Table 1.A. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 1, Existing Large Solid Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Stack Testing and Fuel Analysis Cost Per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year [(B+C+D)xExG]	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	131	5,240	524	262	$569,994	$0	0	a
B. Required Activities														
1. Conduct Energy Audit														
a) Commerical	20	$854	$0	$0	1	20	0	0	0	0	$0	$0	0	b, c, d
b) Industrial	20	$18,292	$0	$0	1	20	0	0	0	0	$0	$0	0	b, c, d
2. Initial Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	0	0	0	0	$0	$0	0	c,h
3. Initial Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	c
4. Initial Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	c
5. Initial Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	0	0	0	0	$0	$0	0	c
6. Annual Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	0	0	0	0	$0	$0	0	c,i
7. Annual Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	c,i
8. Annual Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	c,i
9. Annual Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	0	0	0	0	$0	$0	0	c,i
10. Repeat Stack Test and Report if Switch Fuels (for Hg and HCl)	24	$0	$16,000	$0	1	24	0	0	0	0	$0	$0	0	c,j
11. Initial Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	1	5	0	0	0	0	$0	$0	0	c,g
12. Monthly Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	12	60	0	0	0	0	$0	$0	0	c,g
13. Annual Tune-up	12	$0	$2,875	$0	1	12	0	0	0	0	$0	$0	0	c,L
14. Continuous Parameter Monitoring														n
Establish Site-specific monitoring plan (all)	40	$0		$0	1	40	0	0	0	0	$0	$0	0	c
Opacity														
a) initial	10	$0	$0	$43,100	1	10	0	0	0	0	$0	$0	0	c
b) annual	10	$0	$0	$14,700	1	10	0	0	0	0	$0	$0	0	c
PM (only sources greater than 250 mmBtu/hr)														
a) initial	10	$0	$0	$158,000	1	10	0	0	0	0	$0	$0	0	c,m
b) annual	10	$0	$0	$56,100	1	10	0	0	0	0	$0	$0	0	c,m
O2														
a) initial	10	$0	$0	$8,523	1	10	0	0	0	0	$0	$0	0	c
b) annual	10	$0	$0	$1,436	1	10	0	0	0	0	$0	$0	0	c
Scrubber System Monitoring and Operation (for units with wet scrubbers)														
a) initial	10	$0	$0	$24,300	1	10	0	0	0	0	$0	$0	0	c
b) annual	10	$0	$0	$5,600	1	10	0	0	0	0	$0	$0	0	c
Bag Leak Detection System Operation (sources that have fabric filters)														
a) initial	10	$0	$0	$25,500	1	10	0	0	0	0	$0	$0	0	c
b) annual	10	$0	$0	$9,700	1	10	0	0	0	0	$0	$0	0	c
DIFF Monitor														
a) initial	10	$0	$0	$43,500	1	10	0	0	0	0	$0	$0	0	c
b) annual	10	$0	$0	$9,700	1	10	0	0	0	0	$0	$0	0	c
Carbon Injection Monitoring System (all sources that use ACI to control Hg)														
a) initial	10	$0	$0	$115,000	1	10	0	0	0	0	$0	$0	0	c
b) annual	10	$0	$0	$9,700	1	10	0	0	0	0	$0	$0	0	c
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	131	262	26	13	$28,500	$0	131	a
2) Notification of Compliance Status	8	$0	$0	$0	1	8	0	0	0	0	$0	$0	0	c
3) Initial Report on results of Energy Audit	5	$0	$0	$0	1	5	0	0	0	0	$0	$0	0	c
4) Semi-annual Compliance Report	20	$0	$0	$0	2	40	0	0	0	0	$0	$0	0	a
5) Affirmative Defense	30	$0	$0	$0	1	30	0	0	0	0	$0	$0	0	k
Reporting Subtotal								5,502	550	275	$598,494	$0	131	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													e
D. Record Information														
1) Records of Operating Parameter Values	20	$0	$0	$0	1	20	0	0	0	0	$0	$0	0	c
2) Records of Startup, Shutdown, Malfunction	15	$0	$0	$0	1	15	0	0	0	0	$0	$0	0	c
3) Records of Stack Tests	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	c
4) Records of Monitoring Device Calibrations	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	c
5) Records of All Compliance Reports Submitted	2	$0	$0	$0	2	4	0	0	0	0	$0	$0	0	c
6) Records of Monthly Fuel Use	0.5	$0	$0	$0	12	6	0	0	0	0	$0	$0	0	c
E. Personnel Training	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	f
F. Time for Audits	na													
Recordkeeping Subtotal								0	0	0	$0	$0		
Totals								**5,502**	**550**	**275**	**$598,494**	**$0**	**131**	

a Number of respondents based on number of existing large solid fuel boilers which includes biomass and coal units greater than 10 mmBtu/hr.

b Cost includes taking an inventory of facility equipment including age, operating schedules, square feet of the facility and other details necessary for preparing for the audit pre-screening, attending the energy audit, and reviewing audit report from the audit professional. Based on the distribution of facilities with affected boilers or process heaters, 88% of facilities are in the industrial sector while the remaining 12% of facilities are in the commercial sector.

c Since existing units have three years after the publication date of the final rule to submit initial notification of compliance status, conduct compliance activities, or meet recordkeeping or reporting requirements, no burden is assumed in year 1.

d Cost per occurrence for energy audit professionals including an phone screening to discuss the facility prior to a visit, a 2 to 4 hour site visit, and an additional 2-4 hours to prepare a follow-up report on recommendations and findings. These site visits are assumed to be conducted by certified energy professionals.

e Assumes facility must already maintain records on boiler insurance and/or maintenance schedule. No new record system would be required.

f For on-going training activities to keep personnel updated in order to implement compliance activities.

g Existing large solid units are expected to determine compliance through stack testing and not fuel analysis

h Units not equipped with PM CPMS wil perform stack testing for PM.

i No annual test and reporting burden is shown in year 1 as this is the same year as the initial test and report.

j Only applies to large solid fuel boilers, because solid fuel boilers may fire a mix of non-homogeneous fuels. Assumed all solid fuel units would perform a repeat stack test.

k Assumed no affirmative defense claims would be filed in the first three years after promulgation. If a source were to meet the notification, reporting, and recordkeeping requirements of affirmative defense, it would be approximately 30 hours or $3,300 in labor burden.

L Tune-ups are required as work practice standards in lieu of dioxin/furan testing.

m PM CPMS is required for coal boilers, biomass boilers which are not 100% biomass, and residual oil boilers which are >= 250 mmBtu/hr

n Estimated number of units expected to require each type of parameter monitoring are consistent with the estimated number of units expected to install controls, as outlined in the memorandum: "Revised (November 2011) Methodology for Estimating Cost and Emissions Impacts for Industrial, Commercial, Institutional Boilers and Process Heaters National Emission Standards for Hazardous Air Pollutants – Major Source." Small edits to the MACT floor dataset were made after the impacts analysis and ICR burden estimates are prepared. These edits are not reflected in the ICR or impacts analysis for this proposal, but the changes will be incorporated into the burden estimates for the final rule.

Table 1.B. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 2, Existing Large Solid Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Stack Testing and Fuel Analysis Cost Per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year [(B+C+D)xExG]	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	a
B. Required Activities														
1. Conduct Energy Audit														
a) Commerical	20	$854	$0	$0	1	20	8	160	16	8	$17,404	$6,832	0	b, c, d
b) Industrial	20	$18,292	$0	$0	1	20	58	1,160	116	58	$126,182	$1,060,936	0	b, c, d
2. Initial Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	544	6,528	653	326	$710,100	$2,720,000	0	c,h
3. Initial Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	544	6,528	653	326	$710,100	$4,352,000	0	c
4. Initial Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	544	6,528	653	326	$710,100	$4,352,000	0	c
5. Initial Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	544	6,528	653	326	$710,100	$3,808,000	0	c
6. Annual Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	0	0	0	0	$0	$0	0	c,h,i
7. Annual Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	c, i
8. Annual Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	c, i
9. Annual Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	0	0	0	0	$0	$0	0	c, i
10. Repeat Stack Test and Report if Switch Fuels (for Hg and HCl)	24	$0	$16,000	$0	1	24	544	13,056	1,306	653	$1,420,199	$8,704,000	0	c,j
11. Initial Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	1	5	0	0	0	0	$0	$0	0	c,g
12. Monthly Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	12	60	0	0	0	0	$0	$0	0	c,g
13. Annual Tune-up	12	$0	$2,875	$0	1	12	544	6,528	653	326	$710,100	$1,564,000	0	c,L
14. Continuous Parameter Monitoring														n
Establish Site-specific monitoring plan (all)	40	$0		$0	1	40	66	2,640	264	132	$287,173	$0	0	c
Opacity														
a) initial	10	$0	$0	$43,100	1	10	226	2,260	226	113	$245,837	$9,740,600	0	c
b) annual	10	$0	$0	$14,700	1	10	226	2,260	226	113	$245,837	$3,322,200	0	c
PM (only sources greater than 250 mmBtu/hr)														
a) initial	10	$0	$0	$158,000	1	10	145	1,450	145	73	$157,727	$22,910,000	0	c,m
b) annual	10	$0	$0	$56,100	1	10	145	1,450	145	73	$157,727	$8,134,500	0	c,m
O2														
a) initial	10	$0	$0	$8,523	1	10	544	5,440	544	272	$591,750	$4,636,512	0	c
b) annual	10	$0	$0	$1,436	1	10	544	5,440	544	272	$591,750	$781,184	0	c
Scrubber System Monitoring and Operation (for units with wet scrubbers)														
a) initial	10	$0	$0	$24,300	1	10	200	2,000	200	100	$217,555	$4,860,000	0	c
b) annual	10	$0	$0	$5,600	1	10	200	2,000	200	100	$217,555	$1,120,000	0	c
Bag Leak Detection System Operation (sources that have fabric filters)														
a) initial	10	$0	$0	$25,500	1	10	22	220	22	11	$23,931	$561,000	0	c
b) annual	10	$0	$0	$9,700	1	10	22	220	22	11	$23,931	$213,400	0	c
DIFF Monitor														
a) initial	10	$0	$0	$43,500	1	10	38	380	38	19	$41,335	$1,653,000	0	c
b) annual	10	$0	$0	$9,700	1	10	38	380	38	19	$41,335	$368,600	0	c
Carbon Injection Monitoring System (all sources that use ACI to control Hg)														
a) initial	10	$0	$0	$115,000	1	10	18	180	18	9	$19,580	$2,070,000	0	c
b) annual	10	$0	$0	$9,700	1	10	18	180	18	9	$19,580	$174,600	0	c
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	a
2) Notification of Compliance Status	8	$0	$0	$0	1	8	0	0	0	0	$0	$0	0	c
3) Initial Report on results of Energy Audit	5	$0	$0	$0	1	5	0	0	0	0	$0	$0	0	c
4) Semi-annual Compliance Report	20	$0	$0	$0	2	40	0	0	0	0	$0	$0	0	c
5) Affirmative Defense	30	$0	$0	$0	1	30	0	0	0	0	$0	$0	0	k
Reporting Subtotal								73,516	7,352	3,676	$7,996,887	$87,113,364	0	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													e
D. Record Information														
1) Records of Operating Parameter Values	20	$0	$0	$0	1	20	0	0	0	0	$0	$0	0	c
2) Records of Startup, Shutdown, Malfunction	15	$0	$0	$0	1	15	0	0	0	0	$0	$0	0	c
3) Records of Stack Tests	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	c
4) Records of Monitoring Device Calibrations	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	c
5) Records of All Compliance Reports Submitted	2	$0	$0	$0	2	4	0	0	0	0	$0	$0	0	c
6) Records of Monthly Fuel Use	0.5	$0	$0	$0	12	6	0	0	0	0	$0	$0	0	c
E. Personnel Training	40	$0	$0	$0	1	40	66	2,640	264	132	$287,173	$0	$0	f
F. Time for Audits	na													
Recordkeeping Subtotal								2,640	264	132	$287,173	$0	0	
Totals								**76,156**	**7,616**	**3,808**	**$8,284,059**	**$87,113,364**	**0**	

a The burden on existing sources to read and understand rule requirements, and submit an initial notification were assumed to all occur in year 1.

b Cost includes taking an inventory of facility equipment including age, operating schedules, square feet of the facility and other details necessary for preparing for the audit pre-screening, attending the energy audit, and reviewing audit report from the audit professional. Based on the distribution of facilities with affected boilers or process heaters, 88% of facilities are in the industrial sector while the remaining 12% of facilities are in the commercial sector.

c Since existing units have three years after the publication date of the final rule to submit initial notification of compliance status, conduct compliance activities, or meet recordkeeping or reporting requirements, it is assumed that half the affected units will conduct an audit, testing and monitoring plan development in year 2 and half will conduct them in year 3 in order to be in compliance by the third year after promulgation. Initial Notification of Compliance Reports and recordkeeping requirements will not begin until year 3 of this ICR. energy professionals.

f For on-going training activities to keep personnel updated in order to implement compliance activities.

e Assumes facility must already maintain records on boiler insurance and/or maintenance schedule. No new record system would be required.

g Existing large solid units are expected to determine compliance through stack testing and not fuel analysis

h Units not equipped with PM CPMS wil perform stack testing for PM.

i Subsequent annual testing in year 2 are based on the number of sources that had an initial test in year 1 of this ICR. Subsequent semi-annual compliance reporting and recordkeeping requirements are based on the number of new sources in years 1 and 2 of this ICR.

j Only applies to large solid fuel boilers, because solid fuel boilers may fire a mix of non-homogeneous fuels. Assumed all solid fuel units would perform a repeat stack test.

k Assumed no affirmative defense claims would be filed in the first three years after promulgation. If a source were to meet the notification, reporting, and recordkeeping requirements of affirmative defense, it would be approximately 30 hours or $3,100 in labor burden.

L Tune-ups are required as work practice standards in lieu of dioxin/furan testing.

m PM CPMS is required for coal boilers, biomass boilers which are not 100% biomass, and residual oil boilers which are >= 250 mmBtu/hr

n Estimated number of units expected to require each type of parameter monitoring are consistent with the estimated number of units expected to install controls, as outlined in the memorandum: "Revised (November 2011) Methodology for Estimating Cost and Emissions Impacts for Industrial, Commercial, Institutional Boilers and Process Heaters National Emission Standards for Hazardous Air Pollutants – Major Source." Small edits to the MACT floor dataset were made after the impacts analysis and ICR burden estimates are prepared. These edits are not reflected in the ICR or impacts analysis for this proposal, but the changes will be incorporated into the burden estimates for the final rule.

Table 1.C. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 3, Existing Large Solid Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Stack Testing and Fuel Analysis Cost Per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year [(B+C+D)xExG]	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	a
B. Required Activities														
1. Conduct Energy Audit														
a) Commerical	20	$854	$0	$0	1	20	8	160	16	8	$17,404	$6,832	0	b, c, d
b) Industrial	20	$18,292	$0	$0	1	20	57	1,140	114	57	$124,006	$1,042,644	0	b, c, d
2. Initial Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	544	6,528	653	326	$710,100	$2,720,000	0	c,h
3. Initial Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	544	6,528	653	326	$710,100	$4,352,000	0	c
4. Initial Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	544	6,528	653	326	$710,100	$4,352,000	0	c
5. Initial Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	544	6,528	653	326	$710,100	$3,808,000	0	c
6. Annual Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	544	6,528	653	326	$710,100	$2,720,000	0	c,h,i
7. Annual Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	544	6,528	653	326	$710,100	$4,352,000	0	c, i
8. Annual Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	544	6,528	653	326	$710,100	$4,352,000	0	c, i
9. Annual Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	544	6,528	653	326	$710,100	$3,808,000	0	c, i
10. Repeat Stack Test and Report if Switch Fuels (for Hg and HCl)	24	$0	$16,000	$0	1	24	544	13,056	1,306	653	$1,420,199	$8,704,000	0	c,j
11. Initial Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	1	5	0	0	0	0	$0	$0	0	c,g
12. Monthly Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	12	60	0	0	0	0	$0	$0	0	c,g
13. Annual Tune-up	12	$0	$2,875	$0	1	12	544	6,528	653	326	$710,100	$1,564,000	0	c,L
14. Continuous Parameter Monitoring														n
Establish Site-specific monitoring plan (all)	40	$0		$0	1	40	65	2,600	260	130	$282,822	$0	0	c
Opacity														
a) initial	10	$0	$0	$43,100	1	10	225	2,250	225	113	$244,749	$9,697,500	0	c
b) annual	10	$0	$0	$14,700	1	10	225	2,250	225	113	$244,749	$3,307,500	0	c
PM (only sources greater than 250 mmBtu/hr)														
a) initial	10	$0	$0	$158,000	1	10	144	1,440	144	72	$156,640	$22,752,000	0	c,m
b) annual	10	$0	$0	$56,100	1	10	144	1,440	144	72	$156,640	$8,078,400	0	c,m
O2														
a) initial	10	$0	$0	$8,523	1	10	544	5,440	544	272	$591,750	$4,636,512	0	c
b) annual	10	$0	$0	$1,436	1	10	544	5,440	544	272	$591,750	$781,184	0	c
Scrubber System Monitoring and Operation (for units with wet scrubbers)														
a) initial	10	$0	$0	$24,300	1	10	199	1,990	199	100	$216,467	$4,835,700	0	c
b) annual	10	$0	$0	$5,600	1	10	199	1,990	199	100	$216,467	$1,114,400	0	c
Bag Leak Detection System Operation (sources that have fabric filters)														
a) initial	10	$0	$0	$25,500	1	10	22	220	22	11	$23,931	$561,000	0	c
b) annual	10	$0	$0	$9,700	1	10	22	220	22	11	$23,931	$213,400	0	c
DIFF Monitor														
a) initial	10	$0	$0	$43,500	1	10	37	370	37	19	$40,248	$1,609,500	0	c
b) annual	10	$0	$0	$26,500	1	10	37	370	37	19	$40,248	$980,500	0	c
Carbon Injection Monitoring System (all sources that use ACI to control Hg)														
a) initial	10	$0	$0	$115,000	1	10	17	170	17	9	$18,492	$1,955,000	0	c
b) annual	10	$0	$0	$9,700	1	10	17	170	17	9	$18,492	$164,900	0	c
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	a
2) Notification of Compliance Status	8	$0	$0	$0	1	8	131	1,048	105	52	$113,999	$0	131	c
3) Initial Report on results of Energy Audit	5	$0	$0	$0	1	5	131	655	66	33	$71,249	$0	131	c
4) Semi-annual Compliance Report	20	$0	$0	$0	2	40	131	5,240	524	262	$569,994	$0	262	a
5) Affirmative Defense	30	$0	$0	$0	1	30	0	0	0	0	$0	$0	0	k
Reporting Subtotal								106,411	10,641	5,321	$11,575,123	$102,468,972	524	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													e
D. Record Information														
1) Records of Operating Parameter Values	20	$0	$0	$0	1	20	1,088	21,760	2,176	1,088	$2,366,998	$0	0	c
2) Records of Startup, Shutdown, Malfunction	15	$0	$0	$0	1	15	1,088	16,320	1,632	816	$1,775,249	$0	0	c
3) Records of Stack Tests	2	$0	$0	$0	1	2	1,088	2,176	218	109	$236,700	$0	0	c
4) Records of Monitoring Device Calibrations	2	$0	$0	$0	1	2	1,088	2,176	218	109	$236,700	$0	0	c
5) Records of All Compliance Reports Submitted	2	$0	$0	$0	2	4	1,088	4,352	435	218	$473,400	$0	0	c
6) Records of Monthly Fuel Use	0.5	$0	$0	$0	12	6	1,088	6,528	653	326	$710,100	$0	0	c
E. Personnel Training	40	$0	$0	$0	1	40	65	2,600	260	130	$282,822	$0	0	f
F. Time for Audits	na													
Recordkeeping Subtotal								55,912	5,591	2,796	$6,081,968	$0	0	
Totals								**162,323**	**16,232**	**8,116**	**$17,657,090**	**$102,468,972**	**524**	

a The burden on existing sources to read and understand rule requirements, and submit an initial notification were assumed to all occur in year 1.

b Cost includes taking an inventory of facility equipment including age, operating schedules, square feet of the facility and other details necessary for preparing for the audit pre-screening, attending the energy audit, and reviewing audit report from the audit professional. Based on the distribution of facilities with affected boilers or process heaters, 88% of facilities are in the industrial sector while the remaining 12% of facilities are in the commercial sector.

c Since existing units have three years after the publication date of the final rule to submit initial notification of compliance status, conduct compliance activities, or meet recordkeeping or reporting requirements, it is assumed that half the affected units will conduct an audit, testing and monitoring plan development in year 2 and half will conduct them in year 3 in order to be in compliance by the third year after promulgation. Initial Notification of Compliance Reports and recordkeeping requirements will not begin until year 3 of this ICR.

d Cost per occurrence for energy audit professionals including an phone screening to discuss the facility prior to a visit, a 2 to 4 hour site visit, and an additional 2-4 hours to prepare a follow-up report on recommendations and findings. These site visits are assumed to be conducted by certified energy professionals.

e Assumes facility must already maintain records on boiler insurance and/or maintenance schedule. No new record system would be required.

f For on-going training activities to keep personnel updated in order to implement compliance activities.

g Existing large solid units are expected to determine compliance through stack testing and not fuel analysis

h Units not equipped with PM CPMS wil perform stack testing for PM.

i Subsequent annual testing in year 2 are based on the number of sources that had an initial test in year 1 of this ICR. Subsequent semi-annual compliance reporting and recordkeeping requirements are based on the number of new sources in years 1 and 2 of this ICR.

j Only applies to large solid fuel boilers, because solid fuel boilers may fire a mix of non-homogeneous fuels. Assumed all solid fuel units would perform a repeat stack test.

k Assumed no affirmative defense claims would be filed in the first three years after promulgation. If a source were to meet the notification, reporting, and recordkeeping requirements of affirmative defense, it would be approximately 30 hours or $3,100 in labor burden.

