

Cost Factor (in 2008\$)	Reference/Note
Advanced Combustion Controls (Linkageless Boiler Management System) -- cost is per boiler - TCI	
\$	<p>LBMS costs are based on a 2008 quote provided to the U.S. Department of Energy. The installed cost for a LBMS on a 20 mmBtu/hr unit was are \$19,127. The DOE noted that costs are relatively fixed, regardless of the size of the unit.</p> <p>19,127</p>
Activated Carbon Injection	
Hospital/Medical/Infectious Waste Incinerators (HMIWI). [EPA-HQ-OAR-2006-0534]	Received spreadsheet of HMIWI model costs from Tom Holloway of RTI International.
Fabric Filter	
Hospital/Medical/Infectious Waste Incinerators (HMIWI). [EPA-HQ-OAR-2006-0534]	Received spreadsheet of HMIWI model costs from Tom Holloway of RTI International.
Packed Scrubber	
Hospital/Medical/Infectious Waste Incinerators (HMIWI). [EPA-HQ-OAR-2006-0534]	Received spreadsheet of HMIWI model costs from Tom Holloway of RTI International.
Secondary Chamber/Afterburner Retrofit	
Hospital/Medical/Infectious Waste Incinerators (HMIWI). [EPA-HQ-OAR-2006-0534]	Received spreadsheet of HMIWI model costs from Tom Holloway of RTI International.
Selective Non-Catalytic Reduction	
Hospital/Medical/Infectious Waste Incinerators (HMIWI). [EPA-HQ-OAR-2006-0534]	Received spreadsheet of HMIWI model costs from Tom Holloway of RTI International.

Catalytic Oxidizer

EPA Air Pollution Control Cost Manual, Sixth Edition EPA 452/B-02-001

Used catalytic oxidizer costing for all sizes, though some fell outside the appropriate size-range for the equation.

Year of Costs



Assumed to represent \$2008, since that was the year the quote was obtained.



Originally \$2004



Originally \$2004




Originally \$2004



Originally \$2004



Originally \$2004



Originally \$2004

Table 1. Annual Respondent Burden and Cost Summary – Emission Guidelines for Commercial and Industrial Solid Waste Incineration (CISWI) Units (40 CFR Part 60, Subpart DDDD) (Renewal)

CISWI Unit Type	Number of Respondents Per Year	Number of Units	Number of Responses	Reporting Hours	Recordkeeping Hours	Total Labor Hours	Total Labor Costs	Annualized Capital/O&M Costs
Incinerator	22	27	38	1,922	688	2,610	\$309,000	\$2,070,000
ERU, solid	13	22	31	1,447	407	1,855	\$220,000	\$2,400,000
Small, remote incinerator	26	30	42	2,174	812	2,986	\$354,000	\$2,070,000
ERU, liquid/gas	4	6	8	406	125	531	\$62,900	\$443,000
Waste-burning kilns	13	23	32	1,499	408	1,907	\$226,000	\$4,040,000
Subtotals (all types)	78	108	151	7,448	2,441	9,888	\$1,171,900	\$11,023,000
GRAND TOTAL (rounded)¹						9,890	\$1,170,000	\$11,000,000

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

Table 1.A - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 1, Incineration

for for Existing Stationary Sources: Commercial and Industrial Solid Waste (H) (H) Total Labor Costs	(A) Respondent Hours per Occurrence (Technical hours)	Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence	(B) Number of Occurrences Per Respondent Per Year	(C) Hours Per Respondent Per Year (C=A x B)	(D) Number of Respondents Per Year (a)	(E) Technical Hours Per Year (CXD)	(F) Management Hours Per Year (E x 0.05)	(G) Clerical Hours Per Year (E x 0.1)	(H) Emission Testing Contractor Hours Per Year	Total Labor Costs Per Year (b)
Burden Item											
1. Applications	Not applicable										
2. Surveys and Studies	Not applicable										
3. Reporting Requirements											
A. Read and Understand Rule Requirements	1	0	\$100	1	1	22	22	1	2	0	\$2,997
B. Required Activities											
1) Initial stack test and report (PM, dioxins/furans, opacity, HCl, Cd, Pb, Hg, CO, NOx, and SO2 (as required))	Included in E.	varies	\$62,933	1	0	27	0	0	0	787	\$0
2) Annual stack test and test report (PM, HCl, Opacity, and Fugitive Emissions)	Included in E.	790	\$63,223	1	0	0	0	0	0	0	\$0
3) Operator training and qualification											
a) Establish and teach operator qualification course	64	0	\$0	1	64	22	1,408	70	141	0	\$191,826
b) Obtain operator qualification	72	0	\$0	1	72	22	1,584	79	158	0	\$215,804
c) Annual refresher course	12		\$0	1	12	0	0	0	0	0	\$0
d) Initial review of site-specific information	Included in a.										
e) Annual review of site-specific information	8	0	\$0	1	8	0	0	0	0	0	\$0
4) Establish operating parameters (maximum and minimum)	40	Included in B.1.	\$0	1	40	27	1,080	54	108	0	\$147,139
5) Continuous parameter monitoring (including CEMS)											
a) Initial costs	17	0	\$73,800	1	17	27	459	23	46	0	\$62,534
b) Annual costs	17	0	\$363,319	1	17	27	459	23	46	0	\$62,534
C. Create Information	Included in 3.B										
D. Gather Information	Included in 3.E										
E. Report Preparation											
1) Notification of initial performance test											
a) Pollutants, fugitive ash emissions	2	0	\$0	1	2	27	54	3	5	0	\$7,357
b) Fugitive Ash Emissions	1	0	\$0	1	1	27	27	1	3	0	\$3,678
2) Notification of initial CMS Demonstration	2	0	\$0	1	2	22	44	2	4	0	\$5,995
3) Report of initial performance test											
a) Pollutants, fugitive ash emissions	8	0	\$7.50	1	8	27	216	11	22	0	\$29,428
b) Fugitive Ash Emissions	2	0	\$0	1	2	27	54	3	5	0	\$7,357
4) Report of initial CMS demonstration	Included in 3.B.5										
5) Report prior to construction (includes siting analysis)	160	0	\$0	1	160	22	3,520	176	352	0	\$479,565
6) Report prior to initial start-up											
a) Without site specific parameter petition	6	0	\$0	1	6	0	0	0	0	0	\$0
b) With site specific parameter petition	14	0	\$0	1	14	0	0	0	0	0	\$0

Table 1.A - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 1, Incineration

(H) (H) Total Labor Costs	(A) Respondent Hours per Occurrence (Technical hours)	Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence	(B) Number of Occurrences Per Respondent Per Year	(C) Hours Per Respondent Per Year (C=A x B)	(D) Number of Respondents Per Year (a)	(E) Technical Hours Per Year (CXD)	(F) Management Hours Per Year (E x 0.05)	(G) Clerical Hours Per Year (E x 0.1)	(H) Emission Testing Contractor Hours Per Year	Total Labor Costs Per Year (b)
Burden Item											
7) Report of initial stack test	Included in 3.B.1										
8) Report established values for site-specific operating parameters	Included in 3.B	0	\$0	1	#VALUE!	0	0	0	0	0	\$0
9) Waste management plan	160	0	\$0	1	160	22	3,520	176	352	0	\$479,565
10) Annual Report:											
a) Results of performance tests conducted during the year	40	0	\$7.50	1	40	0	0	0	0	0	\$0
11) Status report for operators that are off-site for more than 2 weeks	8	0	\$0	1	8	2.2	18	1	2	0	\$2,398
12) Corrective action summary for operators that are off-site for more than 2 weeks	8	0	\$0	2	16	2.2	35	2	4	0	\$4,796
13) Semiannual report of emissions/parameter exceedances	24	0	\$7.50	1	24	2.2	53	3	5	0	\$7,193
F. Affirmative Defense Claim	30	0	\$0	0	0	0	0	0	0	0	\$0
Reporting Subtotal							12,553	628	1,255	787	\$1,710,166
4. Recordkeeping Requirements											
A. Read Instructions	Included in 3.A										
B. Plan Activities	Not applicable										
C. Implement Activities	Not applicable										
D. Develop Record System	Not applicable										
E. Record Information											
1) Records of operating parameters	Included in 3.B.5.	0	\$0	52	0	0	0	0	0	0	\$0
2) Records of periods for which minimum amount of data on operating parameters were not obtained	0.5	0	\$0	52	26	0	0	0	0	0	\$0
3) Records of malfunction of the unit	1.5	0	\$0	1	1.5	0	0	0	0	0	\$0
4) Records of exceedances of the operating parameters	1.5	0	\$0	1	1.5	2.2	3	0	0	0	\$450
5) Records of stack tests	Included in 3.E										
6) Records of siting analysis	Included in 3.E										
7) Records of persons who have reviewed operating procedures	1	0	\$0	1	1	0	0	0	0	0	\$0
8) Records of persons who have completed operator training	1	0	\$0	1	1	0	0	0	0	0	\$0
9) Records of persons who meet operator qualification criteria	1	0	\$0	1	1	0	0	0	0	0	\$0
10) Records of monitoring device calibration	Included in 3.B										
11) Records of site-specific documentation	24	0	\$0	1	24	0	0	0	0	0	\$0

Table 1.A - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 1, Incinerators

for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 1, Incinerators	(A) Respondent Hours per Occurrence (Technical hours)	Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence	(B) Number of Occurrences Per Respondent Per Year	(C) Hours Per Respondent Per Year (C=A x B)	(D) Number of Respondents Per Year (a)	(E) Technical Hours Per Year (CXD)	(F) Management Hours Per Year (E x 0.05)	(G) Clerical Hours Per Year (E x 0.1)	(H) Emission Testing Contractor Hours Per Year	Total Labor Costs Per Year (b)
Burden Item											
F. Personnel Training	Included in 3.B										
G. Time for Audits	Not applicable										
<i>Recordkeeping Subtotal</i>							3.3	0.165	0.33	0	\$450
TOTAL:							12,556	628	1,256	787	\$1,710,616
							Total Hours		Labor	Non-Labor	Total
							Summary of Respondent Burden	14,439	\$1,710,616	\$2,138,738	\$3,849,354
							Annualized Capital and Startup			\$1,775,200	\$1,775,200
							O & M Summary			\$363,319	\$363,319

FOOTNOTES

- ^a Based on the total number of existing units expected to continue operating once the guidelines become effective.
- ^b Costs are based on the following hourly rates: technical at \$34.60, management at \$82.23, clerical at \$22.32, and testing contractor at \$80.
- ^c One-time only costs.
- ^d Cost incurred by a facility regardless of the number of affected units at the plant.
- ^e Annual cost. Annual costs are not incurred until the second year of operation.
- ^f Based on the sum of the annualized capital costs for each monitoring system required for incinerators.
- ^g Based on the sum of the calculated annual cost for each monitoring system required for incinerators.
- ^h Assumed that one-third of the facilities will petition for site-specific parameters.
- ⁱ Assumed that 10 percent of the facilities would not have a qualified operator available for more than two weeks at least once a year. Assumed that this required only two corrective action summaries.
- ^j Assumed that 10 percent of the facilities would have an exceedance during the year.
- ^k Standards apply at all times under the newly proposed regulation. Therefore no periods of unobtained data or malfunction periods are expected.
- ^l Assumed \$100 for purchase of filing cabinet to house copy of rule, records and report copies.

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Total Non-Labor Costs Per Year	Total Responses Per Year	Footnotes
\$2,200	22	c, d, l
\$1,699,200	27	c
\$0	0	e
\$0	22	c
\$0	22	c
\$0	0	e
\$0	0	e
\$0	27	c
\$73,800	27	c, f
\$363,319	27	e, g
\$0	27	
\$0	27	
\$0	22	
\$203	27	
\$0	27	
\$0	22	c
\$0	0	c, h
\$0	0	c, h

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Total Non-Labor Costs Per Year	Total Responses Per Year	Footnotes
\$0	0	c
\$0	22	c
\$0	0	
\$0	2	i
\$0	4	i
\$17	2	j
\$0	0	m
	357	
\$0	0	
\$0	0	k
\$0	0	k
\$0	2	j
\$0	0	
\$0	0	
\$0	0	
\$0	0	

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Total Non-Labor Costs Per Year	Total Responses Per Year	Footnotes
\$0	2.2	
\$2,138,738	359	

Table 1.B - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 2, Incineration

for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units (H) (H) Total Labor Costs	(A) Respondent Hours per Occurrence (Technical hours)	Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence	(B) Number of Occurrences Per Respondent Per Year	(C) Hours Per Respondent Per Year (C=A x B)	(D) Number of Respondents Per Year (a)	(E) Technical Hours Per Year (CXD)	(F) Management Hours Per Year (E x 0.05)	(G) Clerical Hours Per Year (E x 0.1)	(H) Emission Testing Contractor Hours Per Year	Total Labor Costs Per Year (b)
Burden Item											
1. Applications	Not applicable										
2. Surveys and Studies	Not applicable										
3. Reporting Requirements											
A. Read and Understand Rule Requirements	1	0	\$0	1	1	0	0	0	0	0	\$0
B. Required Activities											
1) Initial stack test and report (PM, dioxins/furans, opacity, HCl, Cd, Pb, Hg, CO, NOx, and SO2 (as required))	Included in E.	varies	\$0	1	0	0	0	0	0	0	\$0
2) Annual stack test and test report (PM, HCl, Opacity, and Fugitive Ash)	Included in E.	790	\$63,223	1	0	27	0	0	0	21,338	\$0
3) Operator training and qualification											
a) Establish and teach operator qualification course	64	0	\$0	1	64	0	0	0	0	0	\$0
b) Obtain operator qualification	72	0	\$0	1	72	0	0	0	0	0	\$0
c) Annual refresher course	12		\$0	1	12	22	264	13	26	0	\$35,967
d) Initial review of site-specific information	Included in a.										
e) Annual review of site-specific information	8	0	\$0	1	8	22	176	9	18	0	\$23,978
4) Establish operating parameters (maximum and minimum)	40	Included in B.1.	\$0	1	40	0	0	0	0	0	\$0
5) Continuous parameter monitoring (including CEMS)											
a) Initial costs	17	0	\$73,800	1	17	0	0	0	0	0	\$0
b) Annual costs	17	0	\$363,319	1	17	27	459	23	46	0	\$62,534
C. Create Information	Included in 3.B										
D. Gather Information	Included in 3.E										
E. Report Preparation											
1) Notification of initial performance test											
a) Pollutants, fugitive ash emissions	2	0	\$0	1	2	0	0	0	0	0	\$0
b) Fugitive Ash Emissions	1	0	\$0	1	1	0	0	0	0	0	\$0
2) Notification of initial CMS Demonstration	2	0	\$0	1	2	0	0	0	0	0	\$0
3) Report of initial performance test											
a) Pollutants, fugitive ash emissions	8	0	\$7.50	1	8	0	0	0	0	0	\$0
b) Fugitive Ash Emissions	2	0	\$0	1	2	0	0	0	0	0	\$0
4) Report of initial CMS demonstration	Included in 3.B.5										
5) Report prior to construction (includes siting analysis)	160	0	\$0	1	160	0	0	0	0	0	\$0

Table 1.B - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 2, Incineration

for for Existing Stationary Sources: Commercial and Industrial Solid Waste (H) (H) Total Labor Costs	(A) Respondent Hours per Occurrence (Technical hours)	Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence	(B) Number of Occurrences Per Respondent Per Year	(C) Hours Per Respondent Per Year (C=A x B)	(D) Number of Respondents Per Year (a)	(E) Technical Hours Per Year (CXD)	(F) Management Hours Per Year (E x 0.05)	(G) Clerical Hours Per Year (E x 0.1)	(H) Emission Testing Contractor Hours Per Year	Total Labor Costs Per Year (b)
Burden Item											
6) Report prior to initial start-up											
a) Without site specific parameter petition	6	0	\$0	1	6	0	0	0	0	0	\$0
b) With site specific parameter petition	14	0	\$0	1	14	0	0	0	0	0	\$0
7) Report of initial stack test	Included in 3.B.1										
8) Report established values for site-specific operating parameters	Included in 3.B	0	\$0	1	#VALUE!	0	0	0	0	0	\$0
9) Waste management plan	160	0	\$0	1	160	0	0	0	0	0	\$0
10) Annual Report:											
a) Results of performance tests conducted during the year	40	0	\$7.50	1	40	27	1,080	54	108	0	\$147,139
11) Status report for operators that are off-site for more than 2	8	0	\$0	1	8	2.2	18	1	2	0	\$2,398
12) Corrective action summary for operators that are off-site for more than 2 weeks	8	0	\$0	2	16	2.2	35	2	4	0	\$4,796
13) Semiannual report of emissions/parameter exceedances	24	0	\$7.50	1	24	2.2	53	3	5	0	\$7,193
F. Affirmative Defense Claim	30	0	\$0	0	0	0	0	0	0	0	\$0
Reporting Subtotal							2,085	104	208	21,338	\$284,006
4. Recordkeeping Requirements											
A. Read Instructions	Included in 3.A										
B. Plan Activities	Not applicable										
C. Implement Activities	Not applicable										
D. Develop Record System	Not applicable										
E. Record Information											
1) Records of operating parameters	Included in 3.B.5.b	0	\$0	52	0	0	0	0	0	0	\$0
2) Records of periods for which minimum amount of data on operating parameters were not obtained	0.5	0	\$0	52	26	0	0	0	0	0	\$0
3) Records of malfunction of the unit	1.5	0	\$0	1	1.5	0	0	0	0	0	\$0
4) Records of exceedances of the operating parameters	1.5	0	\$0	1	1.5	2.2	3	0	0	0	\$450
5) Records of stack tests	Included in 3.E										
6) Records of siting analysis	Included in 3.E										
7) Records of persons who have reviewed operating procedures	1	0	\$0	1	1	22	22	1	2	0	\$2,997
8) Records of persons who have completed operator training	1	0	\$0	1	1	22	22	1	2	0	\$2,997
9) Records of persons who meet operator qualification criteria	1	0	\$0	1	1	22	22	1	2	0	\$2,997
10) Records of monitoring device calibration	Included in 3.B										
11) Records of site-specific documentation	24	0	\$0	1	24	22	528	26	53	0	\$71,935

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Total Non-Labor Costs Per Year	Total Responses Per Year	Footnotes
\$0	0	c, d, l
\$0	0	c
\$1,707,030	27	e
\$0	0	c
\$0	0	c
\$0	22	e
\$0	22	e
\$0	0	c
\$73,800	0	c, f
\$363,319	27	e, g
\$0	0	
\$0	0	
\$0	0	
\$0	0	
\$0	0	
\$0	0	
\$0	0	c

ors

Total Non-Labor Costs Per Year	Total Responses Per Year	Footnotes
\$0	0	c, h
\$0	0	c, h
\$0	0	c
\$0	0	c
\$203	27	
\$0	2	i
\$0	4	i
\$17	2	j
\$0	0	m
	134	
\$0	0	
\$0	0	k
\$0	0	k
\$0	2	j
\$0	22	
\$0	22	
\$0	22	
\$0	22	

ors

Total Non-Labor Costs Per Year	Total Responses Per Year	Footnotes
\$0	90.2	
\$2,144,368	224	

