent	Number of New Respondents	Total Capital/Startup Cost, (B X C)	Annual O&M Costs for One Respondent	Number of Respondents with O&M
Continuous Emission Monitors	\$604,456	0	\$0	\$116,459	40
Initial CEMS testing	\$131,222	0	\$0		
Flow monitoring device for coal mills	\$35,780	0	\$0	\$2,589	26
Coal mill testing	\$50,800	0	\$0		
<b>TOTAL</b>			\$0		

Total Capital and O&M

**L) (Renewal)**

(G)

Total O&M, (E X F)

\$4,658,360

\$67,314

\$4,730,000

\$4,730,000