

Table 1: Annual Respondent Burden and Cost – NESHAP for Primary Aluminum Reduction Plan

Burden Item	(A)	(B)
	Person-hours per occurrence	No. of occurrences per respondent per year
1. Applications	N/A	
2. Surveys and Studies	N/A	
3. Reporting Requirements		
A. Familiarization with regulatory requirements ^c		
New Sources	4	1
Existing Sources	2	1
B. Required activities		
Acquisition, Installation, and Utilization of Technology and Systems	8	1
Initial performance test ^d	100	1
Annual performance tests ^{d, e}	100	13.09
Semiannual performance tests for TF and PM ^{f, g}	200	10
Semiannual POM testing ^{f, g}	100	6.36
Semiannual performance test (CEM or Alcan cassette) ^{h, i}	40	2.18
Quarterly performance test ^{j, k}	200	16
Daily Monitoring	2	730
C. Create information	See 3B	
D. Gather existing information	See 3B	
E. Write report	See 3B	
Notification of applicability	2	1
Notification of construction/reconstruction	2	1
Notification of actual startup	2	1
Notification of special compliance requirements	N/A	
Notification of performance test	2	1
Notification of compliance status	4	1
Design specifications for pitch storage tank controls ^l	46	1
NESHAP waiver application	N/A	
Report of performance test	See 3B	
Report of monitoring exceedances ^{m, n}	16	2
Report of no excess emissions ^{m, o}	8	2
Malfunction report ^{m, p}	8	2
Subtotal for Reporting Requirements		
4. Recordkeeping Requirements		
A. Familiarization with regulatory requirements	See 3B	
B. Plan activities	N/A	
C. Implement activities (COS calculations)	1	11
D. Develop record system	N/A	
E. Time to enter information		
Records of all information required by standards ^q	3	52
F. Time to train personnel	N/A	
G. Time to adjust existing ways to comply with previously applicable requirements	N/A	

H. Time to transmit or disclose information ^{m,r}	1	2
I. Time for audits	N/A	
Subtotal for Recordkeeping Requirements		
TOTAL LABOR BURDEN AND COST (rounded) ^s		
TOTAL CAPITAL AND O&M COSTS (rounded) ^s		
GRAND TOTAL (rounded) ^s		

Assumptions:

- ^a Assumes that there is an average of 8 respondents per year subject to the standards and that no additional respondents per year.
- ^b This ICR uses the following labor rates for privately-owned sources: \$148.45 for managerial, \$121.46 for technical, and \$6 Statistics, March 2020, "Table 2. Civilian Workers, by occupational and industry group." The rates are from column 1, "Total to those employed by private industry.
- ^c We have assumed all existing respondents will have to familiarize with the regulatory requirements each year.
- ^d Assumes it takes 100 hours to complete each required TF, POM, PM, and Hg test for primary controls of potlines, bake furnaces, and pitch storage tanks.
- ^e We assume an average of 13.09 tests per facility (primary control systems). This estimate is based on the Final Cost Impact: potlines and 8 pitch storage tanks will require annual POM testing; 37 potlines, 12 anode bake furnaces, and 10 paste product potlines will require annual testing for TF (Note: there are a total of 37 potlines that require TF testing; however, 7 potlines are tests/facility).
- ^f Assumes it takes 200 hours to test for secondary TF and PM emissions from potlines and 100 hours to test for secondary PC emissions from pitch storage tanks.
- ^g We assume an average of 10 tests per facility for PM and 6.36 tests per facility for POM secondary emissions from potlines for the 2015 amendments which estimates: 35 potlines will require semiannual POM testing; 37 potlines will require semiannual testing for TF testing; however, 7 potlines are located in states that already required testing and 12 potlines do not have manufacturing tests/year at 11 facilities = 10 tests/facility. 35 x 2 tests/yr = 70 POM tests/year at 11 facilities = 6.36 tests/facility].
- ^h Assumes it takes 40 hours for testing of similar potlines (CEM or Alcan cassette).
- ⁱ Assumes 2.18 tests per facility, based on estimates from the Final Cost Impacts for the Primary Aluminum Production Source Category will use Alcan Cassette tests. (12x2/11 = 2.18 tests/facility).
- ^j Assumes it takes 200 hours for a Method 315 test for secondary emissions at Soderberg plants.
- ^k Per the Final Cost Impacts for the Primary Aluminum Production Source Category for the 2015 amendments the only remaining potlines require quarterly testing.
- ^l Assumes that all existing sources have design specifications for pitch storage tank controls in place.
- ^m This rule requires that all existing respondents submit semiannual reports. Performance test results will be submitted with the reports.
- ⁿ Assumes that 10 percent of the 8 plants (0.1x8 = 0.8) will have excess emissions.
- ^o Assumes that the remaining 90 percent of the 8 plants (0.9x8 = 7.2) will not have excess emissions.
- ^p Assumes that 10 percent of plants per year (0.1x8 = 0.8, rounded to 1) will report a malfunction incident.
- ^q Assumes it takes 3 hours per week per plant to enter monitoring data into records.
- ^r Assumes it takes 1 hour to transmit recorded information.
- ^s Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

ts (40 CFR Part 63, Subpart LL) (Renewal)