Table 1a - Annual Respondent Burden and Cost - Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units (40 CFR Part 60, Subpart DDDD) (Renewal) - Incinerators

Burden item	(A) Person hours per occurrence	(B) No. of occurrences per respondent per year	(C) Person hours per respondent per year (C = A x B)	(D) Respondents per year ^a	(E) Technical person- hours per year (E = C x D)	(F) Management person hours per year (E x 0.05)	(G) Clerical person hours per year (E x 0.1)	(H) Total Cost Per year ^b	T Emission Testing Contractor Hours Per Occurrence
1. Applications	N/A								
2. Surveys and Studies	N/A								
3. Reporting Requirements									
A. Familiarization with Rule Requirements ^c	1	1	1	22	22	1	2	\$2,997.28	0
B. Required Activities									
1) Initial stack test and report (PM, dioxins/furans, opacity, HCl, Cd, Pb, Hg, CO, NOx, and SO2 (as required)) ^d	See 3.E.								varies
2) Annual stack test and test report (PM, HCl, Opacity, and Fugitive Ash) ^e	See 3.E.10								790
3) Operator training and qualification									
a) Establish and teach operator qualification course ^f	64	1	64	0	0	0	0	\$0	0
b) Obtain operator qualification ^f	72	1	72	0	0	0	0	\$0	0
c) Annual refresher course ^g	12	1	12	22	264	13.2	26.4	\$35,967.36	
d) Initial review of site-specific information	See 3.B.3.a.								
e) Annual review of site-specific information ^g	8	1	8	22	176	8.8	17.6	\$23,978.24	0
4) Establish operating parameters (maximum and minimum) ^d	40	1	40	0	0	0	0	\$0	Included in 3.B.1.
5) Continuous parameter monitoring (including CEMS)									
a) Initial costs ^f	17	1	17	0	0	0	0	\$0	0
b) Annual costs ^g	17	1	17	0	0	0	0	\$0	0
C. Create Information	See 3.B								
D. Gather Information	See 3.E								
E. Report Preparation									
1) Notification of initial performance test ^h									
a) Pollutants, fugitive ash emissions	2	1	2	0	0	0	0	\$0	0
b) Fugitive Ash Emissions	1	1	1	0	0	0	0	\$0	0
2) Notification of initial CMS Demonstration ^h	2	1	2	0	0	0	0	\$0	0
3) Report of initial performance test ^h									
a) Pollutants, fugitive ash emissions	8	1	8	0	0	0	0	\$0	0
b) Fugitive Ash Emissions	2	1	2	0	0	0	0	\$0	0
4) Report of initial CMS demonstration ^h	See 3.B.5								
5) Report prior to construction (includes siting analysis) ^h	160	1	160	0	0	0	0	\$0	0
6) Report prior to initial start-up ^{h, i}									
a) Without site specific parameter petition	6	1	6	0	0	0	0	\$0	0

Table 1a - Annual Respondent Burden and Cost - Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units (40 CFR Part 60, Subpart DDDD) (Renewal) - Incinerators

Burden item	(A) Person hours per occurrence	(B) No. of occurrences per respondent per year	(C) Person hours per respondent per year (C = A x B)	(D) Respondents per year ^a	(E) Technical person- hours per year (E = C x D)	(F) Management person hours per year (E x 0.05)	(G) Clerical person hours per year (E x 0.1)	(H) Total Cost Per year ^b	T Emission Testing Contractor Hours Per Occurrence
b) With site specific parameter petition	14	1	14	0	0	0	0	\$0	0
7) Report of initial stack test ^h	See 3.B.1								
8) Report established values for site-specific operating parameters ^h	See 3.B								0
9) Waste management plan ^h	160	1	160	0	0	0	0	\$0	0
10) Report of results of annual performance test ^e	40	1	40	27	1,080	54	108	\$147,139.20	0
11) Status report for operators that are off-site for more than 2 weeks ⁱ	8	1	8	2.7	21.6	1.08	2.16	\$2,942.78	0
12) Corrective action summary for operators that are off-site for more than 2 weeks ⁱ	8	2	16	2.7	43.2	2.16	4.32	\$5,885.57	0
13) Semiannual report of emissions/parameter exceedances ^k	24	1	24	2.7	64.8	3.24	6.48	\$8,828.35	0
Subtotal for Reporting Requirements						1,922		\$227,739	
4. Recordkeeping Requirements									
A. Familiarization with Rule Requirements	See 3.A								
B. Plan Activities	N/A								
C. Implement Activities	N/A								
D. Develop Record System	N/A								
E. Record Information									
1) Records of operating parameters	See 3.B.5.b								0
2) Records of periods for which minimum amount of data on operating parameters were not obtained ^l	0.5	52	26	0	0	0	0	\$0	0
3) Records of malfunction of the unit ^l	1.5	1	1.5	0	0	0	0	\$0	0
4) Records of exceedances of the operating parameters ^k	1.5	1	1.5	2.7	4.05	0.20	0.41	\$551.77	0
5) Records of stack tests	See 3.E								
6) Records of siting analysis	See 3.E								
7) Records of persons who have reviewed operating procedures	1	1	1	22	22	1.10	2.2	\$2,997.28	0
8) Records of persons who have completed operator training	1	1	1	22	22	1.10	2.2	\$2,997.28	0
9) Records of persons who meet operator qualification criteria	1	1	1	22	22	1.10	2.2	\$2,997.28	0
10) Records of monitoring device calibration	See 3.B								
11) Records of site-specific documentation	24	1	24	22	528	26.4	52.8	\$71,934.72	0
F. Personnel Training	See 3.B								
G. Time for Audits	N/A								

Table 1a - Annual Respondent Burden and Cost - Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units (40 CFR Part 60, Subpart DDDD) (Renewal) - Incinerators

Burden item	(A) Person hours per occurrence	(B) No. of occurrences per respondent per year	(C) Person hours per respondent per year (C = A x B)	(D) Respondents per year ^a	(E) Technical person- hours per year (E = C x D)	(F) Management person hours per year (E x 0.05)	(G) Clerical person hours per year (E x 0.1)	(H) Total Cost Per year ^b
<i>Subtotal for Recordkeeping Requirements</i>					688		\$81,478	
Total Labor Burden and Costs (rounded) ^m					2,610		\$309,000	
Total Capital and O&M Cost (rounded) ^m							\$2,070,000	
GRAND TOTAL (rounded) ^m							\$2,380,000	

T
Emission Testing Contractor Hours Per Occurrence

Assumptions

^a We assume an average of 108 CISWI units at 78 existing respondents per year over the next three years. No new units or respondents are anticipated over the next three years. This consists of 27 incinerator units located at 22 incinerator facilities, 22 energy recovery units - solids located at 13 energy recovery - solids facilities, 30 small, remote incinerators located at 26 small, remote facilities, 6 energy recovery units - liquids located at 4 energy recovery - liquids facilities, and 23 waste burning kilns located at 13 waste burning facilities.

^b This ICR uses the following labor rates: \$122.66 (technical), \$149.84 (managerial), and \$60.88 (clerical). These rates are from the United States Department of Labor, Bureau of Labor Statistics, September 2020, "Table 2. Civilian workers, by occupational and industry group." The rates are from column 1, "Total compensation." They have been increased by 110 percent to account for the benefit packages available to those employed by private industry.

^c We assume that each respondent will re-familiarize with the requirements each year.

^d Initial stack testing is performed when a new unit is completed. No new units are expected over the next three years. Operating parameters are established during the initial stack test for a unit.

^e Annual stack testing is performed each year. Labor costs are accounted in the Reporting section. Testing costs are due to contractor labor and are accounted for in Capital and O&M Cost section.

^f These operator qualification requirements and compliance costs are associated with the startup of a new unit. We assume that all facilities have completed initial monitoring requirements.

^g The refresher course and annual review requirements occur each year. CEMS maintenance is performed each year. Annual reporting costs for the CEMS are calculated under the operation and maintenance (O&M) cost section.

^h These notifications, reports, and waste management plan are required for newly constructed units. No new units are expected over the next three years.

ⁱ We assume that one-third of the facilities will petition for site-specific parameters.

^j We assume that 10 percent of the CISWI units at facilities would not have a qualified operator available for more than two weeks at least once a year. We also assume that this required only two corrective action summaries.

^k We assume that 10 percent of the CISWI units at facilities would have one exceedance during the year. The rule requires the semiannual report be submitted only in the event of an exceedance. Therefore, only 1 semiannual report is submitted for each emissions/parameter exceedance.

^l The standards apply at all times under this regulation. Therefore, no periods of unobtained data or malfunction periods are expected.

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

Testing, Operation, and Maintenance Costs			
Non-Labor Costs Per Occurrence	Emission Testing Contractor Hours Per Year	Total Non-Labor Costs Per Year	Total Responses Per Year
\$0	0	\$0	0
\$62,933	0	\$0	0
\$63,223	0	\$1,707,030	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$13,456	0	\$363,319	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$7.50	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0

Testing, Operation, and Maintenance Costs			
Non-Labor Costs Per Occurrence	Emission Testing Contractor Hours Per Year	Total Non-Labor Costs Per Year	Total Responses Per Year
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$7.50	0	\$203	27
\$0	0	\$0	2.7
\$0	0	\$0	5.4
\$7.50	0	\$20	2.7
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0

Testing, Operation, and Maintenance Costs			
Non-Labor Costs Per Occurrence	Emission Testing Contractor Hours Per Year	Total Non-Labor Costs Per Year	Total Responses Per Year
		\$2,070,000	

Table 2.A - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 1, Energy Recovery Units

for for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 1, Energy Recovery Units	(A)	Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence	(B) Number of Occurrences Per Respondent Per Year	(C) Hours Per Respondent Per Year (C=A x B)	(D) Number of Respondents Per Year (a)	(E) Technical Hours Per Year (CXD)	(F) Management Hours Per Year (E x 0.05)	(G) Clerical Hours Per Year (E x 0.1)	(H) Emission Testing Contractor Hours Per Year	Total Labor Costs Per Year (b)
Burden Item	Respondent Hours per Occurrence (Technical hours)										
1. Applications	Not applicable										
2. Surveys and Studies	Not applicable										
3. Reporting Requirements											
A. Read and Understand Rule Requirements	1	0	\$100	1	1	13	13	1	1	0	\$1,771
B. Required Activities											
1) Initial stack test and report (PM, dioxins/furans, opacity, HCl, Cd, Pb, Hg, CO, NOx, and SO2 (as required))	Included in E.	varies	\$62,933	1	0	22	0	0	0	787	\$0
2) Annual stack test and test report (PM, HCl, Opacity, and Fugitive Emissions)	Included in E.	790	\$63,223	1	0	0	0	0	0	0	\$0
3) Operator training and qualification											
a) Establish and teach operator qualification course	64	0	\$0	1	64	13	832	42	83	0	\$113,352
b) Obtain operator qualification	72	0	\$0	1	72	13	936	47	94	0	\$127,521
c) Annual refresher course	12		\$0	1	12	0	0	0	0	0	\$0
d) Initial review of site-specific information	Included in a.										
e) Annual review of site-specific information	8	0	\$0	1	8	0	0	0	0	0	\$0
4) Establish operating parameters (maximum and minimum)	40	Included in B.1.	\$0	1	40	22	880	44	88	0	\$119,891
5) Continuous parameter monitoring (including CEMS)											
a) Initial costs	17	0	\$29,526	1	17	22	374	19	37	0	\$50,954
b) Annual costs	17	0	\$36,252	1	17	22	374	19	37	0	\$50,954
C. Create Information	Included in 3.B										
D. Gather Information	Included in 3.E										
E. Report Preparation											
1) Notification of initial performance test											
a) Pollutants, fugitive ash emissions	2	0	\$0	1	2	22	44	2	4	0	\$5,995
b) Fugitive Ash Emissions	1	0	\$0	1	1	22	22	1	2	0	\$2,997
2) Notification of initial CMS Demonstration	2	0	\$0	1	2	13	26	1	3	0	\$3,542
3) Report of initial performance test											
a) Pollutants, fugitive ash emissions	8	0	\$7.50	1	8	22	176	9	18	0	\$23,978
b) Fugitive Ash Emissions	2	0	\$0	1	2	22	44	2	4	0	\$5,995
4) Report of initial CMS demonstration	Included in 3.B.5										
5) Report prior to construction (includes siting analysis)	160	0	\$0	1	160	13	2,080	104	208	0	\$283,379

Table 2.A - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 1, Energy Recovery Units

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence	(B) Number of Occurrences Per Respondent Per Year	(C) Hours Per Respondent Per Year (C=A x B)	(D) Number of Respondents Per Year (a)	(E) Technical Hours Per Year (CXD)	(F) Management Hours Per Year (E x 0.05)	(G) Clerical Hours Per Year (E x 0.1)	(H) Emission Testing Contractor Hours Per Year	Total Labor Costs Per Year (b)
6) Report prior to initial start-up											
a) Without site specific parameter petition	6	0	\$0	1	6	8	48	2	5	0	\$6,540
b) With site specific parameter petition	14	0	\$0	1	14	5	70	4	7	0	\$9,537
7) Report of initial stack test	Included in 3.B.1										
8) Report established values for site-specific operating parameters	Included in 3.B	0	\$0	1	0	0	0	0	0	0	\$0
9) Waste management plan	160	0	\$0	1	160	13	2,080	104	208	0	\$283,379
10) Annual Report:											
a) Results of performance tests conducted during the year	40	0	\$7.50	1	40	0	0	0	0	0	\$0
11) Status report for operators that are off-site for more than 2 weeks	8	0	\$0	1	8	2	16	1	2	0	\$2,180
12) Corrective action summary for operators that are off-site for more than 2 weeks	8	0	\$0	2	16	2	32	2	3	0	\$4,360
13) Semiannual report of emissions/parameter exceedances	24	0	\$7.50	1	24	2	48	2	5	0	\$6,540
F. Affirmative Defense Claim	30	0	\$0	0	0	0	0	0	0	0	\$0
Reporting Subtotal							8,095	405	810	787	\$1,102,863
4. Recordkeeping Requirements											
A. Read Instructions	Included in 3.A										
B. Plan Activities	Not applicable										
C. Implement Activities	Not applicable										
D. Develop Record System	Not applicable										
E. Record Information											
1) Records of operating parameters	Included in 3.B.5.	0	\$0	52	0	0	0	0	0	0	\$0
2) Records of periods for which minimum amount of data on operating parameters were not obtained	0.5	0	\$0	52	26	0	0	0	0	0	\$0
3) Records of malfunction of the unit	1.5	0	\$0	1	1.5	0	0	0	0	0	\$0
4) Records of exceedances of the operating parameters	1.5	0	\$0	1	1.5	2	3	0	0	0	\$409
5) Records of stack tests	Included in 3.E										
6) Records of siting analysis	Included in 3.E										
7) Records of persons who have reviewed operating procedures	1	0	\$0	1	1	0	0	0	0	0	\$0
8) Records of persons who have completed operator training	1	0	\$0	1	1	0	0	0	0	0	\$0
9) Records of persons who meet operator qualification criteria	1	0	\$0	1	1	0	0	0	0	0	\$0
10) Records of monitoring device calibration	Included in 3.B										
11) Records of site-specific documentation	24	0	\$0	1	24	0	0	0	0	0	\$0

Table 2.A - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 1, Energy Recovery Units

for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 1, Energy Recovery Units	(A)	Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence	(B)	(C)	(D)	(E)	(F)	(G)	(H)	Total Labor Costs Per Year (b)		
Burden Item	Respondent Hours per Occurrence (Technical hours)	Hours Per Occurrence	Costs Per Occurrence	Number of Occurrences Per Respondent Per Year	Hours Per Respondent Per Year (C=A x B)	Number of Respondents Per Year (a)	Technical Hours Per Year (CXD)	Management Hours Per Year (E x 0.05)	Clerical Hours Per Year (E x 0.1)	Emission Testing Contractor Hours Per Year			
F. Personnel Training	Included in 3.B												
G. Time for Audits	Not applicable												
<i>Recordkeeping Subtotal</i>							3	0.15	0.3	0	\$409		
TOTAL:							8,098	405	810	787	\$1,103,272		
							Total Hours				Labor	Non-Labor	Total
							Summary of Respondent Burden				\$2,833,136	\$2,833,136	\$3,936,408
							Annualized Capital and Startup				\$2,035,405	\$2,035,405	\$2,035,405
							O & M Summary				\$797,551	\$797,551	\$797,551

FOOTNOTES

- ^a Based on the total number of existing units expected to continue operating once the guidelines become effective.
- ^b Costs are based on the following hourly rates: technical at \$34.60, management at \$82.23, clerical at \$22.32, and testing contractor at \$80.
- ^c One-time only costs.
- ^d Cost incurred by a facility regardless of the number of affected units at the plant.
- ^e Annual cost. Annual costs are not incurred until the second year of operation.
- ^f Based on the sum of the annualized capital costs for each monitoring system required for incinerators.
- ^g Based on the sum of the calculated annual cost for each monitoring system required for incinerators.
- ^h Assumed that one-third of the facilities will petition for site-specific parameters.
- ⁱ Assumed that 10 percent of the facilities would not have a qualified operator available for more than two weeks at least once a year. Assumed that this required only two corrective action summaries.
- ^j Assumed that 10 percent of the facilities would have an exceedance during the year.
- ^k Standards apply at all times under the newly proposed regulation. Therefore no periods of unobtained data or malfunction periods are expected.
- ^l Assumed \$100 for purchase of filing cabinet to house copy of rule, records and report copies.

its (Solids)

Total Non-Labor Costs Per Year	Total Responses Per Year	Footnotes
\$1,300	13	c, d, l
\$1,384,533	22	c
\$0	0	e
\$0	13	c
\$0	13	c
\$0	0	e
\$0	0	e
\$0	22	c
\$649,572	22	c, f
\$797,551	22	e, g
\$0	22	
\$0	22	
\$0	13	
\$165	22	
\$0	22	
\$0	13	c

its (Solids)

Total Non-Labor Costs Per Year	Total Responses Per Year	Footnotes
\$0	8	c, h
\$0	5	c, h
\$0	0	c
\$0	13	c
\$0	0	
\$0	2	i
\$0	4	i
\$15	2	j
\$0	0	m
	275	
\$0	0	
\$0	0	k
\$0	0	k
\$0	2	j
\$0	0	
\$0	0	
\$0	0	
\$0	0	

its (Solids)

