

Table 1: Annual Respondent Burden and Cost – NESHAP for Industrial, Commercial, and Institutional Boilers Area Sources (40 CFR Part 63, Subpart JJJJJJ) (Renewal)

Fuel Category	Average No. Respondents	TOTAL LABOR BURDEN AND COSTS			Total Labor Burden (hrs)	Total Labor Cost (\$)	Total Capital and O&M Cost (\$)	Total Costs (\$)
		Average No. Responses	Reporting Burden (hrs)	Recordkeeping Burden (hrs)				
Large Solid	2,100	3,026	98,006	25,480	123,485	\$14,065,745	\$6,060,260	\$20,126,005
Large Liquid	5,264	3,119	88,275	298,130	386,405	\$44,013,866	\$22,453,728	\$66,467,594
Small Solid	5,708	2,952	65,129	14,769	79,898	\$9,100,847	\$6,358,523	\$15,459,370
Small Liquid	87,303	45,631	1,009,544	225,897	1,235,440	\$140,724,151	\$97,255,542	\$237,979,693
Total	100,374	54,728	1,260,953	564,276	1,825,228	\$207,904,609	\$132,128,053	\$340,032,662
Grand Total (rounded)¹					1,830,000	\$208,000,000	\$132,000,000	\$340,000,000
Rounded by Sector¹								
Total Private Sector (49% of Respondents)	49,183	26,817	617,867	276,495	894,000	101,900,000	64,700,000	166,600,000
Total Public Sector (51% of Respondents)	51,191	27,911	643,086	287,781	931,000	106,000,000	67,400,000	173,400,000

33 hrs/response

¹ Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

Table 2: Average Annual EPA Burden and Cost – NESHAP for Industrial, Commercial, and Institutional Boilers Area Sources (40 CFR Part 63, Subpart JJJJJ) (Renewal)

Burden Item	A	B	C	D	E	F	G
	Technical Person-Hours per Occurrence	Occurrences per Year	Technical Person-Hours per Respondent per Year (C=AxB)	Technical Hours per Year (D=C)	Management Hours per Year (E=Dx0.05)	Clerical Hours per Year (F=Dx0.10)	Total Cost per Year (\$) ^a
1. Read and Understand Rule Requirements ^b	40	0	0	0	0	0	\$0
2. Enter and Update Information into Agency Recordkeeping System ^c	2	1,129.84	2,259.68	2,259.68	112.98	225.97	\$123,544.40
3. Required Activities							
a) Observe Initial Stack/Performance Test ^d	40	17	664	664	33	66	\$36,303.20
b) Observe Repeat Performance Test ^e	40	1.7	66	66	3.3	6.6	\$3,630.32
c) Review Operating Parameters ^f	2	83	166	166	8.3	16.6	\$9,075.80
d) Review Continuous Parameter Monitoring ^g	2	5,560	11,119	11,119	556.0	1,111.9	\$607,914.65
4. Excess Emissions Enforcement Activities and Inspections ^h	24	8.3	199.2	199.2	9.96	19.92	\$10,890.96
5. Notification Requirements							
a) Review Initial Notification that Sources are Subject to the Standard ^c	2	1,129.84	2,259.68	2,259.68	112.98	225.97	\$123,544.40
b) Review Notification of Initial Performance Tests and Review Test	20	83	1,660	1,660	83	166	\$90,758.01
c) Review Notification of Compliance Status ^c	2	1,129.84	2,259.68	2,259.68	112.98	225.97	\$123,544.40
6. Reporting Requirements						0	
a) Review Annual Compliance Report	4	2,424.17	9,696.69	9,696.69	484.83	969.67	\$530,151.71
b) Review Biennial Compliance Report	2	50,043.83	100,087.66	100,087.66	5,004.38	10,008.77	\$5,472,142.59
c) Review Initial Report on Energy Audit Results ⁱ	2	0	0	0	0	0	\$0
7. Travel Expenses for Performance Tests Observed ^j							\$20,159.0
TOTAL ANNUAL BURDEN AND COST (ROUNDED)^k					150,000		\$7,150,000

a. This ICR uses the following labor rates: \$48.75 for technical, \$65.71 for managerial, and \$26.38 for clerical labor. These rates are from the Office of Personnel Management (OPM) 2018 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.

b. No burden will be incurred over the three-year ICR period, as this was a one-time requirement during the previous ICR period.

c. All new sources must submit initial notifications and notifications of compliance status, regardless of subcategory.

d. It is assumed that EPA will observe 20% of initial performance tests.

e. It is assumed that 10% of initial performance tests will be repeated, which will be observed by EPA.

f. The number of occurrences is based on the number of new facilities that will test and set/submit operating limits. All new sources must submit operating limits, regardless of subcategory.

g. The number of occurrences is based on the number of facilities maintaining records of control device parameters.

h. It is assumed that 10% of new facilities will have exceedances, requiring EPA enforcement.

i. All existing sources at the time of promulgation of the standard were required to complete the energy audit by the conclusion of the previous ICR period; therefore, no new or existing sources will incur this burden over the next three years.

j. The total cost is based on the number of performance tests observed by EPA multiplied by the cost of each trip. Based on EPA experience with other rulemakings, each trip is estimated to be 3 days x (\$110 hotel + \$58 meals/incidentals) + (\$600 round trip) = \$1,104 per trip.

