

**Table 1.A. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emission Guidelines
for publically-owned Municipal Solid Waste Landfills - Subpart Cf - Year 1, Proposed Option 2.5/34**

Burden Item	(A) Respondent Hours per Occurrence ^a	(B1) Annualized Non-Labor Capital Costs Per Occurrence	(B2) Annual Non- Labor O&M Costs Per Occurrence	(C) Number of Occurrences Per Respondent Per Year	(D) Civil Engineer Technician Hours per Respondent Per Year (A X C)	(E) Technical Hours per Respondent Per Year (A X C)	(F) Number of Respondents Per Year	(G) Civil Engineer Technician per Year @ \$49.85	(H) Technical Hours per Year @ \$86.46 (E X F)	(I) Clerical Hours per Year @ \$30.28 (H X 0.1)	(J) Management Hours per Year @ \$109.43 (H X .05)	(K) Total Labor Costs Per Year ^b	(L) Total Annualized Non- Labor Capital and O&M Costs Per Year (B1+B2) x Cx F)	(M) Total Number of Responses per Year (C X F) ^c	(N) Capital/Start- up Costs per occurrence	Footnotes
1. Applications	na															
2. Surveys and Studies	na															
3. Reporting Requirements																
A. Read and Understand Rule Requirements																
1. Open or controlling landfills	40	\$0		1	0	40	629	0	25,147	2,515	1,257	\$2,387,896	\$0	0		d
2. Closed uncontrolled landfills and other small landfills	10	\$0		1	0	10	519	0	5,189	519	259	\$492,769	\$0	0		d
B. Required Activities																
1. Initial performance test report	12	\$1,984	\$1,000	1	0	12	239	0	2,867	287	143	\$272,245	\$712,856	239	18,067	e, f
2. Surface methane monitoring quarterly	54	\$704		4	216	0	293	63,297	0	0	0	\$3,155,591	\$824,614.56	0		a, g
3. Wellhead monitoring monthly	40	\$17		12	480	1	293	140,659	0	0	0	\$7,012,424	\$59,780	0		a, g
C. Create Information	Included in 3B															
D. Gather Information	Included in 3B															
E. Report Preparation																
1. Initial design capacity report	2	\$0		1	0	2	155	0	310	31	15	\$29,410	\$0	155		h
2. Amended design capacity report	2	\$0		1	0	2	21	0	42	4	2	\$3,988	\$0	21		i
3. Report of NMOC rate (Tier 1)	8	\$0		1	0	8	83	0	663	66	33	\$62,941	\$0	83		j
4. Report of NMOC rate (Tier 2)	12	\$2,708		1	0	12	83	0	994	99	50	\$94,412	\$224,395	83	10,067	j, k
5. Landfill Closure Report	1	\$0		1	0	1	8	0	8	1	0	\$714	\$0	8		l
6. Equipment Removal Report	36	\$0		1	0	36	0	0	0	0	0	\$0	\$0	0		m
7. Collection and Control System Design Plan	80	\$0		1	0	80	239	0	19,114	1,911	956	\$1,814,965	\$0	239		f
8. Revised design plan	20	\$0		1	0	20	24	0	478	48	24	\$45,374	\$0	24		n
9. Initial Performance Test	Included in 3B															
10. Compliance Report	Included in 3B															
11. Annual Report	27	\$0		1	0	27	293	0	7,912	791	396	\$751,305	\$0	293		o
12. Corrective Action Analysis	15			1		15	1	0	15	2	1	\$1,424	\$0	1		r
13. Implementation Timeline	15			1		15	1	0	15	2	1	\$1,424	\$0	1		r
14. Root Cause Analysis	15			1		15	1	0	15	2	1	\$1,424	\$0	1		r
15. Wet Landfill Monitoring Report	15			1		15	82	0	1,234	123	62	\$117,139	\$0	82		s
<i>Reporting Subtotal</i>								203,956	64,002	6,400	3,200	\$16,245,446	\$1,821,645	1,229	\$28,134	
4. Recordkeeping Requirements																
A. Read Instructions	Included in 3a															
B. Plan Activities	na															
C. Implement Activities	na															
D. Develop Record System	na															
E. Record Information																
1. Data Compilation and Review (controllers)	5	\$0		12	0	60	293	0	17,582	1,758	879	\$1,669,568	\$0	0		p
2. Recordkeeping and Data Storage (controllers)	11	\$0		12	0	132	293	0	38,681	3,868	1,934	\$3,673,049	\$0	0		p
3. Recordkeeping and Data Storage (others)	4	\$0		1	0	4	338	0	1,354	135	68	\$128,533	\$0	0		q
E. Personnel Training	na															
F. Time for Audits	na															
<i>Recordkeeping Subtotal</i>								0	57,617	5,762	2,881	\$5,471,150	\$0	0	\$0	
Totals								203,956	121,619	12,162	6,081	\$21,716,596	\$1,821,645	1,229	\$28,134	

FOOTNOTES

a We have assumed all respondent hours equals the number of Technical Hours except for surface methane monitoring and wellhead monitoring which fall under Civil Engineer Technician Hours.

b This ICR uses mean hourly wage for the following labor categories from the United States Department of Labor, Bureau of Labor Statistics, May 2013, "National Occupational Employment and Wage Estimates United States": Managers, All Other for Managerial labor, Civil Engineer for Technical labor, and Office Clerks, General for Clerical labor. The rates have been increased by 110 percent to account for the benefit packages available to those employed by private industry.

c Includes only responses that are submitted as reports.

d Number of occurrences is based on the total number of landfills that are subject to the standard. This is a one time requirement for new respondents. We have assumed that all open or controlled landfills will take 40 hours to read instructions as part of their reporting requirements. While other closed and smaller landfills are subject these requirements are very minimal and their time to read the rule would be much less. Based on the regulatory database, 62% of these respondents are public and 38% are private.

e

Based on the annualized capital costs for method 25, 25A, or 25C over 15 years, which is the expected lifetime of the flare or other destruction device. Other capital costs related to flare station monitoring include a thermocouple, flowmeter and data recorder. The costs for these equipment purchases were provided based on industry comment on the ICR renewal 1557.09 burden. These capital/start-up costs were also annualized over 15 years, since this is a one-time requirement. In addition, the industry comments also reported an annual O&M cost for these equipment in the most recent ICR renewal, and these costs were incorporated here.

f

We have assumed that 543 controlled open landfills will be subject to this requirement during the first year of this ICR period. 44% of which are public and 56% of which are private. This is a one-time requirement. Closed landfills with controls are exempt from the performance test or resubmittal of the GCCS design plan.

g

Assumes 666 controlled landfills during the first year of this ICR period, 44% of which are public and 56% of which are private. The average acreage of controlled sites is estimated to be 214 acres (54 labor hours @ 0.25 hours per acre) under the proposed 2.5/34 option. We assumed weekly equipment rental costs at \$600/week, and one week per occurrence. In addition, the landfill will need to purchase calibration gases and hydrogen fuel to operate the surface monitoring equipment. For wellhead monitoring: The estimated burden was based on industry consultation of \$2000 per month during the most recent ICR renewal for subpart WWW (ICR# 1557.09), or approximately 40 hours of technician labor time. The burden provided did not breakdown labor vs. non-labor costs, therefore we have not incorporated equipment rental costs in this estimate. We did however include costs for calibration gases for the wellhead equipment. Cost of re-monitoring for exceedances of surface monitoring or wellhead monitoring are not included because the rule does not require re-monitoring unless an exceedance is found. Landfills can minimize the number of exceedances found by ensuring the GCCS is well-operated and the surface is well sealed.

h Based on the regulatory database, there are 178 landfills with design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume and thus will complete the initial design capacity report in the first year of this ICR. This is a one-time requirement. Based on the regulatory database, 87% of these respondents are public and 13% are private.

**Table 1.A. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emission Guidelines
for publically-owned Municipal Solid Waste Landfills - Subpart Cf - Year 1, Proposed Option 2.5/34**

Burden Item	(A) Respondent Hours per Occurrence ^a	(B1) Annualized Non-Labor Capital Costs Per Occurrence	(B2) Annual Non- Labor O&M Costs Per Occurrence	(C) Number of Occurrences Per Respondent Per Year	(D) Civil Engineer Technician Hours per Respondent Per Year (A X C)	(E) Technical Hours per Respondent Per Year (A X C)	(F) Number of Respondents Per Year	(G) Civil Engineer per Year @ \$49.85	(H) Technical Hours per Year @ \$86.46 (E X F)	(I) Clerical Hours per Year @ \$30.28 (H X 0.1)	(J) Management Hours per Year @ \$109.43 (H X .05)	(K) Total Labor Costs Per Year ^b	(L) Total Annualized Non- Labor Capital and O&M Costs Per Year ((B1+B2) X C X F)	(M) Total Number of Responses per Year (C X F) ^c	(N) Capital/Start- up Costs per occurrence	Footnotes
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ⁱ Subpart Cf applies to each existing MSW landfill for which construction, reconstruction, or modification was commenced before July 17, 2014. Modification means an increase in the permitted volume design capacity of the landfill by either lateral or vertical expansion based on its permitted design capacity as of July 17, 2014. Modification does not occur until the owner or operator commences construction on the horizontal or vertical expansion. According to Subpart Cf (60.381(b)) These landfills would submit an amended report within 90 days of receiving a permitted increase in volume. But, once the landfill commences construction on the permitted increase in volume these landfills would be modified and become subject to Subpart XXX instead of Subpart Cf. Estimate of landfills with a change in design capacity is based on the number of landfills that reported recent modifications or were anticipated to modify during the period of 2014-2018. See: Summary of Landfill Dataset Used in the Cost and Emission Impacts Analysis of Landfill Regulations for more discussion of how modified landfills were identified. 47% of these respondents are public and 53% are private.

^j We have assumed that 50 percent of uncontrolled open landfills will use Tier 1 calculations annually and 50 percent will use Tier 2 calculations once every 5 years for their NMOC reports. Of the landfills estimated to remain uncontrolled in the regulatory database 73% are public and 27% are private.

^k Based on the annualized labor and capital costs for method 25, 25A, or 25C over 5 years, since a Tier 2 test must be repeated every 5 years. Labor burden is assigned once every 5 years.

^l We have assumed that 16 controlled landfills will close during the first year of the ICR period. This is based on the closure dates reported in the regulatory database.

^m We have assumed that no landfills will remove equipment during this ICR period. Equipment Removal Report requires inclusion of 3 successive NMOC rates using Tier 2 calculations to demonstrate landfill is below the NMOC threshold.

ⁿ We have assumed that 10% of controlled landfill will revise their design plan.