L Tune-ups are required as work practice standards in lieu of dioxin/furan testing.

m PM CPMS is required for coal boilers, biomass boilers which are not 100% biomass, and residual oil boilers which are >= 250 mmBtu/hr

n Estimated number of units expected to require each type of parameter monitoring are consistent with the estimated number of units expected to install controls, as outlined in the memorandum: "Revised (November 2011) Methodology for Estimating Cost and Emissions Impacts for Industrial, Commercial, Institutional Boilers and Process Heaters National Emission Standards for Hazardous Air Pollutants – Major Source." Small edits to the MACT floor dataset were made after the impacts analysis and ICR burden estimates are prepared. These edits are not reflected in the ICR or impacts analysis for this proposal, but the changes will be incorporated into the burden estimates for the final rule.

Table 2.A. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 1, Existing Large Liquid Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Stack Testing and Fuel Analysis Cost Per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year [(B+C+D)xExG]	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	71	2,840	284	142	$308,928	$0	71	a
B. Required Activities														
1. Conduct Energy Audit														
a) Commerical	20	$854	$0	$0	1	20	0	0	0	0	$0	$0	0	b, c, d
b) Industrial	20	$18,292	$0	$0	1	20	0	0	0	0	$0	$0	0	b, c, d
2. Initial Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	0	0	0	0	$0	$0	0	c,h
3. Initial Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	c
4. Initial Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	c
5. Initial Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	0	0	0	0	$0	$0	0	c
6. Annual Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	0	0	0	0	$0	$0	0	c,h,i
7. Annual Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	c,i
8. Annual Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	c,i
9. Annual Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	0	0	0	0	$0	$0	0	c,i
10. Repeat Stack Test and Report if Switch Fuels (for Hg and HCl)	24	$0	$16,000	$0	1	24	0	0	0	0	$0	$0	0	c,f
11. Initial Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	1	5	0	0	0	0	$0	$0	0	c,g
12. Monthly Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	12	60	0	0	0	0	$0	$0	0	c,g
13. Annual Tune-up	12	$0	$2,875	$0	1	12	0	0	0	0	$0	$0	0	c,L
14. Continuous Parameter Monitoring														n
Establish Site-specific monitoring plan (all)	40	$0		$0	1	40	0	0	0	0	$0	$0	0	c
Opacity														
a) initial	10	$0	$0	$43,100	1	10	0	0	0	0	$0	$0	0	c
b) annual	10	$0	$0	$14,700	1	10	0	0	0	0	$0	$0	0	c
PM (only sources greater than 250 mmBtu/hr)														
a) initial	10	$0	$0	$158,000	1	10	0	0	0	0	$0	$0	0	c,m
b) annual	10	$0	$0	$56,100	1	10	0	0	0	0	$0	$0	0	c,m
O2														
a) initial	10	$0	$0	$8,523	1	10	0	0	0	0	$0	$0	0	c
b) annual	10	$0	$0	$1,436	1	10	0	0	0	0	$0	$0	0	c
Scrubber System Monitoring and Operation (for units with wet scrubbers)														
a) initial	10	$0	$0	$24,300	1	10	0	0	0	0	$0	$0	0	c
b) annual	10	$0	$0	$5,600	1	10	0	0	0	0	$0	$0	0	c
Bag Leak Detection System Operation (sources that have fabric filters)														
a) initial	10	$0	$0	$25,500	1	10	0	0	0	0	$0	$0	0	c
b) annual	10	$0	$0	$9,700	1	10	0	0	0	0	$0	$0	0	c
DIFF Monitor														
a) initial	10	$0	$0	$43,500	1	10	0	0	0	0	$0	$0	0	c
b) annual	10	$0	$0	$9,700	1	10	0	0	0	0	$0	$0	0	c
Carbon Injection Monitoring System (all sources that use ACI to control Hg)														
a) initial	10	$0	$0	$115,000	1	10	0	0	0	0	$0	$0	0	c
b) annual	10	$0	$0	$9,700	1	10	0	0	0	0	$0	$0	0	c
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	71	142	14	7	$15,446	$0	71	a
2) Notification of Compliance Status	8	$0	$0	$0	1	8	0	0	0	0	$0	$0	0	c
3) Initial Report on results of Energy Audit	5	$0	$0	$0	1	5	0	0	0	0	$0	$0	0	c
4) Semi-annual Compliance Report	20	$0	$0	$0	2	40	0	0	0	0	$0	$0	0	a
5) Affirmative Defense	30	$0	$0	$0	1	30	0	0	0	0	$0	$0	0	k
Reporting Subtotal								2,982	298	149	$324,375	$0	71	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													e
D. Record Information														
1) Records of Operating Parameter Values	20	$0	$0	$0	1	20	0	0	0	0	$0	$0	0	c
2) Records of Startup, Shutdown, Malfunction	15	$0	$0	$0	1	15	0	0	0	0	$0	$0	0	c
3) Records of Stack Tests	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	c
4) Records of Monitoring Device Calibrations	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	c
5) Records of All Compliance Reports Submitted	2	$0	$0	$0	2	4	0	0	0	0	$0	$0	0	c
6) Records of Monthly Fuel Use	0.5	$0	$0	$0	12	6	0	0	0	0	$0	$0	0	c
E. Personnel Training	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	j
F. Time for Audits	na													
Recordkeeping Subtotal								0	0	0	$0	$0	0	
Totals								**2,982**	**298**	**149**	**$324,375**	**$0**	**71**	

a Number of respondents based on number of existing large liquid fuel boilers which includes units greater than 10 mmBtu/hr.

b Cost includes taking an inventory of facility equipment including age, operating schedules, square feet of the facility and other details necessary for preparing for the audit pre-screening, attending the energy audit, and reviewing audit report from the audit professional. Based on the distribution of facilities with affected boilers or process heaters, 88% of facilities are in the industrial sector while the remaining 12% of facilities are in the commercial sector.

c Since existing units have three years after the publication date of the final rule to submit initial notification of compliance status, conduct compliance activities, or meet recordkeeping or reporting requirements, no burden is assumed in year 1.

d Cost per occurrence for energy audit professionals including an phone screening to discuss the facility prior to a visit, a 2 to 4 hour site visit, and an additional 2-4 hours to prepare a follow-up report on recommendations and findings. These site visits are assumed to be conducted by certified energy professionals.

e Assumes facility must already maintain records on boiler insurance and/or maintenance schedule. No new record system would be required.

f Only applies to large solid fuel boilers, because solid fuel boilers may fire a mix of non-homogeneous fuels. Assumed zero respondents for liquid and gas units.

g Existing large liquid units are expected to determine compliance for Hg and HCl through fuel analysis not stack testing.

h Units not equipped with PM CPMS wil perform stack testing for PM.

j No annual test and reporting burden is shown in year 1 as this is the same year as the initial test and report.

j For on-going training activities to keep personnel updated in order to implement compliance activities.

k Assumed no affirmative defense claims would be filed in the first three years after promulgation. If a source were to meet the notification, reporting, and recordkeeping requirements of affirmative defense, it would be approximately 30 hours or $3,100 in labor burden.

L Tune-ups are required as work practice standards in lieu of dioxin/furan testing.

m PM CPMS is required for coal boilers, biomass boilers which are not 100% biomass, and residual oil boilers which are >= 250 mmBtu/hr

n Estimated number of units expected to require each type of parameter monitoring are consistent with the estimated number of units expected to install controls, as outlined in the memorandum: "Revised (November 2011) Methodology for Estimating Cost and Emissions Impacts for Industrial, Commercial, Institutional Boilers and Process Heaters National Emission Standards for Hazardous Air Pollutants – Major Source." Small edits to the MACT floor dataset were made after the impacts analysis and ICR burden estimates are prepared. These edits are not reflected in the ICR or impacts analysis for this proposal, but the changes will be incorporated into the burden estimates for the final rule.

Table 2.B. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 2, Existing Large Liquid Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Stack Testing and Fuel Analysis Cost Per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year [(B+C+D)xExG]	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	a
B. Required Activities														
1. Conduct Energy Audit														
a) Commerical	20	$854	$0	$0	1	20	4	80	8	4	$8,702	$3,416	0	b, c, d
b) Industrial	20	$18,292	$0	$0	1	20	31	620	62	31	$67,442	$567,052	0	b, c, d
2. Initial Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	294	3,528	353	176	$383,767	$1,470,000	0	c,h
3. Initial Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	c
4. Initial Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	c
5. Initial Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	294	3,528	353	176	$383,767	$2,058,000	0	c,i
6. Annual Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	0	0	0	0	$0	$0	0	c,h,j
7. Annual Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	c,j
8. Annual Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	c,j
9. Annual Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	0	0	0	0	$0	$0	0	c,j
10. Repeat Stack Test and Report if Switch Fuels (for Hg and HCl)	24	$0	$16,000	$0	1	24	0	0	0	0	$0	$0	0	c,f
11. Initial Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	1	5	294	1,470	147	74	$159,903	$117,600	0	c,g
12. Monthly Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	12	60	0	0	0	0	$0	$0	0	c,g
13. Annual Tune-up	12	$0	$2,875	$0	1	12	294	3,528	353	176	$383,767	$845,250	0	c,m
14. Continuous Parameter Monitoring														o
Establish Site-specific monitoring plan (all)	40	$0		$0	1	40	36	1,440	144	72	$156,640	$0	0	c
Opacity														
a) initial	10	$0	$0	$43,100	1	10	27	270	27	14	$29,370	$1,163,700	0	c
b) annual	10	$0	$0	$14,700	1	10	27	270	27	14	$29,370	$396,900	0	c
PM (only sources greater than 250 mmBtu/hr)														
a) initial	10	$0	$0	$158,000	1	10	17	170	17	9	$18,492	$2,686,000	0	c,n
b) annual	10	$0	$0	$56,100	1	10	17	170	17	9	$18,492	$953,700	0	c,n
O2														
a) initial	10	$0	$0	$8,523	1	10	294	2,940	294	147	$319,806	$2,505,762	0	c
b) annual	10	$0	$0	$1,436	1	10	294	2,940	294	147	$319,806	$422,184	0	c
Scrubber System Monitoring and Operation (for units with wet scrubbers)														
a) initial	10	$0	$0	$24,300	1	10	253	2,530	253	127	$275,207	$6,147,900	0	c
b) annual	10	$0	$0	$5,600	1	10	253	2,530	253	127	$275,207	$1,416,800	0	c
Bag Leak Detection System Operation (sources that have fabric filters)														
a) initial	10	$0	$0	$25,500	1	10	1	10	1	1	$1,088	$25,500	0	c
b) annual	10	$0	$0	$9,700	1	10	1	10	1	1	$1,088	$9,700	0	c
DIFF Monitor														
a) initial	10	$0	$0	$43,500	1	10	27	270	27	14	$29,370	$1,174,500	0	c
b) annual	10	$0	$0	$9,700	1	10	27	270	27	14	$29,370	$261,900	0	c
Carbon Injection Monitoring System (all sources that use ACI to control Hg)														
a) initial	10	$0	$0	$115,000	1	10	0	0	0	0	$0	$0	0	c
b) annual	10	$0	$0	$9,700	1	10	0	0	0	0	$0	$0	0	c
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	a
2) Notification of Compliance Status	8	$0	$0	$0	1	8	0	0	0	0	$0	$0	0	c
3) Initial Report on results of Energy Audit	5	$0	$0	$0	1	5	0	0	0	0	$0	$0	0	c
4) Semi-annual Compliance Report	20	$0	$0	$0	2	40	0	0	0	0	$0	$0	0	c
5) Affirmative Defense	30	$0	$0	$0	1	30	0	0	0	0	$0	$0	0	L
Reporting Subtotal								26,574	2,657	1,329	$2,890,653	$22,225,864	0	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													e
D. Record Information														
1) Records of Operating Parameter Values	20	$0	$0	$0	1	20	0	0	0	0	$0	$0	0	c
2) Records of Startup, Shutdown, Malfunction	15	$0	$0	$0	1	15	0	0	0	0	$0	$0	0	c
3) Records of Stack Tests	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	c
4) Records of Monitoring Device Calibrations	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	c
5) Records of All Compliance Reports Submitted	2	$0	$0	$0	2	4	0	0	0	0	$0	$0	0	c
6) Records of Monthly Fuel Use	0.5	$0	$0	$0	12	6	0	0	0	0	$0	$0	0	c
E. Personnel Training	40	$0	$0	$0	1	40	36	1,440	144	72	$156,640	$0	0	k
F. Time for Audits	na													
Recordkeeping Subtotal								1,440	144	72	$156,640	$0	0	
Totals								**28,014**	**2,801**	**1,401**	**$3,047,293**	**$22,225,864**	**0**	

a The burden on existing sources to read and understand rule requirements, and submit an initial notification were assumed to all occur in year 1.

b Cost includes taking an inventory of facility equipment including age, operating schedules, square feet of the facility and other details necessary for preparing for the audit pre-screening, attending the energy audit, and reviewing audit report from the audit professional. Based on the distribution of facilities with affected boilers or process heaters, 87.4% of facilities are in the industrial sector while the remaining 12.6% of facilities are in the commercial sector.

c Since existing units have three years after the publication date of the final rule to submit initial notification of compliance status, conduct compliance activities, or meet recordkeeping or reporting requirements, it is assumed that half the affected units will conduct an audit, testing and monitoring plan development in year 2 and half will conduct them in year 3 in order to be in compliance by the third year after promulgation. Initial Notification of Compliance Reports and recordkeeping requirements will not begin until year 3 of this ICR. energy professionals.

e Assumes facility must already maintain records on boiler insurance and/or maintenance schedule. No new record system would be required.

f Only applies to large solid fuel boilers, because solid fuel boilers may fire a mix of non-homogeneous fuels. Assumed zero respondents for liquid and gas units.

g Existing large liquid units are expected to determine compliance for Hg and HCl through fuel analysis not stack testing.

h Units not equipped with PM CPMS wil perform stack testing for PM.

j Subsequent annual testing in year 2 are based on the number of sources that had an initial test in year 1 of this ICR. Subsequent semi-annual compliance reporting and recordkeeping requirements are based on the number of new sources in years 1 and 2 of this ICR.

k For on-going training activities to keep personnel updated in order to implement compliance activities.

L Assumed no affirmative defense claims would be filed in the first three years after promulgation. If a source were to meet the notification, reporting, and recordkeeping requirements of affirmative defense, it would be approximately 30 hours or $3,100 in labor burden.

m Tune-ups are required as work practice standards in lieu of dioxin/furan testing.

n PM CPMS is required for coal boilers, biomass boilers which are not 100% biomass, and residual oil boilers which are >= 250 mmBtu/hr

o Estimated number of units expected to require each type of parameter monitoring are consistent with the estimated number of units expected to install controls, as outlined in the memorandum: "Revised (November 2011) Methodology for Estimating Cost and Emissions Impacts for Industrial, Commercial, Institutional Boilers and Process Heaters National Emission Standards for Hazardous Air Pollutants – Major Source." Small edits to the MACT floor dataset were made after the impacts analysis and ICR burden estimates are prepared. These edits are not reflected in the ICR or impacts analysis for this proposal, but the changes will be incorporated into the burden estimates for the final rule.

Table 2.C. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 3, Existing Large Liquid Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Stack Testing and Fuel Analysis Cost Per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year [(B+C+D)xExG]	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	a
B. Required Activities														
1. Conduct Energy Audit														
a) Commerical	20	$854	$0	$0	1	20	4	80	8	4	$8,702	$3,416	0	b, c, d
b) Industrial	20	$18,292	$0	$0	1	20	31	620	62	31	$67,442	$567,052	0	b, c, d
2. Initial Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	293	3,516	352	176	$382,462	$1,465,000	0	c,h
3. Initial Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	c
4. Initial Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	c
5. Initial Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	293	3,516	352	176	$382,462	$2,051,000	0	c,i
6. Annual Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	294	3,528	353	176	$383,767	$1,470,000	0	c,h,j
7. Annual Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	c,j
8. Annual Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	c,j
9. Annual Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	294	3,528	353	176	$383,767	$2,058,000	0	c,j
10. Repeat Stack Test and Report if Switch Fuels (for Hg and HCl)	24	$0	$16,000	$0	1	24	0	0	0	0	$0	$0	0	c,f
11. Initial Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	1	5	293	1,465	147	73	$159,359	$117,200	0	c,g
12. Monthly Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	12	60	587	35,220	3,522	1,761	$3,831,144	$2,817,600	0	c,g
13. Annual Tune-up	12	$0	$2,875	$0	1	12	293	3,516	352	176	$382,462	$842,375	0	c,m
14. Continuous Parameter Monitoring														o
Establish Site-specific monitoring plan (all)	40	$0		$0	1	40	35	1,400	140	70	$152,289	$0	0	c
Opacity														
a) initial	10	$0	$0	$43,100	1	10	26	260	26	13	$28,282	$1,120,600	0	c
b) annual	10	$0	$0	$14,700	1	10	26	260	26	13	$28,282	$382,200	0	c
PM (only sources greater than 250 mmBtu/hr)														
a) initial	10	$0	$0	$158,000	1	10	17	170	17	9	$18,492	$2,686,000	0	c,n
b) annual	10	$0	$0	$56,100	1	10	17	170	17	9	$18,492	$953,700	0	c,n
O2														
a) initial	10	$0	$0	$8,523	1	10	293	2,930	293	147	$318,718	$2,497,239	0	c
b) annual	10	$0	$0	$1,436	1	10	293	2,930	293	147	$318,718	$420,748	0	c
Scrubber System Monitoring and Operation (for units with wet scrubbers)														
a) initial	10	$0	$0	$24,300	1	10	252	2,520	252	126	$274,119	$6,123,600	0	c
b) annual	10	$0	$0	$5,600	1	10	252	2,520	252	126	$274,119	$1,411,200	0	c
Bag Leak Detection System Operation (sources that have fabric filters)														
a) initial	10	$0	$0	$25,500	1	10	0	0	0	0	$0	$0	0	c
b) annual	10	$0	$0	$9,700	1	10	0	0	0	0	$0	$0	0	c
DIFF Monitor														
a) initial	10	$0	$0	$43,500	1	10	27	270	27	14	$29,370	$1,174,500	0	c
b) annual	10	$0	$0	$9,700	1	10	27	270	27	14	$29,370	$261,900	0	c
Carbon Injection Monitoring System (all sources that use ACI to control Hg)														
a) initial	10	$0	$0	$115,000	1	10	0	0	0	0	$0	$0	0	c
b) annual	10	$0	$0	$9,700	1	10	0	0	0	0	$0	$0	0	c
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	a
2) Notification of Compliance Status	8	$0	$0	$0	1	8	71	568	57	28	$61,786	$0	71	c
3) Initial Report on results of Energy Audit	5	$0	$0	$0	1	5	71	355	36	18	$38,616	$0	71	c
4) Semi-annual Compliance Report	20	$0	$0	$0	2	40	71	2,840	284	142	$308,928	$0	142	c
5) Affirmative Defense	30	$0	$0	$0	1	30	0	0	0	0	$0	$0	0	L
Reporting Subtotal								72,452	7,245	3,623	$7,881,147	$28,423,330	284	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													e
D. Record Information														
1) Records of Operating Parameter Values	20	$0	$0	$0	1	20	587	11,740	1,174	587	$1,277,048	$0	0	c
2) Records of Startup, Shutdown, Malfunction	15	$0	$0	$0	1	15	587	8,805	881	440	$957,786	$0	0	c
3) Records of Stack Tests	2	$0	$0	$0	1	2	587	1,174	117	59	$127,705	$0	0	c
4) Records of Monitoring Device Calibrations	2	$0	$0	$0	1	2	587	1,174	117	59	$127,705	$0	0	c
5) Records of All Compliance Reports Submitted	2	$0	$0	$0	2	4	587	2,348	235	117	$255,410	$0	0	c
6) Records of Monthly Fuel Use	0.5	$0	$0	$0	12	6	587	3,522	352	176	$383,114	$0	0	c
E. Personnel Training	40	$0	$0	$0	1	40	35	1,400	140	70	$152,289	$0	0	k
F. Time for Audits	na													
Recordkeeping Subtotal								30,163	3,016	1,508	$3,281,056	$0	0	
Totals								**102,615**	**10,262**	**5,131**	**$11,162,203**	**$28,423,330**	**284**	

a The burden on existing sources to read and understand rule requirements, and submit an initial notification were assumed to all occur in year 1.

b Cost includes taking an inventory of facility equipment including age, operating schedules, square feet of the facility and other details necessary for preparing for the audit pre-screening, attending the energy audit, and reviewing audit report from the audit professional. Based on the distribution of facilities with affected boilers or process heaters, 88% of facilities are in the industrial sector while the remaining 12% of facilities are in the commercial sector.

c Since existing units have three years after the publication date of the final rule to submit initial notification of compliance status, conduct compliance activities, or meet recordkeeping or reporting requirements, it is assumed that half the affected units will conduct an audit, testing and monitoring plan development in year 2 and half will conduct them in year 3 in order to be in compliance by the third year after promulgation. Initial Notification of Compliance Reports and recordkeeping requirements will not begin until year 3 of this ICR.

d Cost per occurrence for energy audit professionals including an phone screening to discuss the facility prior to a visit, a 2 to 4 hour site visit, and an additional 2-4 hours to prepare a follow-up report on recommendations and findings. These site visits are assumed to be conducted by certified energy professionals.

e Assumes facility must already maintain records on boiler insurance and/or maintenance schedule. No new record system would be required.

f Only applies to large solid fuel boilers, because solid fuel boilers may fire a mix of non-homogeneous fuels. Assumed zero respondents for liquid and gas units.

g Existing large liquid units are expected to determine compliance for Hg and HCl through fuel analysis not stack testing.

h Units not equipped with PM CPMS wil perform stack testing for PM.

j Subsequent annual testing in year 2 are based on the number of sources that had an initial test in year 1 of this ICR. Subsequent semi-annual compliance reporting and recordkeeping requirements are based on the number of new sources in years 1 and 2 of this ICR.

k For on-going training activities to keep personnel updated in order to implement compliance activities.

