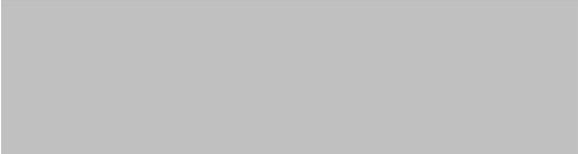


| Cost Factor (in 2008\$) | Reference/Note |
|--|---|
| | |
| Advanced Combustion Controls (Linkageless Boiler Management System) -- cost is per boiler - TCI | |
| <p>\$</p> <p style="text-align: right; color: red;">19,127</p> | <p>LBMS costs are based on a 2008 quote provided to the U.S. Department 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> |
| | |
| Activated Carbon Injection | |
| <p>Hospital/Medical/Infectious Waste Incinerators (HMIWI). [EPA-HQ-OAR-2006-0534]</p> | <p>Received spreadsheet of HMIWI model costs from Tom Holloway of RTI International.</p> |
| Fabric Filter | |
| <p>Hospital/Medical/Infectious Waste Incinerators (HMIWI). [EPA-HQ-OAR-2006-0534]</p> | <p>Received spreadsheet of HMIWI model costs from Tom Holloway of RTI International.</p> |
| Packed Scrubber | |
| <p>Hospital/Medical/Infectious Waste Incinerators (HMIWI). [EPA-HQ-OAR-2006-0534]</p> | <p>Received spreadsheet of HMIWI model costs from Tom Holloway of RTI International.</p> |
| Secondary Chamber/Afterburner Retrofit | |
| <p>Hospital/Medical/Infectious Waste Incinerators (HMIWI). [EPA-HQ-OAR-2006-0534]</p> | <p>Received spreadsheet of HMIWI model costs from Tom Holloway of RTI International.</p> |
| Selective Non-Catalytic Reduction | |
| <p>Hospital/Medical/Infectious Waste Incinerators (HMIWI). [EPA-HQ-OAR-2006-0534]</p> | <p>Received spreadsheet of HMIWI model costs from Tom Holloway of RTI International.</p> |
| Catalytic Oxidizer | |

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

Year of Costs



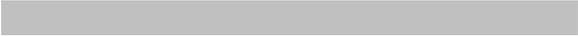
Assumed to represent \$2008, since that was the year the quote was obtained.



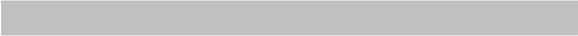
Originally \$2004



Originally \$2004



Originally \$2004



Originally \$2004



Originally \$2004



Originally \$2004



Monitoring Costs

| Parameters/Costs | Equation | All model sizes | | | | | | |
|---|---|-----------------|----------|----------|-------------------|-----------|-----------|-----------|
| | | FF | WS | SNCR | Bag leak detector | CO CEMS | HCl CEMS | PM CEMS |
| A. Parameters | | | | | | | | |
| 1. Recording lime/carbon flow, min/4-hr period | | | | | | | | |
| 2. Annual operating hours, hr/yr (H) | | | | | | | | |
| 3. Cost index | | | | | | | | |
| a. 2008 | | 575.4 | 575.4 | 575.4 | 575.4 | 575.4 | 575.4 | 575.4 |
| b. 2006 | | 499.6 | 499.6 | 499.6 | 499.6 | 499.6 | 499.6 | 499.6 |
| c. 1997 | | 386.5 | 386.5 | 386.5 | 386.5 | 386.5 | 386.5 | 386.5 |
| d. 1993 | | 359.2 | 359.2 | 359.2 | 359.2 | 359.2 | 359.2 | 359.2 |
| e. 1992 | | 358.2 | 358.2 | 358.2 | 358.2 | 358.2 | 358.2 | 358.2 |
| 4. Operating labor wage rate, \$/hr (LR) | | \$57.22 | \$57.22 | \$57.22 | \$57.22 | \$57.22 | \$57.22 | \$57.22 |
| 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 | | \$700 | \$700 | \$700 | \$800 | \$4,000 | \$3,300 | \$900 |
| 2. Select type of equipment | | \$400 | \$400 | \$400 | \$4,500 | \$10,000 | \$16,100 | \$12,200 |
| 3. Provide support facilities | | \$1,500 | \$1,500 | \$1,500 | \$500 | \$20,600 | \$20,600 | \$500 |
| 4. Purchased equipment cost (PEC) | | \$13,000 | \$19,300 | \$5,300 | \$14,100 | \$48,400 | \$51,900 | \$73,500 |
| 5. Install and check equipment | | \$1,000 | \$1,000 | \$1,000 | \$4,800 | \$18,200 | \$19,300 | \$19,500 |
| 6. Perf. spec. tests (certif.) | | \$700 | \$700 | \$700 | \$0 | \$15,700 | \$12,800 | \$35,500 |
| 7. Prepare QA/QC plan | | \$700 | \$700 | \$700 | \$800 | \$17,500 | \$17,500 | \$15,400 |
| 8. Total capital cost | = Planning + selecting equipment + support facilities + PEC + installation + perf. spec. tests + QA/QC plan | \$18,000 | \$24,300 | \$10,300 | \$25,500 | \$134,000 | \$142,000 | \$158,000 |
| C. Annual Costs, \$/yr | | | | | | | | |
| 1. Operating labor | $= (5 \text{ min to record lime/carbon flow/4-hr period}) \times (1 \text{ hr}/60 \text{ min}) \times H \times LR$ | | | | | | | |
| 2. Maintenance materials | $= 0.02 \times TCI$ | \$400 | \$500 | \$200 | | | | |
| 3. Operation & maintenance | = Day-to-day activities + annual RATA + CGA + annual QA + O&M review and update | | | | \$6,000 | \$27,600 | \$24,600 | \$27,300 |
| 4. Recordkeeping and reporting | $= \$1,000 \times (525.4/386.5)$ | \$1,500 | \$1,500 | \$1,500 | \$200 | \$1,200 | \$1,600 | \$6,300 |
| 5. Overhead | $= 0.6 \times (\text{labor} + \text{maintenance materials})$ | \$200 | \$300 | \$100 | | | | |
| 6. Property taxes, insurance, and administration | $= 0.04 \times TCI$ | \$700 | \$1,000 | \$400 | | | | |
| 7. Capital recovery | $= CRF \times TCI$ | \$1,700 | \$2,300 | \$1,000 | \$3,500 | \$12,600 | \$20,200 | \$22,500 |
| 8. Total annual cost | = Operating labor + maintenance materials + recordkeeping and reporting + overhead + property taxes, insurance, and administration + capital recovery | \$4,500 | \$5,600 | \$3,200 | \$9,700 | \$41,400 | \$46,400 | \$56,100 |