^o Assumes 666 controlled landfills during the first year of this ICR period. 44% of which are public and 56% of which are private. The estimated burden was based on industry consultation of \$5000 per year for compliance reporting (see comment on recent ICR renewal for subpart WWW, ICR# 1557.09). Since this estimate included an assumption of a semi-annual report to satisfy the requirements of the landfills NESHAP, we adjusted this estimate by half to account for the single report required by this NSPS, or \$2500, which is approximately 27 technical hours per occurrence.

^p Assumes 666 controlled landfills during the first year of this ICR period. 44% of which are public and 56% of which are private. The estimated burden was based on industry consultation of \$1000 per month for recordkeeping and data storage per month and \$500 for data compilation and review per month (see comment on recent ICR renewal for subpart WWW, ICR# 1557.09). This is approximately 5 technical hours per occurrence for data compilation and review and 11 hours for recordkeeping and data storage.

^q Number of occurrences is based on the total number of all landfills that are subject to the standard that are not controlling. Based on the regulatory database, 65% of these respondents are public and 35% are private.

^r

It is unknown how many landfills will be required to conduct a root cause analysis, corrective action analysis, or implementation timeline. These items are not required by the rule for controlling landfills. A root cause analysis is only required if the landfill has an exceedance of the wellhead parameter is identified and cannot be corrected within 15 days. If the exceedance cannot be corrected within 60 days the owner or operator must also conduct a corrective action analysis and develop and implementation schedule. These items must only be submitted for approval if the corrective action will take longer than 120 days to correct. Landfills can minimize the number of exceedances found by ensuring the GCCS is well-operated. For the purposes of estimating ICR burden, one of the landfills subject to controls will have at least one wellhead exceedance that takes longer than 60 days to correct.

^s The initial wet landfill report will take some additional time to prepare as it will contain historical records, when available. Subsequent year reports will only require reporting of the data for the reporting year. The report is required for all landfills affected by this rule based on size if they have added liquids or recirculated leachate in the last 10 years. Landfills in the closed landfill subcategory are not expected to complete wet landfill reports.

Table 1.B. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emission Guidelines for privately-owned Municipal Solid Waste Landfills - Subpart Cf - Year 1, Proposed Option 2.5/34

Burden Item	(A) Respondent Hours per Occurrence ^a	(B1) Annualized Non-Labor Capital Costs Per Occurrence	(B2) Annual Non-Labor O&M Costs Per Occurrence	(C) Number of Occurrences Per Respondent Per Year	(D) Civil Engineer Technician Hours per Respondent Per Year (A X C)	(E) Technical Hours per Respondent Per Year (A X C)	(F) Number of Respondents Per Year	(G) Civil Engineer Technician per Year @ \$49.85	(H) Technical Hours per Year @ \$86.46 (E X F)	(I) Clerical Hours per Year @ \$30.28 (H X 0.1)	(J) Management Hours per Year @ \$109.43 (H X .05)	(K) Total Labor Costs Per Year ^b	(L) Total Annualized Non-Labor Capital and O&M Costs Per Year ((B1+B2) X C X F)	(M) Total Number of Responses per Year (C X F) ^c	(N) Capital/Start-up Costs per occurrence	Footnotes
1. Applications	na															
2. Surveys and Studies	na															
3. Reporting Requirements																
A. Read and Understand Rule Requirements																
1. Open or controlling landfills	40	\$0		1	0	40	385	0	15,413	1,541	771	\$1,463,549	\$0	0		d
2. Closed uncontrolled landfills and other small landfills	10	\$0		1	0	10	318	0	3,181	318	159	\$302,019	\$0	0		d
B. Required Activities																
1. Initial performance test report	12	\$1,984	\$1,000	1	0	12	304	0	3,649	365	182	\$346,493	\$907,271	304	18,067	e, f
2. Surface methane monitoring quarterly	54	\$704		4	218	0	373	81,222	0	0	0	\$4,049,227	\$1,049,509	0		a, g
3. Wellhead monitoring monthly	40	\$17		12	480	1	373	179,021	0	0	0	\$8,924,903	\$76,084	0		a, g
C. Create Information	Included in 3B															
D. Gather Information	Included in 3B															
E. Report Preparation																
1. Initial design capacity report	2	\$0		1	0	2	23	0	46	5	2	\$4,395	\$0	23		h
2. Amended design capacity report	2	\$0		1	0	2	3	0	6	1	0	\$570	\$0	3		i
3. Report of NMOC rate (Tier 1)	8	\$0		1	0	8	31	0	245	25	12	\$23,280	\$0	31		j
4. Report of NMOC rate (Tier 2)	12	\$2,708		1	0	12	31	0	368	37	18	\$34,919	\$82,995	31	10,067	j, k
5. Landfill Closure Report	1	\$0		1	0	1	8	0	8	1	0	\$805	\$0	8		l
6. Equipment Removal Report	36	\$0		1	0	36	0	0	0	0	0	\$0	\$0	0		m
7. Collection and Control System Design Plan	80	\$0		1	0	80	304	0	24,326	2,433	1,216	\$2,309,956	\$0	304		f
8. Revised design plan	20	\$0		1	0	20	30	0	608	61	30	\$57,749	\$0	30		n
9. Initial Performance Test	Included in 3B															
10. Compliance Report	Included in 3B															
11. Annual Report	27	\$0		1	0	27	373	0	10,070	1,007	503	\$956,207	\$0	373		o
12. Corrective Action Analysis	15			1		15	1	0	15	2	1	\$1,424	\$0	1		r
13. Implementation Timeline	15			1		15	1	0	15	2	1	\$1,424	\$0	1		r
14. Root Cause Analysis	15			1		15	1	0	15	2	1	\$1,424	\$0	1		r
15. Wet Landfill Monitoring Report	15			1		15	175	0	2,621	262	131	\$248,920	\$0	175		s
Reporting Subtotal								260,243	60,587	6,059	3,029	\$18,727,265	\$2,115,860	1,285	\$28,134	
4. Recordkeeping Requirements																
A. Read Instructions	Included in 3a															
B. Plan Activities	na															
C. Implement Activities	na															
D. Develop Record System	na															
E. Record Information																
1. Data Compilation and Review (controllers)	5	\$0		12	0	60	373	0	22,378	2,238	1,119	\$2,124,904	\$0	0		p
2. Recordkeeping and Data Storage (controllers)	11	\$0		12	0	132	373	0	49,231	4,923	2,462	\$4,674,789	\$0	0		p
3. Recordkeeping and Data Storage (others)	4	\$0		1	0	4	188	0	750	75	38	\$71,256	\$0	0		q
E. Personnel Training	na															
F. Time for Audits	na															
Recordkeeping Subtotal								0	72,359	7,236	3,618	\$6,870,949	\$0	0	\$0	
Totals								260,243	132,946	13,295	6,647	\$25,598,214	\$2,115,860	1,285	\$28,134	

FOOTNOTES

- a We have assumed all respondent hours equals the number of Technical Hours except for surface methane monitoring and wellhead monitoring which fall under Civil Engineer Technician Hours.
- b This ICR uses mean hourly wage for the following labor categories from the United States Department of Labor, Bureau of Labor Statistics, May 2013, "National Occupational Employment and Wage Estimates United States": Managers, All Other for Managerial labor, Civil Engineer for Technical labor, and Office Clerks, General for Clerical labor. The rates have been increased by 110 percent to account for the benefit packages available to those employed by private industry.
- c Includes only responses that are submitted as reports.
- d Number of occurrences is based on the total number of landfills that are subject to the standard. This is a one time requirement for new respondents. We have assumed that all open or controlled landfills will take 40 hours to read instructions as part of their reporting requirements. While other closed and smaller landfills are subject there requirements are very minimal and their time to read the rule would be much less. Based on the regulatory database, 62% of these respondents are public and 38% are private.
- e Based on the annualized capital costs for method 25, 25A, or 25C over 15 years, which is the expected lifetime of the flare or other destruction device. Other capital costs related to flare station monitoring include a thermocouple, flowmeter and data recorder. The costs for these equipment purchases were provided based on industry comment on the ICR renewal 1557.09 burden. These capital/start-up costs were also annualized over 15 years, since this is a one-time requirement. In addition, the industry comments also reported an annual O&M cost for these equipment in the most recent ICR renewal, and these costs were incorporated here.
- f We have assumed that 543 controlled open landfills will be subject to this requirement during the first year of this ICR period, 44% of which are public and 56% of which are private. This is a one-time requirement. Closed landfills with controls are exempt from the performance test or resubmittal of the GCCS design plan.
- g Assumes 666 controlled landfills during the first year of this ICR period, 44% of which are public and 56% of which are private. The average acreage of controlled sites is estimated to be 214 acres (54 labor hours @ 0.25 hours per acre) under the proposed 2.5/34 option. We assumed weekly equipment rental costs at \$600/week, and one week per occurrence. In addition, the landfill will need to purchase calibration gases and hydrogen fuel to operate the surface monitoring equipment. For wellhead monitoring: The estimated burden was based on industry consultation of \$2000 per month during the most recent ICR renewal for subpart WWW (ICR# 1557.09), or approximately 40 hours of technician labor time. The burden provided did not breakdown labor vs. non-labor costs, therefore we have not incorporated equipment rental costs in this estimate. We did however include costs for calibration gases for the wellhead equipment. Cost of re-monitoring for exceedances of surface monitoring or wellhead monitoring are not included because the rule does not require re-monitoring unless an exceedance is found. Landfills can minimize the number of exceedances found by ensuring the GCCS is well-operated and the surface is well sealed.
- h Based on the regulatory database, there are 178 landfills with design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume and thus will complete the initial design capacity report in the first year of this ICR. This is a one-time requirement. Based on the regulatory database, 87% of these respondents are public and 13% are private.