L Assumed no affirmative defense claims would be filed in the first three years after promulgation. If a source were to meet the notification, reporting, and recordkeeping requirements of affirmative defense, it would be approximately 30 hours or $3,100 in labor burden.

m Tune-ups are required as work practice standards in lieu of dioxin/furan testing.

n PM CPMS is required for coal boilers, biomass boilers which are not 100% biomass, and residual oil boilers which are >= 250 mmBtu/hr

o Estimated number of units expected to require each type of parameter monitoring are consistent with the estimated number of units expected to install controls, as outlined in the memorandum: "Revised (November 2011) Methodology for Estimating Cost and Emissions Impacts for Industrial, Commercial, Institutional Boilers and Process Heaters National Emission Standards for Hazardous Air Pollutants – Major Source." Small edits to the MACT floor dataset were made after the impacts analysis and ICR burden estimates are prepared. These edits are not reflected in the ICR or impacts analysis for this proposal, but the changes will be incorporated into the burden estimates for the final rule.

Table 3.A. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 1, Existing Large Gas Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Stack Testing and Fuel Analysis Cost Per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year [(B+C+D)xExG]	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	549	21,960	2,196	1,098	$2,388,754	$0	0	a
B. Required Activities														
1. Conduct Energy Audit														
a) Commerical	20	$854	$0	$0	1	20	0	0	0	0	$0	$0	0	b, c, d
b) Industrial	20	$18,292	$0	$0	1	20	0	0	0	0	$0	$0	0	b, c, d
2. Initial Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	0	0	0	0	$0	$0	0	c,j,k
3. Initial Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	c,j,k
4. Initial Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	c,j,k
5. Initial Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	0	0	0	0	$0	$0	0	c,j,k
6. Annual Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	0	0	0	0	$0	$0	0	c,j,k
7. Annual Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	c,j,k
8. Annual Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	c,j,k
9. Annual Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	0	0	0	0	$0	$0	0	c,j,k
10. Repeat Stack Test and Report if Switch Fuels (for Hg and HCl)	24	$0	$16,000	$0	1	24	0	0	0	0	$0	$0	0	c,f
11. Initial Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	1	5	0	0	0	0	$0	$0	0	c,g
12. Monthly Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	12	60	0	0	0	0	$0	$0	0	c,g
13. Continuous Parameter Monitoring														p
Establish Site-specific monitoring plan (all)	40	$0		$0	1	40	0	0	0	0	$0	$0	0	c
Opacity														
a) initial	10	$0	$0	$43,100	1	10	0	0	0	0	$0	$0	0	c,h
b) annual	10	$0	$0	$14,700	1	10	0	0	0	0	$0	$0	0	c,h
PM (only sources greater than 250 mmBtu/hr)														
a) initial	10	$0	$0	$158,000	1	10	0	0	0	0	$0	$0	0	c,h
b) annual	10	$0	$0	$56,100	1	10	0	0	0	0	$0	$0	0	c,h
O2														
a) initial	10	$0	$0	$8,523	1	10	0	0	0	0	$0	$0	0	c
b) annual	10	$0	$0	$1,436	1	10	0	0	0	0	$0	$0	0	c
Scrubber System Monitoring and Operation (for units with wet scrubbers)														
a) initial	10	$0	$0	$24,300	1	10	0	0	0	0	$0	$0	0	c
b) annual	10	$0	$0	$5,600	1	10	0	0	0	0	$0	$0	0	c
Bag Leak Detection System Operation (sources that have fabric filters)														
a) initial	10	$0	$0	$25,500	1	10	0	0	0	0	$0	$0	0	c
b) annual	10	$0	$0	$9,700	1	10	0	0	0	0	$0	$0	0	c
14. Annual Tune-up	12	$0	$2,875	$0	1	12	0	0	0	0	$0	$0	0	c
15. Mercury Fuel Spec Analysis	5	$0	$200	$0	12	60	0	0	0	0	$0	$0	0	c,i
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	549	1,098	110	55	$119,438	$0	549	a
2) Notification of Compliance Status	8	$0	$0	$0	1	8	0	0	0	0	$0	$0	0	c
3) Initial Report on results of Energy Audit	5	$0	$0	$0	1	5	0	0	0	0	$0	$0	0	c
4) Annual Compliance Report	20	$0	$0	$0	1	20	0	0	0	0	$0	$0	0	c,L
5) Semi-annual Compliance Report	20	$0	$0	$0	2	40	0	0	0	0	$0	$0	0	c,L
6) Notification of Alternative Fuel Use	5	$0	$0	$0	1	5	0	0	0	0	$0	$0	0	c,m
7) Affirmative Defense	30	$0	$0	$0	1	30	0	0	0	0	$0	$0	0	o
Reporting Subtotal								23,058	2,306	1,153	$2,508,192	$0	549	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													e
D. Record Information														
1) Records of Operating Parameter Values	20	$0	$0	$0	1	20	0	0	0	0	$0	$0	0	c
2) Records of Startup, Shutdown, Malfunction	15	$0	$0	$0	1	15	0	0	0	0	$0	$0	0	c
3) Records of Stack Tests	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	c
4) Records of Monitoring Device Calibrations	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	c
5) Records of All Annual Compliance Reports Submitted	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	c, L
6) Records of All Semi-Annual Compliance Reports Submitted	2	$0	$0	$0	2	4	0	0	0	0	$0	$0	0	c, L
7) Records of Monthly Fuel Use	0.5	$0	$0	$0	12	6	0	0	0	0	$0	$0	0	c,g
8) Records of Annual Tune-up	0.25	$0	$0	$0	1	0.25	0	0	0	0	$0	$0	0	c
E. Personnel Training	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	n
F. Time for Audits	na													
Recordkeeping Subtotal								0	0	0	$0	$0	0	
Totals								**23,058**	**2,306**	**1,153**	**$2,508,192**	**$0**	**549**	

a Number of respondents based on number of existing large gas fuel boilers which includes natural, petroleum, and other gas fuel units greater than 10 mmBtu/hr.

b Cost includes taking an inventory of facility equipment including age, operating schedules, square feet of the facility and other details necessary for preparing for the audit pre-screening, attending the energy audit, and reviewing audit report from the audit professional. Based on the distribution of facilities with affected boilers or process heaters, 88% of facilities are in the industrial sector while the remaining 12% of facilities are in the commercial sector.

c Since existing units have three years after the publication date of the final rule to submit initial notification of compliance status, conduct compliance activities, or meet recordkeeping or reporting requirements, no burden is assumed in year 1.

d Cost per occurrence for energy audit professionals including an phone screening to discuss the facility prior to a visit, a 2 to 4 hour site visit, and an additional 2-4 hours to prepare a follow-up report on recommendations and findings. These site visits are assumed to be conducted by certified energy professionals.

e Assumes facility must already maintain records on boiler insurance and/or maintenance schedule. No new record system would be required.

f Only applies to large solid fuel boilers, because solid fuel boilers may fire a mix of non-homogeneous fuels. Assumed zero respondents for liquid and gas units.

g Existing large gas 2 units are expected to determine compliance through stack testing not fuel analysis

h Gas units are exempt from PM CPMS and opacity monitoring.

i Number based on units which reported firing fuels other than natural or refinery gas.

j The units firing other process gases other than natural gas, refinery gases or other on-spec gas 1 fuels have limits for PM, HCl, Hg, and CO and are subject to testing and monitoring requirements for each pollutant.

k The recordkeeping and reporting requirements for natural gas fired units is to conduct an annual tune-up and document that the tune-up was completed. The documentation does not need to be submitted as a report unless requested by the Administrator.

L Only facilities with process gas (gas 2 units) subject to numerical emission limits are expected to be required to submit semi-annual compliance reports. Natural gas and refinery gas units are required to submit reports annually.

m Number based on 17.8% of the large gas 1 units using liquid instead of gas at some point.

n For on-going training activities to keep personnel updated in order to implement compliance activities.

o Assumed no affirmative defense claims would be filed in the first three years after promulgation. If a source were to meet the notification, reporting, and recordkeeping requirements of affirmative defense, it would be approximately 30 hours or $3,100 in labor burden.

p Estimated number of units expected to require each type of parameter monitoring are consistent with the estimated number of units expected to install controls, as outlined in the memorandum: "Revised (November 2011) Methodology for Estimating Cost and Emissions Impacts for Industrial, Commercial, Institutional Boilers and Process Heaters National Emission Standards for Hazardous Air Pollutants – Major Source." Small edits to the MACT floor dataset were made after the impacts analysis and ICR burden estimates are prepared. These edits are not reflected in the ICR or impacts analysis for this proposal, but the changes will be incorporated into the burden estimates for the final rule.

Table 3.B. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 2, Existing Large Gas Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Stack Testing and Fuel Analysis Cost Per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year [(B+C+D)xExG]	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	a
B. Required Activities														
1. Conduct Energy Audit														
a) Commerical	20	$854	$0	$0	1	20	33	660	66	33	$71,793	$28,182	0	b, c, d
b) Industrial	20	$18,292	$0	$0	1	20	242	4,840	484	242	$526,483	$4,426,664	0	b, c, d
2. Initial Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	39	468	47	23	$50,908	$195,000	0	c,j,k
3. Initial Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	39	468	47	23	$50,908	$312,000	0	c,j,k
4. Initial Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	39	468	47	23	$50,908	$312,000	0	c,j,k
5. Initial Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	39	468	47	23	$50,908	$273,000	0	c,j,k
6. Annual Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	0	0	0	0	$0	$0	0	c,j,k
7. Annual Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	c,j,k
8. Annual Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	c,j,k
9. Annual Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	0	0	0	0	$0	$0	0	c,j,k
10. Repeat Stack Test and Report if Switch Fuels (for Hg and HCl)	24	$0	$16,000	$0	1	24	0	0	0	0	$0	$0	0	c,f
11. Initial Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	1	5	0	0	0	0	$0	$0	0	c,g
12. Monthly Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	12	60	0	0	0	0	$0	$0	0	c,g
13. Continuous Parameter Monitoring														p
Establish Site-specific monitoring plan (all)	40	$0		$0	1	40	5	200	20	10	$21,756	$0	0	c
Opacity														
a) initial	10	$0	$0	$43,100	1	10	0	0	0	0	$0	$0	0	c,h
b) annual	10	$0	$0	$14,700	1	10	0	0	0	0	$0	$0	0	c,h
PM (only sources greater than 250 mmBtu/hr)														
a) initial	10	$0	$0	$158,000	1	10	0	0	0	0	$0	$0	0	c,h
b) annual	10	$0	$0	$56,100	1	10	0	0	0	0	$0	$0	0	c,h
O2														
a) initial	10	$0	$0	$8,523	1	10	39	390	39	20	$42,423	$332,397	0	c
b) annual	10	$0	$0	$1,436	1	10	39	390	39	20	$42,423	$56,004	0	c
Scrubber System Monitoring and Operation (for units with wet scrubbers)														
a) initial	10	$0	$0	$24,300	1	10	3	30	3	2	$3,263	$72,900	0	c
b) annual	10	$0	$0	$5,600	1	10	3	30	3	2	$3,263	$16,800	0	c
Bag Leak Detection System Operation (sources that have fabric filters)														
a) initial	10	$0	$0	$25,500	1	10	0	0	0	0	$0	$0	0	c
b) annual	10	$0	$0	$9,700	1	10	0	0	0	0	$0	$0	0	c
14. Annual Tune-up	12	$0	$2,875	$0	1	12	2,236	26,832	2,683	1,342	$2,918,718	$6,428,500	0	c,k
15. Mercury Fuel Spec Analysis	5	$0	$200	$0	12	60	193	11,580	1,158	579	$1,259,643	$463,200	0	c,i
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	a
2) Notification of Compliance Status	8	$0	$0	$0	1	8	0	0	0	0	$0	$0	0	c
3) Initial Report on results of Energy Audit	5	$0	$0	$0	1	5	0	0	0	0	$0	$0	0	c
4) Annual Compliance Report	20	$0	$0	$0	1	20	0	0	0	0	$0	$0	0	c, L
5) Semi-annual Compliance Report	20	$0	$0	$0	2	40	0	0	0	0	$0	$0	0	c, L
6) Notification of Alternative Fuel Use	5	$0	$0	$0	1	5	0	0	0	0	$0	$0	0	c,m
7) Affirmative Defense	30	$0	$0	$0	1	30	0	0	0	0	$0	$0	0	o
Reporting Subtotal								46,824	4,682	2,341	$5,093,398	$12,916,647	0	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													e
D. Record Information														
1) Records of Operating Parameter Values	20	$0	$0	$0	1	20	0	0	0	0	$0	$0	0	c
2) Records of Startup, Shutdown, Malfunction	15	$0	$0	$0	1	15	0	0	0	0	$0	$0	0	c
3) Records of Stack Tests	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	c
4) Records of Monitoring Device Calibrations	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	c
5) Records of All Annual Compliance Reports Submitted	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	c, L
6) Records of All Semi-Annual Compliance Reports Submitted	2	$0	$0	$0	2	4	0	0	0	0	$0	$0	0	c, L
7) Records of Monthly Fuel Use	0.5	$0	$0	$0	12	6	0	0	0	0	$0	$0	0	c,g
8) Records of Annual Tune-up	0.25	$0	$0	$0	1	0.25	0	0	0	0	$0	$0	0	c
E. Personnel Training	40	$0	$0	$0	1	40	275	11,000	1,100	550	$1,196,553	$0	0	n
F. Time for Audits	na													
Recordkeeping Subtotal								11,000	1,100	550	$1,196,553	$0		
Totals								**57,824**	**5,782**	**2,891**	**$6,289,950**	**$12,916,647**	**0**	

a The burden on existing sources to read and understand rule requirements, and submit an initial notification were assumed to all occur in year 1.

b Cost includes taking an inventory of facility equipment including age, operating schedules, square feet of the facility and other details necessary for preparing for the audit pre-screening, attending the energy audit, and reviewing audit report from the audit professional. Based on the distribution of facilities with affected boilers or process heaters, 87.4% of facilities are in the industrial sector while the remaining 12.6% of facilities are in the commercial sector.

c Since existing units have three years after the publication date of the final rule to submit initial notification of compliance status, conduct compliance activities, or meet recordkeeping or reporting requirements, it is assumed that half the affected units will conduct an audit, testing and monitoring plan development in year 2 and half will conduct them in year 3 in order to be in compliance by the third year after promulgation. Initial Notification of Compliance Reports and recordkeeping requirements will not begin until year 3 of this ICR.

d Cost per occurrence for energy audit professionals including an phone screening to discuss the facility prior to a visit, a 2 to 4 hour site visit, and an additional 2-4 hours to prepare a follow-up report on recommendations and findings. These site visits are assumed to be conducted by certified energy professionals.

e Assumes facility must already maintain records on boiler insurance and/or maintenance schedule. No new record system would be required.

f Only applies to large solid fuel boilers, because solid fuel boilers may fire a mix of non-homogeneous fuels. Assumed zero respondents for liquid and gas units.

g Existing large gas 2 units are expected to determine compliance through stack testing.

h Gas units are exempt from PM CPMS and opacity monitoring.

i Number based on units which reported firing fuels other than natural or refinery gas.

j The units firing other process gases other than natural gas, refinery gases or other on-spec gas 1 fuels have limits for PM, HCl, Hg, and CO and are subject to testing and monitoring requirements for each pollutant.

k The recordkeeping and reporting requirements for natural gas fired units is to conduct an annual tune-up and document that the tune-up was completed. The documentation does not need to be submitted as a report unless requested by the Administrator.

L Only facilities with process gas (gas 2 units) subject to numerical emission limits are expected to be required to submit semi-annual compliance reports. Natural gas and refinery gas units are required to submit reports annually.

m Number based on 17.8% of the large gas 1 units using liquid instead of gas at some point.

n For on-going training activities to keep personnel updated in order to implement compliance activities.

o Assumed no affirmative defense claims would be filed in the first three years after promulgation. If a source were to meet the notification, reporting, and recordkeeping requirements of affirmative defense, it would be approximately 30 hours or $3,100 in labor burden.

p Estimated number of units expected to require each type of parameter monitoring are consistent with the estimated number of units expected to install controls, as outlined in the memorandum: "Revised (November 2011) Methodology for Estimating Cost and Emissions Impacts for Industrial, Commercial, Institutional Boilers and Process Heaters National Emission Standards for Hazardous Air Pollutants – Major Source." Small edits to the MACT floor dataset were made after the impacts analysis and ICR burden estimates are prepared. These edits are not reflected in the ICR or impacts analysis for this proposal, but the changes will be incorporated into the burden estimates for the final rule.

Table 3.C. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 3, Existing Large Gas Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Stack Testing and Fuel Analysis Cost Per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year [(B+C+D)xExG]	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	a
B. Required Activities														
1. Conduct Energy Audit														
a) Commerical	20	$854	$0	$0	1	20	33	660	66	33	$71,793	$28,182	0	b, c, d
b) Industrial	20	$18,292	$0	$0	1	20	241	4,820	482	241	$524,308	$4,408,372	0	b, c, d
2. Initial Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	39	468	47	23	$50,908	$195,000	0	c,j,k
3. Initial Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	39	468	47	23	$50,908	$312,000	0	c,j,k
4. Initial Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	39	468	47	23	$50,908	$312,000	0	c,j,k
5. Initial Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	39	468	47	23	$50,908	$273,000	0	c,j,k
6. Annual Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	39	468	47	23	$50,908	$195,000	0	c,j,k
7. Annual Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	39	468	47	23	$50,908	$312,000	0	c,j,k
8. Annual Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	39	468	47	23	$50,908	$312,000	0	c,j,k
9. Annual Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	39	468	47	23	$50,908	$273,000	0	c,j,k
10. Repeat Stack Test and Report if Switch Fuels (for Hg and HCl)	24	$0	$16,000	$0	1	24	0	0	0	0	$0	$0	0	c,f
11. Initial Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	1	5	0	0	0	0	$0	$0	0	c,g
12. Monthly Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	12	60	0	0	0	0	$0	$0	0	c,g
13. Continuous Parameter Monitoring														p
Establish Site-specific monitoring plan (all)	40	$0		$0	1	40	4	160	16	8	$17,404	$0	0	c
Opacity														
a) initial	10	$0	$0	$43,100	1	10	0	0	0	0	$0	$0	0	c,h
b) annual	10	$0	$0	$14,700	1	10	0	0	0	0	$0	$0	0	c,h
PM (only sources greater than 250 mmBtu/hr)														
a) initial	10	$0	$0	$158,000	1	10	0	0	0	0	$0	$0	0	c,h
b) annual	10	$0	$0	$56,100	1	10	0	0	0	0	$0	$0	0	c,h
O2														
a) initial	10	$0	$0	$8,523	1	10	39	390	39	20	$42,423	$332,397	0	c
b) annual	10	$0	$0	$1,436	1	10	39	390	39	20	$42,423	$56,004	0	c
Scrubber System Monitoring and Operation (for units with wet scrubbers)														
a) initial	10	$0	$0	$24,300	1	10	3	30	3	2	$3,263	$72,900	0	c
b) annual	10	$0	$0	$5,600	1	10	3	30	3	2	$3,263	$16,800	0	c
Bag Leak Detection System Operation (sources that have fabric filters)														
a) initial	10	$0	$0	$25,500	1	10	0	0	0	0	$0	$0	0	c
b) annual	10	$0	$0	$9,700	1	10	0	0	0	0	$0	$0	0	c
14. Annual Tune-up	12	$0	$2,875	$0	1	12	4,471	53,652	5,365	2,683	$5,836,130	$12,854,125	0	c,k
15. Mercury Fuel Spec Analysis	5	$0	$200	$0	12	60	192	11,520	1,152	576	$1,253,117	$460,800	0	c,i
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	a
2) Notification of Compliance Status	8	$0	$0	$0	1	8	549	4,392	439	220	$477,751	$0	549	c
3) Initial Report on results of Energy Audit	5	$0	$0	$0	1	5	549	2,745	275	137	$298,594	$0	549	c
4) Annual Compliance Report	20	$0	$0	$0	1	20	540	10,800	1,080	540	$1,174,797	$0	540	c, L
5) Semi-annual Compliance Report	20	$0	$0	$0	2	40	9	360	36	18	$39,160	$0	18	c, L
6) Notification of Alternative Fuel Use	5	$0	$0	$0	1	5	796	3,980	398	199	$432,934	$0	796	c,m
7) Affirmative Defense	30	$0	$0	$0	1	30	0	0	0	0	$0	$0	0	o
Reporting Subtotal								97,673	9,767	4,884	$10,624,625	$20,413,580	2,452	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													e
D. Record Information														
1) Records of Operating Parameter Values	20	$0	$0	$0	1	20	78	1,560	156	78	$169,693	$0	0	c
2) Records of Startup, Shutdown, Malfunction	15	$0	$0	$0	1	15	78	1,170	117	59	$127,270	$0	0	c
3) Records of Stack Tests	2	$0	$0	$0	1	2	78	156	16	8	$16,969	$0	0	c
4) Records of Monitoring Device Calibrations	2	$0	$0	$0	1	2	78	156	16	8	$16,969	$0	0	c
5) Records of All Annual Compliance Reports Submitted	2	$0	$0	$0	1	2	540	1,080	108	54	$117,480	$0	0	c, L
6) Records of All Semi-Annual Compliance Reports Submitted	2	$0	$0	$0	2	4	9	36	4	2	$3,916	$0	0	c, L
7) Records of Monthly Fuel Use	0.5	$0	$0	$0	12	6	4,549	27,294	2,729	1,365	$2,968,973	$0	0	c,g
8) Records of Annual Tune-up	0.25	$0	$0	$0	1	0.25	4,471	1,118	112	56	$121,586	$0	0	c
E. Personnel Training	40	$0	$0	$0	1	40	274	10,960	1,096	548	$1,192,201	$0	0	n
F. Time for Audits	na													
Recordkeeping Subtotal								43,530	4,353	2,176	$4,735,057	$0		
Totals								**141,203**	**14,120**	**7,060**	**$15,359,682**	**$20,413,580**	**2,452**	

a The burden on existing sources to read and understand rule requirements, and submit an initial notification were assumed to all occur in year 1.

b Cost includes taking an inventory of facility equipment including age, operating schedules, square feet of the facility and other details necessary for preparing for the audit pre-screening, attending the energy audit, and reviewing audit report from the audit professional. Based on the distribution of facilities with affected boilers or process heaters, 87.4% of facilities are in the industrial sector while the remaining 12.6% of facilities are in the commercial sector.

c Since existing units have three years after the publication date of the final rule to submit initial notification of compliance status, conduct compliance activities, or meet recordkeeping or reporting requirements, it is assumed that half the affected units will conduct an audit, testing and monitoring plan development in year 2 and half will conduct them in year 3 in order to be in compliance by the third year after promulgation. Initial Notification of Compliance Reports and recordkeeping requirements will not begin until year 3 of this ICR.

d Cost per occurrence for energy audit professionals including an phone screening to discuss the facility prior to a visit, a 2 to 4 hour site visit, and an additional 2-4 hours to prepare a follow-up report on recommendations and findings. These site visits are assumed to be conducted by certified energy professionals.

e Assumes facility must already maintain records on boiler insurance and/or maintenance schedule. No new record system would be required.

f Only applies to large solid fuel boilers, because solid fuel boilers may fire a mix of non-homogeneous fuels. Assumed zero respondents for liquid and gas units.

g Existing large gas 2 units are expected to determine compliance through stack testing.

h Gas units are exempt from PM CPMS and opacity monitoring.

i Number based on units which reported firing fuels other than natural or refinery gas.

j The units firing other process gases other than natural gas, refinery gases or other on-spec gas 1 fuels have limits for PM, HCl, Hg, and CO and are subject to testing and monitoring requirements for each pollutant.

k The recordkeeping and reporting requirements for natural gas fired units is to conduct an annual tune-up and document that the tune-up was completed. The documentation does not need to be submitted as a report unless requested by the Administrator.