Monitoring Costs

| Parameters/Costs | 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 | | | | |
| a. 2008 | 575.4 | 575.4 | 575.4 | 575.4 |
| b. 2006 | 499.6 | 499.6 | 499.6 | 499.6 |
| c. 1997 | 386.5 | 386.5 | 386.5 | 386.5 |
| d. 1993 | 359.2 | 359.2 | 359.2 | 359.2 |
| e. 1992 | 358.2 | 358.2 | 358.2 | 358.2 |
| 4. Operating labor wage rate, \$/hr (LR) | \$57.22 | \$57.22 | \$57.22 | \$57.22 |
| 5. Capital recovery factor, 20-yr equipment life, 7% interest (CRF) | 0.09439 | 0.09439 | 0.09439 | 0.09439 |
| B. Total Capital Investment, \$ (TCI) | | | | |
| 1. Planning | \$3,300 | | | |
| 2. Select type of equipment | \$16,100 | | | |
| 3. Provide support facilities | \$20,600 | | | |
| 4. Purchased equipment cost (PEC) | \$109,900 | | | |
| 5. Install and check equipment | \$21,500 | | | |
| 6. Perf. spec. tests (certif.) | \$42,300 | | | |
| 7. Prepare QA/QC plan | \$17,500 | | | |
| 8. Total capital cost | \$231,000 | \$230,000 | \$115,000 | |
| C. Annual Costs, \$/yr | | | | |
| 1. Operating labor | | | | \$7,200 |
| 2. Maintenance materials | | | | |
| 3. Operation & maintenance | \$78,100 | | | |
| 4. Recordkeeping and reporting | \$1,600 | | | |
| 5. Overhead | | | | \$4,300 |
| 6. Property taxes, insurance, and administration | | | | |
| 7. Capital recovery | \$32,900 | | | |
| 8. Total annual cost | \$112,600 | \$63,300 | \$41,500 | \$11,500 |

Recordkeeping and Reporting Costs

| | (A) | (B) | (C) | (D) | (E) | (F) | (G) |
|---|-----------------------------|--------------------------------|---|---|--|---|----------|
| Burden item | Person-hours per occurrence | Number of occurrences per year | Technical person-hours per year (C = A x B) | Management person-hours per year (D = C x 0.05) | Clerical person-hours per year (E = C x 0.1) | Total person-hours per year (F = C + D + E) | Cost, \$ |
| A. Applications | N/A | | | | | | |
| B. Surveys and Studies | N/A | | | | | | |
| C. Reporting Requirements | | | | | | | |
| 1. Read instructions | 1.0 | 1 | 1.0 | 0.05 | 0.1 | 1.2 | \$65 |
| 2. Required activities | | | | | | | |
| a. Perf. spec. tests (certif.) for CMS | 11 | 1 | 11 | 0.6 | 1.1 | 13 | \$719 |
| 3. Write report | | | | | | | |
| a. Notification of initial performance test | | | | | | | |
| i. Pollutants, fugitive ash emissions | 2.0 | 1 | 2.0 | 0.1 | 0.2 | 2.3 | \$131 |
| ii. Fugitive ash emissions | 1.0 | 1 | 1.0 | 0.05 | 0.1 | 1.2 | \$65 |
| b. Notification of initial CMS demonstration | 2.0 | 1 | 2.0 | 0.1 | 0.2 | 2.3 | \$131 |
| c. Report of initial performance test | | | | | | | |
| i. Pollutants, fugitive ash emissions | 8.0 | 1 | 8.0 | 0.4 | 0.8 | 9.2 | \$523 |
| ii. Fugitive ash emissions | 2.0 | 1 | 2.0 | 0.1 | 0.2 | 2.3 | \$131 |
| d. Report of initial CMS demonstration | Incl. in C2 | | | | | | |
| e. Annual report | | | | | | | |
| i. Results of performance tests conducted during the year | 40 | 1 | 40 | 2.0 | 4.0 | 46 | \$2,615 |
| D. Recordkeeping Requirements | | | | | | | |
| 1. Read instructions | Incl. in C1 | | | | | | |
| 2. Plan activities | N/A | | | | | | |
| 3. Implement activities | N/A | | | | | | |
| 4. Develop record system | N/A | | | | | | |
| 5. Time to enter information | | | | | | | |
| a. Records of initial performance test | Incl. in C3 | | | | | | |
| b. Records of annual and any subsequent compliance tests | Incl. in C3 | | | | | | |
| E. Total Labor Burden and Cost | | | 67 | 3.4 | 6.7 | 77 | \$4,380 |

Notes:

- Person-hours per occurrence for CMS performance specification costs are based on the performance specification costs to certify CMS (\$700) divided by the composite hourly labor rate (\$66.41/hr).
- Control device inspection cost already accounted for under monitoring costs.
- Assume 8 hours for each facility to review the report of the initial performance test for pollutants and fugitive ash.
- Assume 2 hours for each facility to review the report of the initial performance test for fugitive ash.
- Assume 40 hours to review report of annual PM, CO, and HCl compliance reports.
- The average recurrent burden and cost in the first 3 years after promulgation for the sources with recurrent burden are equal to the person-hours added down each column for technical, management, and clerical and the sum of the cost column.

Sources:

- Bureau of Labor Statistics, Occupational Employment Statistics, May 2008 National Industry-Specific Occupational Employment and Wage Estimates.
- Hospital/Medical/Infectious Waste Incinerators (HMIWI) [EPA-HQ-OAR2006-0534] Testing and Monitoring Options and Costs Memo (IV-B-66).