Boilers per Facility	2
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Existing Boiler Data

Number of Boilers Represented by Model (Over 3-Yr ICR Period)					
Fuel Category	Size Category	Total		Source Classification	Total
Biomass	<10	7,772		Existing Small Solid	11,219
	>= 10 to 100	3,440		Existing Large Solid	4,159
	>100	146		Existing Small Liquid	170,648
Coal	<10	3,447		Existing Large Liquid	10,203
	>= 10 to 100	573		Grand Total	196,229
	>100	0			
Liquid	<10	170,648			
	>= 10 to 100	10,064			
	>100	139			
Grand Total		196,229			

Assume units with bag leak detection will have a bag leak detection monitor. Otherwise, all units will have an opacity

BLD Monitors

Size Category	Total
Coal >10	80

Opacity monitors

Size Category	Total
< 10	0
>= 10 to 100	0
>100	0
Grand Total	0

New Boiler Data

Number of Boilers Represented by Model (Over 3-Yr ICR Period)					
Fuel Category	Size Category	3-Yr Total	Sources w/ Size Category >30 MMBtu/hr that will have PM costs covered by NSPS (Part 60, Subparts Db or Dc)	Source Classification	3-Yr Total
Biomass	<10	140	0	New Small Solid	295
	>= 10 to 100	11	0	New Large Solid	60
	>100	49	49	New Small Liquid	5,937
Coal	<10	155	0	New Large Liquid	487
	>= 10 to 100	0	0	Grand Total	6,779
	>100	0	0	New units/yr	2,260
Liquid	<10	5,937	0		
	>= 10 to 100	487	0		
	>100	0	0		
Grand Total		6,779	49		

BLD Monitors

Size Category	Total
new oil >10	45

Opacity monitors

Size Category	Total
new biomass >10	60
new oil >10	442

*All new coal and residual liquid units will have Fabric filter installed and will be assumed to use bag leak detection

*All new units >100 will install a CO monitor

*All biomass and distillate liquid units will install an opacity monitor since they are not expected to install a FF to me

Respondent Labor Rates

Category	Rate
Technical	\$117.92
Clerical	\$57.02
Managerial	\$147.40
General Contractor	\$80.00
Certified Energy Audit Contractor	\$56.78

Agency Labor Rates & Per Diem In

Category	Rate
Managerial	\$65.71
Clerical	\$26.38
Technical	\$48.75
Hotel	\$110
Meals	\$58
Airfare	\$600
Trip Length	3

Other Data

Percent of Stack Tests Observed	20%
Estimated Percent Retesting	10%
Estimated Percent Emission Exceedences	10%

Affirmative Defense

No. of units claiming affirmative defense	0
Hours per unit	30
Cost in labor	0

Number of Facilities Represented by Model (Over 3-Yr ICR Period)					
Fuel Category	Size Category	Total		Source Classification	Total
Biomass	<10	3,886.0		Existing Small Solid	5,610
	>= 10 to 100	1,720.0		Existing Large Solid	2,080
	>100	73.0		Existing Small Liquid	85,324
Coal	<10	1,723.5		Existing Large Liquid	5,102
	>= 10 to 100	286.5		Grand Total*	98,115
	>100	0			
Liquid	<10	85,324.0		*Roundup/down functions used above to reconcile # facilities with # sources (i.e., 196,229 sources / (2 sources/facility) must equal 98,115 facilities)	
	>= 10 to 100	5,032.0			
	>100	69.5			
Grand Total		98,115			

ity monitor

2015 Existing Facilities	End of Yr	Units	End of Yr
189450	191710		94725 95855
	193970		96985
	196230		98115

Number of Facility Represented by Model (Over 3-Yr ICR Period)					
Fuel Category	Size Category	3-Yr Total	Source Classification	Facilities (3-Yr Total)	Facilities/Yr
Biomass	<10	70.0	New Small Solid	147.5	49.17
	>= 10 to 100	5.5	New Large Solid	30.0	10.00
	>100	24.5	New Small Liquid	2,968.5	989.50
Coal	<10	77.5	New Large Liquid	243.5	81.17
	>= 10 to 100	0	Grand Total	3,390	1,130
	>100	0			
Liquid	<10	2,968.5			
	>= 10 to 100	243.5			
	>100	0			
Grand Total		3,390			

monitors.

set PM limits.