L Only facilities with process gas (gas 2 units) subject to numerical emission limits are expected to be required to submit semi-annual compliance reports. Natural gas and refinery gas units are required to submit reports annually.

m Number based on 17.8% of the large gas 1 units using liquid instead of gas at some point.

n For on-going training activities to keep personnel updated in order to implement compliance activities.

o Assumed no affirmative defense claims would be filed in the first three years after promulgation. If a source were to meet the notification, reporting, and recordkeeping requirements of affirmative defense, it would be approximately 30 hours or $3,100 in labor burden.

p Estimated number of units expected to require each type of parameter monitoring are consistent with the estimated number of units expected to install controls, as outlined in the memorandum: "Revised (November 2011) Methodology for Estimating Cost and Emissions Impacts for Industrial, Commercial, Institutional Boilers and Process Heaters National Emission Standards for Hazardous Air Pollutants – Major Source." Small edits to the MACT floor dataset were made after the impacts analysis and ICR burden estimates are prepared. These edits are not reflected in the ICR or impacts analysis for this proposal, but the changes will be incorporated into the burden estimates for the final rule.

Table 4.A. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 1, New Large Solid Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Stack Testing and Fuel Analysis Cost Per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year [(B+C+D)xExG]	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	4	160	16	8	$17,404	$0	0	a
B. Required Activities														
1. Initial Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	26	312	31	16	$33,939	$130,000	0	a
2. Initial Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	26	312	31	16	$33,939	$208,000	0	a
3. Initial Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	26	312	31	16	$33,939	$208,000	0	a
4. Initial Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	26	312	31	16	$33,939	$182,000	0	a
5. Annual Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	0	0	0	0	$0	$0	0	a
6. Annual Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	a
7. Annual Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	a
8. Annual Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	0	0	0	0	$0	$0	0	a
9. Repeat Stack Test and Report if Switch Fuels (for Hg and HCl)	24	$0	$16,000	$0	1	24	26	624	62	31	$67,877	$416,000	0	a,d
10. Initial Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	1	5	0	0	0	0	$0	$0	0	a,e
11. Monthly Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	12	60	0	0	0	0	$0	$0	0	a,e
12. Annual Tune-up	12	$0	$2,875	$0	1	12	26	312	31	16	$33,939	$74,750	0	a,g
13. Continuous Parameter Monitoring														j
Establish Site-specific monitoring plan (all)	40	$0		$0	1	40	4	160	16	8	$17,404	$0	0	a
Opacity														
a) initial	10	$0	$0	$43,100	1	10	26	260	26	13	$28,282	$1,120,600	0	a
b) annual	10	$0	$0	$14,700	1	10	26	260	26	13	$28,282	$382,200	0	a
PM (only sources greater than 250 mmBtu/hr)														
a) initial	10	$0	$0	$158,000	1	10	0	0	0	0	$0	$0	0	a,i
b) annual	10	$0	$0	$56,100	1	10	0	0	0	0	$0	$0	0	a,i
O2														
a) initial	10	$0	$0	$8,523	1	10	26	260	26	13	$28,282	$221,598	0	a
b) annual	10	$0	$0	$1,436	1	10	26	260	26	13	$28,282	$37,336	0	a
Scrubber System Monitoring and Operation (for units with wet scrubbers)														
a) initial	10	$0	$0	$24,300	1	10	0	0	0	0	$0	$0	0	a
b) annual	10	$0	$0	$5,600	1	10	0	0	0	0	$0	$0	0	a
Bag Leak Detection System Operation (sources that have fabric filters)														
a) initial	10	$0	$0	$25,500	1	10	26	260	26	13	$28,282	$663,000	0	a
b) annual	10	$0	$0	$9,700	1	10	26	260	26	13	$28,282	$252,200	0	a
Carbon Injection Monitoring System (all sources that use ACI to control Hg)														
a) initial	10	$0	$0	$115,000	1	10	0	0	0	0	$0	$0	0	a
b) annual	10	$0	$0	$9,700	1	10	0	0	0	0	$0	$0	0	a
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	4	8	1	0	$870	$0	4	b
2) Notification of Compliance Status	8	$0	$0	$0	1	8	4	32	3	2	$3,481	$0	4	b
3) Semi-annual Compliance Report	20	$0	$0	$0	2	40	4	160	16	8	$17,404	$0	8	b
4) Affirmative Defense	30	$0	$0	$0	1	30	0	0	0	0	$0	$0	0	h
Reporting Subtotal								4,264	426	213	$463,827	$3,895,684	16	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													c
D. Record Information														
1) Records of Operating Parameter Values	20	$0	$0	$0	1	20	26	520	52	26	$56,564	$0	0	a
2) Records of Startup, Shutdown, Malfunction	15	$0	$0	$0	1	15	26	390	39	20	$42,423	$0	0	a
3) Records of Stack Tests	2	$0	$0	$0	1	2	26	52	5	3	$5,656	$0	0	a
4) Records of Monitoring Device Calibrations	2	$0	$0	$0	1	2	26	52	5	3	$5,656	$0	0	a
5) Records of All Compliance Reports Submitted	2	$0	$0	$0	2	4	26	104	10	5	$11,313	$0	0	a
6) Records of Monthly Fuel Use	0.5	$0	$0	$0	12	6	26	156	16	8	$16,969	$0	0	a,g
E. Personnel Training	40	$0	$0	$0	1	40	4	160	16	8	$17,404	$0	0	f
F. Time for Audits	na													
Recordkeeping Subtotal								1,434	143	72	$155,987	$0		
Totals								**5,698**	**570**	**285**	**$619,814**	**$3,895,684**	**16**	

a In order to calculate a per year estimate of the number of boilers and facilities required to meet these rule requirements, the number of projected boilers and facilities is each divided by 3.

b Assumed reporting activities would start the first year a boiler is applicable to rule.

c Assumes facility must already maintain records on boiler insurance and/or maintenance schedule. No new record system would be required.

d Only applies to large solid fuel boilers, because solid fuel boilers may fire a mix of non-homogeneous fuels. Assumed all solid fuel units would perform a repeat stack test.

e Existing large solid units are expected to determine compliance through stack testing and not fuel analysis

f For on-going training activities to keep personnel updated in order to implement compliance activities.

g Tune-ups are required as work practice standards in lieu of dioxin/furan testing.

h Assumed no affirmative defense claims would be filed in the first three years after promulgation. If a source were to meet the notification, reporting, and recordkeeping requirements of affirmative defense, it would be approximately 30 hours or $3,100 in labor burden.

i PM CPMS is required for coal boilers, biomass boilers which are not 100% biomass, and residual oil boilers which are >= 250 mmBtu/hr. It was assumed all new solid fuel boilers are firing 100% biomass.

j Estimated number of units expected to require each type of parameter monitoring are consistent with the estimated number of units expected to install controls, as outlined in the memorandum: "Revised (November 2011) Methodology for Estimating Cost and Emissions Impacts for Industrial, Commercial, Institutional Boilers and Process Heaters National Emission Standards for Hazardous Air Pollutants – Major Source." Small edits to the MACT floor dataset were made after the impacts analysis and ICR burden estimates are prepared. These edits are not reflected in the ICR or impacts analysis for this proposal, but the changes will be incorporated into the burden estimates for the final rule.

Table 4.B. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 2, New Large Solid Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Stack Testing and Fuel Analysis Cost Per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year [(B+C+D)xExG]	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	3	120	12	6	$13,053	$0	0	a
B. Required Activities														
1. Initial Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	26	312	31	16	$33,939	$130,000	0	a
2. Initial Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	26	312	31	16	$33,939	$208,000	0	a
3. Initial Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	26	312	31	16	$33,939	$208,000	0	a
4. Initial Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	26	312	31	16	$33,939	$182,000	0	a
5. Annual Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	26	312	31	16	$33,939	$130,000	0	a
6. Annual Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	26	312	31	16	$33,939	$208,000	0	a
7. Annual Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	26	312	31	16	$33,939	$208,000	0	a
8. Annual Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	26	312	31	16	$33,939	$182,000	0	a
9. Repeat Stack Test and Report if Switch Fuels (for Hg and HCl)	24	$0	$16,000	$0	1	24	26	624	62	31	$67,877	$416,000	0	a,d
10. Initial Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	1	5	0	0	0	0	$0	$0	0	a,e
11. Monthly Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	12	60	0	0	0	0	$0	$0	0	a,e
12. Annual Tune-up	12	$0	$2,875	$0	1	12	52	624	62	31	$67,877	$149,500	0	a,g
13. Continuous Parameter Monitoring														j
Establish Site-specific monitoring plan (all)	40	$0		$0	1	40	3	120	12	6	$13,053	$0	0	a
Opacity														
a) initial	10	$0	$0	$43,100	1	10	26	260	26	13	$28,282	$1,120,600	0	a
b) annual	10	$0	$0	$14,700	1	10	52	520	52	26	$56,564	$764,400	0	a
PM (only sources greater than 250 mmBtu/hr)														
a) initial	10	$0	$0	$158,000	1	10	0	0	0	0	$0	$0	0	a,i
b) annual	10	$0	$0	$56,100	1	10	0	0	0	0	$0	$0	0	a,i
O2														
a) initial	10	$0	$0	$8,523	1	10	26	260	26	13	$28,282	$221,598	0	a
b) annual	10	$0	$0	$1,436	1	10	52	520	52	26	$56,564	$74,672	0	a
Scrubber System Monitoring and Operation (for units with wet scrubbers)														
a) initial	10	$0	$0	$24,300	1	10	0	0	0	0	$0	$0	0	a
b) annual	10	$0	$0	$5,600	1	10	0	0	0	0	$0	$0	0	a
Bag Leak Detection System Operation (sources that have fabric filters)														
a) initial	10	$0	$0	$25,500	1	10	26	260	26	13	$28,282	$663,000	0	a
b) annual	10	$0	$0	$9,700	1	10	52	520	52	26	$56,564	$504,400	0	a
Carbon Injection Monitoring System (all sources that use ACI to control Hg)														
a) initial	10	$0	$0	$115,000	1	10	0	0	0	0	$0	$0	0	a
b) annual	10	$0	$0	$9,700	1	10	0	0	0	0	$0	$0	0	a
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	3	6	1	0	$653	$0	3	b
2) Notification of Compliance Status	8	$0	$0	$0	1	8	3	24	2	1	$2,611	$0	3	b
3) Semi-annual Compliance Report	20	$0	$0	$0	2	40	7	280	28	14	$30,458	$0	14	b
4) Affirmative Defense	30	$0	$0	$0	1	30	0	0	0	0	$0	$0	0	h
Reporting Subtotal								6,634	663	332	$721,630	$5,370,170	20	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													c
D. Record Information														
1) Records of Operating Parameter Values	20	$0	$0	$0	1	20	52	1,040	104	52	$113,129	$0	0	a
2) Records of Startup, Shutdown, Malfunction	15	$0	$0	$0	1	15	52	780	78	39	$84,846	$0	0	a
3) Records of Stack Tests	2	$0	$0	$0	1	2	52	104	10	5	$11,313	$0	0	a
4) Records of Monitoring Device Calibrations	2	$0	$0	$0	1	2	52	104	10	5	$11,313	$0	0	a
5) Records of All Compliance Reports Submitted	2	$0	$0	$0	2	4	52	208	21	10	$22,626	$0	0	a
6) Records of Monthly Fuel Use	0.5	$0	$0	$0	12	6	52	312	31	16	$33,939	$0	0	a,g
E. Personnel Training	40	$0	$0	$0	1	40	3	120	12	6	$13,053	$0	0	f
F. Time for Audits	na													
Recordkeeping Subtotal								2,668	267	133	$290,218	$0		
Totals								**9,302**	**930**	**465**	**$1,011,848**	**$5,370,170**	**20**	

a In order to calculate a per year estimate of the number of boilers and facilities required to meet these rule requirements, the number of projected boilers and facilities is each divided by 3.

b Assumed reporting activities would start the first year a boiler is applicable to rule.

c Assumes facility must already maintain records on boiler insurance and/or maintenance schedule. No new record system would be required.

d Only applies to large solid fuel boilers, because solid fuel boilers may fire a mix of non-homogeneous fuels. Assumed all solid fuel units would perform a repeat stack test.

e Existing large solid units are expected to determine compliance through stack testing and not fuel analysis

f For on-going training activities to keep personnel updated in order to implement compliance activities.

g Tune-ups are required as work practice standards in lieu of dioxin/furan testing.

h Assumed no affirmative defense claims would be filed in the first three years after promulgation. If a source were to meet the notification, reporting, and recordkeeping requirements of affirmative defense, it would be approximately 30 hours or $3,100 in labor burden.

i PM CPMS is required for coal boilers, biomass boilers which are not 100% biomass, and residual oil boilers which are >= 250 mmBtu/hr. It was assumed all new solid fuel boilers are firing 100% biomass.

j Estimated number of units expected to require each type of parameter monitoring are consistent with the estimated number of units expected to install controls, as outlined in the memorandum: "Revised (November 2011) Methodology for Estimating Cost and Emissions Impacts for Industrial, Commercial, Institutional Boilers and Process Heaters National Emission Standards for Hazardous Air Pollutants – Major Source." Small edits to the MACT floor dataset were made after the impacts analysis and ICR burden estimates are prepared. These edits are not reflected in the ICR or impacts analysis for this proposal, but the changes will be incorporated into the burden estimates for the final rule.

Table 4.C. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 3, New Large Solid Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Stack Testing and Fuel Analysis Cost Per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year [(B+C+D)xExG]	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	3	120	12	6	$13,053	$0	0	a
B. Required Activities														
1. Initial Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	26	312	31	16	$33,939	$130,000	0	a
2. Initial Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	26	312	31	16	$33,939	$208,000	0	a
3. Initial Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	26	312	31	16	$33,939	$208,000	0	a
4. Initial Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	26	312	31	16	$33,939	$182,000	0	a
5. Annual Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	52	624	62	31	$67,877	$260,000	0	a
6. Annual Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	52	624	62	31	$67,877	$416,000	0	a
7. Annual Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	52	624	62	31	$67,877	$416,000	0	a
8. Annual Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	52	624	62	31	$67,877	$364,000	0	a
9. Repeat Stack Test and Report if Switch Fuels (for Hg and HCl)	24	$0	$16,000	$0	1	24	26	624	62	31	$67,877	$416,000	0	a,d
10. Initial Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	1	5	0	0	0	0	$0	$0	0	a,e
11. Monthly Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	12	60	0	0	0	0	$0	$0	0	a,e
12. Annual Tune-up	12	$0	$2,875	$0	1	12	78	936	94	47	$101,816	$224,250	0	a,g
13. Continuous Parameter Monitoring														j
Establish Site-specific monitoring plan (all)	40	$0		$0	1	40	3	120	12	6	$13,053	$0	0	a
Opacity														
a) initial	10	$0	$0	$43,100	1	10	26	260	26	13	$28,282	$1,120,600	0	a
b) annual	10	$0	$0	$14,700	1	10	78	780	78	39	$84,846	$1,146,600	0	a
PM (only sources greater than 250 mmBtu/hr)														
a) initial	10	$0	$0	$158,000	1	10	0	0	0	0	$0	$0	0	a,i
b) annual	10	$0	$0	$56,100	1	10	0	0	0	0	$0	$0	0	a,i
O2														
a) initial	10	$0	$0	$8,523	1	10	26	260	26	13	$28,282	$221,598	0	a
b) annual	10	$0	$0	$1,436	1	10	78	780	78	39	$84,846	$112,008	0	a
Scrubber System Monitoring and Operation (for units with wet scrubbers)														
a) initial	10	$0	$0	$24,300	1	10	0	0	0	0	$0	$0	0	a
b) annual	10	$0	$0	$5,600	1	10	0	0	0	0	$0	$0	0	a
Bag Leak Detection System Operation (sources that have fabric filters)														
a) initial	10	$0	$0	$25,500	1	10	26	260	26	13	$28,282	$663,000	0	a
b) annual	10	$0	$0	$9,700	1	10	78	780	78	39	$84,846	$756,600	0	a
Carbon Injection Monitoring System (all sources that use ACI to control Hg)														
a) initial	10	$0	$0	$115,000	1	10	0	0	0	0	$0	$0	0	a
b) annual	10	$0	$0	$9,700	1	10	0	0	0	0	$0	$0	0	a
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	3	6	1	0	$653	$0	3	b
2) Notification of Compliance Status	8	$0	$0	$0	1	8	3	24	2	1	$2,611	$0	3	b
3) Semi-annual Compliance Report	20	$0	$0	$0	2	40	10	400	40	20	$43,511	$0	20	b
4) Affirmative Defense	30	$0	$0	$0	1	30	0	0	0	0	$0	$0	0	h
Reporting Subtotal								9,094	909	455	$989,223	$6,844,656	26	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													c
D. Record Information														
1) Records of Operating Parameter Values	20	$0	$0	$0	1	20	78	1,560	156	78	$169,693	$0	0	a
2) Records of Startup, Shutdown, Malfunction	15	$0	$0	$0	1	15	78	1,170	117	59	$127,270	$0	0	a
3) Records of Stack Tests	2	$0	$0	$0	1	2	78	156	16	8	$16,969	$0	0	a
4) Records of Monitoring Device Calibrations	2	$0	$0	$0	1	2	78	156	16	8	$16,969	$0	0	a
5) Records of All Compliance Reports Submitted	2	$0	$0	$0	2	4	78	312	31	16	$33,939	$0	0	a
6) Records of Monthly Fuel Use	0.5	$0	$0	$0	12	6	78	468	47	23	$50,908	$0	0	a,g
E. Personnel Training	40	$0	$0	$0	1	40	3	120	12	6	$13,053	$0	0	f
F. Time for Audits	na													
Recordkeeping Subtotal								3,942	394	197	$428,801	$0	0	
Totals								**13,036**	**1,304**	**652**	**$1,418,023**	**$6,844,656**	**26**	

a In order to calculate a per year estimate of the number of boilers and facilities required to meet these rule requirements, the number of projected boilers and facilities is each divided by 3.

b Assumed reporting activities would start the first year a boiler is applicable to rule.

c Assumes facility must already maintain records on boiler insurance and/or maintenance schedule. No new record system would be required.

d Only applies to large solid fuel boilers, because solid fuel boilers may fire a mix of non-homogeneous fuels. Assumed all solid fuel units would perform a repeat stack test.

e Existing large solid units are expected to determine compliance through stack testing and not fuel analysis

f For on-going training activities to keep personnel updated in order to implement compliance activities.

g Tune-ups are required as work practice standards in lieu of dioxin/furan testing.

h Assumed no affirmative defense claims would be filed in the first three years after promulgation. If a source were to meet the notification, reporting, and recordkeeping requirements of affirmative defense, it would be approximately 30 hours or $3,100 in labor burden.

i PM CPMS is required for coal boilers, biomass boilers which are not 100% biomass, and residual oil boilers which are >= 250 mmBtu/hr. It was assumed all new solid fuel boilers are firing 100% biomass.

j Estimated number of units expected to require each type of parameter monitoring are consistent with the estimated number of units expected to install controls, as outlined in the memorandum: "Revised (November 2011) Methodology for Estimating Cost and Emissions Impacts for Industrial, Commercial, Institutional Boilers and Process Heaters National Emission Standards for Hazardous Air Pollutants – Major Source." Small edits to the MACT floor dataset were made after the impacts analysis and ICR burden estimates are prepared. These edits are not reflected in the ICR or impacts analysis for this proposal, but the changes will be incorporated into the burden estimates for the final rule.