**Table 1.A - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements of the Emissions Guidelines
for Existing Stationary Sources: Sewage Sludge Incineration Units - Subpart Mmmm - Year 1, Fluidized Bed**

| Burden Item | (A) Respondent Hours per Occurrence (Technical hours) | 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 | (E) Technical Hours Per Year (CXD) | (F) Management Hours Per Year (E x 0.05) | (G) Clerical Hours Per Year (E x 0.1) | Total Labor Costs Per Year | Total Non-Labor Costs Per Year | Total Responses Per Year | Footnotes |
|--|--|---|--|--|---|--|--|---|----------------------------------|---|--------------------------------|-----------|
| 1. Applications | N/A | | | | | | | | | | | |
| 2. Surveys and Studies | N/A | | | | | | | | | | | |
| 3. Reporting Requirements | | | | | | | | | | | | |
| A. Read and Understand Rule Requirements | 40 | \$100 | 1 | 40 | 41 | 1,640 | 82 | 164 | \$107,220 | \$4,100 | 0 | a,b,i,j |
| B. Required Activities | | | | | | | | | | | | |
| 1) Initial stack test and report | 40 | \$61,740 | 1 | 40 | 60 | 2,400 | 120 | 240 | \$156,907 | \$3,704,400 | 0 | a |
| 2) Annual stack test and test report | 40 | \$21,348 | 1 | 40 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | c,k |
| 3) Operator training and qualification | | | | | | | | | | | | |
| a) Establish and teach operator qualification course | 64 | \$0 | 1 | 64 | 41 | 2,624 | 131 | 262 | \$171,552 | \$0 | 0 | a,b,j |
| b) Obtain operator qualification | 72 | \$0 | 1 | 72 | 41 | 2,952 | 148 | 295 | \$192,996 | \$0 | 0 | a,b,j |
| c) Annual refresher course | 12 | \$0 | 1 | 12 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | c |
| d) Initial review of site-specific information | Incl. in 3.A | | | | | | | | | | | |
| e) Annual review of site-specific information | 8 | \$0 | 1 | 8 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | c |
| 4) Establish operating parameters (maximum and minimum) | 40 | \$0 | 1 | 40 | 60 | 2,400 | 120 | 240 | \$156,907 | \$0 | 0 | a |
| 5) Continuous parameter monitoring (including CEMS) | | | | | | | | | | | | |
| a) Initial capital costs | 0 | \$2,773 | 1 | 0 | 60 | 0 | 0 | 0 | \$0 | \$166,400 | 0 | a,d |
| b) Annualized capital and O&M costs | 11 | \$667 | 1 | 11 | 60 | 660 | 33 | 66 | \$43,150 | \$40,000 | 0 | c,e |
| C. Create Information | Incl. in 3.B | | | | | | | | | | | |
| D. Gather Information | Incl. in 3.E | | | | | | | | | | | |
| E. Report Preparation | | | | | | | | | | | | |
| 1) Notification of initial performance test | 2 | \$0 | 1 | 2 | 60 | 120 | 6 | 12 | \$7,845 | \$0 | 60 | |
| 2) Notification of initial CMS Demonstration | 2 | \$0 | 1 | 2 | 60 | 120 | 6 | 12 | \$7,845 | \$0 | 60 | b,j |
| 3) Final Control Plan | 20 | \$0 | 1 | 20 | 60 | 1,200 | 60 | 120 | \$78,454 | \$0 | 60 | |
| 4) Initial Compliance Report | 40 | \$0 | 1 | 40 | 60 | 2,400 | 120 | 240 | \$156,907 | \$0 | 60 | |
| 5) Report for site-specific parameter petition | 14 | \$0 | 1 | 14 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | a,f |
| 6) Annual Compliance Report | 40 | \$0 | 1 | 40 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | |
| 7) Status report for operators that are off-site for more than 2 weeks | 8 | \$0 | 1 | 8 | 5 | 40 | 2 | 4 | \$2,615 | \$0 | 5 | g |
| 8) Corrective action summary for operators that are off-site for more than 2 weeks | 8 | \$0 | 2 | 16 | 5 | 80 | 4 | 8 | \$5,230 | \$0 | 10 | g |
| 9) Semiannual Deviation Report | 24 | \$0 | 2 | 48 | 5 | 240 | 12 | 24 | \$15,691 | \$0 | 10 | h |
| Reporting Subtotal | | | | | | 16,876 | 844 | 1,688 | \$1,103,320 | \$3,748,500 | 265 | |
| 4. Recordkeeping Requirements | | | | | | | | | | | | |
| A. Read Instructions | Incl. in 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 | 2 | \$0 | 52 | 104 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | |
| 2) Records of exceedances of the operating parameters | 2 | \$0 | 1 | 2 | 5 | 10 | 1 | 1 | \$654 | \$0 | 0 | g |
| 3) Records of stack tests | 2 | \$0 | 1 | 2 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | |
| 4) Records of persons who have reviewed operating procedures | 2 | \$0 | 1 | 2 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | |
| 5) Records of persons who have completed operator training | 2 | \$0 | 1 | 2 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | |
| 6) Records of persons who meet operator qualification criteria | 2 | \$0 | 1 | 2 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | |
| 7) Records of monitoring device calibration | 2 | \$0 | 1 | 2 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | |
| 8) Records of site-specific documentation | 24 | \$0 | 1 | 24 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | |
| F. Personnel Training | Incl. in 3.B | | | | | | | | | | | |
| G. Time for Audits | N/A | | | | | | | | | | | |
| Recordkeeping Subtotal | | | | | | 10 | 0.5 | 1 | \$654 | \$0 | 0 | |
| TOTAL: | | | | | | 16,886 | 844 | 1,689 | \$1,103,974 | \$3,748,500 | 265 | |
| | | | | | | | Total Hours | Labor | Non-Labor | Total | | |
| | | | | | | | 19,419 | \$1,103,974 | \$3,748,500 | \$4,852,474 | | |
| | | | | | | | | | \$170,500 | | | |
| | | | | | | | | | \$3,748,500 | | | |

FOOTNOTES

- a One-time only costs.
- b Cost incurred by a facility regardless of the number of affected units at the plant.
- c Annual cost. Annual costs are not incurred until the second year of operation.
- d Based on the sum of the total capital costs for each monitoring system required for incinerators.
- e Based on the sum of the annualized capital costs for each monitoring system required for incinerators.
- f Assumed that none of the facilities will petition for site-specific parameters.
- g 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.
- h Assumed that 10 percent of the facilities would have an exceedance during the year.
- i Assumed \$100 for purchase of filing cabinet to house copy of rule, records and report copies.
- j 32 facilities have FB units; however one of these facilities also has a MH unit. Facility-specific costs are included for only 31 units here and the facility-specific costs for the facility have both unit types are incorporated into the MH tables.