Total Non-Labor Costs Per Year	Total Responses Per Year	Footnotes
\$0	2	
\$2,833,136	277	

Table 2.B - Annual Burden and Cost of Recordkeeping and Reporting Requirements for the Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 2, Energy Recovery Un:

for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 2, Energy Recovery Units	(A) Respondent Hours per Occurrence (Technical hours)	Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence	(B) Number of Occurrences Per Respondent Per Year	(C) Hours Per Respondent Per Year (C=A x B)	(D) Number of Respondents Per Year (a)	(E) Technical Hours Per Year (CXD)	(F) Management Hours Per Year (E x 0.05)	(G) Clerical Hours Per Year (E x 0.1)	(H) Emission Testing Contractor Hours Per Year	Total Labor Costs Per Year (b)
Burden Item											
1. Applications	Not applicable										
2. Surveys and Studies	Not applicable										
3. Reporting Requirements											
A. Read and Understand Rule Requirements	1	0	\$0	1	1	0	0	0	0	0	\$0
B. Required Activities											
1) Initial stack test and report (PM, dioxins/furans, opacity, HCL, Cd, Pb, Hg, CO, NOx, and SO2 (as required))	Included in E.	varies	\$62,933	1	0	0	0	0	0	787	\$0
2) Annual stack test and test report (PM, HCL, Opacity, and SO2)	Included in E.	790	\$63,223	1	0	22	0	0	0	17,386	\$0
3) Operator training and qualification											
a) Establish and teach operator qualification course	64	0	\$0	1	64	0	0	0	0	0	\$0
b) Obtain operator qualification	72	0	\$0	1	72	0	0	0	0	0	\$0
c) Annual refresher course	12		\$0	1	12	13	156	8	16	0	\$21,253
d) Initial review of site-specific information	Included in a.										
e) Annual review of site-specific information	8	0	\$0	1	8	13	104	5	10	0	\$14,169
4) Establish operating parameters (maximum and minimum)	40	Included in B.1.	\$0	1	40	0	0	0	0	0	\$0
5) Continuous parameter monitoring (including CEMS)											
a) Initial costs	17	0	\$0	1	17	0	0	0	0	0	\$0
b) Annual costs	17	0	\$46,078	1	17	0	0	0	0	0	\$0
C. Create Information	Included in 3.B										
D. Gather Information	Included in 3.E										
E. Report Preparation											
1) Notification of initial performance test											
a) Pollutants, fugitive ash emissions	2	0	\$0	1	2	0	0	0	0	0	\$0
b) Fugitive Ash Emissions	1	0	\$0	1	1	0	0	0	0	0	\$0
2) Notification of initial CMS Demonstration	2	0	\$0	1	2	0	0	0	0	0	\$0
3) Report of initial performance test											
a) Pollutants, fugitive ash emissions	8	0	\$7.50	1	8	0	0	0	0	0	\$0
b) Fugitive Ash Emissions	2	0	\$0	1	2	0	0	0	0	0	\$0

Table 2.B - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 2, Energy Recovery Un

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence	(B) Number of Occurrences Per Respondent Per Year	(C) Hours Per Respondent Per Year (C=A x B)	(D) Number of Respondents Per Year (a)	(E) Technical Hours Per Year (CXD)	(F) Management Hours Per Year (E x 0.05)	(G) Clerical Hours Per Year (E x 0.1)	(H) Emission Testing Contractor Hours Per Year	Total Labor Costs Per Year (b)
4) Report of initial CMS demonstration	Included in 3.B.5										
5) Report prior to construction (includes siting analysis)	160	0	\$0	1	160	0	0	0	0	0	\$0
6) Report prior to initial start-up											
a) Without site specific parameter petition	6	0	\$0	1	6	0	0	0	0	0	\$0
b) With site specific parameter petition	14	0	\$0	1	14	0	0	0	0	0	\$0
7) Report of initial stack test	Included in 3.B.1										
8) Report established values for site-specific operating parameters	Included in 3.B.1	0	\$0	1	0	0	0	0	0	0	\$0
9) Waste management plan	160	0	\$0	1	160	0	0	0	0	0	\$0
10) Annual Report:											
a) Results of performance tests conducted during the year	40	0	\$7.50	1	40	22	880	44	88	0	\$119,891
11) Status report for operators that are off-site for more than 2 weeks	8	0	\$0	1	8	2	16	1	2	0	\$2,180
12) Corrective action summary for operators that are off-site for more than 2 weeks	8	0	\$0	2	16	2	32	2	3	0	\$4,360
13) Semiannual report of emissions/parameter exceedances	24	0	\$7.50	1	24	2	48	2	5	0	\$6,540
F. Affirmative Defense Claim	30	0	\$0	0	0	0	0	0	0	0	\$0
Reporting Subtotal							1,236	62	124	18,173	\$168,393
4. Recordkeeping Requirements											
A. Read Instructions	Included in 3.A										
B. Plan Activities	Not applicable										
C. Implement Activities	Not applicable										
D. Develop Record System	Not applicable										
E. Record Information											
1) Records of operating parameters	Included in 3.B.5	0	\$0	52	0	0	0	0	0	0	\$0
2) Records of periods for which minimum amount of data on operating parameters were not obtained	0.5	0	\$0	52	26	0	0	0	0	0	\$0
3) Records of malfunction of the unit	1.5	0	\$0	1	1.5	0	0	0	0	0	\$0
4) Records of exceedances of the operating parameters	1.5	0	\$0	1	1.5	2	3	0	0	0	\$409
5) Records of stack tests	Included in 3.E										
6) Records of siting analysis	Included in 3.E										
7) Records of persons who have reviewed operating procedures	1	0	\$0	1	1	13	13	1	1	0	\$1,771
8) Records of persons who have completed operator training	1	0	\$0	1	1	13	13	1	1	0	\$1,771
9) Records of persons who meet operator qualification criteria	1	0	\$0	1	1	13	13	1	1	0	\$1,771
10) Records of monitoring device calibration	Included in 3.B										
11) Records of site-specific documentation	24	0	\$0	1	24	13	312	16	31	0	\$42,507
F. Personnel Training	Included in 3.B										
G. Time for Audits	Not applicable										
Recordkeeping Subtotal							354	17.7	35.4	0	\$48,229

its (Solids)

Total Non-Labor Costs Per Year	Total Responses Per Year	Footnotes
\$0	0	c, d, l
\$0	0	c
\$1,390,913	22	e
\$0	0	c
\$0	0	c
\$0	13	e
\$0	13	e
\$0	0	c
\$433,400	0	c, f
\$1,013,723	0	e, g
\$0	0	
\$0	0	
\$0	0	
\$0	0	
\$0	0	

its (Solids)

Total Non-Labor Costs Per Year	Total Responses Per Year	Footnotes
\$0	0	c
\$0	0	c, h
\$0	0	c, h
\$0	0	c
\$0	0	c
\$165	22	
\$0	2	i
\$0	4	i
\$15	2	j
\$0	0	m
	78	
\$0	0	
\$0	0	k
\$0	0	k
\$0	2	j
\$0	13	
\$0	13	
\$0	13	
\$0	13	
\$0	54	

its (Solids)

Total Non-Labor Costs Per Year	Total Responses Per Year	Footnotes
\$2,838,216	132	

Table 1b - Annual Respondent Burden and Cost - Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units (40 CFR Part 60, Subpart DDDD) (Renewal) - Energy Recovery Units (Solids)

Burden item	(A) Person hours per occurrence	(B) No. of occurrences per respondent per year	(C) Person hours per respondent per year (C = A x B)	(D) Respondents per year ^a	(E) Technical person-hours per year (E = C x D)	(F) Management person hours per year (E x 0.05)	(G) Clerical person hours per year (E x 0.1)	(H) Total Cost Per year ^b
1. Applications	N/A							
2. Surveys and Studies	N/A							
3. Reporting Requirements								
A. Familiarization with Rule Requirements ^c	1	1	1	13	13	1	1	\$1,771.12
B. Required Activities								
1) Initial stack test and report (PM, dioxins/furans, opacity, HCl, Cd, Pb, Hg, CO, NOx, and SO ₂ (as required)) ^d	See 3.E.							
2) Annual stack test and test report (PM, HCl, Opacity, and Fugitive Ash) ^e	See 3.E.10							
3) Operator training and qualification								
a) Establish and teach operator qualification course ^f	64	1	64	0	0	0	0	\$0
b) Obtain operator qualification ^f	72	1	72	0	0	0	0	\$0
c) Annual refresher course ^g	12	1	12	13	156	7.8	15.6	\$21,253.44
d) Initial review of site-specific information	See 3.B.3.a.							
e) Annual review of site-specific information ^g	8	1	8	13	104	5.2	10.4	\$14,168.96
4) Establish operating parameters (maximum and minimum) ^d	40	1	40	0	0	0	0	\$0
5) Continuous parameter monitoring (including CEMS)								
a) Initial costs ^f	17	1	17	0	0	0	0	\$0
b) Annual costs ^g	17	1	17	0	0	0	0	\$0
C. Create Information	See 3.B							
D. Gather Information	See 3.E							
E. Report Preparation								
1) Notification of initial performance test ^h								
a) Pollutants, fugitive ash emissions	2	1	2	0	0	0	0	\$0
b) Fugitive Ash Emissions	1	1	1	0	0	0	0	\$0
2) Notification of initial CMS Demonstration ^h	2	1	2	0	0	0	0	\$0
3) Report of initial performance test ^h								
a) Pollutants, fugitive ash emissions	8	1	8	0	0	0	0	\$0
b) Fugitive Ash Emissions	2	1	2	0	0	0	0	\$0
4) Report of initial CMS demonstration ^h	See 3.B.5							
5) Report prior to construction (includes siting analysis) ^h	160	1	160	0	0	0	0	\$0
6) Report prior to initial start-up ^{h,i}								
a) Without site specific parameter petition	6	1	6	0	0	0	0	\$0

Testing, Or	
Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence
0	\$0
varies	\$62,933
790	\$63,223
0	\$0
0	\$0
	\$0
0	\$0
Included in 3.B.1.	\$0
0	\$0
0	\$46,078
0	\$0
0	\$7.50
0	\$0
0	\$0
0	\$0

Table 1b - Annual Respondent Burden and Cost - Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units (40 CFR Part 60, Subpart DDDD) (Renewal) - Energy Recovery Units (Solids)

Burden item	(A) Person hours per occurrence	(B) No. of occurrences per respondent per year	(C) Person hours per respondent per year (C = A x B)	(D) Respondents per year ^a	(E) Technical person-hours per year (E = C x D)	(F) Management person hours per year (E x 0.05)	(G) Clerical person hours per year (E x 0.1)	(H) Total Cost Per year ^b
b) With site specific parameter petition	14	1	14	0	0	0	0	\$0
7) Report of initial stack test ^b	See 3.B.1							
8) Report established values for site-specific operating parameters ^b	See 3.B	1	#VALUE!	0	#VALUE!	#VALUE!	#VALUE!	\$0
9) Waste management plan ^h	160	1	160	0	0	0	0	\$0
10) Report of results of annual performance test ^e	40	1	40	22	880	44	88	\$119,891.20
11) Status report for operators that are off-site for more than 2 weeks ⁱ	8	1	8	2.2	17.6	0.88	1.76	\$2,397.82
12) Corrective action summary for operators that are off-site for more than 2 weeks ⁱ	8	2	16	2.2	35.2	1.76	3.52	\$4,795.65
13) Semiannual report of emissions/parameter exceedances ^k	24	1	24	2.2	52.8	2.64	5.28	\$7,193.47
Subtotal for Reporting Requirements						1,447		\$171,472
4. Recordkeeping Requirements								
A. Familiarization with Rule Requirements	See 3.A							
B. Plan Activities	N/A							
C. Implement Activities	N/A							
D. Develop Record System	N/A							
E. Record Information								
1) Records of operating parameters	See 3.B.5.b	52	0	0	0	0	0	\$0
2) Records of periods for which minimum amount of data on operating parameters were not obtained ^l	0.5	52	26	0	0	0	0	\$0
3) Records of malfunction of the unit ^l	1.5	1	1.5	0	0	0	0	\$0
4) Records of exceedances of the operating parameters ^k	1.5	1	1.5	2.2	3.3	0.17	0.33	\$449.59
5) Records of stack tests	See 3.E							
6) Records of siting analysis	See 3.E							
7) Records of persons who have reviewed operating procedures	1	1	1	13	13	0.65	1.3	\$1,771.12
8) Records of persons who have completed operator training	1	1	1	13	13	0.65	1.3	\$1,771.12
9) Records of persons who meet operator qualification criteria	1	1	1	13	13	0.65	1.3	\$1,771.12
10) Records of monitoring device calibration	See 3.B							
11) Records of site-specific documentation	24	1	24	13	312	15.6	31.2	\$42,506.88
F. Personnel Training	See 3.B							

Testing, Or	
Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence
0	\$0
0	\$0
0	\$0
0	\$7.50
0	\$0
0	\$0
0	\$7.50
0	\$0
0	\$0
0	\$0
0	\$0
0	\$0
0	\$0

Table 1b - Annual Respondent Burden and Cost - Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units (40 CFR Part 60, Subpart DDDD) (Renewal) - Energy Recovery Units (Solids)

Burden item	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Person hours per occurrence	No. of occurrences per respondent per year	Person hours per respondent per year (C = A x B)	Respondents per year ^a	Technical person-hours per year (E = C x D)	Management person hours per year (E x 0.05)	Clerical person hours per year (E x 0.1)	Total Cost Per year ^b
G. Time for Audits	N/A							
Subtotal for Recordkeeping Requirements						407		\$48,270
Total Labor Burden and Costs (rounded) ^m						1,855		\$220,000
Total Capital and O&M Cost (rounded) ^m								\$2,400,000
GRAND TOTAL (rounded) ^m								\$2,620,000

Testing, Or	
Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence

Assumptions

Operation, and Maintenance Costs		
Emission Testing Contractor Hours Per Year	Total Non-Labor Costs Per Year	Total Responses Per Year
0	\$0	0
0	\$0	0
0	\$1,390,913	0
0	\$0	0
0	\$0	0
0	\$0	0
0	\$0	0
0	\$0	0
0	\$0	0
0	\$1,013,723	0
0	\$0	0
0	\$0	0
0	\$0	0
0	\$0	0
0	\$0	0
0	\$0	0
0	\$0	0

Operation, and Maintenance Costs		
Emission Testing Contractor Hours Per Year	Total Non-Labor Costs Per Year	Total Responses Per Year
0	\$0	0
0	\$0	0
0	\$0	0
0	\$165	22
0	\$0	2.2
0	\$0	4.4
0	\$17	2.2
0	\$0	0
0	\$0	0
0	\$0	0
0	\$0	0
0	\$0	0
0	\$0	0
0	\$0	0
0	\$0	0

Operation, and Maintenance Costs		
Emission Testing Contractor Hours Per Year	Total Non-Labor Costs Per Year	Total Responses Per Year
	\$2,400,000	

Table 3.A - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 1, Small Remote Inc.

for Existing Stationary Sources: Commercial and Industrial Solid (H) (H) Total Labor Costs	(A) Respondent Hours per Occurrence (Technical hours)	Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence	(B) Number of Occurrences Per Respondent Per Year	(C) Hours Per Respondent Per Year (C=A x B)	(D) Number of Respondents Per Year (a)	(E) Technical Hours Per Year (CXD)	(F) Management Hours Per Year (E x 0.05)	(G) Clerical Hours Per Year (E x 0.1)	(H) Emission Testing Contractor Hours Per Year	Total Labor Costs Per Year (b)
Burden Item											
1. Applications	Not applicable										
2. Surveys and Studies	Not applicable										
3. Reporting Requirements											
A. Read and Understand Rule Requirements	1	0	\$100	1	1	26	26	1	3	0	\$3,542
B. Required Activities											
1) Initial stack test and report (PM, dioxins/furans, opacity, HCl, Cd, Pb, Hg, CO, NOx, and SO2 (as required))	Included in E.	varies	\$62,933	1	0	30	0	0	0	787	\$0
2) Annual stack test and test report (PM, HCl, Opacity, and Fu	Included in E.	790	\$63,223	1	0	0	0	0	0	0	\$0
3) Operator training and qualification											
a) Establish and teach operator qualification course	64	0	\$0	1	64	26	1,664	83	166	0	\$226,703
b) Obtain operator qualification	72	0	\$0	1	72	26	1,872	94	187	0	\$255,041
c) Annual refresher course	12		\$0	1	12	0	0	0	0	0	\$0
d) Initial review of site-specific information	Included in a.										
e) Annual review of site-specific information	8	0	\$0	1	8	0	0	0	0	0	\$0
4) Establish operating parameters (maximum and minimum)	40	Included in B.1.	\$0	1	40	30	1,200	60	120	0	\$163,488
5) Continuous parameter monitoring (including CEMS)											
a) Initial costs	17	0	\$2,880	1	17	30	510	26	51	0	\$69,482
b) Annual costs	17	0	\$5,871	1	17	30	510	26	51	0	\$69,482
C. Create Information	Included in 3.B										
D. Gather Information	Included in 3.E										
E. Report Preparation											
1) Notification of initial performance test											
a) Pollutants, fugitive ash emissions	2	0	\$0	1	2	30	60	3	6	0	\$8,174
b) Fugitive Ash Emissions	1	0	\$0	1	1	30	30	2	3	0	\$4,087
2) Notification of initial CMS Demonstration	2	0	\$0	1	2	26	52	3	5	0	\$7,084
3) Report of initial performance test											
a) Pollutants, fugitive ash emissions	8	0	\$7.50	1	8	30	240	12	24	0	\$32,698
b) Fugitive Ash Emissions	2	0	\$0	1	2	30	60	3	6	0	\$8,174
4) Report of initial CMS demonstration	Included in 3.B.5										
5) Report prior to construction (includes siting analysis)	160	0	\$0	1	160	26	4,160	208	416	0	\$566,758

Table 3.A - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 1, Small Remote Inc.