Table 5.A. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 1, New Large Liquid Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Stack Testing and Fuel Analysis Cost Per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year [(B+C+D)xExG]	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	a
B. Required Activities														
1. Initial Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	0	0	0	0	$0	$0	0	
2. Initial Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	
3. Initial Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	
4. Initial Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	0	0	0	0	$0	$0	0	
5. Annual Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	0	0	0	0	$0	$0	0	
6. Annual Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	
7. Annual Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	
8. Annual Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	0	0	0	0	$0	$0	0	
9. Repeat Stack Test and Report if Switch Fuels (for Hg and HCl)	24	$0	$16,000	$0	1	24	0	0	0	0	$0	$0	0	
10. Initial Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	1	5	0	0	0	0	$0	$0	0	
11. Monthly Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	12	60	0	0	0	0	$0	$0	0	
12. Annual Tune-up	12	$0	$2,875	$0	1	12	0	0	0	0	$0	$0	0	
13. Continuous Parameter Monitoring														
Establish Site-specific monitoring plan (all)	40	$0		$0	1	40	0	0	0	0	$0	$0	0	
Opacity													0	
a) initial	10	$0	$0	$43,100	1	10	0	0	0	0	$0	$0	0	
b) annual	10	$0	$0	$14,700	1	10	0	0	0	0	$0	$0	0	
PM (only sources greater than 250 mmBtu/hr)														
a) initial	10	$0	$0	$158,000	1	10	0	0	0	0	$0	$0	0	
b) annual	10	$0	$0	$56,100	1	10	0	0	0	0	$0	$0	0	
O2														
a) initial	10	$0	$0	$8,523	1	10	0	0	0	0	$0	$0	0	
b) annual	10	$0	$0	$1,436	1	10	0	0	0	0	$0	$0	0	
Scrubber System Monitoring and Operation (for units with wet scrubbers)														
a) initial	10	$0	$0	$24,300	1	10	0	0	0	0	$0	$0	0	
b) annual	10	$0	$0	$5,600	1	10	0	0	0	0	$0	$0	0	
Bag Leak Detection System Operation (sources that have fabric filters)														
a) initial	10	$0	$0	$25,500	1	10	0	0	0	0	$0	$0	0	
b) annual	10	$0	$0	$9,700	1	10	0	0	0	0	$0	$0	0	
Carbon Injection Monitoring System (all sources that use ACI to control Hg)														
a) initial	10	$0	$0	$115,000	1	10	0	0	0	0	$0	$0	0	
b) annual	10	$0	$0	$9,700	1	10	0	0	0	0	$0	$0	0	
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	
2) Notification of Compliance Status	8	$0	$0	$0	1	8	0	0	0	0	$0	$0	0	
3) Semi-annual Compliance Report	20	$0	$0	$0	2	40	0	0	0	0	$0	$0	0	
4) Affirmative Defense	30	$0	$0	$0	1	30	0	0	0	0	$0	$0	0	
Reporting Subtotal								0	0	0	$0	$0	0	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													
D. Record Information														
1) Records of Operating Parameter Values	20	$0	$0	$0	1	20	0	0	0	0	$0	$0	0	
2) Records of Startup, Shutdown, Malfunction	15	$0	$0	$0	1	15	0	0	0	0	$0	$0	0	
3) Records of Stack Tests	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	
4) Records of Monitoring Device Calibrations	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	
5) Records of All Compliance Reports Submitted	2	$0	$0	$0	2	4	0	0	0	0	$0	$0	0	
6) Records of Monthly Fuel Use	0.5	$0	$0	$0	12	6	0	0	0	0	$0	$0	0	
E. Personnel Training	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	
F. Time for Audits	na													
Recordkeeping Subtotal								0	0	0	$0	$0		
Totals								**0**	**0**	**0**	**$0**	**$0**	**0**	

a There are no new large liquid units expected to be constructed/reconstructed over the next 5 years

Table 5.B. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 2, New Large Liquid Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Stack Testing and Fuel Analysis Cost Per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year [(B+C+D)xExG]	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	a
B. Required Activities														
1. Initial Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	0	0	0	0	$0	$0	0	
2. Initial Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	
3. Initial Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	
4. Initial Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	0	0	0	0	$0	$0	0	
5. Annual Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	0	0	0	0	$0	$0	0	
6. Annual Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	
7. Annual Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	
8. Annual Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	0	0	0	0	$0	$0	0	
9. Repeat Stack Test and Report if Switch Fuels (for Hg and HCl)	24	$0	$16,000	$0	1	24	0	0	0	0	$0	$0	0	
10. Initial Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	1	5	0	0	0	0	$0	$0	0	
11. Monthly Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	12	60	0	0	0	0	$0	$0	0	
12. Annual Tune-up	12	$0	$2,875	$0	1	12	0	0	0	0	$0	$0	0	
13. Continuous Parameter Monitoring														
Establish Site-specific monitoring plan (all)	40	$0		$0	1	40	0	0	0	0	$0	$0	0	
Opacity													0	
a) initial	10	$0	$0	$43,100	1	10	0	0	0	0	$0	$0	0	
b) annual	10	$0	$0	$14,700	1	10	0	0	0	0	$0	$0	0	
PM (only sources greater than 250 mmBtu/hr)														
a) initial	10	$0	$0	$158,000	1	10	0	0	0	0	$0	$0	0	
b) annual	10	$0	$0	$56,100	1	10	0	0	0	0	$0	$0	0	
O2														
a) initial	10	$0	$0	$8,523	1	10	0	0	0	0	$0	$0	0	
b) annual	10	$0	$0	$1,436	1	10	0	0	0	0	$0	$0	0	
Scrubber System Monitoring and Operation (for units with wet scrubbers)														
a) initial	10	$0	$0	$24,300	1	10	0	0	0	0	$0	$0	0	
b) annual	10	$0	$0	$5,600	1	10	0	0	0	0	$0	$0	0	
Bag Leak Detection System Operation (sources that have fabric filters)														
a) initial	10	$0	$0	$25,500	1	10	0	0	0	0	$0	$0	0	
b) annual	10	$0	$0	$9,700	1	10	0	0	0	0	$0	$0	0	
Carbon Injection Monitoring System (all sources that use ACI to control Hg)														
a) initial	10	$0	$0	$115,000	1	10	0	0	0	0	$0	$0	0	
b) annual	10	$0	$0	$9,700	1	10	0	0	0	0	$0	$0	0	
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	
2) Notification of Compliance Status	8	$0	$0	$0	1	8	0	0	0	0	$0	$0	0	
3) Semi-annual Compliance Report	20	$0	$0	$0	2	40	0	0	0	0	$0	$0	0	
4) Affirmative Defense	30	$0	$0	$0	1	30	0	0	0	0	$0	$0	0	
Reporting Subtotal								0	0	0	$0	$0	0	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													
D. Record Information														
1) Records of Operating Parameter Values	20	$0	$0	$0	1	20	0	0	0	0	$0	$0	0	
2) Records of Startup, Shutdown, Malfunction	15	$0	$0	$0	1	15	0	0	0	0	$0	$0	0	
3) Records of Stack Tests	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	
4) Records of Monitoring Device Calibrations	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	
5) Records of All Compliance Reports Submitted	2	$0	$0	$0	2	4	0	0	0	0	$0	$0	0	
6) Records of Monthly Fuel Use	0.5	$0	$0	$0	12	6	0	0	0	0	$0	$0	0	
E. Personnel Training	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	
F. Time for Audits	na													
Recordkeeping Subtotal								0	0	0	$0	$0	0	
Totals								**0**	**0**	**0**	**$0**	**$0**	**0**	

a There are no new large liquid units expected to be constructed/reconstructed over the next 5 years

Table 5.C. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 3, New Large Liquid Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Stack Testing and Fuel Analysis Cost Per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year [(B+C+D)xExG]	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	a
B. Required Activities														
1. Initial Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	0	0	0	0	$0	$0	0	
2. Initial Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	
3. Initial Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	
4. Initial Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	0	0	0	0	$0	$0	0	
5. Annual Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	0	0	0	0	$0	$0	0	
6. Annual Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	
7. Annual Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	
8. Annual Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	0	0	0	0	$0	$0	0	
9. Repeat Stack Test and Report if Switch Fuels (for Hg and HCl)	24	$0	$16,000	$0	1	24	0	0	0	0	$0	$0	0	
10. Initial Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	1	5	0	0	0	0	$0	$0	0	
11. Monthly Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	12	60	0	0	0	0	$0	$0	0	
12. Annual Tune-up	12	$0	$2,875	$0	1	12	0	0	0	0	$0	$0	0	
13. Continuous Parameter Monitoring														
Establish Site-specific monitoring plan (all)	40	$0		$0	1	40	0	0	0	0	$0	$0	0	
Opacity													0	
a) initial	10	$0	$0	$43,100	1	10	0	0	0	0	$0	$0	0	
b) annual	10	$0	$0	$14,700	1	10	0	0	0	0	$0	$0	0	
PM (only sources greater than 250 mmBtu/hr)														
a) initial	10	$0	$0	$158,000	1	10	0	0	0	0	$0	$0	0	
b) annual	10	$0	$0	$56,100	1	10	0	0	0	0	$0	$0	0	
O2														
a) initial	10	$0	$0	$8,523	1	10	0	0	0	0	$0	$0	0	
b) annual	10	$0	$0	$1,436	1	10	0	0	0	0	$0	$0	0	
Scrubber System Monitoring and Operation (for units with wet scrubbers)														
a) initial	10	$0	$0	$24,300	1	10	0	0	0	0	$0	$0	0	
b) annual	10	$0	$0	$5,600	1	10	0	0	0	0	$0	$0	0	
Bag Leak Detection System Operation (sources that have fabric filters)														
a) initial	10	$0	$0	$25,500	1	10	0	0	0	0	$0	$0	0	
b) annual	10	$0	$0	$9,700	1	10	0	0	0	0	$0	$0	0	
Carbon Injection Monitoring System (all sources that use ACI to control Hg)														
a) initial	10	$0	$0	$115,000	1	10	0	0	0	0	$0	$0	0	
b) annual	10	$0	$0	$9,700	1	10	0	0	0	0	$0	$0	0	
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	
2) Notification of Compliance Status	8	$0	$0	$0	1	8	0	0	0	0	$0	$0	0	
3) Semi-annual Compliance Report	20	$0	$0	$0	2	40	0	0	0	0	$0	$0	0	
4) Affirmative Defense	30	$0	$0	$0	1	30	0	0	0	0	$0	$0	0	
Reporting Subtotal								0	0	0	$0	$0	0	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													
D. Record Information														
1) Records of Operating Parameter Values	20	$0	$0	$0	1	20	0	0	0	0	$0	$0	0	
2) Records of Startup, Shutdown, Malfunction	15	$0	$0	$0	1	15	0	0	0	0	$0	$0	0	
3) Records of Stack Tests	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	
4) Records of Monitoring Device Calibrations	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	
5) Records of All Compliance Reports Submitted	2	$0	$0	$0	2	4	0	0	0	0	$0	$0	0	
6) Records of Monthly Fuel Use	0.5	$0	$0	$0	12	6	0	0	0	0	$0	$0	0	
E. Personnel Training	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	
F. Time for Audits	na													
Recordkeeping Subtotal								0	0	0	$0	$0	0	
Totals								**0**	**0**	**0**	**$0**	**$0**	**0**	

a There are no new large liquid units expected to be constructed/reconstructed over the next 5 years

Table 6.A. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 1, New Large Gas Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Stack Testing and Fuel Analysis Cost Per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year [(B+C+D)xExG]	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	33	1,320	132	66	$143,586	$0	0	a
B. Required Activities														
1. Initial Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	0	0	0	0	$0	$0	0	e
2. Initial Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	e
3. Initial Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	e
4. Initial Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	0	0	0	0	$0	$0	0	e
6. Annual Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	0	0	0	0	$0	$0	0	a
7. Annual Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	a
8. Annual Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	a
9. Annual Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	0	0	0	0	$0	$0	0	a
11. Repeat Stack Test and Report if Switch Fuels (for Hg and HCl)	24	$0	$16,000	$0	1	24	0	0	0	0	$0	$0	0	a,e
12. Initial Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	1	5	0	0	0	0	$0	$0	0	a,f
Content	5	$0	$400	$0	12	60	0	0	0	0	$0	$0	0	a,f
14. Continuous Parameter Monitoring														k
Establish Site-specific monitoring plan (all)	40	$0		$0	1	40	0	0	0	0	$0	$0	0	a
Opacity														
a) initial	10	$0	$0	$43,100	1	10	0	0	0	0	$0	$0	0	a
b) annual	10	$0	$0	$14,700	1	10	0	0	0	0	$0	$0	0	a
PM (only sources greater than 250 mmBtu/hr)														
a) initial	10	$0	$0	$158,000	1	10	0	0	0	0	$0	$0	0	a
b) annual	10	$0	$0	$56,100	1	10	0	0	0	0	$0	$0	0	a
O2														
a) initial	10	$0	$0	$8,523	1	10	0	0	0	0	$0	$0	0	a
b) annual	10	$0	$0	$1,436	1	10	0	0	0	0	$0	$0	0	a
Scrubber System Monitoring and Operation (for units with wet scrubbers)														
a) initial	10	$0	$0	$24,300	1	10	0	0	0	0	$0	$0	0	a
b) annual	10	$0	$0	$5,600	1	10	0	0	0	0	$0	$0	0	a
Bag Leak Detection System Operation (sources that have fabric filters)														
a) initial	10	$0	$0	$25,500	1	10	0	0	0	0	$0	$0	0	a
b) annual	10	$0	$0	$9,700	1	10	0	0	0	0	$0	$0	0	a
15. Annual Tune-up	12	$0	$2,875	$0	1	12	262	3,144	314	157	$341,996	$753,250	0	c
16. Mercury Fuel Spec Analysis	5	$0	$200	$0	12	60	0	0	0	0	$0	$0	0	h
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	33	66	7	3	$7,179	$0	33	a
2) Notification of Compliance Status	8	$0	$0	$0	1	8	33	264	26	13	$28,717	$0	33	a
3) Annual Compliance Report	20	$0	$0	$0	1	20	33	660	66	33	$71,793	$0	33	a, e
4) Semi-annual Compliance Report	20	$0	$0	$0	2	40	0	0	0	0	$0	$0	0	a, e
5) Notification of Alternative Fuel Use	5	$0	$0	$0	1	5	0	0	0	0	$0	$0	0	i
6) Affirmative Defense	30	$0	$0	$0	1	30	0	0	0	0	$0	$0	0	j
Reporting Subtotal								5,454	545	273	$593,272	$753,250	99	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													d
D. Record Information														
1) Records of Operating Parameter Values	20	$0	$0	$0	1	20	0	0	0	0	$0	$0	0	a
2) Records of Startup, Shutdown, Malfunction	15	$0	$0	$0	1	15	0	0	0	0	$0	$0	0	a
3) Records of Stack Tests	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	a
4) Records of Monitoring Device Calibrations	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	a
Submitted	2	$0	$0	$0	2	4	33	132	13	7	$14,359	$0	0	a, e
6) Records of All Semi-Annual Compliance Reports Submitted	2	$0	$0	$0	2	4	0	0	0	0	$0	$0	0	a, e
7) Records of Monthly Fuel Use	0.5	$0	$0	$0	12	6	262	1,572	157	79	$170,998	$0	0	a
8) Records of Annual Tune-up	0.25	$0	$0	$0	1	0.25	262	66	7	3	$7,125	$0	262	c
E. Personnel Training	40	$0	$0	$0	1	40	33	1,320	132	66	$143,586	$0	0	g
F. Time for Audits	na													
Recordkeeping Subtotal								3,090	309	154	$336,068	$0		
Totals								**8,544**	**854**	**427**	**$929,341**	**$753,250**	**99**	

a In order to calculate a per year estimate of the number of boilers and facilities required to meet these rule requirements, the number of projected boilers and facilities is each divided by 3.

b A one-time requirement.

c All large boilers require annual tune-ups.

d Assumes facility must already maintain records on boiler insurance and/or maintenance schedule as part of their operations. No new record system would be required.

e Only facilities with process gas (gas 2 units) subject to numerical emission limits are expected to be required to submit semi-annual compliance reports and conduct testing and monitoring (There will not be any new process gas units). Natural gas and refinery gas units are required to submit reports annually and conduct a tune-up.

f Process gas units are expected to demonstrate compliance with a stack test instead of a fuel analysis.

g For on-going training activities to keep personnel updated in order to implement compliance activities.

Table 6.B. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 2, New Large Gas Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Stack Testing and Fuel Analysis Cost Per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year [(B+C+D)xExG]	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	33	1,320	132	66	$143,586	$0	0	a
B. Required Activities														
1. Initial Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	0	0	0	0	$0	$0	0	e
2. Initial Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	e
3. Initial Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	e
4. Initial Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	0	0	0	0	$0	$0	0	e
6. Annual Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	0	0	0	0	$0	$0	0	a
7. Annual Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	a
8. Annual Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	a
9. Annual Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	0	0	0	0	$0	$0	0	a
11. Repeat Stack Test and Report if Switch Fuels (for Hg and HCl)	24	$0	$16,000	$0	1	24	0	0	0	0	$0	$0	0	a,e
12. Initial Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	1	5	0	0	0	0	$0	$0	0	a,f
Content	5	$0	$400	$0	12	60	0	0	0	0	$0	$0	0	a,f
14. Continuous Parameter Monitoring														k
Establish Site-specific monitoring plan (all)	40	$0		$0	1	40	0	0	0	0	$0	$0	0	a
Opacity														
a) initial	10	$0	$0	$43,100	1	10	0	0	0	0	$0	$0	0	a
b) annual	10	$0	$0	$14,700	1	10	0	0	0	0	$0	$0	0	a
PM (only sources greater than 250 mmBtu/hr)														
a) initial	10	$0	$0	$158,000	1	10	0	0	0	0	$0	$0	0	a
b) annual	10	$0	$0	$56,100	1	10	0	0	0	0	$0	$0	0	a
O2														
a) initial	10	$0	$0	$8,523	1	10	0	0	0	0	$0	$0	0	a
b) annual	10	$0	$0	$1,436	1	10	0	0	0	0	$0	$0	0	a
Scrubber System Monitoring and Operation (for units with wet scrubbers)														
a) initial	10	$0	$0	$24,300	1	10	0	0	0	0	$0	$0	0	a
b) annual	10	$0	$0	$5,600	1	10	0	0	0	0	$0	$0	0	a
Bag Leak Detection System Operation (sources that have fabric filters)														
a) initial	10	$0	$0	$25,500	1	10	0	0	0	0	$0	$0	0	a
b) annual	10	$0	$0	$9,700	1	10	0	0	0	0	$0	$0	0	a
15. Annual Tune-up	12	$0	$2,875	$0	1	12	524	6,288	629	314	$683,993	$1,506,500	0	c
16. Mercury Fuel Spec Analysis	5	$0	$200	$0	12	60	0	0	0	0	$0	$0	0	h
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	33	66	7	3	$7,179	$0	33	a
2) Notification of Compliance Status	8	$0	$0	$0	1	8	33	264	26	13	$28,717	$0	33	a
3) Annual Compliance Report	20	$0	$0	$0	1	20	66	1,320	132	66	$143,586	$0	66	a, e
4) Semi-annual Compliance Report	20	$0	$0	$0	2	40	0	0	0	0	$0	$0	0	a, e
5) Notification of Alternative Fuel Use	5	$0	$0	$0	1	5	0	0	0	0	$0	$0	0	i
6) Affirmative Defense	30	$0	$0	$0	1	30	0	0	0	0	$0	$0	0	j
Reporting Subtotal								9,258	926	463	$1,007,062	$1,506,500	132	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													d
D. Record Information														
1) Records of Operating Parameter Values	20	$0	$0	$0	1	20	0	0	0	0	$0	$0	0	a
2) Records of Startup, Shutdown, Malfunction	15	$0	$0	$0	1	15	0	0	0	0	$0	$0	0	a
3) Records of Stack Tests	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	a
4) Records of Monitoring Device Calibrations	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	a
Submitted	2	$0	$0	$0	2	4	66	264	26	13	$28,717	$0	0	a, e
6) Records of All Semi-Annual Compliance Reports Submitted	2	$0	$0	$0	2	4	0	0	0	0	$0	$0	0	a, e
7) Records of Monthly Fuel Use	0.5	$0	$0	$0	12	6	524	3,144	314	157	$341,996	$0	0	a
8) Records of Annual Tune-up	0.25	$0	$0	$0	1	0.25	524	131	13	7	$14,250	$0	524	c
E. Personnel Training	40	$0	$0	$0	1	40	33	1,320	132	66	$143,586	$0	0	g
F. Time for Audits	na													
Recordkeeping Subtotal								4,859	486	243	$528,550	$0		
Totals								**14,117**	**1,412**	**706**	**$1,535,612**	**$1,506,500**	**132**	

a In order to calculate a per year estimate of the number of boilers and facilities required to meet these rule requirements, the number of projected boilers and facilities is each divided by 3.

b A one-time requirement.

c Energy Audits are a requirement for existing units only.

d Assumes facility must already maintain records on boiler insurance and/or maintenance schedule as part of their operations. No new record system would be required.

e Only facilities with process gas (gas 2 units) subject to numerical emission limits are expected to be required to submit semi-annual compliance reports and conduct testing and monitoring (There will not be any new process gas units). Natural gas and refinery gas units are required to submit reports annually and conduct a tune-up.

f Process gas units are expected to demonstrate compliance with a stack test instead of a fuel analysis.

g For on-going training activities to keep personnel updated in order to implement compliance activities.

h Assume all units will fire natural gas, so fuel spec analysis not necessary.

i Assumed no units would fire an alternative fuel.

j Assumed no affirmative defense claims would be filed in the first three years after promulgation. If a source were to meet the notification, reporting, and recordkeeping requirements of affirmative defense, it would be approximately 30 hours or $3,100 in labor burden.

k Estimated number of units expected to require each type of parameter monitoring are consistent with the estimated number of units expected to install controls, as outlined in the memorandum: "Revised (November 2011) Methodology for Estimating Cost and Emissions Impacts for Industrial, Commercial, Institutional Boilers and Process Heaters National Emission Standards for Hazardous Air Pollutants – Major Source." Small edits to the MACT floor dataset were made after the impacts analysis and ICR burden estimates are prepared. These edits are not reflected in the ICR or impacts analysis for this proposal, but the changes will be incorporated into the burden estimates for the final rule.