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Table 1A: Annual Respondent Burden and Cost – Existing and New Large Solid Fuel Boilers, NESHAP for Industrial, Commercial, and Institutional Boilers Area Sources (40 CFR Part 63, Subpart JJJJJ) (Renewal)

Burden Item	A	Certified Energy Audit Cost per Occurrence	Stack Testing and Fuel Analysis Cost per Occurrence	Other Non-Labor Costs per Occurrence	B	C	D	E	F	G	H	Total Non-Labor Annual Costs	Total Number of Responses per Year
	Technical Person-Hours per Occurrence				Occurrences per Respondent per Year	Technical Person-Hours per Respondent per Year (C=AxB)	Respondents per Year *	Technical Hours per Year (E=CxD)	Clerical Hours per Year (F=Ex0.10)	Management Hours per Year (G=Ex0.05)	Total Cost per Year (\$) ^b		
1. Applications	N/A												
2. Surveys and Studies	N/A												
3. Reporting Requirements													
A. Read and Understand Rule Requirements (new sources) ^c	40	\$0	\$0	\$0	1	40	10	400	40	20	\$52,397	\$0	0
Familiarization with Rule Requirements (existing sources)	1	\$0	\$0	\$0	1	1	2,089.5	2,090	209	104	\$273,709	\$0	0
B. Required Activities													
1) Conduct Energy Audit													
a) Industrial ^{d,e}	20	\$18,292	\$0	\$0	1	20	0	0	0	0	\$0	\$0	0
b) Commercial ^{d,e}	20	\$854	\$0	\$0	1	20	0	0	0	0	\$0	\$0	0
2) Initial Stack Test (Hg) ^{f,g}	12	\$0	\$5,000	\$0	1	12	0	0	0	0	\$0	\$0	0
3) Initial Stack Test (CO) ^f	12	\$0	\$6,000	\$0	1	12	0	0	0	0	\$0	\$0	0
4) Initial Stack Test (PM) ^{f,h}	12	\$0	\$8,000	\$0	1	12	1.83	21.96	2.2	1.1	\$2,877.11	\$14,640	0
5) Triennial Stack Test (Hg) ^f	12	\$0	\$5,000	\$0	0.33	3.96	95.5	378.2	37.8	18.9	\$49,538.82	\$157,575	0
6) Triennial Stack Test (CO) ^f	12	\$0	\$6,000	\$0	0.33	3.96	95.5	378.2	37.8	18.9	\$49,538.82	\$189,090	0
7) Triennial Stack Test (PM) ^{f,h}	12	\$0	\$8,000	\$0	0.33	3.96	7.33	29.01	2.90	1.45	\$3,799.95	\$19,342	0
8) Initial Fuel Analysis for Hg Content ⁱ	5	\$0	\$200	\$0	1	5	0	0	0	0.00	\$0	\$0	0
9) Monthly Fuel Analysis for Hg Content ⁱ	5	\$0	\$200	\$0	12	60	0	0	0	0	\$0	\$0	0
10) Continuous Parameter Monitoring													
a) Establish Site-Specific Monitoring Plan (Hg, CO, and PM) ^j	40	\$0	\$0	\$0	1	40	10	400	40	20	\$52,396.80	\$0	0
b) Opacity (All Sources with ESPs)													
i) Initial ^k	10	\$0	\$0	\$43,100	1	10	1.83	\$18.3	\$1.83	\$0.92	\$2,398	\$78,873	0
ii) Annual ^k	10	\$0	\$0	\$14,700	1	10	14.66	\$146.6	\$14.66	\$7.33	\$19,203.43	\$215,502	0
c) BLD System Operation (All Sources with Fabric Filters)													
i) Initial ^l	10	\$0	\$0	\$25,500	1	10	0	0	0	0	\$0	\$0	0
ii) Annual ^l	10	\$0	\$0	\$9,700	1	10	286.5	2,865	287	143	\$375,292.08	\$2,779,050	0
11) Biennial Tune-Up ^m	12	\$0	\$2,875	\$0	0.5	6	1,813	10,878	1,088	544	\$1,424,930.98	\$2,606,187.5	0
C. Create Information	N/A												
D. Gather Information	N/A												
E. Report Preparation													
1) Initial Notification that Source is Subject	2	\$0	\$0	\$0	1	2	10	20	2	1	\$2,619.84	\$0	10
2) Notification of Compliance Status	8	\$0	\$0	\$0	1	8	10	80	8	4	\$10,479.36	\$0	10
3) Initial Report on Results of Energy Audit ⁿ	5	\$0	\$0	\$0	1	5	0	0	0	0	\$0	\$0	0
4) Annual Compliance Report	30	\$0	\$0	\$0	1	30	2,099.5	62,985	6,299	3,149	\$8,250,531.12	\$0	2,100
5) Biennial Compliance Report ^o	5	\$0	\$0	\$0	0.5	2.5	1,813	4,532.5	453.3	226.6	\$593,721.98	\$0	907
Subtotal for Reporting Requirements								98,006			\$11,163,434	\$6,060,260	3,026
4. Recordkeeping Requirements													
A. Familiarization with Rule Requirements	See 3A												
B. Implement Activities	N/A												
C. Develop Record System ^o	N/A												
D. Record Information													
1) Records of Operating Parameter Values ^p	20	\$0	\$0	\$0	1	20	295.7	5,913	591	295.7	\$774,608.09	\$0	0
2) Records of Deviations ^q	15	\$0	\$0	\$0	1	15	295.7	4,435.1	443.5	221.8	\$580,955.99	\$0	0
3) Records of Stack Tests ^r	2	\$0	\$0	\$0	1	2	295.7	591	59.1	29.6	\$77,461.02	\$0	0
4) Records of Monitoring Device Calibrations ^s	2	\$0	\$0	\$0	1	2	295.7	591	59.1	29.6	\$77,461.02	\$0	0
5) Records of All Compliance Reports Submitted ^t	2	\$0	\$0	\$0	2	4	2,099.5	8,398	839.8	419.9	\$1,100,070.82	\$0	0
6) Records of Monthly Fuel Use ^u	0.5	\$0	\$0	\$0	12	6	295.7	1,774	177.4	88.7	\$323,382.17	\$0	0
7) Records of Biennial Tune-Up	0.5	\$0	\$0	\$0	0.5	0.25	1,813	453.3	45.3	22.7	\$59,372.04	\$0	0
E. Personnel Training	N/A												
F. Time for Audits	N/A												
Subtotal for Recordkeeping Requirements								25,480			\$2,902,311	\$0	0
TOTAL LABOR BURDEN AND COST											\$14,065,745		
TOTAL CAPITAL AND O&M COST												\$6,060,260	
GRAND TOTAL								123,485			\$20,126,005		3,026