\$121.46 \$148.45 \$60.23

(C)	(D)	(E)	(F)	(G)	(H)
Person- hours per respondent per year (C=AxB)	Respondents 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
4	0	0	0	0	\$0
2	8	16	0.8	1.6	\$2,158.49
8	0	0	0	0	\$0
100	0	0	0	0	\$0
1,309	8	10,472	523.6	1047.2	\$1,412,730.40
2,000	8	16,000	800	1,600	\$2,158,488.00
636	8	5,088	254.4	508.8	\$686,399.18
87.2	8	697.6	34.88	69.76	\$94,110.08
3,200	0	0	0	0	\$0
1,460	8	11,680	584	1,168	\$1,575,696.24
2	0	0	0	0	\$0
2	0	0	0	0	\$0
2	0	0	0	0	\$0
2	0	0	0	0	\$0
4	0	0	0	0	\$0
46	0	0	0	0	\$0
32	0.8	25.6	1.28	2.56	\$3,453.58
16	7.2	115.2	5.76	11.52	\$15,541.11
16	1	16	0.8	1.6	\$2,158.49
			50,727		\$5,950,736
11	8	88	4.4	8.8	\$11,871.68
156	8	1,248	62.4	124.8	\$168,362.06

2	8	16	0.8	1.6	\$2,158.49
		1,555			\$182,392
		52,300			\$6,130,000
					\$310,000
					\$6,440,000

ear will become subject to the standards.

0.23 for clerical labor. These rates are from the United States Department of Labor, Bureau of Labor
l compensation.” The rates have been increased by 110 percent to account for the benefit packages available

aces and paste production plants.

s for the Primary Aluminum Production Source Category for the 2015 amendments which estimates: 35
ion plants will require annual PM testing; 12 anode bake furnaces will require annual Hg testing; and 30
e located in states that already required testing). $(35+8+37+12+10+12+30 = 144 \text{ tests at } 11 \text{ facilities} = 13.09$

PM emissions from potlines.

. This estimate is based on the Final Cost Impacts for the Primary Aluminum Production Source Category
ual PM testing; and 18 potlines will require semiannual testing for TF (Note: there are a total of 37 potlines
ifolds installed and will use the Method 14A Alcan Cassette test). $[(37+18) \times 2 \text{ tests/year} = 110 \text{ TF and PM}$

e Category for the 2015 amendments which estimates that 12 potlines will not have manifolds installed and

ining Soderberg plant in the U.S. has announced permanent shutdown. Therefore, no Soderberg plants will

ie semiannual reports.

responses

hr/response
26 2012

Table 2: Average Annual EPA Burden and Cost – NESHAP for Primary Aluminum Reduction Plants (40 CFR

50.72

Activity	(A)	(B)	(C)	(D)	(E)
	EPA person-hours per occurrence	No. of occurrences per plant per year	EPA person-hours per plant-year (C=AxB)	Plants per year ^a	Technical person-hours per year (E=CxD)
New or reconstructed facilities ^c	2	1			
Notification of applicability	2	1	2	0	0
Notification of construction and reconstruction	2	1	2	0	0
Notification of actual startup	2	1	2	0	0
Notification of special compliance requirements	N/A				
Notification of initial performance test	2	1	2	0	0
Notification of compliance status	8	1	8	0	0
Review design specifications for pitch storage tank controls ^d	10	1	10	0	0
Existing facilities					
Review of performance test report ^e	11	2	22	8	176
Review of excess emissions report ^f	8	1	8	0.8	6.4
Review of no excess emissions report ^g	2	2	4	7.2	28.8
Review of NESHAP waiver application	N/A				
Malfunction report ^h	2	1	2	1	2
TOTAL (rounded) ⁱ					

Assumptions:

^a Assumes that there is an average of 8 respondents per year subject to the standards and that no additional respondents standards

^b This ICR uses the following labor rates: \$68.37 for managerial, \$50.72 for technical, and \$27.46 for clerical labor. T Personnel Management (OPM), 2020 General Schedule, which excludes locality rates of pay. The rates have been incr benefit packages available to government employees.

^c Assumes that there are no new or reconstructed sources over the three-year period of this ICR.

^d Assumes that all existing sources have design specifications for pitch storage tank controls in place.

^e Assumes that it will take 11 hours twice per year to review summary of performance tests requirements to be submitt

^f Assumes that 10 percent of the 8 plants (0.1×8 = 0.8 will have excess emissions.