Table 1.B - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements of the Emissions Guidelines

for Existing Stationary Sources: Sewage Sludge Incineration Units - Subpart Mmmm - Year 2, Fluidized Bed

| for Existing Stationary Sources: Sewage Sludge Incineration Units - Subpart Mmmm - Year 2, Fluidized Bed | (A) | (B) | (C) | (D) | (E) | (F) | (G) | Total Labor Costs | Total Non-Labor Costs | Total Responses | Footnotes |
|--|--|--------------------------------|---|---|--------------------------------|--------------------------------|--------------------------------------|-----------------------------------|-----------------------|--------------------|-------------|
| Footnotes | Respondent Hours per Occurrence (Technical hours) | Non-Labor Costs Per Occurrence | Number of Occurrences Per Respondent Per Year | Hours Per Respondent Per Year (C=A x B) | Number of Respondents Per Year | Technical Hours Per Year (CXD) | Management Hours Per Year (E x 0.05) | Clerical Hours Per Year (E x 0.1) | Per Year | Per Year | Per Year |
| Total Responses | Burden Item | | | | | | | | | | |
| | 1. Applications | N/A | | | | | | | | | |
| | 2. Surveys and Studies | N/A | | | | | | | | | |
| | 3. Reporting Requirements | | | | | | | | | | |
| | A. Read and Understand Rule Requirements | 40 | \$0 | 1 | 40 | 0 | 0 | 0 | \$0 | \$0 | 0 |
| | B. Required Activities | | | | | | | | | | |
| | 1) Initial stack test and report | 40 | \$61,740 | 1 | 40 | 0 | 0 | 0 | \$0 | \$0 | 0 |
| | 2) Annual stack test and test report | 40 | \$21,348 | 1 | 40 | 60 | 2,400 | 120 | 240 | \$156,907 | \$1,280,880 |
| | 3) Operator training and qualification | | | | | | | | | | |
| | a) Establish and teach operator qualification course | 64 | \$0 | 1 | 64 | 0 | 0 | 0 | \$0 | \$0 | 0 |
| | b) Obtain operator qualification | 72 | \$0 | 1 | 72 | 0 | 0 | 0 | \$0 | \$0 | 0 |
| | c) Annual refresher course | 12 | \$0 | 1 | 12 | 41 | 492 | 25 | 49 | \$32,166 | \$0 |
| | d) Initial review of site-specific information | Incl. in a. | | | | | | | | | |
| | e) Annual review of site-specific information | 8 | \$0 | 1 | 8 | 41 | 328 | 16 | 33 | \$21,444 | \$0 |
| | 4) Establish operating parameters (maximum and minimum) | 40 | \$0 | 1 | 40 | 0 | 0 | 0 | \$0 | \$0 | 0 |
| | 5) Continuous parameter monitoring (including CEMS) | | | | | | | | | | |
| | a) Initial capital costs | 0 | \$0 | 1 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 |
| | b) Annualized capital and O&M costs | 11 | \$667 | 1 | 11 | 60 | 660 | 33 | 66 | \$43,150 | \$40,000 |
| | C. Create Information | Incl. in 3.B | | | | | | | | | |
| | D. Gather Information | Incl. in 3.E | | | | | | | | | |
| | E. Report Preparation | | | | | | | | | | |
| | 1) Notification of initial performance test | 2 | \$0 | 1 | 2 | 0 | 0 | 0 | \$0 | \$0 | 0 |
| | 2) Notification of initial CMS Demonstration | 2 | \$0 | 1 | 2 | 0 | 0 | 0 | \$0 | \$0 | 0 |
| | 3) Final Control Plan | 20 | \$0 | 1 | 20 | 0 | 0 | 0 | \$0 | \$0 | 0 |
| | 4) Initial Compliance Report | 40 | \$0 | 1 | 40 | 0 | 0 | 0 | \$0 | \$0 | 0 |
| | 5) Report for site-specific parameter petition | 14 | \$0 | 1 | 14 | 0 | 0 | 0 | \$0 | \$0 | 0 |
| | 6) Annual Compliance Report | 40 | \$0 | 1 | 40 | 60 | 2,400 | 120 | 240 | \$156,907 | \$0 |
| | 7) Status report for operators that are off-site for more than 2 weeks | 8 | \$0 | 1 | 8 | 5 | 40 | 2 | 4 | \$2,615 | \$0 |
| | 8) Corrective action summary for operators that are off-site for more than 2 weeks | 8 | \$0 | 2 | 16 | 5 | 80 | 4 | 8 | \$5,230 | \$0 |
| | 9) Semiannual Deviation Report | 24 | \$0 | 2 | 48 | 5 | 240 | 12 | 24 | \$15,691 | \$0 |
| | Reporting Subtotal | | | | | 6,640 | 332 | 664 | \$434,110 | \$1,320,880 | 85 |
| | 4. Recordkeeping Requirements | | | | | | | | | | |
| | A. Read Instructions | Incl. in 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 | 2 | \$0 | 52 | 104 | 0 | 0 | 0 | \$0 | \$0 | 0 |
| | 2) Records of exceedances of the operating parameters | 2 | \$0 | 1 | 2 | 5 | 10 | 1 | 1 | \$654 | \$0 |
| | 3) Records of stack tests | 2 | \$0 | 1 | 2 | 41 | 82 | 4 | 8 | \$5,361 | \$0 |
| | 4) Records of persons who have reviewed operating procedures | 2 | \$0 | 1 | 2 | 41 | 82 | 4 | 8 | \$5,361 | \$0 |
| | 5) Records of persons who have completed operator training | 2 | \$0 | 1 | 2 | 41 | 82 | 4 | 8 | \$5,361 | \$0 |
| | 6) Records of persons who meet operator qualification criteria | 2 | \$0 | 1 | 2 | 41 | 82 | 4 | 8 | \$5,361 | \$0 |
| | 7) Records of monitoring device calibration | 2 | \$0 | 1 | 2 | 41 | 82 | 4 | 8 | \$5,361 | \$0 |
| | 8) Records of site-specific documentation | 24 | \$0 | 1 | 24 | 41 | 984 | 49 | 98 | \$64,332 | \$0 |
| | F. Personnel Training | Incl. in 3.B | | | | | | | | | |
| | G. Time for Audits | N/A | | | | | | | | | |
| | Recordkeeping Subtotal | | | | | 1404 | 70.2 | 140.4 | \$91,791 | \$0 | 0 |
| | TOTAL: | | | | | 8,044 | | 804 | \$525,901 | \$1,320,880 | 85 |
| | | | | | | | Total Hours | Labor | Non-Labor | Total | |
| | | | | | | | 9,251 | \$525,901 | \$1,320,880 | \$1,846,781 | |
| | | | | | | | | | \$0 | | |
| | | | | | | | | | \$1,320,880 | | |

FOOTNOTES

- a One-time only costs.
- b Cost incurred by a facility regardless of the number of affected units at the plant.
- c Annual cost. Annual costs are not incurred until the second year of operation.
- d Based on the sum of the total capital costs for each monitoring system required for incinerators.
- e Based on the sum of the annualized capital costs for each monitoring system required for incinerators.
- f Assumed that none of the facilities will petition for site-specific parameters.
- g 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.
- h Assumed that 10 percent of the facilities would have an exceedance during the year.
- i Assumed \$100 for purchase of filing cabinet to house copy of rule, records and report copies.
- j 32 facilities have FB units; however one of these facilities also has a MH unit. Facility-specific costs are included for only 31 units here and the facility-specific costs for the facility have both unit types are incorporated into the MH tables.