**Table 1.B. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emission Guidelines
for privately-owned Municipal Solid Waste Landfills - Subpart Cf - Year 1, Proposed Option 2.5/34**

Burden Item	(A) Respondent Hours per Occurrence ^a	(B1) Annualized Non-Labor Capital Costs Per Occurrence	(B2) Annual Non- Labor O&M Costs Per Occurrence	(C) Number of Occurrences Per Respondent Per Year	(D) Civil Engineer Technician Hours per Respondent Per Year (A X C)	(E) Technical Hours per Respondent Per Year (A X C)	(F) Number of Respondents Per Year	(G) Civil Engineer Technician per Year @ \$49.85	(H) Technical Hours per Year @ \$86.46 (E X F)	(I) Clerical Hours per Year @ \$30.28 (H X 0.1)	(J) Management Hours per Year @ \$109.43 (H X .05)	(K) Total Labor Costs Per Year ^b	(L) Total Annualized Non- Labor Capital and O&M Costs Per Year ((B1+B2) X C X F)	(M) Total Number of Responses per Year (C X F) ^c	(N) Capital/Start- up Costs per occurrence	Footnotes
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ⁱ Subpart Cf applies to each existing MSW landfill for which construction, reconstruction, or modification was commenced before July 17, 2014. Modification means an increase in the permitted volume design capacity of the landfill by either lateral or vertical expansion based on its permitted design capacity as of July 17, 2014. Modification does not occur until the owner or operator commences construction on the horizontal or vertical expansion. According to Subpart Cf (60.381(b)) These landfills would submit an amended report within 90 days of receiving a permitted increase in volume. But, once the landfill commences construction on the permitted increase in volume these landfills would be modified and become subject to Subpart XXX instead of Subpart Cf. Estimate of landfills with a change in design capacity is based on the number of landfills that reported recent modifications or were anticipated to modify during the period of 2014-2018. See: Summary of Landfill Dataset Used in the Cost and Emission Impacts Analysis of Landfill Regulations for more discussion of how modified landfills were identified. 47% of these respondents are public and 53% are private.

^j We have assumed that 50 percent of uncontrolled open landfills will use Tier 1 calculations annually and 50 percent will use Tier 2 calculations once every 5 years for their NMOC reports. Of the landfills estimated to remain uncontrolled in the regulatory database 73% are public and 27% are private.

^k Based on the annualized labor and capital costs for method 25, 25A, or 25C over 5 years, since a Tier 2 test must be repeated every 5 years. Labor burden is assigned once every 5 years.

^l We have assumed that 16 controlled landfills will close during the first year of the ICR period. This is based on the closure dates reported in the regulatory database.

^m We have assumed that no landfills will remove equipment during this ICR period. Equipment Removal Report requires inclusion of 3 successive NMOC rates using Tier 2 calculations to demonstrate landfill is below the NMOC threshold.

ⁿ We have assumed that 10% of controlled landfill will revise their design plan.

^o Assumes 666 controlled landfills during the first year of this ICR period. 44% of which are public and 56% of which are private. The estimated burden was based on industry consultation of \$5000 per year for compliance reporting (see comment on recent ICR renewal for subpart WWW, ICR# 1557.09). Since this estimate included an assumption of a semi-annual report to satisfy the requirements of the landfills NESHAP, we adjusted this estimate by half to account for the single report required by this NSPS, or \$2500, which is approximately 27 technical hours per occurrence.

^p Assumes 666 controlled landfills during the first year of this ICR period. 44% of which are public and 56% of which are private. The estimated burden was based on industry consultation of \$1000 per month for recordkeeping and data storage per month and \$500 for data compilation and review per month (see comment on recent ICR renewal for subpart WWW, ICR# 1557.09). This is approximately 5 technical hours per occurrence for data compilation and review and 11 hours for recordkeeping and data storage.

^q Number of occurrences is based on the total number of all landfills that are subject to the standard that are not controlling. Based on the regulatory database, 65% of these respondents are public and 35% are private.

^r It is unknown how many landfills will be required to conduct a root cause analysis, corrective action analysis, or implementation timeline. These items are not required by the rule for controlling landfills. A root cause analysis is only required if the landfill has an exceedance of the wellhead parameter is identified and cannot be corrected within 15 days. If the exceedance cannot be corrected within 60 days the owner or operator must also conduct a corrective action analysis and develop an implementation schedule. These items must only be submitted for approval if the corrective action will take longer than 120 days to correct. Landfills can minimize the number of exceedance events by conducting regular monitoring and testing. For the purpose of this analysis, we assumed that all landfills that have an exceedance will have a corrective action plan in place and that the corrective action will be completed within the 60-day period. For all landfills affected by this rule based on size if they have added liquids or recirculated leachate in the last 10 years. Landfills in the closed landfill subcategory are not expected to complete wet landfill reports.

^s The number of landfills that will be required to prepare a wet landfill report is based on the number of landfills that have added liquids or recirculated leachate in the last 10 years. Landfills in the closed landfill subcategory are not expected to complete wet landfill reports.

**Table 2.A. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emission Guidelines
for publically-owned Municipal Solid Waste Landfills - Subpart Cf - Year 2, Proposed Option 2.5/34**

Burden Item	(A) Respondent Hours per Occurrence ^a	(B1) Annualized Non-Labor Capital Costs Per Occurrence	(B2) Annual Non- Labor O&M Costs Per Occurrence	(C) Number of Occurrences Per Respondent Per Year	(D) Civil Engineer Technician Hours per Respondent Per Year (A X C)	(E) Technical Hours per Respondent Per Year (A X C)	(F) Number of Respondents Per Year	(G) Civil Engineer Technician per Year @ \$49.85	(H) Technical Hours per Year @ \$86.46 (E X F)	(I) Clerical Hours per Year @ \$30.28 (H X 0.1)	(J) Management Hours per Year @ \$109.43 (H X .05)	(K) Total Labor Costs Per Year ^b	(L) Total Annualized Non- Labor Capital and O&M Costs Per Year (B1+B2) x Cx F)	(M) Total Number of Responses per Year (C X F) ^c	(N) Capital/Start- up Costs per occurrence	Footnotes	
1. Applications	na																
2. Surveys and Studies	na																
3. Reporting Requirements																	
A. Read and Understand Rule Requirements																	
1. Open or controlling landfills	40	\$0		1	0	40	0	0	0	0	0	\$0	\$0	0			d
2. Closed uncontrolled landfills and other small landfills	10	\$0		1	0	10	0	0	0	0	0	\$0	\$0	0			d
B. Required Activities																	
1. Initial performance test report	12	\$1,984	\$1,000	1	0	12	3	0	32	3	2	\$3,008	\$720,733	3	18,067		e, f
2. Surface methane monitoring quarterly	54	\$704		4	218	0	271	59,122	0	0	0	\$2,947,458	\$763,945	0			a, g
3. Wellhead monitoring monthly	40	\$17		12	480	1	271	130,310	0	0	0	\$6,496,495	\$55,382	0			a, g
C. Create Information	Included in 3B																
D. Gather Information	Included in 3B																
E. Report Preparation																	
1. Initial design capacity report	2	\$0		1	0	2	0	0	0	0	0	\$0	\$0	0			h
2. Amended design capacity report	2	\$0		1	0	2	21	0	42	4	2	\$3,988	\$0	21			i
3. Report of NMOC rate (Tier 1)	8	\$0		1	0	8	81	0	645	65	32	\$61,277	\$0	81			j
4. Report of NMOC rate (Tier 2)	12	\$2,708		1	0	12	0	0	0	0	0	\$0	\$224,395	0	10,067		j, k
5. Landfill Closure Report	1	\$0		1	0	1	13	0	13	1	1	\$1,205	\$0	13			l
6. Equipment Removal Report	36	\$0		1	0	36	0	0	0	0	0	\$0	\$0	0			m
7. Collection and Control System Design Plan	80	\$0		1	0	80	3	0	211	21	11	\$20,055	\$0	3			f
8. Revised design plan	20	\$0		1	0	20	0	0	0	0	0	\$0	\$0	0			n
9. Initial Performance Test	Included in 3B																
10. Compliance Report	Included in 3B																
11. Annual Report	27	\$0		1	0	27	271	0	7,330	733	366	\$696,029	\$0	271			o
12. Corrective Action Analysis	15			1		15	1	0	15	2	1	\$1,424	\$0	1			r
13. Implementation Timeline	15			1		15	1	0	15	2	1	\$1,424	\$0	1			r
14. Root Cause Analysis	15			1		15	1	0	15	2	1	\$1,424	\$0	1			r
15. Wet Landfill Monitoring Report	15			1		15	82	0	1,234	123	62	\$117,139	\$0	82			s
Reporting Subtotal								189,432	9,551	955	478	\$10,350,928	\$1,764,454	476	\$28,134		
4. Recordkeeping Requirements																	
A. Read Instructions	Included in 3a																
B. Plan Activities	na																
C. Implement Activities	na																
D. Develop Record System	na																
E. Record Information																	
1. Data Compilation and Review (controllers)	5	\$0		12	0	60	271	0	16,289	1,629	814	\$1,546,732	\$0	0			p
2. Recordkeeping and Data Storage (controllers)	11	\$0		12	0	132	271	0	35,835	3,584	1,792	\$3,402,809	\$0	0			p
3. Recordkeeping and Data Storage (others)	4	\$0		1	0	4	360	0	1,440	144	72	\$136,723	\$0	0			q
E. Personnel Training	na																
F. Time for Audits	na																
Recordkeeping Subtotal								0	53,564	5,356	2,678	\$5,086,263	\$0	0	\$0		
Totals								189,432	63,115	6,312	3,156	\$15,437,191	\$1,764,454	476	\$28,134		

FOOTNOTES

a We have assumed all respondent hours equals the number of Technical Hours except for surface methane monitoring and wellhead monitoring which fall under Civil Engineer Technician Hours.

b This ICR uses mean hourly wage for the following labor categories from the United States Department of Labor, Bureau of Labor Statistics, May 2013, "National Occupational Employment and Wage Estimates United States": Managers, All Other for Managerial labor, Civil Engineer for Technical labor, and Office Clerks, General for Clerical labor. The rates have been increased by 110 percent to account for the benefit packages available to those employed by private industry.

c Includes only responses that are submitted as reports.

d Number of occurrences is based on the total number of landfills that are subject to the standard. This is a one time requirement for new respondents. We have assumed that all new open or controlled landfills will take 40 hours to read instructions as part of their reporting requirements. While other closed and smaller landfills are subject there requirements are very minimal and their time to read the rule would be much less. Based on the regulatory database, 62% of these respondents are public and 38% are private.

e Based on the annualized capital costs for method 25, 25A, or 25C over 15 years, which is the expected lifetime of the flare or other destruction device. Other capital costs related to flare station monitoring include a thermocouple, flowmeter and data recorder. The costs for these equipment purchases were provided based on industry comment on the ICR renewal 1557.09 burden. These capital/start-up costs were also annualized over 15 years, since this is a one-time requirement. In addition, the industry comments also reported an annual O&M cost for these equipment in the most recent ICR renewal, and these costs were incorporated here.

f We have assumed that 6 controlled open landfills will be subject to this requirement during the second year of this ICR period. 44% of which are public and 56% of which are private. This is a one-time requirement. Closed landfills with controls are exempt from the performance test or resubmittal of the GCCS design plan.