Table 6.C. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 3, New Large Gas Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Stack Testing and Fuel Analysis Cost Per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year [(B+C+D)xExG]	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	33	1,320	132	66	$143,586	$0	0	a
B. Required Activities														
1. Initial Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	0	0	0	0	$0	$0	0	e
2. Initial Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	e
3. Initial Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	e
4. Initial Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	0	0	0	0	$0	$0	0	e
6. Annual Stack Test and Report (for PM)	12	$0	$5,000	$0	1	12	0	0	0	0	$0	$0	0	a
7. Annual Stack Test and Report (for Hg)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	a
8. Annual Stack Test and Report (for HCl)	12	$0	$8,000	$0	1	12	0	0	0	0	$0	$0	0	a
9. Annual Stack Test and Report (for CO)	12	$0	$7,000	$0	1	12	0	0	0	0	$0	$0	0	a
11. Repeat Stack Test and Report if Switch Fuels (for Hg and HCl)	24	$0	$16,000	$0	1	24	0	0	0	0	$0	$0	0	a,e
12. Initial Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	1	5	0	0	0	0	$0	$0	0	a,f
13. Monthly Fuel Analysis for Mercury and HCL Content	5	$0	$400	$0	12	60	0	0	0	0	$0	$0	0	a,f
14. Continuous Parameter Monitoring														k
Establish Site-specific monitoring plan (all)	40	$0		$0	1	40	0	0	0	0	$0	$0	0	a
Opacity														
a) initial	10	$0	$0	$43,100	1	10	0	0	0	0	$0	$0	0	a
b) annual	10	$0	$0	$14,700	1	10	0	0	0	0	$0	$0	0	a
PM (only sources greater than 250 mmBtu/hr)														
a) initial	10	$0	$0	$158,000	1	10	0	0	0	0	$0	$0	0	a
b) annual	10	$0	$0	$56,100	1	10	0	0	0	0	$0	$0	0	a
O2														
a) initial	10	$0	$0	$8,523	1	10	0	0	0	0	$0	$0	0	a
b) annual	10	$0	$0	$1,436	1	10	0	0	0	0	$0	$0	0	a
Scrubber System Monitoring and Operation (for units with wet scrubbers)														
a) initial	10	$0	$0	$24,300	1	10	0	0	0	0	$0	$0	0	a
b) annual	10	$0	$0	$5,600	1	10	0	0	0	0	$0	$0	0	a
Bag Leak Detection System Operation (sources that have fabric filters)														
a) initial	10	$0	$0	$25,500	1	10	0	0	0	0	$0	$0	0	a
b) annual	10	$0	$0	$9,700	1	10	0	0	0	0	$0	$0	0	a
15. Annual Tune-up	12	$0	$2,875	$0	1	12	785	9,420	942	471	$1,024,684	$2,256,875	0	c
16. Mercury Fuel Spec Analysis	5	$0	$200	$0	12	60	0	0	0	0	$0	$0	0	h
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	33	66	7	3	$7,179	$0	33	a
2) Notification of Compliance Status	8	$0	$0	$0	1	8	33	264	26	13	$28,717	$0	33	a
3) Annual Compliance Report	20	$0	$0	$0	1	20	99	1,980	198	99	$215,379	$0	99	a, e
4) Semi-annual Compliance Report	20	$0	$0	$0	2	40	0	0	0	0	$0	$0	0	a, e
5) Notification of Alternative Fuel Use	5	$0	$0	$0	1	5	0	0	0	0	$0	$0	0	i
6) Affirmative Defense	30	$0	$0	$0	1	30	0	0	0	0	$0	$0	0	j
Reporting Subtotal								13,050	1,305	653	$1,419,546	$2,256,875	165	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													d
D. Record Information														
1) Records of Operating Parameter Values	20	$0	$0	$0	1	20	0	0	0	0	$0	$0	0	a
2) Records of Startup, Shutdown, Malfunction	15	$0	$0	$0	1	15	0	0	0	0	$0	$0	0	a
3) Records of Stack Tests	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	a
4) Records of Monitoring Device Calibrations	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	a
5) Records of All Annual Compliance Reports Submitted	2	$0	$0	$0	2	4	99	396	40	20	$43,076	$0	0	a, e
6) Records of All Semi-Annual Compliance Reports Submitted	2	$0	$0	$0	2	4	0	0	0	0	$0	$0	0	a, e
7) Records of Monthly Fuel Use	0.5	$0	$0	$0	12	6	785	4,710	471	236	$512,342	$0	0	a
8) Records of Annual Tune-up	0.25	$0	$0	$0	1	0.25	785	196	20	10	$21,348	$0	785	c
E. Personnel Training	40	$0	$0	$0	1	40	33	1,320	132	66	$143,586	$0	0	g
F. Time for Audits	na													
Recordkeeping Subtotal								6,622	662	331	$720,352	$0		
Totals								**19,672**	**1,967**	**984**	**$2,139,898**	**$2,256,875**	**165**	

a In order to calculate a per year estimate of the number of boilers and facilities required to meet these rule requirements, the number of projected boilers and facilities is each divided by 3.

b A one-time requirement.

c Energy Audits are a requirement for existing units only.

d Assumes facility must already maintain records on boiler insurance and/or maintenance schedule as part of their operations. No new record system would be required.

e Only facilities with process gas (gas 2 units) subject to numerical emission limits are expected to be required to submit semi-annual compliance reports and conduct testing and monitoring (There will not be any new process gas units). Natural gas and refinery gas units are required to submit reports annually and conduct a tune-up.

f Process gas units are expected to demonstrate compliance with a stack test instead of a fuel analysis.

g For on-going training activities to keep personnel updated in order to implement compliance activities.

h Assume all units will fire natural gas, so fuel spec analysis not necessary.

i Assumed no units would fire an alternative fuel.

j Assumed no affirmative defense claims would be filed in the first three years after promulgation. If a source were to meet the notification, reporting, and recordkeeping requirements of affirmative defense, it would be approximately 30 hours or $3,100 in labor burden.

k Estimated number of units expected to require each type of parameter monitoring are consistent with the estimated number of units expected to install controls, as outlined in the memorandum: "Revised (November 2011) Methodology for Estimating Cost and Emissions Impacts for Industrial, Commercial, Institutional Boilers and Process Heaters National Emission Standards for Hazardous Air Pollutants – Major Source." Small edits to the MACT floor dataset were made after the impacts analysis and ICR burden estimates are prepared. These edits are not reflected in the ICR or impacts analysis for this proposal, but the changes will be incorporated into the burden estimates for the final rule.

Table 7.A. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 1, Existing Small and Limited Use Solid Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Annual Tune-Up Cost per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year ((B+C+D)x ExG)	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	5	200	20	10	$21,756	$0	0	a
B. Required Activities														
1. Conduct Energy Audit														
a) Commerical	20	$854	$0	$0	1	20	0	0	0	0	$0	$0	0	b,c, d
b) Industrial	20	$18,292	$0	$0	1	20	0	0	0	0	$0	$0	0	b,c, d
2. Biennual Tune-Up	12	$0	$2,228	$0	0.5	6	0	0	0	0	$0	$0	0	c
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	5	10	1	1	$1,088	$0	5	a
2) Notification of Compliance Status	8	$0	$0	$0	1	8	0	0	0	0	$0	$0	0	c
3) Biennial Compliance Report	5	$0	$0	$0	0.5	2.5	0	0	0	0	$0	$0	0	f
4) Initial Report on results of Energy Audit	5	$0	$0	$0	1	5	0	0	0	0	$0	$0	0	c
Reporting Subtotal								210	21	11	$22,843	$0	5	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													e
D. Record Information														
1) Records of All Notifications and Compliance Reports Submitted	2	$0	$0	$0	0.5	1	0	0	0	0	$0	$0	0	c
2) Records of Startup, Shutdown, Malfunction	15	$0	$0	$0	1	15	0	0	0	0	$0	$0	0	g
3) Biennial Tune-Up Records	0.5	$0	$0	$0	0.5	0.25	0	0	0	0	$0	$0	0	c
E. Personnel Training	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	h
F. Time for Audits	na													
Recordkeeping Subtotal								0	0	0	$0	$0	0	
Totals								**210**	**21**	**11**	**$22,843**	**$0**	**5**	

a Number of respondents based on number of existing small and limited use solid fuel boilers which includes biomass and coal units less than 10 mmBtu/hr or operating less than 876 hours.

b Cost includes taking an inventory of facility equipment including age, operating schedules, square feet of the facility and other details necessary for preparing for the audit pre-screening, attending the energy audit, and reviewing audit report from the audit professional. Based on the distribution facility NAICS codes in the 2008 combustion unit survey database, 12% of facilities are in the commercial sector while the remaining 88% of facilities are in the industrial sector.

c Since existing units have three years after the publication date of the final rule to submit initial notification of compliance status, conduct compliance activities, or meet recordkeeping or reporting requirements, no burden is assumed in year 1.

d Cost per occurrence for energy audit professionals including an phone screening to discuss the facility prior to a visit, a 2 to 4 hour site visit, and an additional 2-4 hours to prepare a follow-up report on recommendations and findings. These site visits are assumed to be conducted by certified energy professionals. It is assumed that all will be industrial facilities since industrial is the vast majority of projected units.

e Assumes facility must already maintain records on boiler insurance and/or maintenance schedule. No new record system would be required.

f Since a tune-up is required biennially, every two years, the compliance reports for small units are also due every two years. Records of the tune-ups will be submitted to the Administrator upon request.

g Small units are not required to maintain records on startup, shutdown and malfunction.

h For on-going training activities to keep personnel updated in order to implement compliance activities.

Table 7.B. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 2, Existing Small and Limited Use Solid Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Annual Tune-Up Cost per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year ((B+C+D)x ExG)	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	a
B. Required Activities														
1. Conduct Energy Audit														
a) Commerical	20	$854	$0	$0	1	20	0	0	0	0	$0	$0	0	b,c, d
b) Industrial	20	$18,292	$0	$0	1	20	3	60	6	3	$6,527	$54,876	0	b,c, d
2. Biennual Tune-Up	12	$0	$2,228	$0	0.5	6	18	108	11	5	$11,748	$40,104	0	c
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	a
2) Notification of Compliance Status	8	$0	$0	$0	1	8	0	0	0	0	$0	$0	0	c
3) Biennial Compliance Report	5	$0	$0	$0	0.5	2.5	0	0	0	0	$0	$0	0	f
4) Initial Report on results of Energy Audit	5	$0	$0	$0	1	5	0	0	0	0	$0	$0	0	c
Reporting Subtotal								168	17	8	$18,275	$94,980	0	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													e
D. Record Information														
1) Records of All Notifications and Compliance Reports Submitted	2	$0	$0	$0	0.5	1	0	0	0	0	$0	$0	0	c
2) Records of Startup, Shutdown, Malfunction	15	$0	$0	$0	1	15	0	0	0	0	$0	$0	0	g
3) Biennial Tune-Up Records	0.5	$0	$0	$0	0.5	0.25	0	0	0	0	$0	$0	0	c
E. Personnel Training	40	$0	$0	$0	1	40	3	120	12	6	$13,053	$0	0	h
F. Time for Audits	na													
Recordkeeping Subtotal								120	12	6	$13,053	$0	0	
Totals								**288**	**29**	**14**	**$31,328**	**$94,980**	**0**	

a The burden on existing sources to read and understand rule requirements, and submit an initial notification were assumed to all occur in year 1. Energy audit burdens for this unit will be accounted for in year 2.

b Cost includes taking an inventory of facility equipment including age, operating schedules, square feet of the facility and other details necessary for preparing for the audit pre-screening, attending the energy audit, and reviewing audit report from the audit professional. Based on the distribution facility NAICS codes in the 2008 combustion unit survey database, 12% of facilities are in the commercial sector while the remaining 88% of facilities are in the industrial sector.

c Since existing units have three years after the publication date of the final rule to submit initial notification of compliance status, conduct compliance activities, or meet recordkeeping or reporting requirements, it is assumed that half the affected units will conduct an audit, testing and monitoring plan development in year 2 and half will conduct them in year 3 in order to be in compliance by the third year after promulgation. Initial Notification of Compliance Reports and recordkeeping requirements will not begin until year 3 of this ICR. Annualized cost of $2228 for a tune-up is calculated considering a biennual schedule.

d Cost per occurrence for energy audit professionals including an phone screening to discuss the facility prior to a visit, a 2 to 4 hour site visit, and an additional 2-4 hours to prepare a follow-up report on recommendations and findings. These site visits are assumed to be conducted by certified energy professionals. It is assumed that all will be industrial facilities since industrial is the vast majority of projected units.

e Assumes facility must already maintain records on boiler insurance and/or maintenance schedule. No new record system would be required.

f Since a tune-up is required biennially, every two years, the compliance reports for small units are also due every two years. Records of the tune-ups will be submitted to the Administrator upon request.

g Small units are not required to maintain records on startup, shutdown and malfunction.

h For on-going training activities to keep personnel updated in order to implement compliance activities.

Table 7.C. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 3, Existing Small and Limited Use Solid Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Annual Tune-Up Cost per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year ((B+C+D)x ExG)	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	a
B. Required Activities														
1. Conduct Energy Audit														
a) Commerical	20	$854	$0	$0	1	20	0	0	0	0	$0	$0	0	b,c, d
b) Industrial	20	$18,292	$0	$0	1	20	2	40	4	2	$4,351	$36,584	0	b,c, d
2. Biennual Tune-Up	12	$0	$2,228	$0	0.5	6	18	108	11	5	$11,748	$40,104	0	c
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	a
2) Notification of Compliance Status	8	$0	$0	$0	1	8	5	40	4	2	$4,351	$0	5	c
3) Biennial Compliance Report	5	$0	$0	$0	0.5	2.5	5	13	1	1	$1,360	$0	3	f
4) Initial Report on results of Energy Audit	5	$0	$0	$0	1	5	5	25	3	1	$2,719	$0	5	c
Reporting Subtotal								226	23	11	$24,529	$76,688	13	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													e
D. Record Information														
1) Records of All Notifications and Compliance Reports Submitted	2	$0	$0	$0	0.5	1	5	5	1	0	$544	$0	0	c
2) Records of Startup, Shutdown, Malfunction	15	$0	$0	$0	1	15	0	0	0	0	$0	$0	0	g
3) Biennial Tune-Up Records	0.5	$0	$0	$0	0.5	0.25	36	9	1	0	$979	$0	0	c
E. Personnel Training	40	$0	$0	$0	1	40	2	80	8	4	$8,702	$0	0	h
F. Time for Audits	na													
Recordkeeping Subtotal								94	9.4	4.7	$10,225	$0	0	
Totals								**320**	**32**	**16**	**$34,754**	**$76,688**	**13**	

a The burden on existing sources to read and understand rule requirements, and submit an initial notification were assumed to all occur in year 1.

b Cost includes taking an inventory of facility equipment including age, operating schedules, square feet of the facility and other details necessary for preparing for the audit pre-screening, attending the energy audit, and reviewing audit report from the audit professional. Based on the distribution facility NAICS codes in the 2008 combustion unit survey database, 12% of facilities are in the commercial sector while the remaining 88% of facilities are in the industrial sector.

c Since existing units have three years after the publication date of the final rule to submit initial notification of compliance status, conduct compliance activities, or meet recordkeeping or reporting requirements, it is assumed that half the affected units will conduct an audit, testing and monitoring plan development in year 2 and half will conduct them in year 3 in order to be in compliance by the third year after promulgation. Initial Notification of Compliance Reports and recordkeeping requirements will not begin until year 3 of this ICR.

d Cost per occurrence for energy audit professionals including an phone screening to discuss the facility prior to a visit, a 2 to 4 hour site visit, and an additional 2-4 hours to prepare a follow-up report on recommendations and findings. These site visits are assumed to be conducted by certified energy professionals. It is assumed that all will be industrial facilities since industrial is the vast majority of projected units.

e Assumes facility must already maintain records on boiler insurance and/or maintenance schedule. No new record system would be required.

f Since a tune-up is required biennially, every two years, the compliance reports for small units are also due every two years. Records of the tune-ups will be submitted to the Administrator upon request.

g Small units are not required to maintain records on startup, shutdown and malfunction.

h For on-going training activities to keep personnel updated in order to implement compliance activities.

Table 8.A. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 1, Existing Small and Limited Use Liquid Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Annual Tune-Up Cost per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year ((B+C+D)xEx G)	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	43	1,720	172	86	$187,097	$0	0	a
B. Required Activities														
1. Conduct Energy Audit														
a) Commerical	20	$854	$0	$0	1	20	0	0	0	0	$0	$0	0	b, c, d
b) Industrial	20	$18,292	$0	$0	1	20	0	0	0	0	$0	$0	0	b, c, d
2. Biennual Tune-Up	12	$0	$2,228	$0	0.5	6	0	0	0	0	$0	$0	0	c, f
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	43	86	9	4	$9,355	$0	43	a
2) Notification of Compliance Status	8	$0	$0	$0	1	8	0	0	0	0	$0	$0	0	c
3) Biennial Compliance Report	5	$0	$0	$0	0.5	2.5	0	0	0	0	$0	$0	0	c, f
4) Initial Report on results of Energy Audit	5	$0	$0	$0	1	5	0	0	0	0	$0	$0	0	c
Reporting Subtotal								1,806	181	90	$196,452	$0	43	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													e
D. Record Information														
1) Records of All Notifications and Compliance Reports Submitted	2	$0	$0	$0	0.5	1	0	0	0	0	$0	$0	0	c
2) Records of Startup, Shutdown, Malfunction	15	$0	$0	$0	1	15	0	0	0	0	$0	$0	0	c, g
3) Biennial Tune-Up Records	0.5	$0	$0	$0	0.5	0.25	0	0	0	0	$0	$0	0	c, f
E. Personnel Training	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	h
F. Time for Audits	na													
Recordkeeping Subtotal								0	0	0	$0	$0	0	
Totals								**1,806**	**181**	**90**	**$196,452**	**$0**	**43**	

a Number of respondents based on number of existing small and limited use liquid fuel boilers which includes units less than 10 mmBtu/hr or operating less than 876 hours.

b Cost includes taking an inventory of facility equipment including age, operating schedules, square feet of the facility and other details necessary for preparing for the audit pre-screening, attending the energy audit, and reviewing audit report from the audit professional. Based on the distribution of facilities with affected boilers or process heaters, 88% of facilities are in the industrial sector while the remaining 12% of facilities are in the commercial sector.

c Since existing units have three years after the publication date of the final rule to submit initial notification of compliance status, conduct compliance activities, or meet recordkeeping or reporting requirements, no burden is assumed in year 1.

d Cost per occurrence for energy audit professionals including an phone screening to discuss the facility prior to a visit, a 2 to 4 hour site visit, and an additional 2-4 hours to prepare a follow-up report on recommendations and findings. These site visits are assumed to be conducted by certified energy professionals.

e Assumes facility must already maintain records on boiler insurance and/or maintenance schedule. No new record system would be required.

f Since a tune-up is required biennially, every two years, the compliance reports for small units are also due every two years. Records of the tune-ups will be submitted to the Administrator upon request.

g Small units are not required to maintain records on startup, shutdown and malfunction.

h For on-going training activities to keep personnel updated in order to implement compliance activities.

Table 8.B. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 2, Existing Small and Limited Use Liquid Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Annual Tune-Up Cost per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year ((B+C+D)xExG)	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	a
B. Required Activities														
1. Conduct Energy Audit														
a) Commerical	20	$854	$0	$0	1	20	3	60	6	3	$6,527	$2,562	0	b, c, d
b) Industrial	20	$18,292	$0	$0	1	20	19	380	38	19	$41,335	$347,548	0	b, c, d
2. Biennual Tune-Up	12	$0	$2,228	$0	0.5	6	180	1,080	108	54	$117,480	$401,040	0	c, f, i
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	a
2) Notification of Compliance Status	8	$0	$0	$0	1	8	0	0	0	0	$0	$0	0	c
3) Biennial Compliance Report	5	$0	$0	$0	0.5	2.5	0	0	0	0	$0	$0	0	c, f
4) Initial Report on results of Energy Audit	5	$0	$0	$0	1	5	0	0	0	0	$0	$0	0	c
Reporting Subtotal								1,520	152	76	$165,342	$751,150	0	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													e
D. Record Information														
1) Records of All Notifications and Compliance Reports Submitted	2	$0	$0	$0	0.5	1	0	0	0	0	$0	$0	0	c
2) Records of Startup, Shutdown, Malfunction	15	$0	$0	$0	1	15	0	0	0	0	$0	$0	0	c, g
3) Biennial Tune-Up Records	0.5	$0	$0	$0	0.5	0.25	0	0	0	0	$0	$0	0	c, f
E. Personnel Training	40	$0	$0	$0	1	40	22	880	88	44	$95,724	$0	0	h
F. Time for Audits	na													
Recordkeeping Subtotal								880	88	44	$95,724	$0	0	
Totals								**2,400**	**240**	**120**	**$261,066**	**$751,150**	**0**	

a The burden on existing sources to read and understand rule requirements, and submit an initial notification were assumed to all occur in year 1.

b Cost includes taking an inventory of facility equipment including age, operating schedules, square feet of the facility and other details necessary for preparing for the audit pre-screening, attending the energy audit, and reviewing audit report from the audit professional. Based on the distribution of facilities with affected boilers or process heaters, 88% of facilities are in the industrial sector while the remaining 12% of facilities are in the commercial sector.

c Since existing units have three years after the publication date of the final rule to submit initial notification of compliance status, conduct compliance activities, or meet recordkeeping or reporting requirements, it is assumed that half the affected units will conduct an audit, testing and monitoring plan development in year 2 and half will conduct them in year 3 in order to be in compliance by the third year after promulgation. Initial Notification of Compliance Reports and recordkeeping requirements will not begin until year 3 of this ICR.

d Cost per occurrence for energy audit professionals including an phone screening to discuss the facility prior to a visit, a 2 to 4 hour site visit, and an additional 2-4 hours to prepare a follow-up report on recommendations and findings. These site visits are assumed to be conducted by certified energy professionals.

e Assumes facility must already maintain records on boiler insurance and/or maintenance schedule. No new record system would be required.

f Since a tune-up is required biennially, every two years, the compliance reports for small units are also due every two years. Records of the tune-ups will be submitted to the Administrator upon request.

g Small units are not required to maintain records on startup, shutdown and malfunction.

h For on-going training activities to keep personnel updated in order to implement compliance activities.

i Some very small boilers firing light liquid fuels qualify for tune-ups every five years, however they would still incur an initial tune-up. For the time period of this ICR, there will not be a difference in burden associated with biennial vs 5-year tune-ups for existing units.