Table 1.C - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements of the Emissions Guidelines

for Existing Stationary Sources: Sewage Sludge Incineration Units - Subpart Mmmm - Year 3, Fluidized Bed

| for Exfor Existing Stationary Sources: Sewage Sludge Incineration Units - Subpart Mmmm - Year 3, Fluidized Bed | (A) | (B) | (C) | (D) | (E) | (F) | (G) | | | | | | |
|--|---|---|---|---|--------------------------------------|---|---|--|----------------------------------|---|--------------------------------|--|-----------|
| FootnFootnotes Total Total ResprResponses | Respondent Hours per Occurrence (Technical hours) | Non-Labor Costs Per Occurrence | Number of Occurrences Per Respondent Per Year | Hours Per Respondent Per Year (C=A x B) | Number of Respondents Per Year | Technical Hours Per Year (CXD) | Management Hours Per Year (E x 0.05) | Clerical Hours Per Year (E x 0.1) | Total Labor Costs Per Year | Total Non-Labor Costs Per Year | Total Responses Per Year | | Footnotes |
| Burden Item | | | | | | | | | | | | | |
| 1. Applications | N/A | | | | | | | | | | | | |
| 2. Surveys and Studies | N/A | | | | | | | | | | | | |
| 3. Reporting Requirements | | | | | | | | | | | | | |
| A. Read and Understand Rule Requirements | 40 | \$0 | 1 | 40 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | | a,b,i |
| B. Required Activities | | | | | | | | | | | | | |
| 1) Initial stack test and report | 40 | \$61,740 | 1 | 40 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | | a |
| 2) Annual stack test and test report | 40 | \$21,348 | 1 | 40 | 60 | 2,400 | 120 | 240 | \$156,907 | \$1,280,880 | 0 | | c,k |
| 3) Operator training and qualification | | | | | | | | | | | | | |
| a) Establish and teach operator qualification course | 64 | \$0 | 1 | 64 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | | a,b |
| b) Obtain operator qualification | 72 | \$0 | 1 | 72 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | | a,b |
| c) Annual refresher course | 12 | \$0 | 1 | 12 | 41 | 492 | 25 | 49 | \$32,166 | \$0 | 0 | | c,j |
| d) Initial review of site-specific information | Incl. in a. | | | | | | | | | | | | |
| e) Annual review of site-specific information | 8 | \$0 | 1 | 8 | 41 | 328 | 16 | 33 | \$21,444 | \$0 | 0 | | c,j |
| 4) Establish operating parameters (maximum and minimum) | 40 | \$0 | 1 | 40 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | | a |
| 5) Continuous parameter monitoring (including CEMS) | | | | | | | | | | | | | |
| a) Initial capital costs | 0 | \$0 | 1 | 0 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | | a,d |
| b) Annualized capital and O&M costs | 11 | \$667 | 1 | 11 | 60 | 660 | 33 | 66 | \$43,150 | \$40,000 | 0 | | c,e |
| C. Create Information | Incl. in 3.B | | | | | | | | | | | | |
| D. Gather Information | Incl. in 3.E | | | | | | | | | | | | |
| E. Report Preparation | | | | | | | | | | | | | |
| 1) Notification of initial performance test | 2 | \$0 | 1 | 2 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | | |
| 2) Notification of initial CMS Demonstration | 2 | \$0 | 1 | 2 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | | b,j |
| 3) Final Control Plan | 20 | \$0 | 1 | 20 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | | |
| 4) Initial Compliance Report | 40 | \$0 | 1 | 40 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | | |
| 5) Report for site-specific parameter petition | 14 | \$0 | 1 | 14 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | | a,f |
| 6) Annual Compliance Report | 40 | \$0 | 1 | 40 | 60 | 2,400 | 120 | 240 | \$156,907 | \$0 | 60 | | |
| 7) Status report for operators that are off-site for more than 2 weeks | 8 | \$0 | 1 | 8 | 5 | 40 | 2 | 4 | \$2,615 | \$0 | 5 | | g |
| 8) Corrective action summary for operators that are off-site for more than 2 weeks | 8 | \$0 | 2 | 16 | 5 | 80 | 4 | 8 | \$5,230 | \$0 | 10 | | g |
| 9) Semiannual Deviation Report | 24 | \$0 | 2 | 48 | 5 | 240 | 12 | 24 | \$15,691 | \$0 | 10 | | h |
| Reporting Subtotal | | | | | | 6,640 | 332 | 664 | \$434,110 | \$1,320,880 | 85 | | 0 |
| 4. Recordkeeping Requirements | | | | | | | | | | | | | |
| A. Read Instructions | Incl. in 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 | 2 | \$0 | 52 | 104 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | | |
| 2) Records of exceedances of the operating parameters | 2 | \$0 | 1 | 2 | 5 | 10 | 1 | 1 | \$654 | \$0 | 0 | | g |
| 3) Records of stack tests | 2 | \$0 | 1 | 2 | 41 | 82 | 4 | 8 | \$5,361 | \$0 | 0 | | |
| 4) Records of persons who have reviewed operating procedures | 2 | \$0 | 1 | 2 | 41 | 82 | 4 | 8 | \$5,361 | \$0 | 0 | | j |
| 5) Records of persons who have completed operator training | 2 | \$0 | 1 | 2 | 41 | 82 | 4 | 8 | \$5,361 | \$0 | 0 | | j |
| 6) Records of persons who meet operator qualification criteria | 2 | \$0 | 1 | 2 | 41 | 82 | 4 | 8 | \$5,361 | \$0 | 0 | | j |
| 7) Records of monitoring device calibration | 2 | \$0 | 1 | 2 | 41 | 82 | 4 | 8 | \$5,361 | \$0 | 0 | | |
| 8) Records of site-specific documentation | 24 | \$0 | 1 | 24 | 41 | 984 | 49 | 98 | \$64,332 | \$0 | 0 | | j |
| F. Personnel Training | Incl. in 3.B | | | | | | | | | | | | |
| G. Time for Audits | N/A | | | | | | | | | | | | |
| Recordkeeping Subtotal | | | | | | 1404 | 70.2 | 140.4 | \$91,791 | \$0 | 0 | | |
| TOTAL: | | | | | | 8,044 | 402 | 804 | \$525,901 | \$1,320,880 | 85 | | |
| Summary of Respondent Burden | | | | | | | Total Hours | Labor | Non-Labor | Total | | | |
| Initial Capital and Startup | | | | | | | 9,251 | \$525,901 | \$1,320,880 | \$1,846,781 | | | |
| Annualized Capital/Start-up and O & M | | | | | | | | | \$0 | | | | |
| | | | | | | | | | \$1,320,880 | | | | |