g Assumes 617 controlled landfills during the second year of this ICR period, 44% of which are public and 56% of which are private. The average acreage of controlled sites is estimated to be 214 acres (54 labor hours @ 0.25 hours per acre) under the proposed 2.5/34 option. We assumed weekly equipment rental costs at \$600/week, and one week per occurrence. In addition, the landfill will need to purchase calibration gases and hydrogen fuel to operate the surface monitoring equipment. For wellhead monitoring: The estimated burden was based on industry consultation of \$2000 per month during the most recent ICR renewal for subpart WWW (ICR# 1557.09), or approximately 40 hours of technician labor time. The burden provided did not breakdown labor vs. non-labor costs, therefore we have not incorporated equipment rental costs in this estimate. We did however include costs for calibration gases for the wellhead equipment. Cost of re-monitoring for exceedances of surface monitoring or wellhead monitoring are not included because the rule does not require re-monitoring unless an exceedance is found. Landfills can minimize the number of exceedances found by ensuring the GCCS is well-operated and the surface is well sealed.

h All additional landfills with design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume were estimated to complete the one-time initial design capacity report in the first year of this ICR - no respondents in years 2&3.

i Subpart Cf applies to each existing MSW landfill for which construction, reconstruction, or modification was commenced before July 17, 2014. Modification means an increase in the permitted volume design capacity of the landfill by either lateral or vertical expansion based on its permitted design capacity as of July 17, 2014. Modification does not occur until the owner or operator commences construction on the horizontal or vertical expansion. According to Subpart Cf (60.38f(b)) These landfills would submit an amended report within 90 days of receiving a permitted increase in volume. But, once the landfill commences construction on the permitted increase in volume these landfills would be modified and become subject to Subpart XXX instead of Subpart Cf. Estimate of landfills with a change in design capacity is based on the number of landfills that reported recent modifications or were anticipated to modify during the period of 2014-2018. See: Summary of Landfill Dataset Used in the Cost and Emission Impacts Analysis of Landfill Regulations for more discussion of how modified landfills were identified. 47% of these respondents are public and 53% are private.

**Table 2.A. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emission Guidelines
for publically-owned Municipal Solid Waste Landfills - Subpart Cf - Year 2, Proposed Option 2.5/34**

Burden Item	(A) Respondent Hours per Occurrence ^a	(B1) Annualized Non-Labor Capital Costs Per Occurrence	(B2) Annual Non- Labor O&M Costs Per Occurrence	(C) Number of Occurrences Per Respondent Per Year	(D) Civil Engineer Technician Hours per Respondent Per Year (A X C)	(E) Technical Hours per Respondent Per Year (A X C)	(F) Number of Respondents Per Year	(G) Civil Engineer per Year @ \$49.85	(H) Technical Hours per Year @ \$86.46 (E X F)	(I) Clerical Hours per Year @ \$30.28 (H X 0.1)	(J) Management Hours per Year @ \$109.43 (H X .05)	(K) Total Labor Costs Per Year ^b	(L) Total Annualized Non- Labor Capital and O&M Costs Per Year ((B1+B2) X C X F)	(M) Total Number of Responses per Year (C X F) ^c	(N) Capital/Start- up Costs per occurrence	Footnotes
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- j We have assumed that 50 percent of uncontrolled open landfills with use Tier 1 calculations annually and 50 percent will use Tier 2 calculations once every 5 years for their NMOC reports. Of the landfills estimated to remain uncontrolled in the regulatory database 73% are public and 27% are private.
- k Based on the annualized labor and capital costs for method 25 , 25A, or 25C over 5 years, since a Tier 2 test must be repeated every 5 years. Labor burden is assigned once every 5 years.
- l We have assumed that 27 controlled landfills will close during the second year of the ICR period. This is based on the closure dates reported in the regulatory database.
- m We have assumed that no landfills will remove equipment during this ICR period. Equipment Removal Report requires inclusion of 3 successive NMOC rates using Tier 2 calculations to demonstrate landfill is below the NMOC threshold.
- n We have assumed that 10% of controlled landfill will revise their design plan.
- ^o Assumes 617 controlled landfills during the second year of this ICR period. 44% of which are public and 56% of which are private. The estimated burden was based on industry consultation of \$5000 per year for compliance reporting (see comment on recent ICR renewal for subpart WWW, ICR# 1557.09). Since this estimate included an assumption of a semi-annual report to satisfy the requirements of the landfills NESHAP, we adjusted this estimate by half to account for the single report required by this NSPS, or \$2500, which is approximately 27 technical hours per occurrence.
- ^p Assumes 617 controlled landfills during the second year of this ICR period. 44% of which are public and 56% of which are private. The estimated burden was based on industry consultation of \$1000 per month for recordkeeping and data storage per month and \$500 for data compilation and review per month (see comment on recent ICR renewal for subpart WWW, ICR# 1557.09). This is approximately 5 technical hours per occurrence for data compilation and review and 11 hours for recordkeeping and data storage.
- q Number of occurrences is based on the total number of all landfills that are subject to the standard that are not controlling. Based on the regulatory database, 65% of these respondents are public and 35% are private.
- r
- s It is unknown how many landfills will be required to conduct a root cause analysis, corrective action analysis, or implementation timeline. These items are not required by the rule for controlling landfills. A root cause analysis is only required if the landfill has an exceedance of the wellhead parameter is identified and cannot be corrected within 15 days. If the exceedance cannot be corrected within 60 days the owner or operator must also conduct a corrective action analysis and develop and implementation schedule. These items must only be submitted for approval if the corrective action will take longer than 120 days to correct. Landfills can minimize the number of exceedance landfills by reporting to the owner or operator to provide a corrective action plan. If the owner or operator does not provide a corrective action plan within 60 days, the owner or operator will be required to report to the EPA. The reports required for all landfills affected by this rule based on size if they have added liquids or recirculated leachate in the last 10 years. Landfills in the closed landfill subcategory are not expected to complete wet landfill reports.

Table 2.B. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emission Guidelines for privately-owned Municipal Solid Waste Landfills - Subpart Cf - Year 2, Proposed Option 2.5/34

Burden Item	(A) Respondent Hours per Occurrence ^a	(B1) Annualized Non-Labor Capital Costs Per Occurrence	(B2) Annual Non-Labor O&M Costs Per Occurrence	(C) Number of Occurrences Per Respondent Per Year	(D) Civil Engineer Technician Hours per Respondent Per Year (A X C)	(E) Technical Hours per Respondent Per Year (A X C)	(F) Number of Respondents Per Year	(G) Civil Engineer Technician per Year @ \$49.85	(H) Technical Hours per Year @ \$86.46 (E X F)	(I) Clerical Hours per Year @ \$30.28 (H X 0.1)	(J) Management Hours per Year @ \$109.43 (H X .05)	(K) Total Labor Costs Per Year ^b	(L) Total Annualized Non-Labor Capital and O&M Costs Per Year ((B1+B2) X Cx F)	(M) Total Number of Responses per Year (C X F) ^c	(N) Capital/Start-up Costs per occurrence	Footnotes
1. Applications	na															
2. Surveys and Studies	na															
3. Reporting Requirements																
A. Read and Understand Rule Requirements																
1. Open or controlling landfills	40	\$0		1	0	40	0	0	0	0	0	\$0	\$0	0		d
2. Closed uncontrolled landfills and other small landfills	10	\$0		1	0	10	0	0	0	0	0	\$0	\$0	0		d
B. Required Activities																
1. Initial performance test report	12	\$1,984	\$1,000	1	0	12	3	0	40	4	2	\$3,829	\$917,296	3	18,067	e, f
2. Surface methane monitoring quarterly	54	\$704		4	218	0	346	75,246	0	0	0	\$3,751,311	\$972,293	0		a, g
3. Wellhead monitoring monthly	40	\$17		12	480	1	346	165,850	0	0	0	\$8,268,266	\$70,486	0		a, g
C. Create Information	Included in 3B															
D. Gather Information	Included in 3B															
E. Report Preparation																
1. Initial design capacity report	2	\$0		1	0	2	0	0	0	0	0	\$0	\$0	0		h
2. Amended design capacity report	2	\$0		1	0	2	3	0	6	1	0	\$570	\$0	3		i
3. Report of NMOC rate (Tier 1)	8	\$0		1	0	8	30	0	239	24	12	\$22,664	\$0	30		j
4. Report of NMOC rate (Tier 2)	12	\$2,708		1	0	12	0	0	0	0	0	\$0	\$82,995	0	10,067	j, k
5. Landfill Closure Report	1	\$0		1	0	1	14	0	14	1	1	\$1,359	\$0	14		l
6. Equipment Removal Report	36	\$0		1	0	36	0	0	0	0	0	\$0	\$0	0		m
7. Collection and Control System Design Plan	80	\$0		1	0	80	3	0	269	27	13	\$25,524	\$0	3		f
8. Revised design plan	20	\$0		1	0	20	0	0	0	0	0	\$0	\$0	0		n
9. Initial Performance Test	Included in 3B															
10. Compliance Report	Included in 3B															
11. Annual Report	27	\$0		1	0	27	346	0	9,329	933	466	\$885,855	\$0	346		o
12. Corrective Action Analysis	15			1		15	1	0	15	2	1	\$1,424	\$0	1		r
13. Implementation Timeline	15			1		15	1	0	15	2	1	\$1,424	\$0	1		r
14. Root Cause Analysis	15			1		15	1	0	15	2	1	\$1,424	\$0	1		r
15. Wet Landfill Monitoring Report	15			1		15	175	0	2,621	262	131	\$248,920	\$0	175		s
Reporting Subtotal								241,096	12,564	1,256	628	\$13,212,570	\$2,043,071	577	\$28,134	
4. Recordkeeping Requirements																
A. Read Instructions	Included in 3a															
B. Plan Activities	na															
C. Implement Activities	na															
D. Develop Record System	na															
E. Record Information																
1. Data Compilation and Review (controllers)	5	\$0		12	0	60	346	0	20,731	2,073	1,037	\$1,968,567	\$0	0		p
2. Recordkeeping and Data Storage (controllers)	11	\$0		12	0	132	346	0	45,609	4,561	2,280	\$4,330,848	\$0	0		p
3. Recordkeeping and Data Storage (others)	4	\$0		1	0	4	215	0	860	86	43	\$81,678	\$0	0		q
E. Personnel Training	na															
F. Time for Audits	na															
Recordkeeping Subtotal								0	67,200	6,720	3,360	\$6,381,094	\$0	0	\$0	
Totals								241,096	79,764	7,976	3,988	\$19,593,664	\$2,043,071	577	\$28,134	