for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 1, Small Remote Inc.	(A) Respondent Hours per Occurrence (Technical hours)	Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence	(B) Number of Occurrences Per Respondent Per Year	(C) Hours Per Respondent Per Year (C=A x B)	(D) Number of Respondents Per Year (a)	(E) Technical Hours Per Year (CXD)	(F) Management Hours Per Year (E x 0.05)	(G) Clerical Hours Per Year (E x 0.1)	(H) Emission Testing Contractor Hours Per Year	Total Labor Costs Per Year (b)
Burden Item											
6) Report prior to initial start-up											
a) Without site specific parameter petition	6	0	\$0	1	6	17	102	5	10	0	\$13,896
b) With site specific parameter petition	14	0	\$0	1	14	9	126	6	13	0	\$17,166
7) Report of initial stack test	Included in 3.B.1										
8) Report established values for site-specific operating parameters	Included in 3.B	0	\$0	1	0	0	0	0	0	0	\$0
9) Waste management plan	160	0	\$0	1	160	26	4,160	208	416	0	\$566,758
10) Annual Report:											
a) Results of performance tests conducted during the year	40	0	\$7.50	1	40	0	0	0	0	0	\$0
11) Status report for operators that are off-site for more than 2 weeks	8	0	\$0	1	8	3	24	1	2	0	\$3,270
12) Corrective action summary for operators that are off-site for more than 2 weeks	8	0	\$0	2	16	3	48	2	5	0	\$6,540
13) Semiannual report of emissions/parameter exceedances	24	0	\$7.50	1	24	3	72	4	7	0	\$9,809
F. Affirmative Defense Claim	30	0	\$0	0	0	0	0	0	0	0	\$0
Reporting Subtotal							14,916	746	1,492	787	\$2,032,156
4. Recordkeeping Requirements											
A. Read Instructions	Included in 3.A										
B. Plan Activities	Not applicable										
C. Implement Activities	Not applicable										
D. Develop Record System	Not applicable										
E. Record Information											
1) Records of operating parameters	Included in 3.B.5.b	0	\$0	52	0	0	0	0	0	0	\$0
2) Records of periods for which minimum amount of data on operating parameters were not obtained	0.5	0	\$0	52	26	0	0	0	0	0	\$0
3) Records of malfunction of the unit	1.5	0	\$0	1	1.5	0	0	0	0	0	\$0
4) Records of exceedances of the operating parameters	1.5	0	\$0	1	1.5	3	5	0	0	0	\$613
5) Records of stack tests	Included in 3.E										
6) Records of siting analysis	Included in 3.E										
7) Records of persons who have reviewed operating procedures	1	0	\$0	1	1	0	0	0	0	0	\$0
8) Records of persons who have completed operator training	1	0	\$0	1	1	0	0	0	0	0	\$0
9) Records of persons who meet operator qualification criteria	1	0	\$0	1	1	0	0	0	0	0	\$0
10) Records of monitoring device calibration	Included in 3.B										
11) Records of site-specific documentation	24	0	\$0	1	24	0	0	0	0	0	\$0

Table 3.A - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 1, Small Remote Inc.

for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 1, Small Remote Inc.	(A) Respondent Hours per Occurrence (Technical hours)	Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence	(B) Number of Occurrences Per Respondent Per Year	(C) Hours Per Respondent Per Year (C=A x B)	(D) Number of Respondents Per Year (a)	(E) Technical Hours Per Year (CXD)	(F) Management Hours Per Year (E x 0.05)	(G) Clerical Hours Per Year (E x 0.1)	(H) Emission Testing Contractor Hours Per Year	Total Labor Costs Per Year (b)
Burden Item											
F. Personnel Training	Included in 3.B										
G. Time for Audits	Not applicable										
<i>Recordkeeping Subtotal</i>							4.5	0.225	0.45	0	\$613
TOTAL:							14,921	746	1,492	787	\$2,032,769
							Total Hours	Labor	Non-Labor	Total	
							Summary of Respondent Burden	17,159	\$2,032,769	\$2,153,369	\$4,186,138
							Annualized Capital and Startup			\$1,977,000	\$1,977,000
							O & M Summary			\$176,121	\$176,121

FOOTNOTES

- ^a Based on the total number of existing units expected to continue operating once the guidelines become effective.
- ^b Costs are based on the following hourly rates: technical at \$34.60, management at \$82.23, clerical at \$22.32, and testing contractor at \$80.
- ^c One-time only costs.
- ^d Cost incurred by a facility regardless of the number of affected units at the plant.
- ^e Annual cost. Annual costs are not incurred until the second year of operation.
- ^f Based on the sum of the annualized capital costs for each monitoring system required for incinerators.
- ^g Based on the sum of the calculated annual cost for each monitoring system required for incinerators.
- ^h Assumed that one-third of the facilities will petition for site-specific parameters.
- ⁱ Assumed that 10 percent of the facilities would not have a qualified operator available for more than two weeks at least once a year. Assumed that this required only two corrective action summaries.
- ^j Assumed that 10 percent of the facilities would have an exceedance during the year.
- ^k Standards apply at all times under the newly proposed regulation. Therefore no periods of unobtained data or malfunction periods are expected.
- ^l Assumed \$100 for purchase of filing cabinet to house copy of rule, records and report copies.

Generators

Total Non-Labor Costs Per Year	Total Responses Per Year	Footnotes
\$2,600	26	c, d, l
\$1,888,000	30	c
\$0	0	e
\$0	26	c
\$0	26	c
\$0	0	e
\$0	0	e
\$0	30	c
\$86,400	30	c, f
\$176,121	30	e, g
\$0	30	
\$0	30	
\$0	26	
\$225	30	
\$0	30	
\$0	26	c

inertors

Total Non-Labor Costs Per Year	Total Responses Per Year	Footnotes
\$0	17	c, h
\$0	9	c, h
\$0	0	c
\$0	26	c
\$0	0	
\$0	3	i
\$0	6	i
\$23	3	j
\$0	0	m
	434	
\$0	0	
\$0	0	k
\$0	0	k
\$0	3	j
\$0	0	
\$0	0	
\$0	0	
\$0	0	

inertors

Total Non-Labor Costs Per Year	Total Responses Per Year	Footnotes
\$0	3	
\$2,153,369	437	

Table 3.B - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 2, Small Remote Inc.

(H) Total Labor Costs Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence	(B) Number of Occurrences Per Respondent Per Year	(C) Hours Per Respondent Per Year (C=A x B)	(D) Number of Respondents Per Year (a)	(E) Technical Hours Per Year (CXD)	(F) Management Hours Per Year (E x 0.05)	(G) Clerical Hours Per Year (E x 0.1)	(H) Emission Testing Contractor Hours Per Year	Total Labor Costs Per Year (b)
1. Applications	Not applicable										
2. Surveys and Studies	Not applicable										
3. Reporting Requirements											
A. Read and Understand Rule Requirements	1	0	\$0	1	1	0	0	0	0	0	\$0
B. Required Activities											
1) Initial stack test and report (PM, dioxins/furans, opacity, HCl, Cd, Pb, Hg, CO, NOx, and SO2 (as required))	Included in E.	varies	\$62,933	1	0	0	0	0	0	787	\$0
2) Annual stack test and test report (PM, HCl, Opacity, and	Included in E.	790	\$63,223	1	0	30	0	0	0	23,709	\$0
3) Operator training and qualification											
a) Establish and teach operator qualification course	64	0	\$0	1	64	0	0	0	0	0	\$0
b) Obtain operator qualification	72	0	\$0	1	72	0	0	0	0	0	\$0
c) Annual refresher course	12		\$0	1	12	26	312	16	31	0	\$42,507
d) Initial review of site-specific information	Included in a.										
e) Annual review of site-specific information	8	0	\$0	1	8	26	208	10	21	0	\$28,338
4) Establish operating parameters (maximum and minimum)	40	Included in B.1.	\$0	1	40	0	0	0	0	0	\$0
5) Continuous parameter monitoring (including CEMS)											
a) Initial costs	17	0	\$86,400	1	17	0	0	0	0	0	\$0
b) Annual costs	17	0	\$176,121	1	17	0	0	0	0	0	\$0
C. Create Information	Included in 3.B										
D. Gather Information	Included in 3.E										
E. Report Preparation											
1) Notification of initial performance test											
a) Pollutants, fugitive ash emissions	2	0	\$0	1	2	0	0	0	0	0	\$0
b) Fugitive Ash Emissions	1	0	\$0	1	1	0	0	0	0	0	\$0
2) Notification of initial CMS Demonstration	2	0	\$0	1	2	0	0	0	0	0	\$0
3) Report of initial performance test											
a) Pollutants, fugitive ash emissions	8	0	\$7.50	1	8	0	0	0	0	0	\$0
b) Fugitive Ash Emissions	2	0	\$0	1	2	0	0	0	0	0	\$0

Table 3.B - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 2, Small Remote Inc.

(H) Total Labor Costs	(A) Respondent Hours per Occurrence (Technical hours)	Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence	(B) Number of Occurrences Per Respondent Per Year	(C) Hours Per Respondent Per Year (C=A x B)	(D) Number of Respondents Per Year (a)	(E) Technical Hours Per Year (CXD)	(F) Management Hours Per Year (E x 0.05)	(G) Clerical Hours Per Year (E x 0.1)	(H) Emission Testing Contractor Hours Per Year	Total Labor Costs Per Year (b)
Burden Item											
4) Report of initial CMS demonstration	Included in 3.B.5										
5) Report prior to construction (includes siting analysis)	160	0	\$0	1	160	0	0	0	0	0	\$0
6) Report prior to initial start-up											
a) Without site specific parameter petition	6	0	\$0	1	6	0	0	0	0	0	\$0
b) With site specific parameter petition	14	0	\$0	1	14	0	0	0	0	0	\$0
7) Report of initial stack test	Included in 3.B.1										
8) Report established values for site-specific operating parameters	Included in 3.B	0	\$0	1	0	0	0	0	0	0	\$0
9) Waste management plan	160	0	\$0	1	160	0	0	0	0	0	\$0
10) Annual Report:											
a) Results of performance tests conducted during the year	40	0	\$7.50	1	40	30	1,200	60	120	0	\$163,488
11) Status report for operators that are off-site for more than 2 weeks	8	0	\$0	1	8	3	24	1	2	0	\$3,270
12) Corrective action summary for operators that are off-site for more than 2 weeks	8	0	\$0	2	16	3	48	2	5	0	\$6,540
13) Semiannual report of emissions/parameter exceedances	24	0	\$7.50	1	24	3	72	4	7	0	\$9,809
F. Affirmative Defense Claim	30	0	\$0	0	0	0	0	0	0	0	\$0
Reporting Subtotal							1,864	93	186	24,495	\$253,951
4. Recordkeeping Requirements											
A. Read Instructions	Included in 3.A										
B. Plan Activities	Not applicable										
C. Implement Activities	Not applicable										
D. Develop Record System	Not applicable										
E. Record Information											
1) Records of operating parameters	Included in 3.B.5.	0	\$0	52	0	0	0	0	0	0	\$0
2) Records of periods for which minimum amount of data on operating parameters were not obtained	0.5	0	\$0	52	26	0	0	0	0	0	\$0
3) Records of malfunction of the unit	1.5	0	\$0	1	1.5	0	0	0	0	0	\$0
4) Records of exceedances of the operating parameters	1.5	0	\$0	1	1.5	3	5	0	0	0	\$613
5) Records of stack tests	Included in 3.E										
6) Records of siting analysis	Included in 3.E										
7) Records of persons who have reviewed operating procedures	1	0	\$0	1	1	26	26	1	3	0	\$3,542
8) Records of persons who have completed operator training	1	0	\$0	1	1	26	26	1	3	0	\$3,542
9) Records of persons who meet operator qualification criteria	1	0	\$0	1	1	26	26	1	3	0	\$3,542
10) Records of monitoring device calibration	Included in 3.B										
11) Records of site-specific documentation	24	0	\$0	1	24	26	624	31	62	0	\$85,014

Table 3.B - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 2, Small Remote Inc.

(H) Total Labor Costs Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence	(B) Number of Occurrences Per Respondent Per Year	(C) Hours Per Respondent Per Year (C=A x B)	(D) Number of Respondents Per Year (a)	(E) Technical Hours Per Year (CXD)	(F) Management Hours Per Year (E x 0.05)	(G) Clerical Hours Per Year (E x 0.1)	(H) Emission Testing Contractor Hours Per Year	Total Labor Costs Per Year (b)	
F. Personnel Training	Included in 3.B											
G. Time for Audits	Not applicable											
<i>Recordkeeping Subtotal</i>							706.5	35.325	70.65	0	\$96,254	
TOTAL:							2,571	129	257	24,495	\$350,205	
							Total Hours		Labor	Non-Labor	Total	
							Summary of Respondent Burden		\$2,956	\$350,205	\$2,159,469	\$2,509,674
							Annualized Capital and Startup				\$86,400	\$86,400
							O & M Summary				\$176,121	\$176,121

FOOTNOTES

- ^a Based on the total number of existing units expected to continue operating once the guidelines become effective.
- ^b Costs are based on the following hourly rates: technical at \$34.60, management at \$82.23, clerical at \$22.32, and testing contractor at \$80.
- ^c One-time only costs.
- ^d Cost incurred by a facility regardless of the number of affected units at the plant.
- ^e Annual cost. Annual costs are not incurred until the second year of operation.
- ^f Based on the sum of the annualized capital costs for each monitoring system required for incinerators.
- ^g Based on the sum of the calculated annual cost for each monitoring system required for incinerators.
- ^h Assumed that one-third of the facilities will petition for site-specific parameters.
- ⁱ Assumed that 10 percent of the facilities would not have a qualified operator available for more than two weeks at least once a year. Assumed that this required only two corrective action summaries.
- ^j Assumed that 10 percent of the facilities would have an exceedance during the year.
- ^k Standards apply at all times under the newly proposed regulation. Therefore no periods of unobtained data or malfunction periods are expected.
- ^l Assumed \$100 for purchase of filing cabinet to house copy of rule, records and report copies.

inertors

Total Non-Labor Costs Per Year	Total Responses Per Year	Footnotes
\$0	0	c, d, l
\$0	0	c
\$1,896,700	30	e
\$0	0	c
\$0	0	c
\$0	26	e
\$0	26	e
\$0	0	c
\$86,400	0	c, f
\$176,121	0	e, g
\$0	0	
\$0	0	
\$0	0	
\$0	0	
\$0	0	

inertors

Total Non-Labor Costs Per Year	Total Responses Per Year	Footnotes
\$0	0	c
\$0	0	c, h
\$0	0	c, h
\$0	0	c
\$0	0	c
\$225	30	
\$0	3	i
\$0	6	i
\$23	3	j
\$0	0	m
	124	
\$0	0	
\$0	0	k
\$0	0	k
\$0	3	j
\$0	26	
\$0	26	
\$0	26	
\$0	26	

inertors

Total Non-Labor Costs Per Year	Total Responses Per Year	Footnotes
\$0	107	
\$2,159,469	231	

Table 1c - Annual Respondent Burden and Cost - Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units (40 CFR Part 60, Subpart DDDD) (Renewal) - Small Remote Incinerators

Burden item	(A) Person hours per occurrence	(B) No. of occurrences per respondent per year	(C) Person hours per respondent per year (C = A x B)	(D) Respondents per year ^a	(E) Technical person-hours per year (E = C x D)	(F) Management person hours per year (E x 0.05)	(G) Clerical person hours per year (E x 0.1)	(H) Total Cost Per year ^b	Emission Testing Contractor Hours Per Occurrence
1. Applications	N/A								
2. Surveys and Studies	N/A								
3. Reporting Requirements									
A. Familiarization with Rule Requirements ^c	1	1	1	26	26	1	3	\$3,542.24	0
B. Required Activities									
1) Initial stack test and report (PM, dioxins/furans, opacity, HCl, Cd, Pb, Hg, CO, NOx, and SO2 (as required)) ^d	See 3.E.								varies
2) Annual stack test and test report (PM, HCl, Opacity, and Fugitive Ash) ^e	See 3.E.10								790
3) Operator training and qualification									
a) Establish and teach operator qualification course ^f	64	1	64	0	0	0	0	\$0	0
b) Obtain operator qualification ^f	72	1	72	0	0	0	0	\$0	0
c) Annual refresher course ^g	12	1	12	26	312	15.6	31.2	\$42,506.88	
d) Initial review of site-specific information	See 3.B.3.a.								
e) Annual review of site-specific information ^g	8	1	8	26	208	10.4	20.8	\$28,337.92	0
4) Establish operating parameters (maximum and minimum) ^d	40	1	40	0	0	0	0	\$0	Included in 3.B.1.
5) Continuous parameter monitoring (including CEMS)									
a) Initial costs ^f	17	1	17	0	0	0	0	\$0	0
b) Annual costs ^g	17	1	17	0	0	0	0	\$0	0
C. Create Information	See 3.B								
D. Gather Information	See 3.E								
E. Report Preparation									
1) Notification of initial performance test ^h									
a) Pollutants, fugitive ash emissions	2	1	2	0	0	0	0	\$0	0
b) Fugitive Ash Emissions	1	1	1	0	0	0	0	\$0	0
2) Notification of initial CMS Demonstration ^h	2	1	2	0	0	0	0	\$0	0
3) Report of initial performance test ^h									
a) Pollutants, fugitive ash emissions	8	1	8	0	0	0	0	\$0	0
b) Fugitive Ash Emissions	2	1	2	0	0	0	0	\$0	0
4) Report of initial CMS demonstration ^h	See 3.B.5								
5) Report prior to construction (includes siting analysis) ^h	160	1	160	0	0	0	0	\$0	0
6) Report prior to initial start-up ^{h,1}									
a) Without site specific parameter petition	6	1	6	0	0	0	0	\$0	0
b) With site specific parameter petition	14	1	14	0	0	0	0	\$0	0

Table 1c - Annual Respondent Burden and Cost - Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units (40 CFR Part 60, Subpart DDDD) (Renewal) - Small Remote Incinerators