FOOTNOTES

- a One-time only costs.
- b Cost incurred by a facility regardless of the number of affected units at the plant.
- c Annual cost. Annual costs are not incurred until the second year of operation.
- d Based on the sum of the total capital costs for each monitoring system required for incinerators.
- e Based on the sum of the annualized capital costs for each monitoring system required for incinerators.
- f Assumed that none of the facilities will petition for site-specific parameters.
- g 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.
- h Assumed that 10 percent of the facilities would have an exceedance during the year.
- i Assumed \$100 for purchase of filing cabinet to house copy of rule, records and report copies.
- j 32 facilities have FB units; however one of these facilities also has a MH unit. Facility-specific costs are included for only 31 units here and the facility-specific costs for the facility have both unit types are incorporated into the MH tables.
- k Facilities may test every three years if certain requirements are met, thus annual testing is divided by three to give a per year cost. It is assumed most facilities would meet the requirements.

Table 1.D - Summary of Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements of the Emissions Guidelines for Existing Stationary Sources: Sewage Sludge Incineration Units - Subpart MMMM - Fluidized Bed

| Year | Technical Hours | Management Hours | Clerical Hours | Total Hours | Labor Costs | Non-Labor (Annualized Capital/Startup and O&M) Costs | Total Costs |
|---------|-----------------|------------------|----------------|-------------|-------------|--|-------------|
| 1 | 16,886 | 844 | 1,689 | 19,419 | \$1,103,974 | \$3,748,500 | \$4,852,474 |
| 2 | 8,044 | 402 | 804 | 9,251 | \$525,901 | \$1,320,880 | \$1,846,781 |
| 3 | 8,044 | 402 | 804 | 9,251 | \$525,901 | \$1,320,880 | \$1,846,781 |
| Total | 32,974 | 1,649 | 3,297 | 37,920 | \$2,155,776 | \$6,390,260 | \$8,546,036 |
| Average | 10,991 | 550 | 1,099 | 12,640 | \$718,592 | \$2,130,087 | \$2,848,679 |

Table 2.B - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements of the Emissions Guidelines

for Existing Stationary Sources: Sewage Sludge Incineration Units - Subpart Mmmm - Year 2, Multiple Hearth

| for Exfor Existing Stationary Sources: Sewage Sludge Incineration Units - Subpart Mmmm - Year 2, Multiple Hearth | (A) | (B) | (C) | (D) | (E) | (F) | (G) | | | | | | |
|--|---|--------------------------------|---|---|--------------------------------|--------------------------------|--------------------------------------|-----------------------------------|----------------------------|--------------------------------|--------------------------|--|-----------|
| Footnotes | Respondent Hours per Occurrence (Technical hours) | Non-Labor Costs Per Occurrence | Number of Occurrences Per Respondent Per Year | Hours Per Respondent Per Year (C=A x B) | Number of Respondents Per Year | Technical Hours Per Year (CXD) | Management Hours Per Year (E x 0.05) | Clerical Hours Per Year (E x 0.1) | Total Labor Costs Per Year | Total Non-Labor Costs Per Year | Total Responses Per Year | | Footnotes |
| Burden Item | | | | | | | | | | | | | |
| 1. Applications | N/A | | | | | | | | | | | | |
| 2. Surveys and Studies | N/A | | | | | | | | | | | | |
| 3. Reporting Requirements | | | | | | | | | | | | | |
| A. Read and Understand Rule Requirements | 40 | \$0 | 1 | 40 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | | a,b,i |
| B. Required Activities | | | | | | | | | | | | | |
| 1) Initial stack test and report | 40 | \$61,740 | 1 | 40 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | | a |
| 2) Annual stack test and test report | 40 | \$23,302 | 1 | 40 | 144 | 5,760 | 288 | 576 | \$376,578 | \$3,355,488 | 0 | | c,j |
| 3) Operator training and qualification | | | | | | | | | | | | | |
| a) Establish and teach operator qualification course | 64 | \$0 | 1 | 64 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | | a,b |
| b) Obtain operator qualification | 72 | \$0 | 1 | 72 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | | a,b |
| c) Annual refresher course | 12 | \$0 | 1 | 12 | 69 | 828 | 41 | 83 | \$54,133 | \$0 | 0 | | c |
| d) Initial review of site-specific information | Incl. in a. | | | | | | | | | | | | |
| e) Annual review of site-specific information | 8 | \$0 | 1 | 8 | 69 | 552 | 28 | 55 | \$36,089 | \$0 | 0 | | c |
| 4) Establish operating parameters (maximum and minimum) | 40 | \$0 | 1 | 40 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | | a |
| 5) Continuous parameter monitoring (including CEMS) | | | | | | | | | | | | | |
| a) Initial capital costs | 0 | \$0 | 1 | 0 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | | a,d |
| b) Annualized capital and O&M costs | 11 | \$389 | 1 | 11 | 144 | 1,584 | 79 | 158 | \$103,559 | \$56,000 | 0 | | c,e |
| C. Create Information | Incl. in 3.B | | | | | | | | | | | | |
| D. Gather Information | Incl. in 3.E | | | | | | | | | | | | |
| E. Report Preparation | | | | | | | | | | | | | |
| 1) Notification of initial performance test | 2 | \$0 | 1 | 2 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | | |
| 2) Notification of initial CMS Demonstration | 2 | \$0 | 1 | 2 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | | b,j |
| 3) Final Control Plan | 20 | \$0 | 1 | 20 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | | |
| 4) Initial Compliance Report | 40 | \$0 | 1 | 40 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | | |
| 5) Report for site-specific parameter petition | 14 | \$0 | 1 | 14 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | | a,f |
| 6) Annual Compliance Report | 40 | \$0 | 1 | 40 | 144 | 5,760 | 288 | 576 | \$376,578 | \$0 | 144 | | |
| 7) Status report for operators that are off-site for more than 2 weeks | 8 | \$0 | 1 | 8 | 7 | 56 | 3 | 6 | \$3,661 | \$0 | 7 | | g |
| 8) Corrective action summary for operators that are off-site for more than 2 weeks | 8 | \$0 | 2 | 16 | 7 | 112 | 6 | 11 | \$7,322 | \$0 | 14 | | g |
| 9) Semiannual Deviation Report | 24 | \$0 | 2 | 48 | 7 | 336 | 17 | 34 | \$21,967 | \$0 | 14 | | h |
| Reporting Subtotal | | | | | | 14,988 | 749 | 1,499 | \$979,886 | \$3,411,488 | 179 | | |
| 4. Recordkeeping Requirements | | | | | | | | | | | | | |
| A. Read Instructions | Incl. in 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 | 2 | \$0 | 52 | 104 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | | |
| 2) Records of exceedances of the operating parameters | 2 | \$0 | 1 | 2 | 7 | 14 | 1 | 1 | \$915 | \$0 | 0 | | g |
| 3) Records of stack tests | 2 | \$0 | 1 | 2 | 69 | 138 | 7 | 14 | \$9,022 | \$0 | 0 | | |
| 4) Records of persons who have reviewed operating procedures | 2 | \$0 | 1 | 2 | 69 | 138 | 7 | 14 | \$9,022 | \$0 | 0 | | |
| 5) Records of persons who have completed operator training | 2 | \$0 | 1 | 2 | 69 | 138 | 7 | 14 | \$9,022 | \$0 | 0 | | |
| 6) Records of persons who meet operator qualification criteria | 2 | \$0 | 1 | 2 | 69 | 138 | 7 | 14 | \$9,022 | \$0 | 0 | | |
| 7) Records of monitoring device calibration | 2 | \$0 | 1 | 2 | 69 | 138 | 7 | 14 | \$9,022 | \$0 | 0 | | |
| 8) Records of site-specific documentation | 24 | \$0 | 1 | 24 | 69 | 1,656 | 83 | 166 | \$108,266 | \$0 | 0 | | |
| F. Personnel Training | Incl. in 3.B | | | | | | | | | | | | |
| G. Time for Audits | N/A | | | | | | | | | | | | |
| Recordkeeping Subtotal | | | | | | 2360 | 118 | 236 | \$154,292 | \$0 | 0 | | |
| TOTAL: | | | | | | 17,348 | 867 | 1,735 | \$1,134,178 | \$3,411,488 | 179 | | |
| Summary of Respondent Burden | | | | | | | Total Hours | Labor | Non-Labor | Total | | | |
| Initial Capital and Startup | | | | | | | 19,950 | \$1,134,178 | \$3,411,488 | \$4,545,666 | | | |
| Annualized Capital/Start-up and O & M | | | | | | | | \$0 | \$3,411,488 | | | | |