FOOTNOTES

- a We have assumed all respondent hours equals the number of Technical Hours except for surface methane monitoring and wellhead monitoring which fall under Civil Engineer Technician Hours.
- b This ICR uses mean hourly wage for the following labor categories from the United States Department of Labor, Bureau of Labor Statistics, May 2013, "National Occupational Employment and Wage Estimates United States": Managers, All Other for Managerial labor, Civil Engineer for Technical labor, and Office Clerks, General for Clerical labor. The rates have been increased by 110 percent to account for the benefit packages available to those employed by private industry.
- c Includes only responses that are submitted as reports.
- d Number of occurrences is based on the total number of landfills that are subject to the standard. This is a one time requirement for new respondents. We have assumed that all new open or controlled landfills will take 40 hours to read instructions as part of their reporting requirements. While other closed and smaller landfills are subject there requirements are very minimal and their time to read the rule would be much less. Based on the regulatory database, 62% of these respondents are public and 38% are private.
- e
- Based on the annualized capital costs for method 25, 25A, or 25C over 15 years, which is the expected lifetime of the flare or other destruction device. Other capital costs related to flare station monitoring include a thermocouple, flowmeter and data recorder. The costs for these equipment purchases were provided based on industry comment on the ICR renewal 1557.09 burden. These capital/start-up costs were also annualized over 15 years, since this is a one-time requirement. In addition, the industry comments also reported an annual O&M cost for these equipment in the most recent ICR renewal, and these costs were incorporated here.
- f
- We have assumed that 6 controlled open landfills will be subject to this requirement during the second year of this ICR period. 44% of which are public and 56% of which are private. This is a one-time requirement. Closed landfills with controls are exempt from the performance test or resubmittal of the GCCS design plan.
- g
- Assumes 617 controlled landfills during the second year of this ICR period, 44% of which are public and 56% of which are private. The average acreage of controlled sites is estimated to be 214 acres (54 labor hours @ 0.25 hours per acre) under the proposed 2.5/34 option. We assumed weekly equipment rental costs at \$600/week, and one week per occurrence. In addition, the landfill will need to purchase calibration gases and hydrogen fuel to operate the surface monitoring equipment. For wellhead monitoring: The estimated burden was based on industry consultation of \$2000 per month during the most recent ICR renewal for subpart WWW (ICR# 1557.09), or approximately 40 hours of technician labor time. The burden provided did not breakdown labor vs. non-labor costs, therefore we have not incorporated equipment rental costs in this estimate. We did however include costs for calibration gases for the wellhead equipment. Cost of re-monitoring for exceedances of surface monitoring or wellhead monitoring are not included because the rule does not require re-monitoring unless an exceedance is found. Landfills can minimize the number of exceedances found by ensuring the GCCS is well-operated and the surface is gas sealed.
- h All additional landfills with design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume were estimated to complete the one-time initial design capacity report in the first year of this ICR - no respondents in years 2&3.
- i
- Subpart Cf applies to each existing MSW landfill for which construction, reconstruction, or modification was commenced before July 17, 2014. Modification means an increase in the permitted volume design capacity of the landfill by either lateral or vertical expansion based on its permitted design capacity as of July 17, 2014. Modification does not occur until the owner or operator commences construction on the horizontal or vertical expansion. According to Subpart Cf (60.38f(b)) These landfills would submit an amended report within 90 days of receiving a permitted increase in volume. But, once the landfill commences construction on the permitted increase in volume these landfills would be modified and become subject to Subpart XXX instead of Subpart Cf. Estimate of landfills with a change in design capacity is based on the number of landfills that reported recent modifications or were anticipated to modify during the period of 2014-2018. See: Summary of Landfill Dataset Used in the Cost and Emission Impacts Analysis of Landfill Regulations for more discussion of how modified landfills were identified. 47% of these respondents are public and 53% are private.

**Table 2.B. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emission Guidelines
for privately-owned Municipal Solid Waste Landfills - Subpart Cf - Year 2, Proposed Option 2.5/34**

Burden Item	(A) Respondent Hours per Occurrence ^a	(B1) Annualized Non-Labor Capital Costs Per Occurrence	(B2) Annual Non- Labor O&M Costs Per Occurrence	(C) Number of Occurrences Per Respondent Per Year	(D) Civil Engineer Technician Hours per Respondent Per Year (A X C)	(E) Technical Hours per Respondent Per Year (A X C)	(F) Number of Respondents Per Year	(G) Civil Engineer per Year @ \$49.85	(H) Technical Hours per Year @ \$86.46 (E X F)	(I) Clerical Hours per Year @ \$30.28 (H X 0.1)	(J) Management Hours per Year @ \$109.43 (H X .05)	(K) Total Labor Costs Per Year ^b	(L) Total Annualized Non- Labor Capital and O&M Costs Per Year ((B1+B2) X C X F)	(M) Total Number of Responses per Year (C X F) ^c	(N) Capital/Start- up Costs per occurrence	Footnotes
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j We have assumed that 50 percent of uncontrolled open landfills with use Tier 1 calculations annually and 50 percent will use Tier 2 calculations once every 5 years for their NMOC reports. Of the landfills estimated to remain uncontrolled in the regulatory database 73% are public and 27% are private.

k Based on the annualized labor and capital costs for method 25, 25A, or 25C over 5 years, since a Tier 2 test must be repeated every 5 years. Labor burden is assigned once every 5 years.

l We have assumed that 27 controlled landfills will close during the second year of the ICR period. This is based on the closure dates reported in the regulatory database.

m We have assumed that no landfills will remove equipment during this ICR period. Equipment Removal Report requires inclusion of 3 successive NMOC rates using Tier 2 calculations to demonstrate landfill is below the NMOC threshold.

n We have assumed that 10% of controlled landfill will revise their design plan.

o Assumes 617 controlled landfills during the second year of this ICR period. 44% of which are public and 56% of which are private. The estimated burden was based on industry consultation of \$5000 per year for compliance reporting (see comment on recent ICR renewal for subpart WWW, ICR# 1557.09). Since this estimate included an assumption of a semi-annual report to satisfy the requirements of the landfills NESHAP, we adjusted this estimate by half to account for the single report required by this NSPS, or \$2500, which is approximately 27 technical hours per occurrence.

p Assumes 617 controlled landfills during the second year of this ICR period. 44% of which are public and 56% of which are private. The estimated burden was based on industry consultation of \$1000 per month for recordkeeping and data storage per month and \$500 for data compilation and review per month (see comment on recent ICR renewal for subpart WWW, ICR# 1557.09). This is approximately 5 technical hours per occurrence for data compilation and review and 11 hours for recordkeeping and data storage.

q Number of occurrences is based on the total number of all landfills that are subject to the standard that are not controlling. Based on the regulatory database, 65% of these respondents are public and 35% are private.

r It is unknown how many landfills will be required to conduct a root cause analysis, corrective action analysis, or implementation timeline. These items are not required by the rule for controlling landfills. A root cause analysis is only required if the landfill has an exceedance of the wellhead parameter is identified and cannot be corrected within 15 days. If the exceedance cannot be corrected within 60 days the owner or operator must also conduct a corrective action analysis and develop and implementation schedule. These items must only be submitted for approval if the corrective action will take longer than 120 days to correct. Landfills can minimize the number of exceedances by conducting regular monitoring and testing. For the purpose of estimating ICR burden, when an exceedance is subject to controls, it will be treated as if it had not occurred in the previous year. The 60 days required for all landfills affected by this rule based on size if they have added liquids or recirculated leachate in the last 10 years. Landfills in the closed landfill subcategory are not expected to complete wet landfill reports.

s

Table 3.A. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emission Guidelines for publically-owned Municipal Solid Waste Landfills - Subpart Cf - Year 3, Proposed Option 2.5/34

Burden Item	(A) Respondent Hours per Occurrence ^a	(B1) Annualized Non-Labor Capital Costs Per Occurrence	(B2) Annual Non-Labor O&M Costs Per Occurrence	(C) Number of Occurrences Per Respondent Per Year	(D) Civil Engineer Technician Hours per Respondent Per Year (A X C)	(E) Technical Hours per Respondent Per Year (A X C)	(F) Number of Respondents Per Year	(G) Civil Engineer Technician per Year @ \$49.85	(H) Technical Hours per Year @ \$86.46 (E X F)	(I) Clerical Hours per Year @ \$30.28 (H X 0.1)	(J) Management Hours per Year @ \$109.43 (H X .05)	(K) Total Labor Costs Per Year ^b	(L) Total Annualized Non-Labor Capital and O&M Costs Per Year ((B1+B2) X Cx F)	(M) Total Number of Responses per Year (C X F) ^c	(N) Capital/Start-up Costs per occurrence	Footnotes
1. Applications	na															
2. Surveys and Studies	na															
3. Reporting Requirements																
A. Read and Understand Rule Requirements																
1. Open or controlling landfills	40	\$0		1	0	40	0	0	0	0	0	\$0	\$0	0		d
2. Closed uncontrolled landfills and other small landfills	10	\$0		1	0	10	0	0	0	0	0	\$0	\$0	0		d
B. Required Activities																
1. Initial performance test report	12	\$1,984	\$1,000	1	0	12	44	0	528	53	26	\$50,137	\$852,013.80	44	18,067	e, f
2. Surface methane monitoring quarterly	54	\$704		4	218	0	314	68,416	0	0	0	\$3,410,835	\$884,046	0		a, g
3. Wellhead monitoring monthly	40	\$17		12	480	1	314	150,797	0	0	0	\$7,517,824	\$64,089	0		a, g
C. Create Information	Included in 3B															
D. Gather Information	Included in 3B															
E. Report Preparation																
1. Initial design capacity report	2	\$0		1	0	2	0	0	0	0	0	\$0	\$0	0		h
2. Amended design capacity report	2	\$0		1	0	2	21	0	42	4	2	\$3,988	\$0	21		i
3. Report of NMOC rate (Tier 1)	8	\$0		1	0	8	44	0	353	35	18	\$33,550	\$0	44		j
4. Report of NMOC rate (Tier 2)	12	\$2,708		1	0	12	0	0	0	0	0	\$0	\$224,395	0	10,067	j, k
5. Landfill Closure Report	1	\$0		1	0	1	8	0	8	1	0	\$759	\$0	8		l
6. Equipment Removal Report	36	\$0		1	0	36	0	0	0	0	0	\$0	\$0	0		m
7. Collection and Control System Design Plan	80	\$0		1	0	80	44	0	3,520	352	176	\$334,248	\$0	44		f
8. Revised design plan	20	\$0		1	0	20	4	0	88	9	4	\$8,356	\$0	4		n
9. Initial Performance Test	Included in 3B															
10. Compliance Report	Included in 3B															
11. Annual Report	27	\$0		1	0	27	314	0	8,482	848	424	\$805,454	\$0	314		o
12. Corrective Action Analysis	15			1		15	1	0	15	2	1	\$1,424	\$0	1		r
13. Implementation Timeline	15			1		15	1	0	15	2	1	\$1,424	\$0	1		r
14. Root Cause Analysis	15			1		15	1	0	15	2	1	\$1,424	\$0	1		r
15. Wet Landfill Monitoring Report	15			1		15	82	0	1,234	123	62	\$117,139	\$0	82		s
Reporting Subtotal								219,213	14,300	1,430	715	\$12,286,562	\$2,024,543	565	\$28,134	
4. Recordkeeping Requirements																
A. Read Instructions	Included in 3a															
B. Plan Activities	na															
C. Implement Activities	na															
D. Develop Record System	na															
E. Record Information																
1. Data Compilation and Review (controllers)	5	\$0		12	0	60	314	0	18,850	1,885	942	\$1,789,897	\$0	0		p
2. Recordkeeping and Data Storage (controllers)	11	\$0		12	0	132	314	0	41,469	4,147	2,073	\$3,937,773	\$0	0		p
3. Recordkeeping and Data Storage (others)	4	\$0		1	0	4	317	0	1,269	127	63	\$120,512	\$0	0		q
E. Personnel Training	na															
F. Time for Audits	na															
Recordkeeping Subtotal								0	61,588	6,159	3,079	\$5,848,181	\$0	0	\$0	
Totals								219,213	75,888	7,589	3,794	\$18,134,743	\$2,024,543	565	\$28,134	