N/A - Not Applicable

- On average, over the 3-year period of this ICR, we estimate 4,179 existing large solid boilers (i.e., biomass- and coal-fired boilers >10 MMBtu/hr) at 2,089.5 facilities will be subject to the rule. We also estimate 20 new boilers at 10 facilities per year, all of which are biomass-fired, for a total of 4,199 boilers at 2,099.5 facilities.
- This ICR uses the following labor rates: \$117.92 for technical, \$147.40 for managerial, and \$57.02 for clerical labor. These rates are from the United States Department of Labor, Bureau of Labor Statistics, December 2018, "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.
- This burden applies to new sources only. The burden on existing sources to read and understand rule requirements and submit initial notifications was incurred during a previous ICR period. It is assumed that existing sources will take 1 hour to refamiliarize themselves with the rule requirements each year.
- This burden applies to existing large solid fuel boilers only. All existing sources were required to complete the energy audit by the conclusion of the previous ICR period; therefore, no new or existing sources will incur this burden over the next three years.
- Cost per occurrence for certified energy audit professionals includes a phone screening to discuss the facility prior to a visit, a 2- to 4-hour site visit, and an additional 2 to 4 hours to prepare a follow-up report on recommendations and findings. Cost depends on whether the source is industrial or commercial. It is assumed that 10% of sources will be industrial and 90% will be commercial.
- Only existing and new large coal boilers are subject to numerical mercury (Hg) and carbon monoxide (CO) limits, while new large coal and biomass boilers are subject to particulate matter (PM) limits.
- All projected large solid fuel boilers are expected to comply through stack testing instead of the fuel testing compliance option.
- Only boilers <30 MMBtu/hr that are not subject to limits under the NSPS (40 CFR Part 60 Subparts Db, Dc) will incur additional testing, monitoring, recordkeeping and reporting costs under this rule. It is estimated that 11 boilers (5.5 facilities, assuming 2 boilers per facility) will be subject to additional testing.
- Sources demonstrating compliance with any applicable emission limits through stack testing must develop a site-specific monitoring plan. All new large solid fuel units are expected to develop this plan.
- All new biomass boilers >10 MMBtu/hr are expected to meet PM limits with an electrostatic precipitator (ESP); therefore, those sources will install opacity monitors.
- All new coal boilers >10 MMBtu/hr are expected to install fabric filters equipped with bag leak detection (BLD) systems instead of opacity monitors. No new large coal boilers are projected over the three-year ICR period.
- Only existing large biomass boilers are subject to biennial tune-ups.
- It is assumed that facilities must already maintain records on boiler insurance and/or maintenance scheduling; therefore, no new record system would be required.

Table 1B: Annual Respondent Burden and Cost – Existing and New Large Liquid Fuel Boilers, NESHAP for Industrial, Commercial, and Institutional Boilers Area Sources (40 CFR Part 63, Subpart JJJJJJ) (Renewal)