Burden item	(A) Person hours per occurrence	(B) No. of occurrences per respondent per year	(C) Person hours per respondent per year (C = A x B)	(D) Respondents per year ^a	(E) Technical person-hours per year (E = C x D)	(F) Management person hours per year (E x 0.05)	(G) Clerical person hours per year (E x 0.1)	(H) Total Cost Per year ^b	Emission Testing Contractor Hours Per Occurrence
7) Report of initial stack test ^h	See 3.B.1								
8) Report established values for site-specific operating parameters ^h	See 3.B	1	#VALUE!	0	#VALUE!	#VALUE!	#VALUE!	\$0	0
9) Waste management plan ^h	160	1	160	0	0	0	0	\$0	0
10) Report of results of annual performance test ^e	40	1	40	30	1,200	60	120	\$163,488.00	0
11) Status report for operators that are off-site for more than 2 weeks ^l	8	1	8	3	24.0	1.20	2.40	\$3,269.76	0
12) Corrective action summary for operators that are off-site for more than 2 weeks ^l	8	2	16	3	48.0	2.40	4.80	\$6,539.52	0
13) Semiannual report of emissions/parameter exceedances ^k	24	1	24	3	72.0	3.60	7.20	\$9,809.28	0
Subtotal for Reporting Requirements					2,174			\$257,494	
4. Recordkeeping Requirements									
A. Familiarization with Rule Requirements	See 3.A								
B. Plan Activities	N/A								
C. Implement Activities	N/A								
D. Develop Record System	N/A								
E. Record Information									
1) Records of operating parameters	See 3.B.5.b	52	0	0	0	0	0	\$0	0
2) Records of periods for which minimum amount of data on operating parameters were not obtained ^l	0.5	52	26	0	0	0	0	\$0	0
3) Records of malfunction of the unit ^l	1.5	1	1.5	0	0	0	0	\$0	0
4) Records of exceedances of the operating parameters ^k	1.5	1	1.5	3	4.5	0.23	0.45	\$613.08	0
5) Records of stack tests	See 3.E								
6) Records of siting analysis	See 3.E								
7) Records of persons who have reviewed operating procedures	1	1	1	26	26	1.3	2.6	\$3,542.24	0
8) Records of persons who have completed operator training	1	1	1	26	26	1.3	2.6	\$3,542.24	0
9) Records of persons who meet operator qualification criteria	1	1	1	26	26	1.3	2.6	\$3,542.24	0
10) Records of monitoring device calibration	See 3.B								
11) Records of site-specific documentation	24	1	24	26	624	31.2	62.4	\$85,013.76	0
F. Personnel Training	See 3.B								
G. Time for Audits	N/A								

Table 1c - Annual Respondent Burden and Cost - Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units (40 CFR Part 60, Subpart DDDD) (Renewal) - Small Remote Incinerators

Burden item	(A) Person hours per occurrence	(B) No. of occurrences per respondent per year	(C) Person hours per respondent per year (C = A x B)	(D) Respondents per year ^a	(E) Technical person-hours per year (E = C x D)	(F) Management person hours per year (E x 0.05)	(G) Clerical person hours per year (E x 0.1)	(H) Total Cost Per year ^b
<i>Subtotal for Recordkeeping Requirements</i>						812		\$96,254
Total Labor Burden and Costs (rounded) ^m						2,986		\$354,000
Total Capital and O&M Cost (rounded) ^m								\$2,070,000
GRAND TOTAL (rounded) ^m								\$2,420,000

Emission Testing Contractor Hours Per Occurrence

Assumptions

Testing, Operation, and Maintenance Costs			
Non-Labor Costs Per Occurrence	Emission Testing Contractor Hours Per Year	Total Non-Labor Costs Per Year	Total Responses Per Year
\$0	0	\$0	0
\$62,933	0	\$0	0
\$63,223	0	\$1,896,700	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$5,871	0	\$176,121	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$7.50	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0

Testing, Operation, and Maintenance Costs			
Non-Labor Costs Per Occurrence	Emission Testing Contractor Hours Per Year	Total Non- Labor Costs Per Year	Total Responses Per Year
\$0	0	\$0	0
\$0	0	\$0	0
\$7.50	0	\$225	30
\$0	0	\$0	3.0
\$0	0	\$0	6.0
\$7.50	0	\$23	3.0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0

Testing, Operation, and Maintenance Costs			
Non-Labor Costs Per Occurrence	Emission Testing Contractor Hours Per Year	Total Non- Labor Costs Per Year	Total Responses Per Year
		\$2,070,000	

Table 4.A - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 1, Energy Recovery Units

for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 1, Energy Recovery Units	(A) Respondent Hours per Occurrence (Technical hours)	Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence	(B) Number of Occurrences Per Respondent Per Year	(C) Hours Per Respondent Per Year (C=A x B)	(D) Number of Respondents Per Year (a)	(E) Technical Hours Per Year (CXD)	(F) Management Hours Per Year (E x 0.05)	(G) Clerical Hours Per Year (E x 0.1)	(H) Emission Testing Contractor Hours Per Year	Total Labor Costs Per Year (b)
Burden Item											
1. Applications	Not applicable										
2. Surveys and Studies	Not applicable										
3. Reporting Requirements											
A. Read and Understand Rule Requirements	1	0	\$100	1	1	4	4	0	0	0	\$545
B. Required Activities											
1) Initial stack test and report (PM, dioxins/furans, opacity, HCl, Cd, Pb, Hg, CO, NOx, and SO2 (as required))	Included in E.	varies	\$62,933	1	0	6	0	0	0	787	\$0
2) Annual stack test and test report (PM, HCl, Opacity, and Fugitive Ash)	Included in E.	790	\$63,223	1	0	0	0	0	0	0	\$0
3) Operator training and qualification											
a) Establish and teach operator qualification course	64	0	\$0	1	64	4	256	13	26	0	\$34,877
b) Obtain operator qualification	72	0	\$0	1	72	4	288	14	29	0	\$39,237
c) Annual refresher course	12		\$0	1	12	0	0	0	0	0	\$0
d) Initial review of site-specific information	Included in a.										
e) Annual review of site-specific information	8	0	\$0	1	8	0	0	0	0	0	\$0
4) Establish operating parameters (maximum and minimum)	40	Included in B.1.	\$0	1	40	6	240	12	24	0	\$32,698
5) Continuous parameter monitoring (including CEMS)											
a) Initial costs	17	0	\$18,833	1	17	6	102	5	10	0	\$13,896
b) Annual costs	17	0	\$10,683	1	17	6	102	5	10	0	\$13,896
C. Create Information	Included in 3.B										
D. Gather Information	Included in 3.E										
E. Report Preparation											
1) Notification of initial performance test											
a) Pollutants, fugitive ash emissions	2	0	\$0	1	2	6	12	1	1	0	\$1,635
b) Fugitive Ash Emissions	1	0	\$0	1	1	6	6	0	1	0	\$817
2) Notification of initial CMS Demonstration	2	0	\$0	1	2	4	8	0	1	0	\$1,090
3) Report of initial performance test											
a) Pollutants, fugitive ash emissions	8	0	\$7.50	1	8	6	48	2	5	0	\$6,540
b) Fugitive Ash Emissions	2	0	\$0	1	2	6	12	1	1	0	\$1,635
4) Report of initial CMS demonstration	Included in 3.B.5										
5) Report prior to construction (includes siting analysis)	160	0	\$0	1	160	4	640	32	64	0	\$87,194
6) Report prior to initial start-up											
a) Without site specific parameter petition	6	0	\$0	1	6	2	12	1	1	0	\$1,635
b) With site specific parameter petition	14	0	\$0	1	14	2	28	1	3	0	\$3,815

Table 4.A - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 1, Energy Recovery Units

for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units (H) (H) Total Labor Costs	(A) Respondent Hours per Occurrence (Technical hours)	Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence	(B) Number of Occurrences Per Respondent Per Year	(C) Hours Per Respondent Per Year (C=A x B)	(D) Number of Respondents Per Year (a)	(E) Technical Hours Per Year (CXD)	(F) Management Hours Per Year (E x 0.05)	(G) Clerical Hours Per Year (E x 0.1)	(H) Emission Testing Contractor Hours Per Year	Total Labor Costs Per Year (b)
Burden Item											
7) Report of initial stack test	Included in 3.B.1										
8) Report established values for site-specific operating parameters	Included in 3.B	0	\$0	1	0	0	0	0	0	0	\$0
9) Waste management plan	160	0	\$0	1	160	4	640	32	64	0	\$87,194
10) Annual Report:											
a) Results of performance tests conducted during the year	40	0	\$7.50	1	40	0	0	0	0	0	\$0
11) Status report for operators that are off-site for more than 2 weeks	8	0	\$0	1	8	1	8	0	1	0	\$1,090
12) Corrective action summary for operators that are off-site for more than 2 weeks	8	0	\$0	2	16	1	16	1	2	0	\$2,180
13) Semiannual report of emissions/parameter exceedances	24	0	\$7.50	1	24	1	24	1	2	0	\$3,270
F. Affirmative Defense Claim	30	0	\$0	0	0	0	0	0	0	0	\$0
<i>Reporting Subtotal</i>							2,446	122	245	787	\$333,243
4. Recordkeeping Requirements											
A. Read Instructions	Included in 3.A										
B. Plan Activities	Not applicable										
C. Implement Activities	Not applicable										
D. Develop Record System	Not applicable										
E. Record Information											
1) Records of operating parameters	Included in 3.B.5.b	0	\$0	52	0	0	0	0	0	0	\$0
2) Records of periods for which minimum amount of data on operating parameters were not obtained	0.5	0	\$0	52	26	0	0	0	0	0	\$0
3) Records of malfunction of the unit	1.5	0	\$0	1	1.5	0	0	0	0	0	\$0
4) Records of exceedances of the operating parameters	1.5	0	\$0	1	1.5	1	2	0	0	0	\$204
5) Records of stack tests	Included in 3.E										
6) Records of siting analysis	Included in 3.E										
7) Records of persons who have reviewed operating procedures	1	0	\$0	1	1	0	0	0	0	0	\$0
8) Records of persons who have completed operator training	1	0	\$0	1	1	0	0	0	0	0	\$0
9) Records of persons who meet operator qualification criteria	1	0	\$0	1	1	0	0	0	0	0	\$0
10) Records of monitoring device calibration	Included in 3.B										
11) Records of site-specific documentation	24	0	\$0	1	24	0	0	0	0	0	\$0

Table 4.A - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 1, Energy Recovery Units

for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 1, Energy Recovery Units	(A) Respondent Hours per Occurrence (Technical hours)	Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence	(B) Number of Occurrences Per Respondent Per Year	(C) Hours Per Respondent Per Year (C=A x B)	(D) Number of Respondents Per Year (a)	(E) Technical Hours Per Year (CXD)	(F) Management Hours Per Year (E x 0.05)	(G) Clerical Hours Per Year (E x 0.1)	(H) Emission Testing Contractor Hours Per Year	Total Labor Costs Per Year (b)
Burden Item											
F. Personnel Training	Included in 3.B										
G. Time for Audits	Not applicable										
<i>Recordkeeping Subtotal</i>							1.5	0.075	0.15	0	\$204
TOTAL:							2,448	122	245	787	\$333,447
							Total Hours		Labor	Non-Labor	Total
							Summary of Respondent Burden	2,815	\$333,447	\$555,153	\$888,600
							Annualized Capital and Startup			\$491,000	\$491,000
							O & M Summary			\$64,100	\$64,100

FOOTNOTES

- ^a Based on the total number of existing units expected to continue operating once the guidelines become effective.
- ^b Costs are based on the following hourly rates: technical at \$34.60, management at \$82.23, clerical at \$22.32, and testing contractor at \$80.
- ^c One-time only costs.
- ^d Cost incurred by a facility regardless of the number of affected units at the plant.
- ^e Annual cost. Annual costs are not incurred until the second year of operation.
- ^f Based on the sum of the annualized capital costs for each monitoring system required for incinerators.
- ^g Based on the sum of the calculated annual cost for each monitoring system required for incinerators.
- ^h Assumed that one-third of the facilities will petition for site-specific parameters.
- ⁱ Assumed that 10 percent of the facilities would not have a qualified operator available for more than two weeks at least once a year. Assumed that this required only two corrective action summaries.
- ^j Assumed that 10 percent of the facilities would have an exceedance during the year.
- ^k Standards apply at all times under the newly proposed regulation. Therefore no periods of unobtained data or malfunction periods are expected.
- ^l Assumed \$100 for purchase of filing cabinet to house copy of rule, records and report copies.

(Liquid/Gas)

Total Non-Labor Costs Per Year	Total Responses Per Year	Footnotes
\$400	4	c,d,l
\$377,600	6	c
\$0	0	e
\$0	4	c
\$0	4	c
\$0	0	e
\$0	0	e
\$0	6	c
\$113,000	6	f
\$64,100	6	e,g
\$0	6	
\$0	6	
\$0	4	
\$45	6	
\$0	6	
\$0	4	c
\$0	2	c,h
\$0	2	c,h

(Liquid/Gas)

Total Non-Labor Costs Per Year	Total Responses Per Year	Footnotes
\$0	0	c
\$0	4	c
\$0	0	
\$0	1	i
\$0	2	i
\$8	1	j
\$0	0	m
	80	
\$0	0	
\$0	0	k
\$0	0	k
\$0	1	j
\$0	0	
\$0	0	
\$0	0	
\$0	0	

(Liquid/Gas)

Total Non-Labor Costs Per Year	Total Responses Per Year	Footnotes
\$0	1	
\$555,153	81	

Table 4.B - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 2, Energy Recovery Units

for for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 2, Energy Recovery Units (H) (H) Total Labor Costs	(A) Respondent Hours per Occurrence (Technical hours)	Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence	(B) Number of Occurrences Per Respondent Per Year	(C) Hours Per Respondent Per Year (C=A x B)	(D) Number of Respondents Per Year (a)	(E) Technical Hours Per Year (CXD)	(F) Management Hours Per Year (E x 0.05)	(G) Clerical Hours Per Year (E x 0.1)	(H) Emission Testing Contractor Hours Per Year	Total Labor Costs Per Year (b)
Burden Item											
1. Applications	Not applicable										
2. Surveys and Studies	Not applicable										
3. Reporting Requirements											
A. Read and Understand Rule Requirements	1	0	\$0	1	1	0	0	0	0	0	\$0
B. Required Activities											
1) Initial stack test and report (PM, dioxins/furans, opacity, HCL, Cd, Pb, Hg, CO, NOx, and SO2 (as required))	Included in E.	varies	\$62,933	1	0	0	0	0	0	787	\$0
2) Annual stack test and test report (PM, HCL, Opacity, and	Included in E.	790	\$63,223	1	0	6	0	0	0	4,742	\$0
3) Operator training and qualification											
a) Establish and teach operator qualification course	64	0	\$0	1	64	0	0	0	0	0	\$0
b) Obtain operator qualification	72	0	\$0	1	72	0	0	0	0	0	\$0
c) Annual refresher course	12		\$0	1	12	4	48	2	5	0	\$6,540
d) Initial review of site-specific information	Included in a.										
e) Annual review of site-specific information	8	0	\$0	1	8	4	32	2	3	0	\$4,360
4) Establish operating parameters (maximum and minimum)	40	Included in B.1.	\$0	1	40	0	0	0	0	0	\$0
5) Continuous parameter monitoring (including CEMS)											
a) Initial costs	17	0	\$0	1	17	0	0	0	0	0	\$0
b) Annual costs	17	0	\$10,683	1	17	0	0	0	0	0	\$0
C. Create Information	Included in 3.B										
D. Gather Information	Included in 3.E										
E. Report Preparation											
1) Notification of initial performance test											
a) Pollutants, fugitive ash emissions	2	0	\$0	1	2	0	0	0	0	0	\$0
b) Fugitive Ash Emissions	1	0	\$0	1	1	0	0	0	0	0	\$0
2) Notification of initial CMS Demonstration	2	0	\$0	1	2	0	0	0	0	0	\$0
3) Report of initial performance test											
a) Pollutants, fugitive ash emissions	8	0	\$7.50	1	8	0	0	0	0	0	\$0
b) Fugitive Ash Emissions	2	0	\$0	1	2	0	0	0	0	0	\$0
4) Report of initial CMS demonstration	Included in 3.B.5										
5) Report prior to construction (includes siting analysis)	160	0	\$0	1	160	0	0	0	0	0	\$0

Table 4.B - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 2, Energy Recovery Units

for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 2, Energy Recovery Units	(A) Respondent Hours per Occurrence (Technical hours)	Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence	(B) Number of Occurrences Per Respondent Per Year	(C) Hours Per Respondent Per Year (C=A x B)	(D) Number of Respondents Per Year (a)	(E) Technical Hours Per Year (CXD)	(F) Management Hours Per Year (E x 0.05)	(G) Clerical Hours Per Year (E x 0.1)	(H) Emission Testing Contractor Hours Per Year	Total Labor Costs Per Year (b)
6) Report prior to initial start-up											
a) Without site specific parameter petition	6	0	\$0	1	6	0	0	0	0	0	\$0
b) With site specific parameter petition	14	0	\$0	1	14	0	0	0	0	0	\$0
7) Report of initial stack test	Included in 3.B.1										
8) Report established values for site-specific operating parameters	Included in 3.B.2	0	\$0	1	0	0	0	0	0	0	\$0
9) Waste management plan	160	0	\$0	1	160	0	0	0	0	0	\$0
10) Annual Report:											
a) Results of performance tests conducted during the year	40	0	\$7.50	1	40	6	240	12	24	0	\$32,698
11) Status report for operators that are off-site for more than 2 weeks	8	0	\$0	1	8	1	8	0	1	0	\$1,090
12) Corrective action summary for operators that are off-site for more than 2 weeks	8	0	\$0	2	16	1	16	1	2	0	\$2,180
13) Semiannual report of emissions/parameter exceedances	24	0	\$7.50	1	24	1	24	1	2	0	\$3,270
F. Affirmative Defense Claim	30	0	\$0	0	0	0	0	0	0	0	\$0
Reporting Subtotal							368	18	37	5,528	\$50,136
4. Recordkeeping Requirements											
A. Read Instructions	Included in 3.A										
B. Plan Activities	Not applicable										
C. Implement Activities	Not applicable										
D. Develop Record System	Not applicable										
E. Record Information											
1) Records of operating parameters	Included in 3.B.5.	0	\$0	52	0	0	0	0	0	0	\$0
2) Records of periods for which minimum amount of data on operating parameters were not obtained	0.5	0	\$0	52	26	0	0	0	0	0	\$0
3) Records of malfunction of the unit	1.5	0	\$0	1	1.5	0	0	0	0	0	\$0
4) Records of exceedances of the operating parameters	1.5	0	\$0	1	1.5	1	2	0	0	0	\$204
5) Records of stack tests	Included in 3.E										
6) Records of siting analysis	Included in 3.E										
7) Records of persons who have reviewed operating procedures	1	0	\$0	1	1	4	4	0	0	0	\$545
8) Records of persons who have completed operator training	1	0	\$0	1	1	4	4	0	0	0	\$545
9) Records of persons who meet operator qualification criteria	1	0	\$0	1	1	4	4	0	0	0	\$545
10) Records of monitoring device calibration	Included in 3.B										
11) Records of site-specific documentation	24	0	\$0	1	24	4	96	5	10	0	\$13,079

Table 4.B - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 2, Energy Recovery Units

for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 2, Energy Recovery Units	(A) Respondent Hours per Occurrence (Technical hours)	Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence	(B) Number of Occurrences Per Respondent Per Year	(C) Hours Per Respondent Per Year (C=A x B)	(D) Number of Respondents Per Year (a)	(E) Technical Hours Per Year (CXD)	(F) Management Hours Per Year (E x 0.05)	(G) Clerical Hours Per Year (E x 0.1)	(H) Emission Testing Contractor Hours Per Year	Total Labor Costs Per Year (b)
Burden Item											
F. Personnel Training	Included in 3.B										
G. Time for Audits	Not applicable										
<i>Recordkeeping Subtotal</i>							109.5	5.475	10.95	0	\$14,918
TOTAL:							478	24	48	5,528	\$65,055
								Total Hours	Labor	Non-Labor	Total
Summary of Respondent Burden								549	\$65,055	\$556,493	\$621,547
Annualized Capital and Startup										\$113,000	\$113,000
O & M Summary										\$64,100	\$64,100