FOOTNOTES

- a We have assumed all respondent hours equals the number of Technical Hours except for surface methane monitoring and wellhead monitoring which fall under Civil Engineer Technician Hours.
- b This ICR uses mean hourly wage for the following labor categories from the United States Department of Labor, Bureau of Labor Statistics, May 2013, "National Occupational Employment and Wage Estimates United States": Managers, All Other for Managerial labor, Civil Engineer for Technical labor, and Office Clerks, General for Clerical labor. The rates have been increased by 110 percent to account for the benefit packages available to those employed by private industry.
- c Includes only responses that are submitted as reports.
- d Number of occurrences is based on the total number of landfills that are subject to the standard. This is a one time requirement for new respondents. We have assumed that all new open or controlled landfills will take 40 hours to read instructions as part of their reporting requirements. While other closed and smaller landfills are subject there requirements are very minimal and their time to read the rule would be much less. Based on the regulatory database, 62% of these respondents are public and 38% are private.
- e Based on the annualized capital costs for method 25, 25A, or 25C over 15 years, which is the expected lifetime of the flare or other destruction device. Other capital costs related to flare station monitoring include a thermocouple, flowmeter and data recorder. The costs for these equipment purchases were provided based on industry comment on the ICR renewal 1557.09 burden. These capital/start-up costs were also annualized over 15 years, since this is a one-time requirement. In addition, the industry comments also reported an annual O&M cost for these equipment in the most recent ICR renewal, and these costs were incorporated here.
- f We have assumed that 100 controlled open landfills will be subject to this requirement during the third year of this ICR period. 44% of which are public and 56% of which are private. This is a one-time requirement. Closed landfills with controls are exempt from the performance test or resubmittal of the GCCS design plan.
- g Assumes 714 controlled landfills during the third year of this ICR period, 44% of which are public and 56% of which are private. The average acreage of controlled sites is estimated to be 214 acres (54 labor hours @ 0.25 hours per acre) under the proposed 2.5/34 option. We assumed weekly equipment rental costs at \$600/week, and one week per occurrence. In addition, the landfill will need to purchase calibration gases and hydrogen fuel to operate the surface monitoring equipment. For wellhead monitoring: The estimated burden was based on industry consultation of \$2000 per month during the most recent ICR renewal for subpart WWW (ICR# 1557.09), or approximately 40 hours of technician labor time. The burden provided did not breakdown labor vs. non-labor costs, therefore we have not incorporated equipment rental costs in this estimate. We did however include costs for calibration gases for the wellhead equipment. Cost of re-monitoring for exceedances of surface monitoring or wellhead monitoring are not included because the rule does not require re-monitoring unless an exceedance is found. Landfills can minimize the number of exceedances found by ensuring the GCCS is well-operated and the surface is well sealed.
- h All additional landfills with design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume were estimated to complete the one-time initial design capacity report in the first year of this ICR - no respondents in years 2&3.
- i Subpart Cf applies to each existing MSW landfill for which construction, reconstruction, or modification was commenced before July 17, 2014. Modification means an increase in the permitted volume design capacity of the landfill by either lateral or vertical expansion based on its permitted design capacity as of July 17, 2014. Modification does not occur until the owner or operator commences construction on the horizontal or vertical expansion. According to Subpart Cf (60.381(b)) These landfills would submit an amended report within 90 days of receiving a permitted increase in volume. But, once the landfill commences construction on the permitted increase in volume these landfills would be modified and become subject to Subpart XXX instead of Subpart Cf. Estimate of landfills with a change in design capacity is based on the number of landfills that reported recent modifications or were anticipated to modify during the period of 2014-2018. See: Summary of Landfill Dataset Used in the Cost and Emission Impacts Analysis of Landfill Regulations for more discussion of how modified landfills were identified. 47% of these respondents are public and 53% are private.
- j We have assumed that 50 percent of uncontrolled open landfills with use Tier 1 calculations annually and 50 percent will use Tier 2 calculations once every 5 years for their NMOC reports. Of the landfills estimated to remain uncontrolled in the regulatory database 73% are public and 27% are private.
- k Based on the annualized labor and capital costs for method 25, 25A, or 25C over 5 years, since a Tier 2 test must be repeated every 5 years. Labor burden is assigned once every 5 years.
- l We have assumed that 17 controlled landfills will close during the third year of the ICR period. This is based on the closure dates reported in the regulatory database.
- m We have assumed that no landfills will remove equipment during this ICR period. Equipment Removal Report requires inclusion of 3 successive NMOC rates using Tier 2 calculations to demonstrate landfill is below the NMOC threshold.

**Table 3.A. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emission Guidelines
for publically-owned Municipal Solid Waste Landfills - Subpart Cf - Year 3, Proposed Option 2.5/34**

Burden Item	(A) Respondent Hours per Occurrence ^a	(B1) Annualized Non-Labor Capital Costs Per Occurrence	(B2) Annual Non- Labor O&M Costs Per Occurrence	(C) Number of Occurrences Per Respondent Per Year	(D) Civil Engineer Technician Hours per Respondent Per Year (A X C)	(E) Technical Hours per Respondent Per Year (A X C)	(F) Number of Respondents Per Year	(G) Civil Engineer Technician per Year @ \$49.85	(H) Technical Hours per Year @ \$86.46 (E X F)	(I) Clerical Hours per Year @ \$30.28 (H X 0.1)	(J) Management Hours per Year @ \$109.43 (H X .05)	(K) Total Labor Costs Per Year ^b	(L) Total Annualized Non- Labor Capital and O&M Costs Per Year ((B1+B2) X C X F)	(M) Total Number of Responses per Year (C X F) ^c	(N) Capital/Start- up Costs per occurrence	Footnotes
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ⁿ We have assumed that 10% of controlled landfill will revise their design plan.

^o Assumes 714 controlled landfills during the third year of this ICR period. 44% of which are public and 56% of which are private. The estimated burden was based on industry consultation of \$5000 per year for compliance reporting (see comment on recent ICR renewal for subpart WWW, ICR# 1557.09). Since this estimate included an assumption of a semi-annual report to satisfy the requirements of the landfills NESHAP, we adjusted this estimate by half to account for the single report required by this NSPS, or \$2500, which is approximately 27 technical hours per occurrence.

^p Assumes 714 controlled landfills during the third year of this ICR period. 44% of which are public and 56% of which are private. The estimated burden was based on industry consultation of \$1000 per month for recordkeeping and data storage per month and \$500 for data compilation and review per month (see comment on recent ICR renewal for subpart WWW, ICR# 1557.09). This is approximately 5 technical hours per occurrence for data compilation and review and 11 hours for recordkeeping and data storage.

^q Number of occurrences is based on the total number of all landfills that are subject to the standard that are not controlling. Based on the regulatory database, 65% of these respondents are public and 35% are private.

^r

It is unknown how many landfills will be required to conduct a root cause analysis, corrective action analysis, or implementation timeline. These items are not required by the rule for controlling landfills. A root cause analysis is only required if the landfill has an exceedance of the wellhead parameter is identified and cannot be corrected within 15 days. If the exceedance cannot be corrected within 60 days the owner or operator must also conduct a corrective action analysis and develop and implementation schedule. These items must only be submitted for approval if the corrective action will take longer than 120 days to correct. Landfills can minimize the number of exceedance landfills by reporting to the GCS as well as reported. For the purposes of estimating ICR burden, when at the landfills subject to controls will have at least one wellhead exceedance that takes longer than 60 days to correct. Exceedance landfills reporting to the GCS as well as reported. For the purposes of estimating ICR burden, when at the landfills subject to controls will have at least one wellhead exceedance that takes longer than 60 days to correct. Subsequent year reports will only require reporting of the data for the reporting year. The reports required for all landfills affected by this rule based on size if they have added liquids or recirculated leachate in the last 10 years. Landfills in the closed landfill subcategory are not expected to complete wet landfill reports.