Burden Item	A	Certified Energy Audit Cost per Occurrence	Stack Testing and Fuel Analysis Cost per Occurrence	Tune-Up Cost per Occurrence	Other Non-Labor Costs per Occurrence	B	C	D	E	F	G	H	Total Non-Labor Annual Costs	Total Number of Responses per Year
	Technical Person-Hours per Occurrence					Occurrences per Respondent per Year	Technical Person-Hours per Respondent per Year (C=AxB)	Respondents per Year *	Technical Hours per Year (E=CxD)	Clerical Hours per Year (F=Ex0.10)	Management Hours per Year (G=Ex0.05)	Total Cost per Year (\$) ^b		
1. Applications	N/A													
2. Surveys and Studies	N/A													
3. Reporting Requirements														
A. Read and Understand Rule Requirements (new sources) ^f	40	\$0	\$0	\$0	\$0	1	40	81.17	3,247	325	162	\$425,304.83	\$0	0
Familiarization with Rule Requirements (existing sources)	1	\$0	\$0	\$0	\$0	1	1	5,183	5,183	518	259	\$678,887.96	\$0	0
B. Required Activities														
1) Conduct Energy Audit														
a) Industrial ^{d,e}	20	\$18,292		\$0	\$0	1	20	0	0	0	0	\$0	\$0	0
b) Commercial ^{d,e}	20	\$854		\$0	\$0	1	20	0	0	0	0	\$0	\$0	0
2) Initial Stack Test and Report (PM) ^f	12	\$0	\$8,000	\$0	\$0	1	12	81.17	974.04	97.4	48.7	\$127,590.92	\$649,360	0
3) Triennial Stack Test and Report (PM) ^f	12	\$0	\$8,000	\$0	\$0	0.33	3.96	324.7	1,285.71	128.57	64.3	\$168,418.33	\$857,138	0
4) Continuous Parameter Monitoring														
a) Establish Site-specific monitoring plan ^g	40	\$0	\$0	\$0	\$0	1	40	81.17	3,246.80	324.68	162.3	\$425,304.83	\$0	0
b) Opacity (All Sources with ESPs)														
i) Initial	10	\$0	\$0	\$0	\$43,100	1	10	81.17	811.70	81.17	40.6	\$106,326.94	\$3,498,427	0
ii) Annual	10	\$0	\$0	\$0	\$14,700	1	10	649.3	6,493.40	649.34	324.7	\$850,583.45	\$9,545,298	0
c) BLD System Operation (All Sources with Fabric Filters)														
i) Initial	10	\$0	\$0	\$0	\$25,500	1	10	7.5	75	7.5	3.75	\$9,824.40	\$191,250	0
ii) Annual	10	\$0	\$0	\$0	\$9,700	1	10	15	150	15	7.5	\$19,648.80	\$145,500	0
5) Biennial Tune-Up	12	\$0	\$0	\$2,875	\$0	0.5	6	5,264	31,583	3,158.3	1,579.15	\$4,137,118.0	\$7,566,755.63	0
C. Create Information	N/A													
D. Gather Information	N/A													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	\$0	\$0	\$0	\$0	1	2	81.17	162.34	16.23	8.12	\$21,265.46	\$0	81.17
2) Notification of Compliance Status	8	\$0	\$0	\$0	\$0	1	8	81.17	649.36	64.94	32.47	\$85,061.49	\$0	81.17
3) Initial Report on Results of Energy Audit ^d	5	\$0	\$0	\$0	\$0	1	5	0	0	0	0	\$0	\$0	0
4) Annual Compliance Report	30	\$0	\$0	\$0	\$0	1	30	324.7	9,740	974.0	487.0	\$1,275,888.28	\$0	324.67
5) Biennial Compliance Report	5	\$0	\$0	\$0	\$0	0.5	2.5	5,264	13,160	1,316.0	658.0	\$1,723,799.96	\$0	2,631.92
Subtotal for Reporting Requirements										88,275		\$10,055,024	\$22,453,728	3,119
4. Recordkeeping Requirements														
A. Familiarization with Rule Requirements	See 3A													
B. Implement Activities	N/A													
C. Develop Record System ^h	N/A													
D. Record Information														
1) Records of Operating Parameter Values	20	\$0	\$0	\$0	\$0	1	20	5,264	105,277	10,527.7	5,263.8	\$13,790,392.39	\$0	0
2) Records of Deviations	15	\$0	\$0	\$0	\$0	1	15	5,264	78,957	7,895.8	3,947.9	\$10,342,794.21	\$0	0
3) Records of Stack Tests	2	\$0	\$0	\$0	\$0	1	2	5,264	10,528	1,052.8	526.4	\$1,379,039.02	\$0	0
4) Records of Monitoring Device Calibrations	2	\$0	\$0	\$0	\$0	1	2	5,264	10,528	1,052.8	526.4	\$1,379,039.02	\$0	0
5) Records of All Compliance Reports Submitted	2	\$0	\$0	\$0	\$0	2	4	5,264	21,055	2,105.5	1,052.8	\$2,758,078.95	\$0	0
6) Records of Monthly Fuel Use	0.5	\$0	\$0	\$0	\$0	12	6	5,264	31,583	3,158.3	1,579.2	\$4,137,117.98	\$0	0
7) Records of Biennial Tune-Up	0.5	\$0	\$0	\$0	\$0	0.5	0.25	5,264	1,316	131.6	65.8	\$172,380.76	\$0	0
E. Personnel Training	N/A													
F. Time for Audits	N/A													
Subtotal for Recordkeeping Requirements										298,130		\$33,958,842	\$0	0
TOTAL LABOR BURDEN AND COST												\$44,013,866		
TOTAL CAPITAL AND O&M COST													\$22,453,728	
GRAND TOTAL										386,405		\$66,467,594		3,119