FOOTNOTES

- ^a Based on the total number of existing units expected to continue operating once the guidelines become effective.
- ^b Costs are based on the following hourly rates: technical at \$34.60, management at \$82.23, clerical at \$22.32, and testing contractor at \$80.
- ^c One-time only costs.
- ^d Cost incurred by a facility regardless of the number of affected units at the plant.
- ^e Annual cost. Annual costs are not incurred until the second year of operation.
- ^f Based on the sum of the annualized capital costs for each monitoring system required for incinerators.
- ^g Based on the sum of the calculated annual cost for each monitoring system required for incinerators.
- ^h Assumed that one-third of the facilities will petition for site-specific parameters.
- ⁱ Assumed that 10 percent of the facilities would not have a qualified operator available for more than two weeks at least once a year. Assumed that this required only two corrective action summaries.
- ^j Assumed that 10 percent of the facilities would have an exceedance during the year.
- ^k Standards apply at all times under the newly proposed regulation. Therefore no periods of unobtained data or malfunction periods are expected.
- ^l Assumed \$100 for purchase of filing cabinet to house copy of rule, records and report copies.

s (Liquid/Gas)

Total Non-Labor Costs Per Year	Total Responses Per Year	Footnotes
\$0	0	c, d, l
\$0	0	c
\$379,340	6	e
\$0	0	c
\$0	0	c
\$0	4	e
\$0	4	e
\$0	0	c
\$113,000	0	c, f
\$64,100	0	e, g
\$0	0	
\$0	0	
\$0	0	
\$0	0	
\$0	0	
\$0	0	c

s (Liquid/Gas)

Total Non-Labor Costs Per Year	Total Responses Per Year	Footnotes
\$0	0	c, h
\$0	0	c, h
\$0	0	c
\$0	0	c
\$45	6	
\$0	1	i
\$0	2	i
\$8	1	j
\$0	0	m
	24	
\$0	0	
\$0	0	k
\$0	0	k
\$0	1	j
\$0	4	
\$0	4	
\$0	4	
\$0	4	

s (Liquid/Gas)

Total Non-Labor Costs Per Year	Total Responses Per Year	Footnotes
\$0	17	
\$556,493	41	

Table 1d- Annual Respondent Burden and Cost - Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units (40 CFR Part 60, Subpart DDDD) (Renewal) - Energy Recovery Units (Liquid/Gas)

Burden item	(A) Person hours per occurrence	(B) No. of occurrences per respondent per year	(C) Person hours per respondent per year (C = A x B)	(D) Respondents per year ^a	(E) Technical person-hours per year (E = C x D)	(F) Management person hours per year (E x 0.05)	(G) Clerical person hours per year (E x 0.1)	(H) Total Cost Per year ^b	Emission Testing Contractor Hours Per Occurrence
1. Applications	N/A								
2. Surveys and Studies	N/A								
3. Reporting Requirements									
A. Familiarization with Rule Requirements ^c	1	1	1	4	4	0	0	\$544.96	0
B. Required Activities									
1) Initial stack test and report (PM, dioxins/furans, opacity, HCl, Cd, Pb, Hg, CO, NOx, and SO2 (as required)) ^d	See 3.E.								varies
2) Annual stack test and test report (PM, HCl, Opacity, and Fugitive Ash) ^e	See 3.E.10								790
3) Operator training and qualification									
a) Establish and teach operator qualification course ^f	64	1	64	0	0	0	0	\$0	0
b) Obtain operator qualification ^f	72	1	72	0	0	0	0	\$0	0
c) Annual refresher course ^g	12	1	12	4	48	2.4	4.8	\$6,539.52	
d) Initial review of site-specific information	See 3.B.3.a.								
e) Annual review of site-specific information ^g	8	1	8	4	32	1.6	3.2	\$4,359.68	0
4) Establish operating parameters (maximum and minimum) ^d	40	1	40	0	0	0	0	\$0	Included in B.1.
5) Continuous parameter monitoring (including CEMS)									
a) Initial costs ^f	17	1	17	0	0	0	0	\$0	0
b) Annual costs ^g	17	1	17	0	0	0	0	\$0	0
C. Create Information	See 3.B								
D. Gather Information	See 3.E								
E. Report Preparation									
1) Notification of initial performance test ^h									
a) Pollutants, fugitive ash emissions	2	1	2	0	0	0	0	\$0	0
b) Fugitive Ash Emissions	1	1	1	0	0	0	0	\$0	0
2) Notification of initial CMS Demonstration ^h	2	1	2	0	0	0	0	\$0	0
3) Report of initial performance test ^h									
a) Pollutants, fugitive ash emissions	8	1	8	0	0	0	0	\$0	0
b) Fugitive Ash Emissions	2	1	2	0	0	0	0	\$0	0
4) Report of initial CMS demonstration ^h	See 3.B.5								
5) Report prior to construction (includes siting analysis) ^h	160	1	160	0	0	0	0	\$0	0
6) Report prior to initial start-up ^{h,i}									
a) Without site specific parameter petition	6	1	6	0	0	0	0	\$0	0
b) With site specific parameter petition	14	1	14	0	0	0	0	\$0	0

Table 1d- Annual Respondent Burden and Cost - Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units (40 CFR Part 60, Subpart DDDD) (Renewal) - Energy Recovery Units (Liquid/Gas)

Burden item	(A) Person hours per occurrence	(B) No. of occurrences per respondent per year	(C) Person hours per respondent per year (C = A x B)	(D) Respondents per year ^a	(E) Technical person-hours per year (E = C x D)	(F) Management person hours per year (E x 0.05)	(G) Clerical person hours per year (E x 0.1)	(H) Total Cost Per year ^b	Emission Testing Contractor Hours Per Occurrence
7) Report of initial stack test ^h	See 3.B.1								
8) Report established values for site-specific operating parameters ^h	See 3.B	1	#VALUE!	0	#VALUE!	#VALUE!	#VALUE!	\$0	0
9) Waste management plan ^h	160	1	160	0	0	0	0	\$0	0
10) Report of results of annual performance test ^e	40	1	40	6	240	12	24	\$32,697.60	0
11) Status report for operators that are off-site for more than 2 weeks ^l	8	1	8	0.6	4.8	0.24	0.48	\$653.95	0
12) Corrective action summary for operators that are off-site for more than 2 weeks ^j	8	2	16	0.6	9.6	0.48	0.96	\$1,307.90	0
13) Semiannual report of emissions/parameter exceedances ^k	24	1	24	0.6	14.4	0.72	1.44	\$1,961.86	0
Subtotal for Reporting Requirements						406		\$48,065	
4. Recordkeeping Requirements									
A. Familiarization with Rule Requirements	See 3.A								
B. Plan Activities	N/A								
C. Implement Activities	N/A								
D. Develop Record System	N/A								
E. Record Information									
1) Records of operating parameters	See 3.B.5.b	52	0	0	0	0	0	\$0	0
2) Records of periods for which minimum amount of data on operating parameters were not obtained ^l	0.5	52	26	0	0	0	0	\$0	0
3) Records of malfunction of the unit ^l	1.5	1	1.5	0	0	0	0	\$0	0
4) Records of exceedances of the operating parameters ^k	1.5	1	1.5	0.6	0.9	0.05	0.09	\$122.62	0
5) Records of stack tests	See 3.E								
6) Records of siting analysis	See 3.E								
7) Records of persons who have reviewed operating procedures	1	1	1	4	4	0.2	0.4	\$544.96	0
8) Records of persons who have completed operator training	1	1	1	4	4	0.2	0.4	\$544.96	0
9) Records of persons who meet operator qualification criteria	1	1	1	4	4	0.2	0.4	\$544.96	0
10) Records of monitoring device calibration	See 3.B								
11) Records of site-specific documentation	24	1	24	4	96	4.8	9.6	\$13,079.04	0
F. Personnel Training	See 3.B								
G. Time for Audits	N/A								
Subtotal for Recordkeeping Requirements						125		\$14,837	
Total Labor Burden and Costs (rounded) ^m						531		\$62,900	
Total Capital and O&M Cost (rounded) ^m								\$443,000	
GRAND TOTAL (rounded) ^m								\$506,000	

Testing, Operation, and Maintenance Costs			
Non-Labor Costs Per Occurrence	Emission Testing Contractor Hours Per Year	Total Non-Labor Costs Per Year	Total Responses Per Year
\$0	0	\$0	0
\$62,933	0	\$0	0
\$63,223	0	\$379,340	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$10,683	0	\$64,100	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$7.50	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0

Table 5.A - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 1, Waste-burning

for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 1, Waste-burning	(A) Respondent Hours per Occurrence (Technical hours)	Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence	(B) Number of Occurrences Per Respondent Per Year	(C) Hours Per Respondent Per Year (C=A x B)	(D) Number of Respondents Per Year (a)	(E) Technical Hours Per Year (CXD)	(F) Management Hours Per Year (E x 0.05)	(G) Clerical Hours Per Year (E x 0.1)	(H) Emission Testing Contractor Hours Per Year	Total Labor Costs Per Year (b)
1. Applications	Not applicable										
2. Surveys and Studies	Not applicable										
3. Reporting Requirements											
A. Read and Understand Rule Requirements	1	0	\$100	1	1	13	13	1	1	0	\$1,771
B. Required Activities											
1) Initial stack test and report (PM, dioxins/furans, opacity, HCL, Cd, Pb, Hg, CO, NOx, and SO2 (as required))	Included in E.	varies	\$46,400	1	0	23	0	0	0	580	\$0
2) Annual stack test and test report (PM, HCL, Opacity, and	Included in E.	584	\$46,690	1	0	0	0	0	0	0	\$0
3) Operator training and qualification											
a) Establish and teach operator qualification course	64	0	\$0	1	64	13	832	42	83	0	\$113,352
b) Obtain operator qualification	72	0	\$0	1	72	13	936	47	94	0	\$127,521
c) Annual refresher course	12		\$0	1	12	0	0	0	0	0	\$0
d) Initial review of site-specific information	Included in a.										
e) Annual review of site-specific information	8	0	\$0	1	8	0	0	0	0	0	\$0
4) Establish operating parameters (maximum and minimum)	40	Included in B.1.	\$0	1	40	23	920	46	92	0	\$125,341
5) Continuous parameter monitoring (including CEMS)											
a) Initial costs	17	0	\$60,104	1	17	23	391	20	39	0	\$53,270
b) Annual costs	17	0	\$128,806	1	17	23	391	20	39	0	\$53,270
C. Create Information	Included in 3.B										
D. Gather Information	Included in 3.E										
E. Report Preparation											
1) Notification of initial performance test											
a) Pollutants, fugitive ash emissions	2	0	\$0	1	2	23	46	2	5	0	\$6,267
b) Fugitive Ash Emissions	1	0	\$0	1	1	23	23	1	2	0	\$3,134
2) Notification of initial CMS Demonstration	2	0	\$0	1	2	13	26	1	3	0	\$3,542
3) Report of initial performance test											
a) Pollutants, fugitive ash emissions	8	0	\$7.50	1	8	23	184	9	18	0	\$25,068
b) Fugitive Ash Emissions	2	0	\$0	1	2	23	46	2	5	0	\$6,267

Table 5.A - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 1, Waste-burning

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence	(B) Number of Occurrences Per Respondent Per Year	(C) Hours Per Respondent Per Year (C=A x B)	(D) Number of Respondents Per Year (a)	(E) Technical Hours Per Year (CXD)	(F) Management Hours Per Year (E x 0.05)	(G) Clerical Hours Per Year (E x 0.1)	(H) Emission Testing Contractor Hours Per Year	Total Labor Costs Per Year (b)
4) Report of initial CMS demonstration	Included in 3.B.5										
5) Report prior to construction (includes siting analysis)	160	0	\$0	1	160	13	2,080	104	208	0	\$283,379
6) Report prior to initial start-up											
a) Without site specific parameter petition	6	0	\$0	1	6	8	48	2	5	0	\$6,540
b) With site specific parameter petition	14	0	\$0	1	14	5	70	4	7	0	\$9,537
7) Report of initial stack test	Included in 3.B.1										
8) Report established values for site-specific operating parameters	Included in 3.B.1	0	\$0	1	0	0	0	0	0	0	\$0
9) Waste management plan	160	0	\$0	1	160	13	2,080	104	208	0	\$283,379
10) Annual Report:											
a) Results of performance tests conducted during the year	40	0	\$7.50	1	40	0	0	0	0	0	\$0
11) Status report for operators that are off-site for more than 2 weeks	8	0	\$0	1	8	2	16	1	2	0	\$2,180
12) Corrective action summary for operators that are off-site for more than 2 weeks	8	0	\$0	2	16	2	32	2	3	0	\$4,360
13) Semiannual report of emissions/parameter exceedances	24	0	\$7.50	1	24	2	48	2	5	0	\$6,540
F. Affirmative Defense Claim	30	0	\$0	0	0	0	0	0	0	0	\$0
Reporting Subtotal							8,182	409	818	580	\$1,114,716
4. Recordkeeping Requirements											
A. Read Instructions	Included in 3.A										
B. Plan Activities	Not applicable										
C. Implement Activities	Not applicable										
D. Develop Record System	Not applicable										
E. Record Information											
1) Records of operating parameters	Included in 3.B.5	0	\$0	52	0	0	0	0	0	0	\$0
2) Records of periods for which minimum amount of data on operating parameters were not obtained	0.5	0	\$0	52	26	0	0	0	0	0	\$0
3) Records of malfunction of the unit	1.5	0	\$0	1	1.5	0	0	0	0	0	\$0
4) Records of exceedances of the operating parameters	1.5	0	\$0	1	1.5	2	3	0	0	0	\$409
5) Records of stack tests	Included in 3.E										
6) Records of siting analysis	Included in 3.E										
7) Records of persons who have reviewed operating procedures	1	0	\$0	1	1	0	0	0	0	0	\$0
8) Records of persons who have completed operator training	1	0	\$0	1	1	0	0	0	0	0	\$0
9) Records of persons who meet operator qualification criteria	1	0	\$0	1	1	0	0	0	0	0	\$0
10) Records of monitoring device calibration	Included in 3.B										
11) Records of site-specific documentation	24	0	\$0	1	24	0	0	0	0	0	\$0
F. Personnel Training	Included in 3.B										
G. Time for Audits	Not applicable										
Recordkeeping Subtotal							3	0.15	0.3	0	\$409

Table 5.A - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 1, Waste-burning

for for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 1, Waste-burning	(A)	Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence	(B) Number of Occurrences Per Respondent Per Year	(C) Hours Per Respondent Per Year (C=A x B)	(D) Number of Respondents Per Year (d)	(E) Technical Hours Per Year (CXD)	(F) Management Hours Per Year (E x 0.05)	(G) Clerical Hours Per Year (E x 0.1)	(H) Emission Testing Contractor Hours Per Year	Total Labor Costs Per Year (b)
Burden Item	Respondent Hours per Occurrence (Technical hours)	Hours	Per Occurrence	Per Respondent Per Year	Per Respondent Per Year	Per Year	Per Year	Per Year	Per Year	Per Year	Per Year
TOTAL:						8,185	409	819	580	\$1,115,124	
							Total Hours	Labor	Non-Labor	Total	
					Summary of Respondent Burden		9,413	\$1,115,124	\$5,413,633	\$6,528,757	
					Annualized Capital and Startup				\$2,450,900	\$2,450,900	
					O & M Summary				\$2,962,545	\$2,962,545	

FOOTNOTES

- ^a Based on the total number of existing units expected to continue operating once the guidelines become effective.
- ^b Costs are based on the following hourly rates: technical at \$34.60, management at \$82.23, clerical at \$22.32, and testing contractor at \$80.
- ^c One-time only costs.
- ^d Cost incurred by a facility regardless of the number of affected units at the plant.
- ^e Annual cost. Annual costs are not incurred until the second year of operation.
- ^f Based on the sum of the annualized capital costs for each monitoring system required for incinerators.
- ^g Based on the sum of the calculated annual cost for each monitoring system required for incinerators.
- ^h Assumed that one-third of the facilities will petition for site-specific parameters.
- ⁱ Assumed that 10 percent of the facilities would not have a qualified operator available for more than two weeks at least once a year. Assumed that this required only two corrective action summaries.
- ^j Assumed that 10 percent of the facilities would have an exceedance during the year.
- ^k Standards apply at all times under the newly proposed regulation. Therefore no periods of unobtained data or malfunction periods are expected.
- ^l Assumed \$100 for purchase of filing cabinet to house copy of rule, records and report copies.