FOOTNOTES

- a One-time only costs.
- b Cost incurred by a facility regardless of the number of affected units at the plant.
- c Annual cost. Annual costs are not incurred until the second year of operation.
- d Based on the sum of the total capital costs for each monitoring system required for incinerators.
- e Based on the sum of the annualized capital costs for each monitoring system required for incinerators.
- f Assumed that none of the facilities will petition for site-specific parameters.
- g 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.
- h Assumed that 10 percent of the facilities would have an exceedance during the year.
- i Assumed \$100 for purchase of filing cabinet to house copy of rule, records and report copies.
- j Facilities may test every three years if certain requirements are met, thus annual testing is divided by three to give a per year cost. It is assumed most facilities would meet the requirements.

Table 2.D - Summary of Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements of the Emissions Guidelines for Existing Stationary Sources: Sewage Sludge Incineration Units - Subpart M MMM - Multiple Hearth

| Year | Technical Hours | Management Hours | Clerical Hours | Total Hours | Labor Costs | Non-Labor (Annualized Capital/Startup and O&M) Costs | Total Costs |
|---------|-----------------|------------------|----------------|-------------|-------------|--|--------------|
| 1 | 34,982 | 1,749 | 3,498 | 40,229 | \$2,287,055 | \$8,953,460 | \$11,240,515 |
| 2 | 17,348 | 867 | 1,735 | 19,950 | \$1,134,178 | \$3,411,488 | \$4,545,666 |
| 3 | 17,348 | 867 | 1,735 | 19,950 | \$1,134,178 | \$3,411,488 | \$4,545,666 |
| Total | 69,678 | 3,484 | 6,968 | 80,130 | \$4,555,412 | \$15,776,436 | \$20,331,848 |
| Average | 23,226 | 1,161 | 2,323 | 26,710 | \$1,518,471 | \$5,258,812 | \$6,777,283 |

Table 3 - Summary of Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements of the Emissions Guidelines for Existing Stationary Sources: Sewage Sludge Incineration Units - Subpart M - All Subcategories

| Year | Technical Hours | Management Hours | Clerical Hours | Total Labor Hours | Labor Costs | Non-Labor (Annualized Capital/Startup and O&M) Costs | Total Costs |
|---------|-----------------|------------------|----------------|-------------------|-------------|--|--------------|
| 1 | 51,868 | 2,593 | 5,187 | 59,648 | \$3,391,029 | \$12,701,960 | \$16,092,989 |
| 2 | 25,392 | 1,270 | 2,539 | 29,201 | \$1,660,079 | \$4,732,368 | \$6,392,447 |
| 3 | 25,392 | 1,270 | 2,539 | 29,201 | \$1,660,079 | \$4,732,368 | \$6,392,447 |
| Total | 102,652 | 5,133 | 10,265 | 118,050 | \$6,711,187 | \$22,166,696 | \$28,877,883 |
| Average | 34,217 | 1,711 | 3,422 | 39,350 | \$2,237,062 | \$7,388,899 | \$9,625,961 |