Table 8.C. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 3, Existing Small and Limited Use Liquid Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Annual Tune-Up Cost per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year ((B+C+D)xExG)	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	a
B. Required Activities														
1. Conduct Energy Audit														
a) Commerical	20	$854	$0	$0	1	20	3	60	6	3	$6,527	$2,562	0	b, c, d
b) Industrial	20	$18,292	$0	$0	1	20	18	360	36	18	$39,160	$329,256	0	b, c, d
2. Biennual Tune-Up	12	$0	$2,228	$0	0.5	6	180	1,080	108	54	$117,480	$401,040	0	c, f, i
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	a
2) Notification of Compliance Status	8	$0	$0	$0	1	8	43	344	34	17	$37,419	$0	43	c
3) Biennial Compliance Report	5	$0	$0	$0	0.5	2.5	43	108	11	5	$11,694	$0	22	c, f
4) Initial Report on results of Energy Audit	5	$0	$0	$0	1	5	43	215	22	11	$23,387	$0	43	c
Reporting Subtotal								2,167	217	108	$235,666	$732,858	108	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													e
D. Record Information														
1) Records of All Notifications and Compliance Reports Submitted	2	$0	$0	$0	0.5	1	43	43	4	2	$4,677	$0	0	c
2) Records of Startup, Shutdown, Malfunction	15	$0	$0	$0	1	15	0	0	0	0	$0	$0	0	c, g
3) Biennial Tune-Up Records	0.5	$0	$0	$0	0.5	0.25	360	90	9	5	$9,790	$0	0	c, f
E. Personnel Training	40	$0	$0	$0	1	40	21	840	84	42	$91,373	$0	0	h
F. Time for Audits	na													
Recordkeeping Subtotal								973	97.3	48.65	$105,841	$0	0	
Totals								**3,140**	**314**	**157**	**$341,507**	**$732,858**	**108**	

a The burden on existing sources to read and understand rule requirements, and submit an initial notification were assumed to all occur in year 1.

b Cost includes taking an inventory of facility equipment including age, operating schedules, square feet of the facility and other details necessary for preparing for the audit pre-screening, attending the energy audit, and reviewing audit report from the audit professional. Based on the distribution of facilities with affected boilers or process heaters, 88% of facilities are in the industrial sector while the remaining 12% of facilities are in the commercial sector.

c Since existing units have three years after the publication date of the final rule to submit initial notification of compliance status, conduct compliance activities, or meet recordkeeping or reporting requirements, it is assumed that half the affected units will conduct an audit, testing and monitoring plan development in year 2 and half will conduct them in year 3 in order to be in compliance by the third year after promulgation. Initial Notification of Compliance Reports and recordkeeping requirements will not begin until year 3 of this ICR.

d Cost per occurrence for energy audit professionals including an phone screening to discuss the facility prior to a visit, a 2 to 4 hour site visit, and an additional 2-4 hours to prepare a follow-up report on recommendations and findings. These site visits are assumed to be conducted by certified energy professionals.

e Assumes facility must already maintain records on boiler insurance and/or maintenance schedule. No new record system would be required.

f Since a tune-up is required biennially, every two years, the compliance reports for small units are also due every two years. Records of the tune-ups will be submitted to the Administrator upon request.

g Small units are not required to maintain records on startup, shutdown and malfunction.

h For on-going training activities to keep personnel updated in order to implement compliance activities.

i Some very small boilers firing light liquid fuels qualify for tune-ups every five years, however they would still incur an initial tune-up. For the time period of this ICR, there will not be a difference in burden associated with biennial vs 5-year tune-ups for existing units.

Table 9.A. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 1, Existing Small and Limited Use Gas Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Annual Tune-Up Cost per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year ((B+C+D)xExG)	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	905	36,200	3,620	1,810	$3,937,746	$0	0	a
B. Required Activities														
1. Conduct Energy Audit														
a) Commerical	20	$854	$0	$0	1	20	0	0	0	0	$0	$0	0	b, c, d
b) Industrial	20	$18,292	$0	$0	1	20	0	0	0	0	$0	$0	0	b, c, d
2. Biennial Tune-Up	12	$0	$2,228	$0	0.5	6	0	0	0	0	$0	$0	0	c, f
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	905	1,810	181	91	$196,887	$0	905	a
2) Notification of Compliance Status	8	$0	$0	$0	1	8	0	0	0	0	$0	$0	0	c
3) Biennial Compliance Report	5	$0	$0	$0	0.5	2.5	0	0	0	0	$0	$0	0	c, f
4) Initial Report on results of Energy Audit	5	$0	$0	$0	1	5	0	0	0	0	$0	$0	0	c
Reporting Subtotal								38,010	3,801	1,901	$4,134,633	$0	905	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													e
D. Record Information														
1) Records of All Notifications and Compliance Reports Submitted	2	$0	$0	$0	0.5	1	0	0	0	0	$0	$0	0	c
2) Records of Startup, Shutdown, Malfunction	15	$0	$0	$0	1	15	0	0	0	0	$0	$0	0	c, g
3) Biennial Tune-Up Records	0.5	$0	$0	$0	0.5	0.25	0	0	0	0	$0	$0	0	c, f
E. Personnel Training	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	h
F. Time for Audits	na													
Recordkeeping Subtotal								0	0	0	$0	$0	0	
Totals								**38,010**	**3,801**	**1,901**	**$4,134,633**	**$0**	**905**	

a Number of respondents based on number of existing small and limited use gas fuel boilers which includes units less than 10 mmBtu/hr or operating less than 876 hours.

b Cost includes taking an inventory of facility equipment including age, operating schedules, square feet of the facility and other details necessary for preparing for the audit pre-screening, attending the energy audit, and reviewing audit report from the audit professional. Based on the distribution of facilities with affected boilers or process heaters, 88% of facilities are in the industrial sector while the remaining 12% of facilities are in the commercial sector.

c Since existing units have three years after the publication date of the final rule to submit initial notification of compliance status, conduct compliance activities, or meet recordkeeping or reporting requirements, no burden is assumed in year 1.

d Cost per occurrence for energy audit professionals including an phone screening to discuss the facility prior to a visit, a 2 to 4 hour site visit, and an additional 2-4 hours to prepare a follow-up report on recommendations and findings. These site visits are assumed to be conducted by certified energy professionals.

e Assumes facility must already maintain records on boiler insurance and/or maintenance schedule. No new record system would be required.

f Since a tune-up is required biennially, every two years, the compliance reports for small units are also due every two years. Records of the tune-ups will be submitted to the Administrator upon request.

g Small units are not required to maintain records on startup, shutdown and malfunction.

h For on-going training activities to keep personnel updated in order to implement compliance activities.

Table 9.B. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 2, Existing Small and Limited Use Gas Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Annual Tune-Up Cost per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year ((B+C+D)xExG)	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	a
B. Required Activities														
1. Conduct Energy Audit														
a) Commerical	20	$854	$0	$0	1	20	54	1,080	108	54	$117,480	$46,116	0	b,c,d
b) Industrial	20	$18,292	$0	$0	1	20	398	7,960	796	398	$865,869	$7,280,216	0	b,c,d
2. Biennial Tune-Up	12	$0	$1,580	$0	0.5	6	3,746	22,476	2,248	1,124	$2,444,883	$5,918,680	0	c,f,i
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	a
2) Notification of Compliance Status	8	$0	$0	$0	1	8	0	0	0	0	$0	$0	0	c
3) Biennial Compliance Report	5	$0	$0	$0	0.5	2.5	0	0	0	0	$0	$0	0	c,f
4) Initial Report on results of Energy Audit	5	$0	$0	$0	1	5	0	0	0	0	$0	$0	0	c
Reporting Subtotal								31,516	3,152	1,576	$3,428,232	$13,245,012	0	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													e
D. Record Information														
1) Records of All Notifications and Compliance Reports Submitted	2	$0	$0	$0	0.5	1	0	0	0	0	$0	$0	0	c
2) Records of Startup, Shutdown, Malfunction	15	$0	$0	$0	1	15	0	0	0	0	$0	$0	0	c,g
3) Biennial Tune-Up Records	0.5	$0	$0	$0	0.5	0.25	0	0	0	0	$0	$0	0	c,f
E. Personnel Training	40	$0	$0	$0	1	40	453	18,120	1,812	906	$1,971,048	$0	$0	h
F. Time for Audits	na													
Recordkeeping Subtotal								18120	1812	906	$1,971,048	$0	0	
Totals								**49,636**	**4,964**	**2,482**	**$5,399,280**	**$13,245,012**	**0**	

a The burden on existing sources to read and understand rule requirements, and submit an initial notification were assumed to all occur in year 1.

b Cost includes taking an inventory of facility equipment including age, operating schedules, square feet of the facility and other details necessary for preparing for the audit pre-screening, attending the energy audit, and reviewing audit report from the audit professional. Based on the distribution of facilities with affected boilers or process heaters, 88% of facilities are in the industrial sector while the remaining 12% of facilities are in the commercial sector.

c Since existing units have three years after the publication date of the final rule to submit initial notification of compliance status, conduct compliance activities, or meet recordkeeping or reporting requirements, it is assumed that half the affected units will conduct an audit, testing and monitoring plan development in year 2 and half will conduct them in year 3 in order to be in compliance by the third year after promulgation. Initial Notification of Compliance Reports and recordkeeping requirements will not begin until year 3 of this ICR.

d Cost per occurrence for energy audit professionals including an phone screening to discuss the facility prior to a visit, a 2 to 4 hour site visit, and an additional 2-4 hours to prepare a follow-up report on recommendations and findings. These site visits are assumed to be conducted by certified energy professionals.

e Assumes facility must already maintain records on boiler insurance and/or maintenance schedule. No new record system would be required.

f Since a tune-up is required biennially, every two years, the compliance reports for small units are also due every two years. Records of the tune-ups will be submitted to the Administrator upon request.

g Small units are not required to maintain records on startup, shutdown and malfunction.

h For on-going training activities to keep personnel updated in order to implement compliance activities.

i Some very small boilers qualify for tune-ups every five years, however they would still incur an initial tune-up. For the time period of this ICR, there will not be a difference in burden associated with biennial vs 5-year tune-ups for existing units.

Table 9.C. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 3, Existing Small and Limited Use Gas Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Emission Test Contractor Hours Per Occurrence	(B) Certified Energy Audit Cost per Occurrence	(C) Annual Tune-Up Cost per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year ((B+C+D)xExG)	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na														
2. Surveys and Studies	na														
3. Reporting Requirements															
A. Read and Understand Rule Requirements	40		$0	$0	$0	1	40	0	0	0	0	$0	$0	0	a
B. Required Activities															
1. Conduct Energy Audit															
a) Commerical	20		$854	$0	$0	1	20	54	1,087	109	54	$118,263	$46,423	0	b,c,d
b) Industrial	20		$18,292	$0	$0	1	20	398	7,955	796	398	$865,347	$7,275,826	0	b,c,d
2. Biennial Tune-Up	12		$0	$1,580	$0	0.5	6	3,745	22,470	2,247	1,124	$2,444,230	$5,917,100	0	c,f,i
C. Create Information	na														
D. Gather Information	na														
E. Report Preparation															
1) Initial Notification that Source is Subject	2		$0	$0	$0	1	2	0	0	0	0	$0	$0	0	a
2) Notification of Compliance Status	8		$0	$0	$0	1	8	905	7,240	724	362	$787,549	$0	905	c
3) Biennial Compliance Report	5		$0	$0	$0	0.5	2.5	905	2,263	226	113	$246,109	$0	453	c,f
4) Initial Report on results of Energy Audit	5		$0	$0	$0	1	5	905	4,525	453	226	$492,218	$0	905	c
Reporting Subtotal									45,540	4,554	2,277	$4,953,716	$13,239,349	2,263	
4. Recordkeeping Requirements															
A. Read Instructions	Included in 3a														
B. Implement Activities	na														
C. Develop Record System	na														e
D. Record Information															
1) Records of All Notifications and Compliance Reports Submitted	2	0	$0	$0	$0	0.5	1	905	905	91	45	$98,444	$0	0	c
2) Records of Startup, Shutdown, Malfunction	15	0	$0	$0	$0	1	15	0	0	0	0	$0	$0	0	c,g
3) Biennial Tune-Up Records	0.5		$0	$0	$0	0.5	0.25	7,491	1,873	187	94	$203,713	$0	0	c,f
E. Personnel Training	40		$0	$0	$0	1	40	452	18,080	1,808	904	$1,966,697	$0	0	h
F. Time for Audits	na														
Recordkeeping Subtotal									20857.75	2085.775	1042.8875	$2,268,854	$0	0	
Totals									**66,398**	**6,640**	**3,320**	**$7,222,570**	**$13,239,349**	**2,263**	

a The burden on existing sources to read and understand rule requirements, and submit an initial notification were assumed to all occur in year 1.

b Cost includes taking an inventory of facility equipment including age, operating schedules, square feet of the facility and other details necessary for preparing for the audit pre-screening, attending the energy audit, and reviewing audit report from the audit professional. Based on the distribution of facilities with affected boilers or process heaters, 88% of facilities are in the industrial sector while the remaining 12% of facilities are in the commercial sector.

c Since existing units have three years after the publication date of the final rule to submit initial notification of compliance status, conduct compliance activities, or meet recordkeeping or reporting requirements, it is assumed that half the affected units will conduct an audit, testing and monitoring plan development in year 2 and half will conduct them in year 3 in order to be in compliance by the third year after promulgation. Initial Notification of Compliance Reports and recordkeeping requirements will not begin until year 3 of this ICR.

d Cost per occurrence for energy audit professionals including an phone screening to discuss the facility prior to a visit, a 2 to 4 hour site visit, and an additional 2-4 hours to prepare a follow-up report on recommendations and findings. These site visits are assumed to be conducted by certified energy professionals.

e Assumes facility must already maintain records on boiler insurance and/or maintenance schedule. No new record system would be required.

f Since a tune-up is required biennially, every two years, the compliance reports for small units are also due every two years. Records of the tune-ups will be submitted to the Administrator upon request.

g Small units are not required to maintain records on startup, shutdown and malfunction.

h For on-going training activities to keep personnel updated in order to implement compliance activities.

i Some very small boilers qualify for tune-ups every five years, however they would still incur an initial tune-up. For the time period of this ICR, there will not be a difference in burden associated with biennial vs 5-year tune-ups for existing units.

Table 10.A. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 1, New Small Solid Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Annual Tune-Up Cost per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year ((B+C+D)xExG)	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	1	40	4	2	$4,351	$0	0	a
B. Required Activities														
1. Biennial Tune-Up	12	$0	$2,228	$0	0.5	6	4	24	2	1	$2,611	$8,912	0	a
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	1	2	0	0	$218	$0	1	a
2) Notification of Compliance Status	8	$0	$0	$0	1	8	1	8	1	0	$870	$0	1	a
3) Biennial Compliance Report	5	$0	$0	$0	0.5	2.5	1	3	0	0	$272	$0	1	d,e
Reporting Subtotal								77	8	4	8,321	8,912	3	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													b
D. Record Information														
1) Records of All Notifications and Compliance Reports Submitted	2	$0	$0	$0	0.5	1	1	1	0	0	$109	$0	0	a
2) Biennial Tune-Up Records	0.5	$0	$0	$0	0.5	0.25	4	1	0	0	$109	$0	0	a,e
E. Personnel Training	40	$0	$0	$0	1	40	1	40	4	2	$4,351	$0		c
F. Time for Audits	na													
Recordkeeping Subtotal								42	4.2	2.1	$4,569	$0	0	
Totals								**119**	**12**	**6**	**$12,890**	**$8,912**	**3**	

a For new small solid units, all boilers are assumed to come online in year 1.

b Assumes facility must already maintain records on boiler insurance and/or maintenance schedule. No new record system would be required.

c For on-going training activities to keep personnel updated in order to implement compliance activities.

d Since a tune-up is required biennially, every two years, the compliance reports for small units are also due every two years. Records of the tune-ups will be submitted to the Administrator upon request.

Table 10.B. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 2, New Small Solid Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Annual Tune-Up Cost per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year ((B+C+D)xExG)	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	a
B. Required Activities														
1. Biennial Tune-Up	12	$0	$2,228	$0	0.5	6	0	0	0	0	$0	$0	0	a
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	a
2) Notification of Compliance Status	8	$0	$0	$0	1	8	0	0	0	0	$0	$0	0	a
3) Biennial Compliance Report	5	$0	$0	$0	0.5	2.5	0	0	0	0	$0	$0	0	d
Reporting Subtotal								0	0	0	0	0	0	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													b
D. Record Information														
1) Records of All Notifications and Compliance Reports Submitted	2	$0	$0	$0	0.5	1	0	0	0	0	$0	$0	0	a
2) Biennial Tune-Up Records	0.5	$0	$0	$0	0.5	0.25	0	0	0	0	$0	$0	0	a
E. Personnel Training	40	$0	$0	$0	1	40	0	0	0	0	$0	$0		c
F. Time for Audits	na													
Recordkeeping Subtotal								0	0	0	$0	$0	0	
Totals								**0**	**0**	**0**	**$0**	**$0**	**0**	

a For new small solid units, all boilers are assumed to come online in year 1.

b Assumes facility must already maintain records on boiler insurance and/or maintenance schedule. No new record system would be required.

c For on-going training activities to keep personnel updated in order to implement compliance activities.

d Since a tune-up is required biennially, every two years, the compliance reports for small units are also due every two years. Records of the tune-ups will be submitted to the Administrator upon request.

Table 10.C. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 3, New Small Solid Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Annual Tune-Up Cost per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year ((B+C+D)xExG)	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	a
B. Required Activities														
1. Biennial Tune-Up	12	$0	$2,228	$0	0.5	6	4	24	2	1	$2,611	$8,912	0	a
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	a
2) Notification of Compliance Status	8	$0	$0	$0	1	8	0	0	0	0	$0	$0	0	a
3) Biennial Compliance Report	5	$0	$0	$0	0.5	2.5	1	3	0	0	$272	$0	1	d,e
Reporting Subtotal								27	3	1	2,883	8,912	1	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													b
D. Record Information														
1) Records of All Notifications and Compliance Reports Submitted	2	$0	$0	$0	0.5	1	1	1	0	0	$109	$0	0	a
2) Biennial Tune-Up Records	0.5	$0	$0	$0	0.5	0.25	4	1	0	0	$109	$0	0	a,e
E. Personnel Training	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	c
F. Time for Audits	na													
Recordkeeping Subtotal								2	0.2	0.1	$218	$0	0	
Totals								**29**	**3**	**1**	**$3,100**	**$8,912**	**1**	

a For new small solid units, all boilers are assumed to come online in year 1.

b Assumes facility must already maintain records on boiler insurance and/or maintenance schedule. No new record system would be required.

c For on-going training activities to keep personnel updated in order to implement compliance activities.

d Since a tune-up is required biennially, every two years, the compliance reports for small units are also due every two years. Records of the tune-ups will be submitted to the Administrator upon request.

e Since all boilers performed a tune-up in year 1, it is assumed the biennial tune-up would also occur in year 3.

Table 11.A. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 1, New Small Liquid Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Annual Tune-Up Cost per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year ((B+C+D)xExG)	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	a
B. Required Activities														
1. Biennial Tune-Up	12	$0	$2,228	$0	0.5	6	0	0	0	0	$0	$0	0	
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	
2) Notification of Compliance Status	8	$0	$0	$0	1	8	0	0	0	0	$0	$0	0	
3) Biennial Compliance Report	5	$0	$0	$0	0.5	2.5	0	0	0	0	$0	$0	0	
Reporting Subtotal								0	0	0	0	0	0	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													
D. Record Information														
1) Records of All Notifications and Compliance Reports Submitted	2	$0	$0	$0	0.5	1	0	0	0	0	$0	$0	0	
2) Biennial Tune-Up Records	0.5	$0	$0	$0	0.5	0.25	0	0	0	0	$0	$0	0	
E. Personnel Training	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	
F. Time for Audits	na													
Recordkeeping Subtotal								0	0	0	$0	$0	0	
Totals								**0**	**0**	**0**	**$0**	**$0**	**0**	

a There are no new small solid units expected to be constructed/reconstructed over the next 3 years.