Kilns

Total Non-Labor Costs Per Year	Total Responses Per Year	Footnotes
\$1,300	13	c, d, l
\$1,067,200	23	c
\$0	0	e
\$0	13	c
\$0	13	c
\$0	0	e
\$0	0	e
\$0	23	c
\$1,382,400	23	c, f
\$2,962,545	23	e, g
\$0	23	
\$0	23	
\$0	13	
\$173	23	
\$0	23	

Kilns

Total Non-Labor Costs Per Year	Total Responses Per Year	Footnotes
\$0	13	c
\$0	8	c, h
\$0	5	c, h
\$0	0	c
\$0	13	c
\$0	0	
\$0	2	i
\$0	4	i
\$15	2	j
\$0	0	m
	283	
\$0	0	
\$0	0	k
\$0	0	k
\$0	2	j
\$0	0	
\$0	0	
\$0	0	
\$0	0	
\$0	2	

Kilns

Total Non-Labor Costs Per Year	Total Responses Per Year	Footnotes
\$5,413,633	285	

Table 5.B - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 2, Waste-burning

for for Existing Stationary Sources: Commercial and Industrial Solid (H) (H) Total Labor Costs	(A) Respondent Hours per Occurrence (Technical hours)	Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence	(B) Number of Occurrences Per Respondent Per Year	(C) Hours Per Respondent Per Year (C=A x B)	(D) Number of Respondents Per Year (a)	(E) Technical Hours Per Year @\$34.60 (CXD)	(F) Management Hours Per Year @\$82.23 (E x 0.05)	(G) Clerical Hours Per Year @\$22.32 (E x 0.1)	(H) Emission Testing Contractor Hours Per Year @\$80	Total Labor Costs Per Year (b)
Burden Item											
1. Applications	Not applicable										
2. Surveys and Studies	Not applicable										
3. Reporting Requirements											
A. Read and Understand Rule Requirements	1	0	\$0	1	1	0	0	0	0	0	\$0
B. Required Activities											
1) Initial stack test and report (PM, dioxins/furans, opacity, HCl, Cd, Pb, Hg, CO, NOx, and SO2 (as required))	Included in E.	varies	\$46,400	1	0	0	0	0	0	580	\$0
2) Annual stack test and test report (PM, HCl, Opacity, and Fu	Included in E.	584	\$46,690	1	0	23	0	0	0	13,423	\$0
3) Operator training and qualification											
a) Establish and teach operator qualification course	64	0	\$0	1	64	0	0	0	0	0	\$0
b) Obtain operator qualification	72	0	\$0	1	72	0	0	0	0	0	\$0
c) Annual refresher course	12		\$0	1	12	13	156	8	16	0	\$21,253
d) Initial review of site-specific information	Included in a.										
e) Annual review of site-specific information	8	0	\$0	1	8	13	104	5	10	0	\$14,169
4) Establish operating parameters (maximum and minimum)	40	Included in B.1.	\$0	1	40	0	0	0	0	0	\$0
5) Continuous parameter monitoring (including CEMS)											
a) Initial costs	17	0	\$0	1	17	0	0	0	0	0	\$0
b) Annual costs	17	0	\$128,806	1	17	0	0	0	0	0	\$0
C. Create Information	Included in 3.B										
D. Gather Information	Included in 3.E										
E. Report Preparation											
1) Notification of initial performance test											
a) Pollutants, fugitive ash emissions	2	0	\$0	1	2	0	0	0	0	0	\$0
b) Fugitive Ash Emissions	1	0	\$0	1	1	0	0	0	0	0	\$0
2) Notification of initial CMS Demonstration	2	0	\$0	1	2	0	0	0	0	0	\$0
3) Report of initial performance test											
a) Pollutants, fugitive ash emissions	8	0	\$7.50	1	8	0	0	0	0	0	\$0
b) Fugitive Ash Emissions	2	0	\$0	1	2	0	0	0	0	0	\$0
4) Report of initial CMS demonstration	Included in 3.B.5										
5) Report prior to construction (includes siting analysis)	160	0	\$0	1	160	0	0	0	0	0	\$0

Table 5.B - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 2, Waste-burning

for Existing Stationary Sources: Commercial and Industrial Solid (H) (H) Total Labor Costs	(A) Respondent Hours per Occurrence (Technical hours)	Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence	(B) Number of Occurrences Per Respondent Per Year	(C) Hours Per Respondent Per Year (C=A x B)	(D) Number of Respondents Per Year (a)	(E) Technical Hours Per Year @\$34.60 (CXD)	(F) Management Hours Per Year @\$82.23 (E x 0.05)	(G) Clerical Hours Per Year @\$22.32 (E x 0.1)	(H) Emission Testing Contractor Hours Per Year @\$80	Total Labor Costs Per Year (b)
Burden Item											
6) Report prior to initial start-up											
a) Without site specific parameter petition	6	0	\$0	1	6	0	0	0	0	0	\$0
b) With site specific parameter petition	14	0	\$0	1	14	0	0	0	0	0	\$0
7) Report of initial stack test	Included in 3.B.1										
8) Report established values for site-specific operating parameters	Included in 3.B	0	\$0	1	0	0	0	0	0	0	\$0
9) Waste management plan	160	0	\$0	1	160	0	0	0	0	0	\$0
10) Annual Report:											
a) Results of performance tests conducted during the year	40	0	\$7.50	1	40	23	920	46	92	0	\$125,341
11) Status report for operators that are off-site for more than 2 weeks	8	0	\$0	1	8	2	16	1	2	0	\$2,180
12) Corrective action summary for operators that are off-site for more than 2 weeks	8	0	\$0	2	16	2	32	2	3	0	\$4,360
13) Semiannual report of emissions/parameter exceedances	24	0	\$7.50	1	24	2	48	2	5	0	\$6,540
F. Affirmative Defense Claim	30	0	\$0	0	0	0	0	0	0	0	\$0
Reporting Subtotal							1,276	64	128	14,003	\$173,842
4. Recordkeeping Requirements											
A. Read Instructions	Included in 3.A										
B. Plan Activities	Not applicable										
C. Implement Activities	Not applicable										
D. Develop Record System	Not applicable										
E. Record Information											
1) Records of operating parameters	Included in 3.B.5.	0	\$0	52	0	0	0	0	0	0	\$0
2) Records of periods for which minimum amount of data on operating parameters were not obtained	0.5	0	\$0	52	26	0	0	0	0	0	\$0
3) Records of malfunction of the unit	1.5	0	\$0	1	1.5	0	0	0	0	0	\$0
4) Records of exceedances of the operating parameters	1.5	0	\$0	1	1.5	2	3	0	0	0	\$409
5) Records of stack tests	Included in 3.E										
6) Records of siting analysis	Included in 3.E										
7) Records of persons who have reviewed operating procedures	1	0	\$0	1	1	13	13	1	1	0	\$1,771
8) Records of persons who have completed operator training	1	0	\$0	1	1	13	13	1	1	0	\$1,771
9) Records of persons who meet operator qualification criteria	1	0	\$0	1	1	13	13	1	1	0	\$1,771
10) Records of monitoring device calibration	Included in 3.B										
11) Records of site-specific documentation	24	0	\$0	1	24	13	312	16	31	0	\$42,507

Table 5.B - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 2, Waste-burning

for Existing Stationary Sources: Commercial and Industrial Solid (H) (H) Total Labor Costs	(A) Respondent Hours per Occurrence (Technical hours)	Emission Testing Contractor Hours Per Occurrence	Non-Labor Costs Per Occurrence	(B) Number of Occurrences Per Respondent Per Year	(C) Hours Per Respondent Per Year (C=A x B)	(D) Number of Respondents Per Year (a)	(E) Technical Hours Per Year @\$34.60 (CXD)	(F) Management Hours Per Year @\$82.23 (E x 0.05)	(G) Clerical Hours Per Year @\$22.32 (E x 0.1)	(H) Emission Testing Contractor Hours Per Year @\$80	Total Labor Costs Per Year (b)	
Burden Item												
F. Personnel Training	Included in 3.B											
G. Time for Audits	Not applicable											
<i>Recordkeeping Subtotal</i>							354	17.7	35.4	0	\$48,229	
TOTAL:							1,630	82	163	14,003	\$222,071	
							Total Hours		Labor	Non-Labor	Total	
							Summary of Respondent Burden		\$1,875	\$222,071	\$5,419,003	\$5,641,074
							Annualized Capital and Startup				\$1,382,400	\$1,382,400
							O & M Summary				\$2,962,545	\$2,962,545

FOOTNOTES

- ^a Based on the total number of existing units expected to continue operating once the guidelines become effective.
- ^b Costs are based on the following hourly rates: technical at \$34.60, management at \$82.23, clerical at \$22.32, and testing contractor at \$80.
- ^c One-time only costs.
- ^d Cost incurred by a facility regardless of the number of affected units at the plant.
- ^e Annual cost. Annual costs are not incurred until the second year of operation.
- ^f Based on the sum of the annualized capital costs for each monitoring system required for incinerators.
- ^g Based on the sum of the calculated annual cost for each monitoring system required for incinerators.
- ^h Assumed that one-third of the facilities will petition for site-specific parameters.
- ⁱ Assumed that 10 percent of the facilities would not have a qualified operator available for more than two weeks at least once a year. Assumed that this required only two corrective action summaries.
- ^j Assumed that 10 percent of the facilities would have an exceedance during the year.
- ^k Standards apply at all times under the newly proposed regulation. Therefore no periods of unobtained data or malfunction periods are expected.
- ^l Assumed \$100 for purchase of filing cabinet to house copy of rule, records and report copies.

g Kilns

Total Non-Labor Costs Per Year	Total Responses Per Year	Footnotes
\$0	0	c, d, l
\$0	0	c
\$1,073,870	23	e
\$0	0	c
\$0	0	c
\$0	13	e
\$0	13	e
\$0	0	c
\$1,382,400	0	c, f
\$2,962,545	0	e, g
\$0	0	
\$0	0	
\$0	0	
\$0	0	
\$0	0	
\$0	0	
\$0	0	c

j Kilns

Total Non-Labor Costs Per Year	Total Responses Per Year	Footnotes
\$0	0	c, h
\$0	0	c, h
\$0	0	c
\$0	0	c
\$173	23	
\$0	2	i
\$0	4	i
\$15	2	j
\$0	0	m
	80	
\$0	0	
\$0	0	k
\$0	0	k
\$0	2	j
\$0	13	
\$0	13	
\$0	13	
\$0	13	

), Kilns

Total Non-Labor Costs Per Year	Total Responses Per Year	Footnotes
\$0	54	
\$5,419,003	134	

Table 1e- Annual Respondent Burden and Cost - Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units (40 CFR Part 60, Subpart DDDD) (Renewal) - Waste-burning Kilns

Burden item	(A) Person hours per occurrence	(B) No. of occurrences per respondent per year	(C) Person hours per respondent per year (C = A x B)	(D) Respondents per year ^a	(E) Technical person-hours per year (E = C x D)	(F) Management person hours per year (E x 0.05)	(G) Clerical person hours per year (E x 0.1)	(H) Total Cost Per year ^b
1. Applications	N/A							
2. Surveys and Studies	N/A							
3. Reporting Requirements								
A. Familiarization with Rule Requirements ^c	1	1	1	13	13	1	1	\$1,771.12
B. Required Activities								
1) Initial stack test and report (PM, dioxins/furans, opacity, HCl, Cd, Pb, Hg, CO, NOx, and SO2 (as required)) ^d	See 3.E.							
2) Annual stack test and test report (PM, HCl, Opacity, and Fugitive Ash) ^e	See 3.E.10							
3) Operator training and qualification								
a) Establish and teach operator qualification course ^f	64	1	64	0	0	0	0	\$0
b) Obtain operator qualification ^f	72	1	72	0	0	0	0	\$0
c) Annual refresher course ^g	12	1	12	13	156	7.8	15.6	\$21,253.44
d) Initial review of site-specific information	See 3.B.3.a.							
e) Annual review of site-specific information ^g	8	1	8	13	104	5.2	10.4	\$14,168.96
4) Establish operating parameters (maximum and minimum) ^d	40	1	40	0	0	0	0	\$0
5) Continuous parameter monitoring (including CEMS)								
a) Initial costs ^f	17	1	17	0	0	0	0	\$0
b) Annual costs ^g	17	1	17	0	0	0	0	\$0
C. Create Information	See 3.B							
D. Gather Information	See 3.E							
E. Report Preparation								
1) Notification of initial performance test ^h								
a) Pollutants, fugitive ash emissions	2	1	2	0	0	0	0	\$0
b) Fugitive Ash Emissions	1	1	1	0	0	0	0	\$0
2) Notification of initial CMS Demonstration ^h	2	1	2	0	0	0	0	\$0
3) Report of initial performance test ^h								
a) Pollutants, fugitive ash emissions	8	1	8	0	0	0	0	\$0
b) Fugitive Ash Emissions	2	1	2	0	0	0	0	\$0
4) Report of initial CMS demonstration ^h	See 3.B.5							
5) Report prior to construction (includes siting analysis) ^h	160	1	160	0	0	0	0	\$0

Emission Testing Contractor Hours Per Occurrence
0
varies
584
0
0
0
Included in B.1.
0
0
0
0
0

Table 1e- Annual Respondent Burden and Cost - Emissions Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units (40 CFR Part 60, Subpart DDDD) (Renewal) - Waste-burning Kilns

Burden item	(A) Person hours per occurrence	(B) No. of occurrences per respondent per year	(C) Person hours per respondent per year (C = A x B)	(D) Respondents per year ^a	(E) Technical person-hours per year (E = C x D)	(F) Management person hours per year (E x 0.05)	(G) Clerical person hours per year (E x 0.1)	(H) Total Cost Per year ^b
F. Personnel Training	See 3.B							
G. Time for Audits	N/A							
Subtotal for Recordkeeping Requirements						408		\$48,290
Total Labor Burden and Costs (rounded) ^m						1,907		\$226,000
Total Capital and O&M Cost (rounded) ^m								\$4,040,000
GRAND TOTAL (rounded) ^m								\$4,270,000

Emission Testing Contractor Hours Per Occurrence

Assumptions

Testing, Operation, and Maintenance Costs			
Non-Labor Costs Per Occurrence	Emission Testing Contractor Hours Per Year	Total Non-Labor Costs Per Year	Total Responses Per Year
\$0	0	\$0	0
\$46,400	0	\$0	0
\$46,690	0	\$1,073,870	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$128,806	0	\$2,962,545	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$7.50	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0

Testing, Operation, and Maintenance Costs			
Non-Labor Costs Per Occurrence	Emission Testing Contractor Hours Per Year	Total Non-Labor Costs Per Year	Total Responses Per Year
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$7.50	0	\$173	23
\$0	0	\$0	2.3
\$0	0	\$0	4.6
\$7.50	0	\$17	2.3
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0
\$0	0	\$0	0

Testing, Operation, and Maintenance Costs			
Non-Labor Costs Per Occurrence	Emission Testing Contractor Hours Per Year	Total Non- Labor Costs Per Year	Total Responses Per Year
		\$4,040,000	

Table 7 - Annual Federal Government Burden and Cost of Recordkeeping and Reporting Requirements for the Emission Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year 1

Burden Item	(A)		(B)	(C)	(D)	(E)	(F)
	Number of Occurrences Per Year		EPA Hours Per Occurrence	Tech Hours Per Year (C=AxB)	Management Hours Per Year (D=Cx0.05)	Clerical Hours Per Year (E=Cx0.1)	EPA Cost Per Year (a,b)
1. Applications	not applicable						
2. Read and Understand Rule Requirements	1	c	16	16	1	2	\$919
3. Required Activities							
A. Observe initial stack tests (PM, dioxins/furans, opacity, HCl, Cd, Pb, Hg, CO, NOx, and SO2)	22	c, d	48	1037	52	104	\$59,569
B. Excess emissions -- Enforcement Activities	11	f	24	259	13	26	\$14,892
C. Create Information	not applicable						
D. Gather Information	not applicable						
E. Report Reviews							
1) Review waste management plan and siting analysis	78	c	8	624	31	62	\$35,852
2) Review report submitted prior to initial startup	56	c	2	112	6	11	\$6,435
3) Review initial stack test report	108	c	40	4320	216	432	\$248,206
4) Review annual compliance report	0	e	8	0	0	0	\$0
5) Review semi-annual excess emission and parameter exceedance report	10	f	16	163	8	16	\$9,377
6) Review status reports and corrective action summary for operators off-site	20	g	4	82	4	8	\$4,688
F. Prepare annual summary report	1		200	200	10	20	\$11,491
5. Travel expenses: (1 person * 30 hours per year / 8 hours per day * \$75 per diem) + (\$600 per round trip)			\$881	per trip			\$19,035
TOTAL				6813	341	681	\$410,464

FOOTNOTES

- a Costs are based on the following hourly rates (loaded with 60% for fringe and overhead): technical at \$52.37, management at \$86.56, clerical at \$29.52.
- b Figures may not add exactly due to rounding.
- c One-time only costs.
- d Assumes EPA personnel attend 20 percent of the initial stack tests.
- e Burden not incurred until second year of operation onward.
- f Assume that 10 percent of the facilities have an exceedance during the year.
- g Assumed that 10 percent of the facilities would not have a qualified operator for more than two weeks at least once a year. Assumed that 1 status report and 2 corrective action summaries are submitted.

Table 8 - Annual Federal Government Burden and Cost of Recordkeeping and Reporting Requirements for the Emission Guidelines for Existing Stationary Sources: Commercial and Industrial Solid Waste Incineration Units - Subpart DDDD - Year

2

Burden Item	(A)		(B)	(C)	(D)	(E)	(F)
	Number of Occurrences Per Year		EPA Hours Per Occurrence	Tech Hours Per Year (C=AxB)	Management Hours Per Year (D=Cx0.05)	Clerical Hours Per Year (E=Cx0.1)	EPA Cost Per Year (a, b)
1. Applications	not applicable						
2. Read and Understand Rule Requirements	0	c	16	0	0	0	\$0
3. Required Activities							
A. Observe initial stack tests (PM, dioxins/furans, opacity, HCl, Cd, Pb, Hg, CO, NOx, and SO2)	0	c, d	48	0	0	0	\$0
B. Excess emissions -- Enforcement Activities	11	f	24	259	13	26	\$14,892
C. Create Information	not applicable						
D. Gather Information	not applicable						
E. Report Reviews							
1) Review waste management plan and siting analysis	0	c	8	0	0	0	\$0
2) Review report submitted prior to initial startup	0	c	2	0	0	0	\$0
3) Review initial stack test report	0	c	40	0	0	0	\$0
4) Review annual compliance report	108	e	8	864	43	86	\$49,641
5) Review semi-annual excess emission and parameter exceedance report	10	f	16	163	8	16	\$9,377
6) Review status reports and corrective action summary for operators off-site	20	g	4	82	4	8	\$4,688
F. Prepare annual summary report	1		200	200	10	20	\$11,491
5. Travel expenses: (1 person * 30 hours per year / 8 hours per day * \$75 per diem) + (\$600 per round trip					per trip		\$0
TOTAL				1568	78	157	\$90,089

FOOTNOTES

- a Costs are based on the following hourly rates (loaded with 60% for fringe and overhead): technical at \$52.37, management at \$86.56, clerical at \$29.52.
- b Figures may not add exactly due to rounding.
- c One-time only costs.
- d Assumes EPA personnel attend 20 percent of the initial stack tests.
- e Burden not incurred until second year of operation onward.
- f Assume that 10 percent of the facilities have an exceedance during the year.
- g Assumed that 10 percent of the facilities would not have a qualified operator for more than two weeks at least once a year. Assumed that 1 status report and 2 corrective action summaries are submitted.

Required Activities								
A. Observe initial stack tests (PM, dioxins/furans, opacity, HCl, Cd, Pb, Hg, CO, NOx, and SO2) ^{c,d}	48	0.2	10	0	0	0	0	\$0
B. Excess emissions -- Enforcement Activities ^e	24	0.1	2	108	259	13	26	\$14,892.34
C. Report Reviews								
1) Review waste management plan and siting analysis ^c	8	0	0	0	0	0	0	\$0
2) Review report submitted prior to initial startup ^c	2	0	0	0	0	0	0	\$0
3) Review initial stack test report ^c	40	1	40	0	0	0	0	\$0
4) Review annual compliance report	8	1	8	108	864	43	86.4	\$49,641.12
5) Review semi-annual excess emission and parameter exceedance report ^e	16	1	16.0	10.8	173	8.6	17.3	\$9,928.22
6) Review status reports and corrective action summary for operators off-site ^f	4	3	12.0	10.8	130	6.5	13	\$7,446.17
D. Prepare annual summary report ^g	200	1	200	1	200	10	20	\$11,491.00
TOTAL (rounded) ^h						1,870		\$93,400

Assumptions

^a We have assumed an average of 108 CISWI units at 78 facilities over the three-year period of this ICR. We also assume that no new units will become subject during the three-year period of this ICR.