Table 4 - Annual Designated Administrator Burden and Cost of Recordkeeping and Reporting Requirements of the Emission Guidelines for Existing Stationary Sources: Sewage Sludge Incineration Units - Subpart MMMM - 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 |
| 1. Applications | not applicable | | | | | | |
| 2. Read and Understand Rule Requirements | 60 | a | 40 | 2400 | 120 | 240 | \$124,374 |
| 3. Required Activities | | | | | | | |
| A. Observe stack tests | 41 | b | 48 | 1958 | 98 | 196 | \$101,489 |
| B. Excess emissions -- Enforcement Activities | 12 | | 24 | 288 | 14 | 29 | \$14,925 |
| C. Create Information | not applicable | | | | | | |
| D. Gather Information | not applicable | | | | | | |
| E. Report Reviews | | | | | | | |
| 1) Review initial notifications | 204 | | 20 | 4080 | 204 | 408 | \$211,435 |
| 2) Review initial compliance report | 204 | | 40 | 8160 | 408 | 816 | \$422,871 |
| 3) Review annual compliance report | 0 | | 8 | 0 | 0 | 0 | \$0 |
| 4) Review semi-annual excess emission and parameter exceedance report | 24 | | 16 | 384 | 19 | 38 | \$19,900 |
| 5) Review status reports and corrective action summary for operators off-site | 24 | | 4 | 96 | 5 | 10 | \$4,975 |
| F. Prepare annual summary report | 1 | c | 200 | 200 | 10 | 20 | \$10,364 |
| 5. Travel expenses: (1 person * 30 hours per year / 8 hours per day * \$75 per diem) + (\$600 per round trip) = | | | | | \$881 | per trip | \$35,955 |
| TOTAL | | | | 17566 | 878 | 1757 | \$946,288 |

FOOTNOTES

- a Number of occurrences is the number of states where affected sources will exist and each EPA Region (50 states + 10 EPA regions = 60 respondents).
- b Assumes EPA personnel attend 20 percent of the stack tests.
- c Using four hours per state to write annual summary report.

Table 5 - Annual Designated Administrator Burden and Cost of Recordkeeping and Reporting Requirements of the Emission Guidelines for Existing Stationary Sources: Sewage Sludge Incineration Units - Subpart Mmmm - 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 |
| 1. Applications | not applicable | | | | | | |
| 2. Read and Understand Rule Requirements | 0 | | 40 | 0 | 0 | 0 | \$0 |
| 3. Required Activities | | | | | | | |
| A. Observe stack tests | 41 | b | 48 | 1958 | 98 | 196 | \$101,489 |
| B. Excess emissions -- Enforcement Activities | 12 | | 24 | 288 | 14 | 29 | \$14,925 |
| C. Create Information | not applicable | | | | | | |
| D. Gather Information | not applicable | | | | | | |
| E. Report Reviews | | | | | | | |
| 1) Review initial notifications | 0 | | 20 | 0 | 0 | 0 | \$0 |
| 2) Review initial compliance report | 0 | | 40 | 0 | 0 | 0 | \$0 |
| 3) Review annual compliance report | 204 | | 8 | 1632 | 82 | 163 | \$84,574 |
| 4) Review semi-annual excess emission and parameter exceedance report | 24 | | 16 | 384 | 19 | 38 | \$19,900 |
| 5) Review status reports and corrective action summary for operators off-site | 24 | | 4 | 96 | 5 | 10 | \$4,975 |
| F. Prepare annual summary report | 1 | c | 200 | 200 | 10 | 20 | \$10,364 |
| 5. Travel expenses: (1 person * 30 hours per year / 8 hours per day * \$75 per diem) + (\$600 per round trip) = | | | | | \$881 | per trip | \$35,955 |
| TOTAL | | | | 4558 | 228 | 456 | \$272,182 |

FOOTNOTES

- a Number of occurrences is the number of states where affected sources will exist and each EPA Region (50 states + 10 EPA regions = 60 respondents).
- b Assumes EPA personnel attend 20 percent of the stack tests.
- c Using four hours per state to write annual summary report.

Table 6 - Annual Designated Administrator Burden and Cost of Recordkeeping and Reporting Requirements of the Emission Guidelines for Existing Stationary Sources: Sewage Sludge Incineration Units - Subpart MMMM - Year 3

| 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 |
| 1. Applications | not applicable | | | | | | |
| 2. Read and Understand Rule Requirements | 0 | a | 40 | 0 | 0 | 0 | \$0 |
| 3. Required Activities | | | | | | | |
| A. Observe stack tests | 41 | b | 48 | 1958 | 98 | 196 | \$101,489 |
| B. Excess emissions -- Enforcement Activities | 12 | | 24 | 288 | 14 | 29 | \$14,925 |
| C. Create Information | not applicable | | | | | | |
| D. Gather Information | not applicable | | | | | | |
| E. Report Reviews | | | | | | | |
| 1) Review initial notifications | 0 | | 20 | 0 | 0 | 0 | \$0 |
| 2) Review initial compliance report | 0 | | 40 | 0 | 0 | 0 | \$0 |
| 3) Review annual compliance report | 204 | | 8 | 1632 | 82 | 163 | \$84,574 |
| 4) Review semi-annual excess emission and parameter exceedance report | 24 | | 16 | 384 | 19 | 38 | \$19,900 |
| 5) Review status reports and corrective action summary for operators off-site | 24 | | 4 | 96 | 5 | 10 | \$4,975 |
| F. Prepare annual summary report | 1 | c | 200 | 200 | 10 | 20 | \$10,364 |
| 5. Travel expenses: (1 person * 30 hours per year / 8 hours per day * \$75 per diem) + (\$600 per round trip) = | | | | | \$881 | per trip | \$35,955 |
| TOTAL | | | | 4558 | 228 | 456 | \$272,182 |

FOOTNOTES

- a Number of occurrences is the number of states where affected sources will exist and each EPA Region (50 states + 10 EPA regions = 60 respondents).
- b Assumes EPA personnel attend 20 percent of the stack tests.
- c Using four hours per state to write annual summary report.

Table 7 - Summary of Designated Administrator Burden and Cost of Recordkeeping and Reporting Requirements of the Emission Guidelines for Existing Stationary Sources: Sewage Sludge Incineration Units - Subpart M MMM

| Year | Technical Hours | Management Hours | Clerical Hours | Total Hours | Labor Costs | Non-Labor Costs | Total Costs |
|---------|-----------------|------------------|----------------|-------------|-------------|-----------------|-------------|
| 1 | 17,566 | 878 | 1,757 | 20,201 | \$946,288 | \$0 | \$946,288 |
| 2 | 4,558 | 228 | 456 | 5,242 | \$272,182 | \$0 | \$272,182 |
| 3 | 4,558 | 228 | 456 | 5,242 | \$272,182 | \$0 | \$272,182 |
| Total | 26,683 | 1,334 | 2,668 | 30,686 | \$1,490,652 | \$0 | \$1,490,652 |
| Average | 8,894 | 445 | 889 | 10,229 | \$496,884 | \$0 | \$496,884 |