N/A - Not Applicable

- a. On average, over the 3-year period of this ICR, we estimate 10,365 existing large liquid boilers (i.e., units >10 MMBtu/hr) at 5,183 facilities will be subject to the rule. We also estimate 162 new boilers at 81 facilities per year, for a total of 10,528 boilers at 5,264 facilities.
- b. This ICR uses the following labor rates: \$117.92 for technical, \$147.40 for managerial, and \$57.02 for clerical labor. These rates are from the United States Department of Labor, Bureau of Labor Statistics, December 2018, "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. This burden applies to new sources only. The burden on existing sources to read and understand rule requirements and submit initial notifications was incurred during a previous ICR period. It is assumed that existing sources will take 1 hour to refamiliarize themselves with the rule requirements each year.
- d. This burden applies to existing large liquid fuel boilers only. All existing sources were required to complete the energy audit by the conclusion of the previous ICR period; therefore, no new or existing sources will incur this burden over the next three years.
- e. Cost per occurrence for certified energy audit professionals includes a phone screening to discuss the facility prior to a visit, a 2- to 4-hour site visit, and an additional 2 to 4 hours to prepare a follow-up report on recommendations and findings. Cost depends on whether the source is industrial or commercial. It is assumed that 10% of sources will be industrial and 90% will be commercial.
- f. All projected large liquid fuel boilers are expected to comply through stack testing instead of the fuel testing compliance option. Only units <30 MMBtu/hr that are not subject to PM limits under the NSPS (40 CFR Part 60 Subparts Db, Dc) will incur additional testing, monitoring, recordkeeping and reporting costs under this rule. This is a conservatively high estimate for burden as we expect some of the units will comply with the PM standard by combusting ultra-low sulfur diesel (ULSD), but the number of units with ULSD is unknown.
- g. Sources demonstrating compliance with any applicable emission limits through stack testing must develop a site-specific monitoring plan. All new large liquid fuel units are expected to develop this plan.

Table 1C: Annual Respondent Burden and Cost – Existing and New Small Solid Fuel Boilers, NESHAP for Industrial, Commercial, and Institutional Boilers Area Sources (40 CFR Part 63, Subpart JJJJJJ)

Burden Item	A	Tune-Up Cost per Occurrence	Other Non-Labor Costs per Occurrence	B	C	D	E	F	G	H	Total Non-Labor Annual Costs	Total Number of Responses per Year
	Technical Person-Hours per Occurrence			Occurrences per Respondent per Year	Technical Person-Hours per Respondent per Year (C=AxB)	Respondents per Year ^a	Technical Hours per Year (E=CxD)	Clerical Hours per Year (F=Ex0.10)	Management Hours per Year (G=Ex0.05)	Total Cost per Year (\$) ^b		
1. Applications	N/A											
2. Surveys and Studies	N/A											
3. Reporting Requirements sources) ^c	40	\$0	\$0	1	40	49.17	1,966.8	196.68	98.34	\$257,635.07	\$0	0
sources)	1	\$0	\$0	1	1	5,659	5,658.7	565.87	282.93	\$741,240.16	\$0	0
B. Required Activities												
Biennial Tune-Up	12	\$2,228	\$0	0.5	6	5,708	34,246.98	3,424.70	1,712.4	\$4,486,080.67	\$6,358,522.62	0
C. Create Information	N/A											
D. Gather Information	N/A											
E. Report Preparation												
1) Initial Notification that Source is Subject	2	\$0	\$0	1	2	49.17	98.34	9.83	4.92	\$12,881.97	\$0	49.17
2) Notification of Compliance Status	8	\$0	\$0	1	8	49.17	393.36	39.34	19.67	\$51,527.54	\$0	49.17
3) Biennial Compliance Report	5	\$0	\$0	0.5	2.5	5,708	14,269.58	1,426.96	713.48	\$1,869,201.08	\$0	2,853.915
Subtotal for Reporting Requirements								65,129		\$7,418,566	\$6,358,523	2,952
4. Recordkeeping Requirements												
A. Familiarization with Rule Requirements	See 3A											
B. Implement Activities	N/A											
C. Develop Record System ^d	N/A											
D. Record Information												
1) Records of All Compliance Reports Submitted	2	\$0	\$0	1	2	5,708	11,415.66	1,141.57	570.78	\$1,495,359.92	\$0	0
2) Records of Biennial Tune-Up	0.5	\$0	\$0	0.5	0.25	5,708	1,426.96	142.70	71.4	\$186,920.87	\$0	0
E. Personnel Training	N/A											
F. Time for Audits	N/A											
Subtotal for Recordkeeping Requirements								14,769		\$1,682,281	\$0	0
TOTAL LABOR BURDEN AND COST										\$9,100,847		
TOTAL CAPITAL AND O&M COST											\$6,358,523	
GRAND TOTAL								79,898		\$15,459,370		2,952