^s

**Table 3.B. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emission Guidelines
for privately-owned Municipal Solid Waste Landfills - Subpart Cf - Year 3, Proposed Option 2.5/34**

Burden Item	(A) Respondent Hours per Occurrence ^a	(B1) Annualized Non-Labor Capital Costs Per Occurrence	(B2) Annual Non- Labor O&M Costs Per Occurrence	(C) Number of Occurrences Per Respondent Per Year	(D) Civil Engineer Technician Hours per Respondent Per Year (A X C)	(E) Technical Hours per Respondent Per Year (A X C)	(F) Number of Respondents Per Year	(G) Civil Engineer Technician per Year @ \$49.85	(H) Technical Hours per Year @ \$86.46 (E X F)	(I) Clerical Hours per Year @ \$30.28 (H X 0.1)	(J) Management Hours per Year @ \$109.43 (H X .05)	(K) Total Labor Costs Per Year ^b	(L) Total Annualized Non- Labor Capital and O&M Costs Per Year (B1+B2) X Cx F)	(M) Total Number of Responses per Year (C X F) ^c	(N) Capital/Start- up Costs per occurrence	Footnotes	
1. Applications	na																
2. Surveys and Studies	na																
3. Reporting Requirements																	
A. Read and Understand Rule Requirements																	
1. Open or controlling landfills	40	\$0		1	0	40	0	0	0	0	0	\$0	\$0	0			d
2. Closed uncontrolled landfills and other small landfills	10	\$0		1	0	10	0	0	0	0	0	\$0	\$0	0			d
B. Required Activities																	
1. Initial performance test report	12	\$1,984	\$1,000	1	0	12	56	0	672	67	34	\$63,811	\$1,084,381.20	56	18,067		e, f
2. Surface methane monitoring quarterly	54	\$704		4	218	0	400	87,076	0	0	0	\$4,341,063	\$1,125,150	0			a, g
3. Wellhead monitoring monthly	40	\$17		12	480	1	400	191,923	0	0	0	\$9,568,139	\$81,567	0			a, g
C. Create Information	Included in 3B																
D. Gather Information	Included in 3B																
E. Report Preparation																	
1. Initial design capacity report	2	\$0		1	0	2	0	0	0	0	0	\$0	\$0	0			h
2. Amended design capacity report	2	\$0		1	0	2	3	0	6	1	0	\$570	\$0	3			i
3. Report of NMOC rate (Tier 1)	8	\$0		1	0	8	16	0	131	13	7	\$12,409	\$0	16			j
4. Report of NMOC rate (Tier 2)	12	\$2,708		1	0	12	0	0	0	0	0	\$0	\$82,995	0	10,067		j, k
5. Landfill Closure Report	1	\$0		1	0	1	9	0	9	1	0	\$856	\$0	9			l
6. Equipment Removal Report	36	\$0		1	0	36	0	0	0	0	0	\$0	\$0	0			m
7. Collection and Control System Design Plan	80	\$0		1	0	80	56	0	4,480	448	224	\$425,406	\$0	56			f
8. Revised design plan	20	\$0		1	0	20	6	0	112	11	6	\$10,635	\$0	6			n
9. Initial Performance Test	Included in 3B																
10. Compliance Report	Included in 3B																
11. Annual Report	27	\$0		1	0	27	400	0	10,796	1,080	540	\$1,025,123	\$0	400			o
12. Corrective Action Analysis	15			1		15	1	0	15	2	1	\$1,424	\$0	1			r
13. Implementation Timeline	15			1		15	1	0	15	2	1	\$1,424	\$0	1			r
14. Root Cause Analysis	15			1		15	1	0	15	2	1	\$1,424	\$0	1			r
15. Wet Landfill Monitoring Report	15			1		15	175	0	2,621	262	131	\$248,920	\$0	175			s
Reporting Subtotal								278,999	18,872	1,887	944	\$15,701,204	\$2,374,094	724	\$28,134		
4. Recordkeeping Requirements																	
A. Read Instructions	Included in 3a																
B. Plan Activities	na																
C. Implement Activities	na																
D. Develop Record System	na																
E. Record Information																	
1. Data Compilation and Review (controllers)	5	\$0		12	0	60	400	0	23,990	2,399	1,200	\$2,278,050	\$0	0			p
2. Recordkeeping and Data Storage (controllers)	11	\$0		12	0	132	400	0	52,779	5,278	2,639	\$5,011,711	\$0	0			p
3. Recordkeeping and Data Storage (others)	4	\$0		1	0	4	161	0	643	64	32	\$61,046	\$0	0			q
E. Personnel Training	na																
F. Time for Audits	na																
Recordkeeping Subtotal								0	77,412	7,741	3,871	\$7,350,807	\$0	0	\$0		
Totals								278,999	96,284	9,628	4,814	\$23,052,011	\$2,374,094	724	\$28,134		

FOOTNOTES

- a We have assumed all respondent hours equals the number of Technical Hours except for surface methane monitoring and wellhead monitoring which fall under Civil Engineer Technician Hours.
- b This ICR uses mean hourly wage for the following labor categories from the United States Department of Labor, Bureau of Labor Statistics, May 2013, "National Occupational Employment and Wage Estimates United States": Managers, All Other for Managerial labor, Civil Engineer for Technical labor, and Office Clerks, General for Clerical labor. The rates have been increased by 110 percent to account for the benefit packages available to those employed by private industry.
- c Includes only responses that are submitted as reports.
- d Number of occurrences is based on the total number of landfills that are subject to the standard. This is a one time requirement for new respondents. We have assumed that all new open or controlled landfills will take 40 hours to read instructions as part of their reporting requirements. While other closed and smaller landfills are subject there requirements are very minimal and their time to read the rule would be much less. Based on the regulatory database, 62% of these respondents are public and 38% are private.
- e
Based on the annualized capital costs for method 25, 25A, or 25C over 15 years, which is the expected lifetime of the flare or other destruction device. Other capital costs related to flare station monitoring include a thermocouple, flowmeter and data recorder. The costs for these equipment purchases were provided based on industry comment on the ICR renewal 1557.09 burden. These capital/start-up costs were also annualized over 15 years, since this is a one-time requirement. In addition, the industry comments also reported an annual O&M cost for these equipment in the most recent ICR renewal, and these costs were incorporated here.
- f
We have assumed that 100 controlled open landfills will be subject to this requirement during the third year of this ICR period. 44% of which are public and 56% of which are private. This is a one-time requirement. Closed landfills with controls are exempt from the performance test or resubmittal of the GCCS design plan.
- g
Assumes 714 controlled landfills during the third year of this ICR period, 44% of which are public and 56% of which are private. The average acreage of controlled sites is estimated to be 214 acres (54 labor hours @ 0.25 hours per acre) under the proposed 2.5/34 option. We assumed weekly equipment rental costs at \$600/week, and one week per occurrence. In addition, the landfill will need to purchase calibration gases and hydrogen fuel to operate the surface monitoring equipment. For wellhead monitoring: The estimated burden was based on industry consultation of \$2000 per month during the most recent ICR renewal for subpart WWW (ICR# 1557.09), or approximately 40 hours of technician labor time. The burden provided did not breakdown labor vs. non-labor costs, therefore we have not incorporated equipment rental costs in this estimate. We did however include costs for calibration gases for the wellhead equipment. Cost of re-monitoring for exceedances of surface monitoring or wellhead monitoring are not included because the rule does not require re-monitoring unless an exceedance is found. Landfills can minimize the number of exceedances found by ensuring the GCCS is well-operated and the surface is well sealed.
- h All additional landfills with design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume were estimated to complete the one-time initial design capacity report in the first year of this ICR - no responses in years 2&3.
- i
Subpart Cf applies to each existing MSW landfill for which construction, reconstruction, or modification was commenced before July 17, 2014. Modification means an increase in the permitted volume design capacity of the landfill by either lateral or vertical expansion based on its permitted design capacity as of July 17, 2014. Modification does not occur until the owner or operator commences construction on the horizontal or vertical expansion. According to Subpart Cf (60.38f(b)) These landfills would submit an amended report within 90 days of receiving a permitted increase in volume. But, once the landfill commences construction on the permitted increase in volume these landfills would be modified and become subject to Subpart XXX instead of Subpart Cf. Estimate of landfills with a change in design capacity is based on the number of landfills that reported recent modifications or were anticipated to modify during the period of 2014-2018. See: Summary of Landfill Dataset Used in the Cost and Emission Impacts Analysis of Landfill Regulations for more discussion of how modified landfills were identified. 47% of these respondents are public and 53% are private.

**Table 3.B. Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Emission Guidelines
for privately-owned Municipal Solid Waste Landfills - Subpart Cf - Year 3, Proposed Option 2.5/34**

Burden Item	(A) Respondent Hours per Occurrence ^a	(B1) Annualized Non-Labor Capital Costs Per Occurrence	(B2) Annual Non- Labor O&M Costs Per Occurrence	(C) Number of Occurrences Per Respondent Per Year	(D) Civil Engineer Technician Hours per Respondent Per Year (A X C)	(E) Technical Hours per Respondent Per Year (A X C)	(F) Number of Respondents Per Year	(G) Civil Engineer Technician per Year @ \$49.85	(H) Technical Hours per Year @ \$86.46 (E X F)	(I) Clerical Hours per Year @ \$30.28 (H X 0.1)	(J) Management Hours per Year @ \$109.43 (H X .05)	(K) Total Labor Costs Per Year ^b	(L) Total Annualized Non- Labor Capital and O&M Costs Per Year ((B1+B2) X C X F)	(M) Total Number of Responses per Year (C X F) ^c	(N) Capital/Start- up Costs per occurrence	Footnotes
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- j We have assumed that 50 percent of uncontrolled open landfills with use Tier 1 calculations annually and 50 percent will use Tier 2 calculations once every 5 years for their NMOC reports. Of the landfills estimated to remain uncontrolled in the regulatory database 73% are public and 27% are private.
- k Based on the annualized labor and capital costs for method 25, 25A, or 25C over 5 years, since a Tier 2 test must be repeated every 5 years. Labor burden is assigned once every 5 years.
- l We have assumed that 17 controlled landfills will close during the third year of the ICR period. This is based on the closure dates reported in the regulatory database.
- m We have assumed that no landfills will remove equipment during this ICR period. Equipment Removal Report requires inclusion of 3 successive NMOC rates using Tier 2 calculations to demonstrate landfill is below the NMOC threshold.
- n We have assumed that 10% of controlled landfill will revise their design plan.
- o assumption of a semi-annual report to satisfy the requirements of the landfills NESHAP, we adjusted this estimate by half to account for the single report required by this NSPS, or \$2500, which is approximately 27 technical hours per occurrence.
- p Assumes 714 controlled landfills during the third year of this ICR period, 44% of which are public and 56% of which are private. The estimated burden was based on industry consultation of \$1000 per month for recordkeeping and data storage per month and \$500 for data compilation and review per month (see comment on recent ICR renewal for subpart WWW, ICR# 1557.09). This is approximately 5 technical hours per occurrence for data compilation and review and 11 hours for recordkeeping and data storage.
- q Number of occurrences is based on the total number of all landfills that are subject to the standard that are not controlling. Based on the regulatory database, 65% of these respondents are public and 35% are private.
- r It is unknown how many landfills will be required to conduct a root cause analysis, corrective action analysis, or implementation timeline. These items are not required by the rule for controlling landfills. A root cause analysis is only required if the landfill has an exceedance of the wellhead parameter is identified and cannot be corrected within 15 days. If the exceedance cannot be corrected within 60 days the owner or operator must also conduct a corrective action analysis and develop and implementation schedule. These items must only be submitted for approval if the corrective action will take longer than 120 days to correct. Landfills can minimize the number of exceedance events by improving the GCS and wellhead parameters for the purpose of minimizing ICR burden when at the landfills subject to controls will have at least one wellhead exceedance or a leak over the 60 days required for all landfills affected by this rule based on size if they have added liquids or recirculated leachate in the last 10 years. Landfills in the closed landfill subcategory are not expected to complete wet landfill reports.
- s