^g Assumes that the remaining 90 percent of the 8 plants (0.9×8 = 7.2) will not have excess emissions.

^h Assumes that 10 percent of plants per year (0.1×8 = 0.8, rounded to 1) will report a malfunction incident.

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

Part 63, Subpart LL) (Renewal)

68.37 27.46

(F)	(G)	(H)
Managem ent person- hours per year (F=Ex0.05)	Clerical person- hours per year (G=Ex0.1)	Cost (\$) ^b
0	0	\$0
0	0	\$0
0	0	\$0
0	0	\$0
0	0	\$0
0	0	\$0
0	0	\$0
8.8	17.6	\$10,011.67
0.32	0.64	\$364.06
1.44	2.88	\$1,638.27
0.1	0.2	\$113.77
245		\$12,100

per year will become subject to the

these rates are from the Office of
eased by 60 percent to account for the

ed by all 11 existing plants.

Number of Respondents					
	Respondents That Submit Reports		Respondents That Do Not Submit Any Reports		
	(A)	(B)	(C)	(D)	(E)
Year	Number of New Respondents ¹	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	Number of Respondents (E=A+B+C-D)
1	0	8	0	0	8
2	0	8	0	0	8
3	0	8	0	0	8
Average	0	8	0	0	8

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

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
HF CEMs (similar potlines) ^a	\$100,000	0	\$0	\$2,623	0
Method 14 sampling manifolds at potlines ^b	\$200,000	0	\$0	\$5,248	16
Method 14A (alcan cassettes) sampling at potlines ^b	\$92,000	0	\$0	\$2,414	11
Install two manifold sampling systems at one facility ^c	\$110,000	1	\$110,000	\$5,248	1
Record storage ^d	\$55	8	\$440		
PM testing on anode bake furnaces ^e				\$5,625	8
PM testing on paste production plants ^f				\$5,625	7
Totals (rounded) ^g			\$110,000		

^a The previous ICR (1767.08) assumes that no respondents are using hydrogen fluoride CEMS for monitoring similar pot

^b We assume 16 potlines will use Method 14 testing for TF and 11 potlines do not have manifolds installed and will use Alcan Cassette testing. These values are based on adjustments to estimates from the Final Cost Impacts for the Primary Production Source Category for the 2015 amendments, which estimated 30 potlines at 9 facilities will require TF testing, 16 potlines with manifolds and 12 potlines without manifolds. We have adjusted these estimates to account for the lower number of potlines. O&M costs have been updated from 1997 dollars to 2019 dollars using the CEPCI CE Index.

^c Per the revisions in the 2015 RTR, one facility is required to install two manifold sampling systems at a total cost of \$110,000. Annualized at 7% for 15 years, the annual cost is \$110,000 per year. Cost data is from "Final Cost Impacts for the Primary Production Source Category", September 1, 2015, EPA-HQ-OAR-0797-0423.

^d Per the revisions in the 2015 RTR, all eight facilities are required to install record storage systems at a total cost of \$500 at 7% for 15 years (\$500 x capital recovery factor of 0.10979 = \$55 annually).

^e Per the revisions in the 2015 RTR, annual monitoring costs are estimated at \$5,625/furnace/year. Cost data is from "Final (A) for the Primary Aluminum Production Source Category", September 1, 2015, EPA-HQ-OAR-0797-0423.

^f Per the revisions in the 2015 RTR, annual monitoring costs are estimated at \$5,625/plant/year. Cost data is from "Final (A) for the Primary Aluminum Production Source Category", September 1, 2015, EPA-HQ-OAR-0797-0423.

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

Total Annual Responses				
(A)	(B)	(C)	(D)	(E)
Information Collection Activity	Number of Respondents	Number of Responses	Number of Existing Respondents That Keep Records But Do Not Submit Reports	Total Annual Responses $E=(B \times C)+D$
Notification of applicability	0	1	N/A	0
Notification of construction/reconstruction	0	1	N/A	0
Notification of actual startup	0	1	N/A	0
Notification of initial performance test	0	1	N/A	0
Notification of compliance status/approach	0	1	N/A	0
Report of performance tests	8	1	N/A	8
Semiannual report of monitoring exceedances	0.8	2	N/A	1.6
Semiannual report of no excess emissions	7.2	2	N/A	14.4
Startup, shutdown, malfunction report	1	2	N/A	2
Submit a design specification for pitch storage tank controls	0	1	N/A	0
Total (rounded)				26

(G)
Total O&M, (E x F)
\$0
\$83,972
\$26,557
\$5,248
\$45,000
\$39,375
\$200,000

\$310,000

CEPCI Index 1997: 386.5
CEPCI Index 2019: 607.5

lines.
Method 14A
luminum
including 18
number of facilities.

million.
y Aluminum

) each, annualized

al Cost Impacts

Cost Impacts for