^b This ICR uses the following labor rates: \$51.23 (technical), \$69.04 (managerial), and \$27.73 (clerical). These rates are from the Office of Personnel Management (OPM), 2021 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.

^c These are one-time only costs associated with the startup of a new CISWI unit. We assume that no new units will become subject during the three-year period of this ICR.

^d We assume that EPA personnel will attend 20 percent of the initial stack tests.

^e We assume that 10 percent of the 108 CISWI units have an exceedance during the year.

^f We assume that 10 percent of the 108 facilities would not have a qualified operator for more than two weeks at least once a year. We assume that 1 status report and 2 corrective action summaries are submitted and that it takes 4 hours to review each report.

^g Once each year, EPA prepares an annual summary report for all of the CISWI units subject to Subpart DDDD.

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

Labor Rates:

INDUSTRY	Loaded
1. Technical - Engineering Technicians, except drafters	\$122.66
2. Management - General and Operations Managers	\$149.84
3. Clerical - Office Clerks, General	\$60.88
4. Contractor - Maintenance	\$80.00

^a This ICR uses the following labor rates: \$122.66 (technical), \$149.84 (managerial), \$60.88 (clerical), and \$80.00 (contractor - maintenance). These rates are from the United States Department of Labor, Bureau of Labor Statistics, September 2020, "Table 2. Civilian workers, by occupational and industry group." The rates are from column 1, "Total compensation." They have been increased by 110 percent to account for the benefit packages available to those employed by private industry.

EPA	With Fringe & Overhead
(GS-12, Step 1, \$30.05 + 60%) - Tech.	\$51.23
(GS-13, Step 5, \$40.50 + 60%) - Mgmt.	\$69.04
(GS-6, Step 3, \$16.26 + 60%) - Cler.	\$27.73

These rates are from the Office of Personnel Management (OPM), 2021 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.

Visible Emissions Testing Costs

Parameters/Costs	Equation	Values	Footnotes
A. Parameters			
1. Operating labor rate, \$/hr (LR)		\$45.85	3
2. Capital recovery factor, 5-yr equipment life, 7% interest (CRF)	$= [i \times (1 + i)^a] / [(1 + i)^a - 1]$, where i = interest rate, a = equipment life	0.24389	
B. Total Capital Investment, \$ (TCI)			
	= Combination light meter/anemometer (\$200) + digital stopwatches (2 each at \$25)	\$259	1, 2, 4
C. Direct Annual Costs, \$/yr			
1. Operating labor	$= (1 \text{ hr/reading}) \times (3 \text{ readings/test}) \times (1 \text{ test/yr}) \times \text{LR}$	\$138	
D. Indirect Annual Costs, \$/yr			
1. Overhead	$= 0.6 \times (\text{operating labor})$	\$83	
2. Property taxes, insurance, and administration	$= 0.04 \times \text{TCI}$	\$10	
3. Capital recovery	$= \text{CRF} \times \text{TCI}$	\$63	
E. Total Annual Cost, \$/yr (rounded)	$= \text{Direct Annual Costs} + \text{Indirect Annual Costs}$	\$290	

Footnotes

1. Professional Equipment. 2008. Light Meters Industrial and Professional: Digital Light Meter. Website: <http://www.professionalequipment.com>. Accessed July 24, 2008.

2. Cole-Parmer. 2008. Digital Stopwatches -Cole Parmer Instrument Catalog. Website: <http://www.coleparmer.com>. Accessed July 24, 2008.

3. Operating labor rate is updated from 2008 to 4th quarter 2020 using the Bureau of Labor Statistics "Wages and salaries for Private industry workers in All industries and occupations, Index". Source: <https://beta.bls.gov/dataViewer/view/timeseries/CIU20200000000001;jsessionid=9E40EBBD04EA12CF2D755147748CC492>

4. Cost of equipment is updated from \$2008 to \$2020 using the CEPCI Index.

Stack Testing Costs

Parameters/Costs	Equation	Values
A. Parameters		
1. Cost index		
a. 2020		596.2
b. 2008		575.4
c. 1992		358.2
B. Testing Costs, \$		
1. Method 5 (PM)	= \$8,000 x (596.2/358.2)	\$13,300
2. Method 9 (opacity)	= \$1,000 x (596.2/358.2) + \$1,500	\$3,200
3. Method 10 (CO)	= \$4,000 x (596.2/358.2) + \$1,000	\$7,700
4. Method 26 (HCl)	= \$5,000 x (596.2/358.2)	\$8,300
5. Method 29 (metals)	= \$8,000 x (596.2/358.2) + \$2,000	\$15,300
6. Method 23 (CDD/CDF)	= \$21,000 x (596.2/358.2) - \$5,000	\$30,000
7. Method 7E (NO _x)	= \$5,000 x (596.2/358.2)	\$8,300
8. Method 6C (SO ₂)	= \$5,000 x (596.2/358.2)	\$8,300

Note:

1. Initial testing costs to be annualized over 15 years at 7% interest.
2. Testing costs have been rounded to the nearest \$1,000 (except for opacity) to be consistent with level of rounding in original costs; costs also adjusted based on additional information from EPA.
3. Multiple test costs adjusted by 2/3 in nationwide cost estimates to account for travel, accommodations, methods/sampling trains, etc. common to the tests.
- 4 Stack testing costs have been updated to \$2020 using the CEPCI Index.

Sources:

1. Memorandum from R. Segall, EPA/EMB, to R. Copland, EPA/SDB. October 14, 1992. Medical Waste Incinerator Study: Emission Measurement and Continuous Monitoring. (II-B-89)
2. E-mail from Jason Dewees, EPA, to Peter Westlin, EPA. August 20, 2008. Monitoring Options for SNCR & Test Cost Questions.
3. E-mail from Jason Dewees, EPA, to Mary Johnson, EPA. August 20, 2008. Re: Monitoring Options for SNCR & Test Cost Questions.

CRF (15 yr, 7%):

0.10979

Annual everything except PM, Hg, HCl, and opacity

Annual everything:

\$46,400 Waste-burning kilns

\$62,933 Energy recovery units and incinerators

Monitoring Costs

Parameters/Costs	Equation	All model sizes						
		FF	WS	SNCR	Bag leak detector	DIFF	CO CEMS	HCI CEMS
A. Parameters								
1. Recording lime/carbon flow, min/4-hr period						5		
2. Annual operating hours, hr/yr (H)						8100		
3. Cost index (CEPCI)								
a. 2020		596.2	596.2	596.2	596.2	596.2	596.2	596.2
b. 2014		576.1	576.1	576.1	576.1	576.1	576.1	576.1
c. 2008		575.4	575.4	575.4	575.4	575.4	575.4	575.4
d. 2006		499.6	499.6	499.6	499.6	499.6	499.6	499.6
e. 1997		386.5	386.5	386.5	386.5	386.5	386.5	386.5
f. 1993		359.2	359.2	359.2	359.2	359.2	359.2	359.2
g. 1992		358.2	358.2	358.2	358.2	358.2	358.2	358.2
4. Operating labor wage rate, \$/hr (LR)		\$45.85	\$45.85	\$45.85	\$45.85	\$45.85	\$45.85	\$45.85
5. Capital recovery factor, 20-yr equipment life, 7% interest (CRF)	$= [i \times (1 + i)^a] / [(1 + i)^a - 1]$, where i = interest rate, a = equipment life	0.09439	0.09439	0.09439	0.09439	0.09439	0.09439	0.09439
B. Total Capital Investment, \$ (TCI)								
1. Planning		\$800	\$800	\$800	\$800	\$800	\$4,200	\$3,500
2. Select type of equipment		\$500	\$500	\$500	\$4,700	\$500	\$10,400	\$16,700
3. Provide support facilities		\$1,500	\$1,500	\$1,500	\$500	\$1,500	\$21,400	\$21,400
4. Purchased equipment cost (PEC)		\$13,400	\$20,100	\$5,300	\$14,600	\$13,400	\$50,100	\$53,800
5. Install and check equipment		\$1,100	\$1,100	\$1,100	\$5,000	\$1,100	\$18,900	\$20,000
6. Perf. spec. tests (certif.)		\$800	\$800	\$800	\$0	\$800	\$16,200	\$13,200
7. Prepare QA/QC plan		\$800	\$800	\$800	\$800	\$800	\$18,100	\$18,100
8. Total capital cost	= Planning + selecting equipment + support facilities + PEC + installation + perf. spec. tests + QA/QC plan	\$18,900	\$25,600	\$10,800	\$26,400	\$18,900	\$139,000	\$147,000
C. Annual Costs, \$/yr								
1. Operating labor	$= (5 \text{ min to record lime/carbon flow/4-hr period}) \times (1 \text{ hr}/60 \text{ min}) \times H \times LR$					\$7,700		
2. Maintenance materials	$= 0.02 \times TCI$	\$400	\$500	\$200		\$400		
3. Operation & maintenance	= Day-to-day activities + annual RATA + CGA + annual QA + O&M review and update				\$6,000		\$28,600	\$25,500
4. Recordkeeping and reporting	$= \$1,000 \times (596.2/386.5)$	\$1,500	\$1,500	\$1,500	\$200	\$1,500	\$1,200	\$1,700
5. Overhead	$= 0.6 \times (\text{labor} + \text{maintenance materials})$	\$200	\$300	\$100		\$4,900		
6. Property taxes, insurance, and administration	$= 0.04 \times TCI$	\$800	\$1,000	\$400		\$800		
7. Capital recovery	$= CRF \times TCI$	\$1,800	\$2,400	\$1,000	\$3,600	\$1,800	\$13,100	\$20,900
8. Total annual cost	= Operating labor + maintenance materials + recordkeeping and reporting + overhead + property taxes, insurance, and administration + capital recovery	\$4,700	\$5,700	\$3,200	\$9,800	\$17,100	\$42,900	\$48,100

all all all

Notes:

1. Monitoring costs have been rounded to the nearest \$100 to be consistent with level of rounding in original costs.
2. Costs to be replaced include: (a) bag leak detector replacing opacity test; (b) CO CEMS replacing CO test and secondary chamber temperature monitor; (c) HCl CEMS replacing HCl test, HCl sorbent monitor (dry scrubbers) and scrubber liquor pH monitor (wet scrubbers); (d) PM CEMS replacing PM and opacity tests and and pressure drop monitor (wet scrubbers); (e) multi-metal/Hg CEMS replacing flue gas temperature monitor (wet scrubbers); (f) dioxin sorbent trap biweekly monitoring replacing fabric filter inlet temperature monitor; and (g) Hg sorbent trap biweekly monitoring replacing flue gas temperature monitor (wet scrubbers).
3. Costs have been updated to \$2020 using the CEPCI Index
4. Operating labor rate is updated from 2008 to 4th quarter 2020 using the Bureau of labor Statistics "Wages and salaries for Private industry workers in All industries and occupations, Index". Source: ht

Sources:

1. Hospital/Medical/Infectious Waste Incinerators (HMIWI) [EPA-HQ-OAR-2006-0534] Testing and Monitoring Options and Costs Memo (IV-B-66).
2. E-mail and attachment from Peter Westlin, EPA, to Mary Johnson, EPA. August 19, 2008. Monitoring Options for SNCR on Medical Waste Incinerators.
3. E-mail from Dan Bivins, EPA, to Mary Johnson, EPA. September 27, 2006. Cost of CO CEMS.
4. E-mail from Dan Bivins, EPA, to Mary Johnson, EPA. July 28, 2006. Some Preliminary Thoughts on the HWI Monitoring.

Monitoring Costs

Parameters/Costs	PM CEMS	Hg CEMS	Multi-metal CEMS	Dioxin or Hg sorbent trap biweekly monitoring	ACI
A. Parameters					
1. Recording lime/carbon flow, min/4-hr period					5
2. Annual operating hours, hr/yr (H)					6,000
3. Cost index (CEPCI)					
a. 2020	596.2	596.2	596.2	596.2	596.2
b. 2014	576.1	576.1	576.1	576.1	576.1
c. 2008	575.4	575.4	575.4	575.4	575.4
d. 2006	499.6	499.6	499.6	499.6	499.6
e. 1997	386.5	386.5	386.5	386.5	386.5
f. 1993	359.2	359.2	359.2	359.2	359.2
g. 1992	358.2	358.2	358.2	358.2	358.2
4. Operating labor wage rate, \$/hr (LR)	\$45.85	\$45.85	\$45.85	\$45.85	\$45.85
5. Capital recovery factor, 20-yr equipment life, 7% interest (CRF)	0.09439	0.09439	0.09439	0.09439	0.09439
B. Total Capital Investment, \$ (TCI)					
1. Planning	\$1,000	\$3,500			
2. Select type of equipment	\$12,600	\$16,700			
3. Provide support facilities	\$500	\$21,400			
4. Purchased equipment cost (PEC)	\$76,100	\$113,800			
5. Install and check equipment	\$20,200	\$22,300			
6. Perf. spec. tests (certif.)	\$36,800	\$43,800			
7. Prepare QA/QC plan	\$16,000	\$18,100			
8. Total capital cost	\$163,000	\$240,000	\$239,000	\$119,000	
C. Annual Costs, \$/yr					
1. Operating labor					\$5,700
2. Maintenance materials					
3. Operation & maintenance	\$28,300	\$80,900			
4. Recordkeeping and reporting	\$6,600	\$1,700			
5. Overhead					\$3,400
6. Property taxes, insurance, and administration					
7. Capital recovery	\$23,300	\$34,100			
8. Total annual cost	\$58,200	\$116,700	\$65,600	\$43,000	\$9,100

fill in unit-specific annual operating hours here

ERUs (capacity > or = cement kilns

all

Notes:

250 mmBtu/hr

1. Monitoring costs have been rounded to the near
2. Costs to be replaced include: (a) bag leak detect
(c) HCl CEMS replacing HCl test, HCl sorbent mon
opacity tests and and pressure drop monitor (wet s
sorbent trap biweekly monitoring replacing fabric fil
monitor (wet scrubbers).
3. Costs have been updated to \$2020 using the CE
4. Operating labor rate is updated from 2008 to 4t<https://beta.bls.gov/dataViewer/view/timeseries/CIU2020000000001;jsessionid=9E40EBBD04EA12CF2D755147748CC492>

Sources:

1. Hospital/Medical/Infectious Waste Incinerators (I
2. E-mail and attachment from Peter Westlin, EPA,
3. E-mail from Dan Bivins, EPA, to Mary Johnson, I
4. E-mail from Dan Bivins, EPA, to Mary Johnson, I

Existing Unit Inputs	Incinerators	Energy recovery units - Solids	Small, remote incinerators	Energy recovery units - Liquid/Gas	Waste-burning kilns
Number of Units	27	22	30	6	23
Number of Facilities	22	13	26	4	13
Total Initial Stack Test Cost	\$1,699,200	\$1,384,533	\$1,888,000	\$377,600	\$1,067,200
Average Initial Stack Test Cost	\$62,933	\$62,933	\$62,933	\$62,933	\$46,400
Additional Monitoring Inputs					
Number of Bag Leak Detectors:	18	4	24	4	5
Number of DIFF Monitors	0	11	0	0	0
Number of PBS Parameter Monitors:	0	11	0	0	18
Number of SNCR Monitors:	9	0	0	2	1
Number of CO CEMS:	0	0	0	0	0
Number of PM CEMS or PM CPMS:	0	16	0	1	23
Number of Opacity Monitors:	0	0	0	5	0
Number of Oxygen Monitors:	0	22	0	0	0
Number of Hg CEMS:	0	0	0	0	23
Number of ACI Monitors:	27	15	24	0	23
Average Cost of ACI Monitoring:	\$8,550	\$13,702	\$1,138	\$0	\$7,611

Note: Stack testing costs have been updated from \$2008 to \$2020 using the CEPCI Index.
Note: ACI Monitoring costs have been updated from \$2014 to \$2020 using the CEPCI Index.

Capital/Startup vs. Operation and Maintenance (O&M) Costs						
(A)	(B)	(C)	(D)	(E)	(F)	(G)
Continuous Monitoring Device	Capital/Startup Cost for One Respondent	Number of New Respondents	Total Capital/Startup Cost, (B x C)	Annual O&M Costs for One Respondent	Number of Respondents with O&M	Total O&M, (E x F)
Annual stack test						
- Incinerator	NA	0	0	\$63,223	27	\$1,707,030
- ERU, solid	NA	0	0	\$63,223	22	\$1,390,913
- small remote incinerator	NA	0	0	\$63,223	30	\$1,896,700
- ERU, liquid	NA	0	0	\$63,223	6	\$379,340
- waste-burning kiln	NA	0	0	\$46,690	23	\$1,073,670
CEMS						
- Incinerator	NA	0	0	\$13,456	27	\$363,319
- ERU, solid	NA	0	0	\$46,078	22	\$1,013,723
- small remote incinerator	NA	0	0	\$5,871	30	\$176,121
- ERU, liquid	NA	0	0	\$10,683	6	\$64,100
- waste-burning kiln	NA	0	0	\$128,806	23	\$2,962,543
Photocopy and postage						
- annual report	NA	0	0	\$8	108	\$810
- semiannual report	NA	0	0	\$8	10.8	\$81
TOTAL						\$11,000,000

Note: Stack testing and CEMS costs have been updated from \$2008 to \$2020 using the CEPCI Index.

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Prior Values (from 2014 ICR)	Incinerators	Energy recovery units - Solids	Small, remote incinerators	Energy recovery units - Liquid/Gas	Waste-burning kilns
Number of Units	3	22	28	6	23
Number of Facilities	3	13	24	4	13
Additional Monitoring Inputs					
Number of Bag Leak Detectors:	2	4	22	4	5
Number of DIFF Monitors	0	11	0	0	0
Number of PBS Parameter Monitors:	0	11	0	0	18
Number of SNCR Monitors:	1	0	0	2	1
Number of CO CEMS:	0	0	0	0	0
Number of PM CEMS or PM CPMS:	0	16	0	1	23
Number of Opacity Monitors:	0	0	0	5	0
Number of Oxygen Monitors:	0	22	0	0	0
Number of Hg CEMS:	0	0	0	0	23
Number of ACI Monitors:	3	15	22	0	22
Average Cost of ACI Monitoring:	\$8,300	\$13,240	\$1,100	\$0	\$7,355

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