N/A - Not Applicable

a. On average, over the 3-year period of this ICR, we estimate 11,317 existing small solid boilers (i.e., units <10 MMBtu/hr) at 5,659 facilities will be subject to the rule. We also estimate 98 new boilers at 49 facilities per year, for a total of 11,416 boilers at 5,708 facilities.

b. This ICR uses the following labor rates: \$117.92 for technical, \$147.40 for managerial, and \$57.02 for clerical labor. These rates are from the United States Department of Labor, Bureau of Labor Statistics, December 2018, “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. This burden applies to new sources only. The burden on existing sources to read and understand rule requirements and submit initial notifications was incurred during a previous ICR period. It is assumed that existing sources will take 1 hour to refamiliarize themselves v

d. It is assumed that facilities must already maintain records on boiler insurance and/or maintenance scheduling; therefore, no new record system would be required.

Table 1D: Annual Respondent Burden and Cost – Existing and New Small Liquid Fuel Boilers, NESHAP for Industrial, Commercial, and Institutional Boilers Area Sources (40 CFR Part 63, Subpart JJJJJJ) (Renewal)

Burden Item	A	Tune-Up Cost per Occurrence	Other Non-Labor Costs per Occurrence	B	C	D	E	F	G	H	Total Non-Labor Annual Costs	Total Number of Responses per Year
	Technical Person-Hours per Occurrence			Occurrences per Respondent per Year	Technical Person-Hours per Respondent per Year (C=AxB)	Respondents per Year ^a	Technical Hours per Year (E=CxD)	Clerical Hours per Year (F=Ex0.10)	Management Hours per Year (G=Ex0.05)	Total Cost per Year (\$) ^b		
1. Applications	N/A											
2. Surveys and Studies	N/A											
3. Reporting Requirements												
A. Read and Understand Rule Requirements (new sources) ^c	40	\$0	\$0	1	40	989.5	39,580	3,958	1,979	\$5,184,663	\$0	0
Familiarization with Rule Requirements (existing sources)	1	\$0	\$0	1	1	86,314	86,314	8,631	4,316	\$11,306,379	\$0	0
B. Required Activities												
Biennial Tune-Up	12	\$2,228	\$0	0.5	6	87,303	523,818	52,381.8	26,190.90	\$68,615,967	\$97,255,542	0
C. Create Information	N/A											
D. Gather Information	N/A											
E. Report Preparation												
1) Initial Notification that Source is Subject	2	\$0	\$0	1	2	989.5	1,979	197.9	98.95	\$259,233	\$0	989.5
2) Notification of Compliance Status	8	\$0	\$0	1	8	989.5	7,916	791.6	395.8	\$1,036,933	\$0	989.5
3) Biennial Compliance Report	5	\$0	\$0	0.5	2.5	87,303	218,257.50	21,825.75	10,912.88	\$28,589,987	\$0	43,651.50
Subtotal for Reporting Requirements								1,009,544		\$114,993,163	\$97,255,542	45,631
4. Recordkeeping Requirements												
A. Familiarization with Rule Requirements	See 3A											
B. Implement Activities	N/A											
C. Develop Record System ^d	N/A											
D. Record Information												
1) Records of All Compliance Reports Submitted	2	\$0	\$0	1	2	87,303	174,606	17,460.6	8,730.30	\$22,871,989	\$0	0
2) Records of Biennial Tune-Up	0.5	\$0	\$0	0.5	0.25	87,303	21,825.75	2,182.58	1,091.29	\$2,858,999	\$0	0
E. Personnel Training	N/A											
F. Time for Audits	N/A											
Subtotal for Recordkeeping Requirements								225,897		\$25,730,988	\$0	0
TOTAL LABOR BURDEN AND COST										\$140,724,151		
TOTAL CAPITAL AND O&M COST											\$97,255,542	
GRAND TOTAL								1,235,440		\$237,979,693		45,631

N/A - Not Applicable

a. On average, over the 3-year period of this ICR, we estimate 172,627 existing small liquid boilers (i.e., units <10 MMBtu/hr) at 86,314 facilities will be subject to the rule. We also estimate 1,979 new boilers at 989.5 facilities per year, for a total of 174,606 boilers at 87,303 facilities.

b. This ICR uses the following labor rates: \$117.92 for technical, \$147.40 for managerial, and \$57.02 for clerical labor. These rates are from the United States Department of Labor, Bureau of Labor Statistics, December 2018, "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. This burden applies to new sources only. The burden on existing sources to read and understand rule requirements and submit initial notifications was incurred during a previous ICR period. It is assumed that existing sources will take 1 hour to refamiliarize themselves with the rule requirements each year.

d. It is assumed that facilities must already maintain records on boiler insurance and/or maintenance scheduling; therefore, no new record system would be required.