Table 11.B. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 2, New Small Liquid Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Annual Tune-Up Cost per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year ((B+C+D)xExG)	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	a
B. Required Activities														
1. Biennial Tune-Up	12	$0	$2,228	$0	0.5	6	0	0	0	0	$0	$0	0	
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	
2) Notification of Compliance Status	8	$0	$0	$0	1	8	0	0	0	0	$0	$0	0	
3) Biennial Compliance Report	5	$0	$0	$0	0.5	2.5	0	0	0	0	$0	$0	0	
Reporting Subtotal								0	0	0	0	0	0	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													
D. Record Information														
1) Records of All Notifications and Compliance Reports Submitted	2	$0	$0	$0	0.5	1	0	0	0	0	$0	$0	0	
2) Biennial Tune-Up Records	0.5	$0	$0	$0	0.5	0.25	0	0	0	0	$0	$0	0	
E. Personnel Training	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	
F. Time for Audits	na													
Recordkeeping Subtotal								0	0	0	$0	$0	0	
Totals								**0**	**0**	**0**	**$0**	**$0**	**0**	

a There are no new small solid units expected to be constructed/reconstructed over the next 3 years.

Table 11.C. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 3, New Small Liquid Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Annual Tune-Up Cost per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year ((B+C+D)xExG)	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	a
B. Required Activities														
1. Biennial Tune-Up	12	$0	$2,228	$0	0.5	6	0	0	0	0	$0	$0	0	
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	0	0	0	0	$0	$0	0	
2) Notification of Compliance Status	8	$0	$0	$0	1	8	0	0	0	0	$0	$0	0	
3) Biennial Compliance Report	5	$0	$0	$0	0.5	2.5	0	0	0	0	$0	$0	0	
Reporting Subtotal								0	0	0	0	0	0	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													
D. Record Information														
1) Records of All Notifications and Compliance Reports Submitted	2	$0	$0	$0	0.5	1	0	0	0	0	$0	$0	0	
2) Biennial Tune-Up Records	0.5	$0	$0	$0	0.5	0.25	0	0	0	0	$0	$0	0	
E. Personnel Training	40	$0	$0	$0	1	40	0	0	0	0	$0	$0	0	
F. Time for Audits	na													
Recordkeeping Subtotal								0	0	0	$0	$0	0	
Totals								**0**	**0**	**0**	**$0**	**$0**	**0**	

a There are no new small solid units expected to be constructed/reconstructed over the next 3 years.

Table 12.A. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 1, New Small Gas Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Annual Tune-Up Cost per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year ((B+C+D)xExG)	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	41	1,640	164	82	$178,395	$0	0	a
B. Required Activities														
1. Biennial Tune-Up	12	$0	$2,228	$0	0.5	6	326	1,956	196	98	$212,769	$726,328	0	a,e
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	41	82	8	4	$8,920	$0	41	a
2) Notification of Compliance Status	8	$0	$0	$0	1	8	41	328	33	16	$35,679	$0	41	a
3) Biennial Compliance Report	5	$0	$0	$0	0.5	2.5	41	103	10	5	$11,150	$0	21	a,d
Reporting Subtotal								4,109	411	205	446,912	726,328	103	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													b
D. Record Information														
1) Records of All Notifications and Compliance Reports Submitted	2	$0	$0	$0	0.5	1	41	41	4	2	$4,460	$0	0	a
2) Biennial Tune-Up Records	0.5	$0	$0	$0	0.5	0.25	326	82	8	4	$8,865	$0	0	a,d
E. Personnel Training	40	$0	$0	$0	1	40	41	1,640	164	82	$178,395	$0	0	c
F. Time for Audits	na													
Recordkeeping Subtotal								1762.5	176.25	88.125	$191,720	$0	0	
Totals								**5,871**	**587**	**294**	**$638,633**	**$726,328**	**103**	

a In order to calculate a per year estimate of the number of boilers and facilities required to meet these rule requirements, the number of projected boilers and facilities is each divided by 3.

b Assumes facility must already maintain records on boiler insurance and/or maintenance schedule. No new record system would be required.

c For on-going training activities to keep personnel updated in order to implement compliance activities.

d Since a tune-up is required biennially, every two years, the compliance reports for small units are also due every two years. Records of the tune-ups will be submitted to the Administrator upon request.

e Very small gas boilers (< 5 mmBtu/hr) qualify for tune-ups every five years, however they would still incur an initial tune-up during the year they come online.

Table 12.B. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 2, New Small Gas Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Annual Tune-Up Cost per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year ((B+C+D)xExG)	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	41	1,640	164	82	$178,395	$0	0	a
B. Required Activities														
1. Biennial Tune-Up	12	$0	$2,228	$0	0.5	6	326	1,956	196	98	$212,769	$726,328	0	a,e
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	41	82	8	4	$8,920	$0	41	a
2) Notification of Compliance Status	8	$0	$0	$0	1	8	41	328	33	16	$35,679	$0	41	a
3) Biennial Compliance Report	5	$0	$0	$0	0.5	2.5	41	103	10	5	$11,150	$0	21	a,d
Reporting Subtotal								4,109	411	205	446,912	726,328	103	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													b
D. Record Information														
1) Records of All Notifications and Compliance Reports Submitted	2	$0	$0	$0	0.5	1	41	41	4	2	$4,460	$0	0	a
2) Biennial Tune-Up Records	0.5	$0	$0	$0	0.5	0.25	326	82	8	4	$8,865	$0	0	a,d
E. Personnel Training	40	$0	$0	$0	1	40	41	1,640	164	82	$178,395	$0	0	a
F. Time for Audits	na													
Recordkeeping Subtotal								1762.5	176.25	88.125	$191,720	$0	0	
Totals								**5,871**	**587**	**294**	**$638,633**	**$726,328**	**103**	

a In order to calculate a per year estimate of the number of boilers and facilities required to meet these rule requirements, the number of projected boilers and facilities is each divided by 3.

b Assumes facility must already maintain records on boiler insurance and/or maintenance schedule. No new record system would be required.

c For on-going training activities to keep personnel updated in order to implement compliance activities.

d Since a tune-up is required biennially, every two years, the compliance reports for small units are also due every two years. Records of the tune-ups will be submitted to the Administrator upon request.

e Some boilers qualify for tune-ups every five years, however they would still incur an initial tune-up when they come online.

Table 12.C. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers - Year 3, New Small Gas Fuel Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Certified Energy Audit Cost per Occurrence	(C) Annual Tune-Up Cost per Occurrence	(D) Other Non-Labor Costs Per Occurrence	(E) Number of Occurrences Per Respondent Per Year	(F) Technical Hours per Respondent Per Year (A X E)	(G) Number of Respondents Per Year	(H) Technical Hours per Year @ $98.20 (F X G)	(I) Clerical Hours per Year @ $48.53 (H X 0.1)	(J) Management Hours per Year @ $114.49 (H X .05)	(K) Total Labor Costs Per Year	(L) Total Non-Labor Capital Costs Per Year ((B+C+D)xExG)	(M) Total Number of Responses per Year (E X G)	Footnotes
1. Applications	na													
2. Surveys and Studies	na													
3. Reporting Requirements														
A. Read and Understand Rule Requirements	40	$0	$0	$0	1	40	41	1,640	164	82	$178,395	$0	0	a
B. Required Activities														
1. Biennial Tune-Up	12	$0	$2,228	$0	0.5	6	648	3,888	389	194	$422,927	$1,443,744	0	a,e,f
C. Create Information	na													
D. Gather Information	na													
E. Report Preparation														
1) Initial Notification that Source is Subject	2	$0	$0	$0	1	2	41	82	8	4	$8,920	$0	41	a
2) Notification of Compliance Status	8	$0	$0	$0	1	8	41	328	33	16	$35,679	$0	41	a
3) Biennial Compliance Report	5	$0	$0	$0	0.5	2.5	82	205	21	10	$22,299	$0	41	d,e
Reporting Subtotal								6,143	614	307	668,220	1,443,744	123	
4. Recordkeeping Requirements														
A. Read Instructions	Included in 3a													
B. Implement Activities	na													
C. Develop Record System	na													b
D. Record Information														
1) Records of All Notifications and Compliance Reports Submitted	2	$0	$0	$0	0.5	1	82	82	8	4	$8,920	$0	0	a
2) Biennial Tune-Up Records	0.5	$0	$0	$0	0.5	0.25	648	162	16	8	$17,622	$0	0	a,e,f
E. Personnel Training	40	$0	$0	$0	1	40	41	1,640	164	82	$178,395	$0	0	c
F. Time for Audits	na													
Recordkeeping Subtotal								1884	188.4	94.2	$204,937	$0	0	
Totals								**8,027**	**803**	**401**	**$873,157**	**$1,443,744**	**123**	

a In order to calculate a per year estimate of the number of boilers and facilities required to meet these rule requirements, the number of projected boilers and facilities is each divided by 3.

b Assumes facility must already maintain records on boiler insurance and/or maintenance schedule. No new record system would be required.

c For on-going training activities to keep personnel updated in order to implement compliance activities.

d Since a tune-up is required biennially, every two years, the compliance reports for small units are also due every two years. Records of the tune-ups will be submitted to the Administrator upon request.

e Assumes for boilers which performed a tune-up in year 1, the biennial tune-up would also occur in year 3.

f Very small boilers qualify for tune-ups every five years, however they would still incur an initial tune-up when they come online. For those boilers in year 1 which were performing their initial five-year tune-up, a tune-up in year 3 is not necessary. Four boilers would qualify for 5-year tune-ups and are thus not applicable to tune-ups in year 3.

Table 13.A. Annual Federal Government Burden and Cost of Recordkeeping and Reporting for the Industrial, Commercial, and Institutional Boiler and Process Heater Major Source NESHAP Subpart DDDDD- Year 1 - First Year After Promulgation

Burden Item	EPA hours per occurrence (A)	Number of occurrences per year (B)	EPA hours per occurrence per year (C=AxB)	Technical hours per year (D=C)	Mangmt hours per year (E=Dx0.05)	Clerical hours per year (F=Dx0.1)	(H) Costs, $ k	Footnotes
1. Read and understand rule requirements	40	60	2,400	2,400	120	240	$124,379	a
2. Enter and update information into agency recordkeeping system	2	1,783	3,566	3,566	178	357	$184,806	b
3. Required activities								
A. Review and approve monitoring plan	20	4	80	80	4	8	$4,146	n
B. Review and approve fuel monitoring plan	20	4	80	80	4	8	$4,146	o
C. Observe initial stack/performance test	40	21	840	840	42	84	$43,533	c
D. Observe repeat performance test	40	13	520	520	26	52	$26,949	d
E. Review operating parameters	2	104	208	208	10	21	$10,779	e
F. Review continuous parameter monitoring	2	26	52	52	3	5	$2,695	f
4 Excess Emissions Enforcement Activities and Inspections	24	3	0	0	0	0	$0	g
5 Notification requirements								
A. Review initial notification that sources are subject to the standard	2	1,783	3,566	3,566	178	357	$184,806	b
B. Review notification of initial performance tests and review test plan	20	104	2,080	2,080	104	208	$107,795	e
C. Review notification of compliance status	2	79	158	158	8	16	$8,188	b
6. Reporting requirements			0	0	0	0	$0	
A. Review semiannual compliance report	4	8	32	32	2	3	$1,658	h
B. Review annual compliance report	2	0	0	0	0	0	$0	i
C. Review biennial compliance report	1	21	21	21	1	2	$1,088	j
D. Review initial report on results of energy audit	2	0	0	0	0	0	$0	L
7. Travel Expenses for Tests Attended	3 days * ($110 hotel + $58 meals/incidentals) + ($600 round trip) = $1104 per trip						$37,536	m
TOTAL BURDEN AND COST (SALARY)				13,603	680	1,360	**$742,505**	
TOTAL ANNUAL HOURS						**15,643**		

a Number of occurences is the number of states where affected sources will exist and each EPA Region (50 states + 10 EPA regions = 60 respondents).

b Number of occurences is based on the total number of affected facilities that are required to submit initial notifications stated they are subject to the standard (all new boilers in the large and small solid, liquid, and gaseous subcategories, plus all existing large and small solid, liquid, and gaseous subcategories). For initial notifications of compliance status, the number of occurences is based on all new boilers in the large and small solid, liquid, and gaseous subcategories, existing large and small solid, liquid, and gaseous units have until year 3 to submit this notification.

c Number of occurences is based on the assumption that EPA personnel will observe 20% of the initial performance tests that occur.

d Number of occurences is based on the assumption that of the units that test, 10% will have to retest and EPA personnel will observe all these retests. In addition solid fuel units are expected to re-test to obtain worst-case cor

e Number of occurences is based on the number of units that will test and set/submit operating limits.

f Number of occurences begins in year 3 for existing units and in year 1 for new units and is based on the number of units maintaining records of control device parameters.

g Number of occurences is based on the assumption that of the units that test, 10% of them will have exceedances and need enforcement.

h Number of occurences is the number of units that will submit these semi-annual compliance reports, 2 reports per year per respondent.

i. Number of occurences is the number of units that will submit these annual compliance reports.

j. Number of occurences is the number units that will submit these biennial compliance reports.

k These rates are from the Office of Personnel Management (OPM), 2010 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. These rates can be obtained from the OPM web site, http//www.opm.gov/oca/payrates/index/htm.

L Energy audits only occur at existing facilities.

m Total cost is based on the number of trips taken by EPA to observe performance tests in year 1 (4.A. & 4.B.) multiplied by $1104 per trip. The source for hotel and meals/incidental costs is based on FY' 10 per diem rates, averaged across all locations in the United States. Airfares are estimated based on experience from other rulemakings. See: http://www.gsa.gov/Portal/gsa/ep/contentView.do?contentId=17943&contentType=GSA_BASIC

Table 13.B. Annual Federal Government Burden and Cost of Recordkeeping and Reporting for the Industrial, Commercial, and Institutional Boiler and Process Heater Major Source NESHAP Subpart DDDDD- Year 1 - First Year After Promulgation

Burden Item	EPA hours per occurrence (A)	Number of occurrences per year (B)	EPA hours per occurrence per year (C=AxB)	Technical hours per year (D=C)	Mangmt hours per year (E=Dx0.05)	Clerical hours per year (F=Dx0.1)	(H) Costs, $ [k]	Footnotes
1. Read and understand rule requirements	40	0	0	0	0	0	$0	a
2. Enter and update information into agency recordkeeping system	2	154	308	308	15	31	$15,962	b
3. Required activities								
A. Review and approve monitoring plan	20	110	2,200	2,200	110	220	$114,014	n
B. Review and approve fuel monitoring plan	20	443	8,860	8,860	443	886	$459,165	o
C. Observe initial stack/performance test	40	605	24,200	24,200	1,210	2,420	$1,254,153	c
D. Observe repeat performance test	40	359	14,360	14,360	718	1,436	$744,200	d
E. Review operating parameters	2	3,024	6,048	6,048	302	605	$313,435	e
F. Review continuous parameter monitoring	2	52	104	104	5	10	$5,390	f
4 Excess Emissions Enforcement Activities and Inspections	24	302	0	0	0	0	$0	g
5 Notification requirements								
A. Review initial notification that sources are subject to the standard	2	77	154	154	8	15	$7,981	b
B. Review notification of initial performance tests and review test plan	20	3,024	60,480	60,480	3,024	6,048	$3,134,346	e
C. Review notification of compliance status	2	77	154	154	8	15	$7,981	b
6. Reporting requirements			0	0	0	0	$0	
A. Review semiannual compliance report	4	14	56	56	3	6	$2,902	h
B. Review annual compliance report	2	0	0	0	0	0	$0	i
C. Review biennial compliance report	1	21	21	21	1	2	$1,062	j
D. Review initial report on results of energy audit	2	0	0	0	0	0	$0	L
7. Travel Expenses for Tests Attended	3 days * ($110 hotel + $58 meals/incidentals) + ($600 round trip) = $1104 per trip						$1,064,256	m
TOTAL BURDEN AND COST (SALARY)				116,945	5,847	11,694	**$7,124,846**	
TOTAL ANNUAL HOURS						**134,486**		

a Number of occurences is the number of states where affected sources will exist and each EPA Region (50 states + 10 EPA regions = 60 respondents).

b Number of occurences is based on the total number of affected facilities that are required to submit initial notifications stated they are subject to the standard (all new boilers in the large and small solid, liquid, and gaseous subcategories, plus all existing large and small solid, liquid, and gaseous subcategories). For initial notifications of compliance status, the number of occurences is based on all new boilers in the large and small solid, liquid, and gaseous subcategories, existing large and small solid, liquid, and gaseous units have until year 3 to submit this notification.

c Number of occurences is based on the assumption that EPA personnel will observe 20% of the initial performance tests that occur.

d Number of occurences is based on the assumption that of the units that test, 10% will have to retest and EPA personnel will observe all these retests. In addition solid fuel units are expected to re-test to obtain worst-case cor

e Number of occurences is based on the number of units that will test and set/submit operating limits.

f Number of occurences begins in year 3 for existing units and in year 1 for new units and is based on the number of units maintaining records of control device parameters.

g Number of occurences is based on the assumption that of the units that test, 10% of them will have exceedances and need enforcement.

h Number of occurences is the number of units that will submit these semi-annual compliance reports, 2 reports per year per respondent.

i. Number of occurences is the number of units that will submit these annual compliance reports.

j. Number of occurences is the number units that will submit these biennial compliance reports.

k These rates are from the Office of Personnel Management (OPM), 2010 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. These rates can be obtained from the OPM web site, http//www.opm.gov/oca/payrates/index/htm.

L Energy audits only occur at existing facilities.

m Total cost is based on the number of trips taken by EPA to observe performance tests in year 1 (4.A. & 4.B.) multiplied by $1104 per trip. The source for hotel and meals/incidental costs is based on FY' 10 per diem rates, averaged across all locations in the United States. Airfares are estimated based on experience from other rulemakings. See: http://www.gsa.gov/Portal/gsa/ep/contentView.do?contentId=17943&contentType=GSA_BASIC

Table 13.C. Annual Federal Government Burden and Cost of Recordkeeping and Reporting for the Industrial, Commercial, and Institutional Boiler and Process Heater Major Source NESHAP Subpart DDDDD- Year 1 - First Year After Promulgation

Burden Item	EPA hours per occurrence (A)	Number of occurrences per year (B)	EPA hours per occurrence per year (C=AxB)	Technical hours per year (D=C)	Mangmt hours per year (E=Dx0.05)	Clerical hours per year (F=Dx0.1)	(H) Costs, $ [k]	Footnotes
1. Read and understand rule requirements	40	0	0	0	0	0	$0	a
2. Enter and update information into agency recordkeeping system	2	1,858	3,716	3,716	186	372	$192,580	b
3. Required activities								
A. Review and approve monitoring plan	20	107	2,140	2,140	107	214	$110,904	n
B. Review and approve fuel monitoring plan	20	442	8,840	8,840	442	884	$458,129	o
C. Observe initial stack/performance test	40	604	24,160	24,160	1,208	2,416	$1,252,080	c
D. Observe repeat performance test	40	359	14,360	14,360	718	1,436	$744,200	d
E. Review operating parameters	2	3,022	6,044	6,044	302	604	$313,227	e
F. Review continuous parameter monitoring	2	1,831	3,662	3,662	183	366	$189,781	f
4 Excess Emissions Enforcement Activities and Inspections	24	302	0	0	0	0	$0	g
5 Notification requirements								
A. Review initial notification that sources are subject to the standard	2	77	154	154	8	15	$7,981	b
B. Review notification of initial performance tests and review test plan	20	3,022	60,440	60,440	3,022	6,044	$3,132,273	e
C. Review notification of compliance status	2	1,781	3,562	3,562	178	356	$184,599	b
6. Reporting requirements			0	0	0	0	$0	
A. Review semiannual compliance report	4	442	1,768	1,768	88	177	$91,626	h
B. Review annual compliance report	2	540	1,080	1,080	54	108	$55,970	i
C. Review biennial compliance report	1	518	518	518	26	52	$26,845	j
B. Review initial report on results of energy audit	2	1,704	3,408	3,408	170	341	$176,618	L
7. Travel Expenses for Tests Attended	3 days * ($110 hotel + $58 meals/incidentals) + ($600 round trip) = $1104 per trip						$1,063,152	m
TOTAL BURDEN AND COST (SALARY)				133,852	6,693	13,385	**$7,999,965**	
TOTAL ANNUAL HOURS						**153,930**		

a Number of occurences is the number of states where affected sources will exist and each EPA Region (50 states + 10 EPA regions = 60 respondents).

b Number of occurences is based on the total number of affected facilities that are required to submit initial notifications stated they are subject to the standard (all new boilers in the large and small solid, liquid, and gaseous subcategories, plus all existing large and small solid, liquid, and gaseous subcategories). For initial notifications of compliance status, the number of occurences is based on all new boilers in the large and small solid, liquid, and gaseous subcategories, existing large and small solid, liquid, and gaseous units have until year 3 to submit this notification.

c Number of occurences is based on the assumption that EPA personnel will observe 20% of the initial performance tests that occur.

d Number of occurences is based on the assumption that of the units that test, 10% will have to retest and EPA personnel will observe all these retests. In addition solid fuel units are expected to re-test to obtain worst-case cor

e Number of occurences is based on the number of units that will test and set/submit operating limits.

f Number of occurences begins in year 3 for existing units and in year 1 for new units and is based on the number of units maintaining records of control device parameters.

g Number of occurences is based on the assumption that of the units that test, 10% of them will have exceedances and need enforcement.

h Number of occurences is the number of units that will submit these semi-annual compliance reports, 2 reports per year per respondent.

i. Number of occurences is the number of units that will submit these annual compliance reports.

j. Number of occurences is the number units that will submit these biennial compliance reports.

k These rates are from the Office of Personnel Management (OPM), 2010 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. These rates can be obtained from the OPM web site, http//www.opm.gov/oca/payrates/index/htm.

L Energy audits only occur at existing facilities.

m Total cost is based on the number of trips taken by EPA to observe performance tests in year 1 (4.A. & 4.B.) multiplied by $1104 per trip. The source for hotel and meals/incidental costs is based on FY' 10 per diem rates, averaged across all locations in the United States. Airfares are estimated based on experience from other rulemakings. See: http://www.gsa.gov/Portal/gsa/ep/contentView.do?contentId=17943&contentType=GSA_BASIC