Number of Respondents					
	Respondents That Submit Reports		Respondents That Do Not Submit Any Reports		
Year	(A) Number of New Respondents	(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)
<i>Large Solid Boilers</i>					
1	10	2,079.5	0	0	2,089.5
2	10	2,089.5	0	0	2,099.5
3	10	2,099.5	0	0	2,109.5
Average	10	2,090	0	0	2,100
<i>Large Liquid Boilers</i>					
1	81.17	5,101.50	0	0	5,182.67
2	81.17	5,182.67	0	0	5,263.84
3	81.17	5,263.84	0	0	5,345.01
Average	81	5,183	0	0	5,264
<i>Small Solid Boilers</i>					
1	49.17	5,610	0	0	5,658.67
2	49.17	5,658.67	0	0	5,707.84
3	49.17	5,707.84	0	0	5,757.01
Average	49	5,659	0	0	5,708
<i>Small Liquid Boilers</i>					
1	989.5	85,324.0	0	0	86,314
2	989.5	86,314	0	0	87,303.0
3	989.5	87,303.0	0	0	88,293
Average	990	86,314	0	0	87,303
Total	1,130	99,244	0	0	100,374

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
<i>Large Solid Boilers</i>				
Initial Notification	10	1	0	10
Notification of Compliance Status	10	1	0	10
Annual Compliance Report	2,099.5	1	0	2,099.5
Biennial Compliance Report	1,813	0.5	0	906.5
<i>Subtotal</i>				<i>3,026</i>
<i>Large Liquid Boilers</i>				

Initial Notification	81.17	1	0	81.17
Notification of Compliance Status	81.17	1	0	81.17
Annual Compliance Report	324.7	1	0	324.67
Biennial Compliance Report	5,263.83	0.5	0	2,631.92
<i>Subtotal</i>				<i>3,118.93</i>
<i>Small Solid Boilers</i>				
Initial Notification	49.17	1	0	49.17
Notification of Compliance Status	49.17	1	0	49.17
Biennial Compliance	5,707.83	0.5	0	2,853.92
<i>Subtotal</i>				<i>2,952.26</i>
<i>Small Liquid Boilers</i>				
Initial Notification	989.5	1	0	989.5
Notification of Compliance Status	989.5	1	0	989.5
Biennial Compliance	87,303.0	0.5	0	43,651.50
<i>Subtotal</i>				<i>45,630.50</i>
Total (rounded)				54,700

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Capital/Startup vs. Operation and Maintenance (O

(A) Continuous Monitoring Device	(B) Capital/Startup Cost for One Respondent	(C) Number of New Respondents	(D) Total Capital/Startup Cost, (B X C)
<i>Large Solid Boilers</i>			
Initial Stack Test and Report (Hg)	\$5,000	0	\$0
Triennial Stack Test and Report (Hg)	\$0	0	\$0
Initial Stack Test and Report (CO)	\$6,000	0	\$0
Triennial Stack Test and Report (CO)	\$0	0	\$0
Initial Stack Test and Report (PM)	\$8,000	2	\$14,640,000
Triennial Stack Test and Report (PM)	\$0	0	\$0
Electrostatic Precipitator System	\$43,100	2	\$78,873,000
Bag Leak Detection System	\$25,500	0	\$0
Biennial Tune-Up	\$0	0	\$0
<i>Subtotal</i>			\$93,513
<i>Large Liquid Boilers</i>			
Initial Stack Test and Report (PM)	\$8,000	81.17	\$649,360
Triennial Stack Test and Report (PM)	\$0	0	\$0
Electrostatic Precipitator System	\$43,100	81.17	\$3,498,427
Bag Leak Detection System	\$25,500	7.50	\$191,250
Biennial Tune-Up	\$0	0	\$0
<i>Subtotal</i>			\$4,339,037
<i>Small Solid Boilers</i>			
Biennial Tune-Up	\$0	0	\$0
<i>Subtotal</i>			\$0
<i>Small Liquid Boilers</i>			
Biennial Tune-Up	\$0	0	\$0
<i>Subtotal</i>			\$0
Total			\$4,430,000

&M) Costs

(E) Annual O&M Costs for One Respondent	(F) Number of Respondents with O&M	(G) Total O&M, (E X F)
\$0	0	\$0
\$1,650	96	\$157,575.00
\$0	0	\$0
\$1,980	96	\$189,090.00
\$0	2	\$0
\$2,640	7	\$19,342.40
\$14,700	15	\$215,502.00
\$9,700	286.5	\$2,779,050.00
\$1,437.5	1,813	\$2,606,187.50
		\$5,966,747
\$0	81.17	\$0
\$2,640	325	\$857,137.60
\$14,700	649	\$9,545,298.00
\$9,700	15	\$145,500.00
\$1,438	5,264	\$7,566,755.63
		\$18,114,691
\$1,114	5,708	\$6,358,522.62
		\$6,358,523
\$1,114	87,303	\$97,255,542
		\$97,255,542
		\$128,000,000