**Table C.1. Annual Federal Government Burden and Cost of Recordkeeping and Reporting
for Municipal Solid Waste Landfills - Subpart Cf - Year 1, Proposed Option 2.5/34**

Burden Item	EPA hours per occurrence (A)	Number of occurrences per year (B)	EPA hours per occurrence per year (C=AxB)	Technical hours per year (D=C)	Management hours per year (E=Dx0.05)	Clerical hours per year (F=Dx0.1)	(H) Costs, \$ ^m	Footnotes
1. Read and understand rule requirements	40	10	400	400	20	40	\$21,360	a
2. Enter and update information into agency recordkeeping system	2	1,192	2,384	2,384	119	238	\$127,306	b
3. Required activities								
A. Observe initial performance test	12	109	1,303	1,303	65	130	\$69,591	c, d
B. Observe surface methane monitoring quarterly	20	133	2,664	2,664	133	266	\$277,322	c
C. Review operating parameters	1	543	543	543	27	54	\$28,996	d
D. Review continuous parameter monitoring	1	666	666	666	33	67	\$35,564	e
E. Review notification of performance test	2	543	1,086	1,086	54	109	\$57,992	d
4 Excess Emissions Enforcement Activities	24	54	1,303	1,303	65	130	\$69,591	f
5. Reporting requirements								
A. Review initial design capacity report	1	178	178	178	9	18	\$9,505	g
B. Review amended design capacity report	1	25	25	25	1	3	\$1,335	h
C. Review annual NMOC emission rate report	2	227	454	454	23	45	\$24,244	i
D. Review landfill closure report	1	16	16	16	1	2	\$854	j
E. Review equipment removal report	1	0	0	0	0	0	\$0	k
F. Review Collection and Control System Design Plan	15	543	8,145	8,145	407	815	\$434,943	d
G. Review Revised Collection and Control System Design Plan	5	54	272	272	14	27	\$14,498	l
H. Review Initial Performance Test	12	543	6,516	6,516	326	652	\$347,954	d
I. Review Annual Report	2	666	1,332	1,332	67	133	\$71,129	e
J. Review Corrective Action Analysis	3.75	2	8	8	0.4	1	\$401	o
K. Review Implementation Timeline	3.75	2	8	8	0.4	1	\$401	o
L. Review Root Cause Analysis	3.75	2	8	8	0.4	1	\$401	o
M. Wet Landfills Monitoring Report	2	257	514	514	25.7	51	\$27,448	p
6. Travel Expenses for Tests Attended	3 days * (\$118 hotel + \$58 meals/incidentals) + (\$600 round trip) = \$1128 per trip						\$272,750	n
TOTAL BURDEN AND COST (SALARY)				27,823	1,391	2,782	\$1,893,585	
TOTAL ANNUAL HOURS						31,997		

a Number of occurrences is the number of EPA Regions (10 regions). This is a one-time occurrence that is only incurred during the first year of compliance.

b Number of occurrences is based on the total number of landfills that are subject to the standard based on size as well as the number of open landfills that fall below the thresholds of the standard.

c Number of occurrences is based on the assumption that EPA personnel will observe 20% of the landfills where initial performance tests and surface methane monitoring that occur. Cost to conduct surface methane monitoring includes time for monitor rental for agency as well as agency labor, which is \$1,014 per occurrence based on the size of the landfills expected to install controls beginning in year 2020.

d Number of occurrences is based on the estimated number of controlled open landfills in the first year of the ICR. This is a one-time occurrence that is only incurred during the first year of compliance.

e Number of occurrences is based on the estimated number of all controlled landfills in the first year of the ICR.

f Number of occurrences is based on the assumption that of the landfills that test, 10% of them will have exceedances and need enforcement.

g Based on the regulatory database, there are 178 existing open landfills with design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume and thus will complete the initial design capacity report in the first year of this ICR. This is a one-time requirement.

h Number of occurrences is based on the number of landfills that reported recent modifications or were anticipated to modify during the period of 2014-2018. See: Summary of Landfill Dataset Used in the Cost and Emission Impacts Analysis of Landfill Regulations for more discussion of how modified landfills were identified.

i Number of occurrences is the number of uncontrolled open landfills that use Tier 1 or Tier 2 calculations for their NMOC reports.

j Based on the estimated number of landfills closing in the first year of this ICR, according to the regulatory database.

k We have assumed that no landfills will remove equipment during this ICR period.

l Assumes 10 percent of respondents submitting a design plan will submit a revised design plan to account for changes to the landfill or the GCCS as allowed for in 60.38f(e).

m Assumes the following labor rates: \$64.16 per hour for Management labor; \$47.62 per hour for Technical labor, and \$25.76 per hour for Clerical labor. These rates are from the Office of Personnel Management (OPM), 2016 General Schedule, which excludes locality rates of pay. The rates have been increased by 60 percent to account for the benefit packages available to government employees. These rates can be obtained from the OPM web site, <https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/2016/general-schedule/>

n Total cost is based on the number of trips taken by EPA to observe performance tests in year 1 (3.A. & 3.B.) multiplied by \$1128 per trip. The source for hotel and meals/incidental costs is based on FY' 15 per diem rates, averaged across all locations in the United States. Airfares are estimated based on experience from other rulemakings. See: <http://www.gsa.gov/portal/category/100120>

o Number of occurrences is based on the assumption that one public and one private landfill subject to controls will have at least one wellhead exceedance that takes longer than 60 days to correct.

p While this data is being collected to inform future standards, it is assumed the agency will briefly review each report submitted by the landfills during the reporting year. Since the initial year reports include historical data, when available, the review of the report in the initial year will take additional time than subsequent year reports.

**Table C.2. Annual Federal Government Burden and Cost of Recordkeeping and Reporting
for Municipal Solid Waste Landfills - Subpart Cf - Year 2, Proposed Option 2.5/34**

Burden Item	EPA hours per occurrence (A)	Number of occurrences per year (B)	EPA hours per occurrence per year (C=AxB)	Technical hours per year (D=C)	Management hours per year (E=Dx0.05)	Clerical hours per year (F=Dx0.1)	(H) Costs, \$ ^k	Footnotes
1. Read and understand rule requirements	40	0	0	0	0	0	\$0	a
2. Enter and update information into agency recordkeeping system	2	1,192	2,384	2,384	119	238	\$127,306	b
3. Required activities								
A. Observe initial performance test	12	1	14	14	1	1	\$769	c, d
B. Observe surface methane monitoring quarterly	20	123	2,468	2,468	123	247	\$256,919	c
C. Review operating parameters	1	6	6	6	0	1	\$320	d
D. Review continuous parameter monitoring	1	617	617	617	31	62	\$32,948	e
E. Review notification of performance test	2	6	12	12	1	1	\$641	d
4 Excess Emissions Enforcement Activities	24	1	14	14	1	1	\$769	f
5. Reporting requirements								
A. Review initial design capacity report	1	0	0	0	0	0	\$0	g
B. Review amended design capacity report	1	25	25	25	1	3	\$1,335	h
C. Review annual NMOC emission rate report	2	108	215	215	11	22	\$11,481	i
D. Review landfill closure report	1	27	27	27	1	3	\$1,442	j
E. Review equipment removal report	1	0	0	0	0	0	\$0	k
F. Review Collection and Control System Design Plan	15	6	90	90	5	9	\$4,806	d
G. Review Revised Collection and Control System Design Plan	5	1	3	3	0	0	\$160	l
H. Review Initial Performance Test	12	6	72	72	4	7	\$3,845	d
I. Review Annual Report	2	617	1,234	1,234	62	123	\$65,896	e
J. Review Corrective Action Analysis	1.25	2	3	3	0.1	0.3	\$134	o
K. Review Implementation Timeline	1.25	2	3	3	0.1	0.3	\$134	o
L. Review Root Cause Analysis	1.25	2	3	3	0.1	0.3	\$134	o
M. Wet Landfills Monitoring Report	1	257	257	257	13	26	\$13,724	p
6. Travel Expenses for Tests Attended	3 days * (\$118 hotel + \$58 meals/incidentals) + (\$600 round trip) = \$1128 per trip						\$140,549	n
TOTAL BURDEN AND COST (SALARY)				7,446	372	745	\$663,309	
TOTAL ANNUAL HOURS						8,563		

a Number of occurrences is the number of EPA Regions (10 regions). This is a one-time occurrence that is only incurred during the first year of compliance.

b Number of occurrences is based on the total number of landfills that are subject to the standard based on size as well as the number of open landfills that fall below the thresholds of the standard.

c Number of occurrences is based on the assumption that EPA personnel will observe 20% of the landfills where initial performance tests and surface methane monitoring that occur. Cost to conduct surface methane monitoring includes time for monitor rental for agency as well as agency labor, which is \$1,014 per occurrence based on the size of the landfills expected to install controls beginning in year 2020.

d Number of occurrences is based on the estimated number of additional controlled open landfills in the second year of the ICR. This is a one-time occurrence that is only incurred during the first year of compliance.

e Number of occurrences is based on the estimated number of all controlled landfills in the second year of the ICR.

f Number of occurrences is based on the assumption that of the landfills that test, 10% of them will have exceedances and need enforcement.

g Based on the regulatory database, no additional existing landfills with design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume and thus will complete the initial design capacity report will report in the second year of this ICR. This is a one-time requirement and the small open landfills were assumed to report in the first year of the ICR.

h Number of occurrences is based on the number of landfills that reported recent modifications or were anticipated to modify during the period of 2014-2018. See: Summary of Landfill Dataset Used in the Cost and Emission Impacts Analysis of Landfill Regulations for more discussion of how modified landfills were identified.

i Number of occurrences is the number of uncontrolled open landfills that use Tier 1 or Tier 2 calculations for their NMOC reports.

j Based on the estimated number of landfills closing in the second year of this ICR, according to the regulatory database.

k We have assumed that no landfills will remove equipment during this ICR period.

l Assumes 10 percent of respondents submitting a design plan will submit a revised design plan to account for changes to the landfill or the GCCS as allowed for in 60.38f(e).

m Assumes the following labor rates: \$64.16 per hour for Management labor; \$47.62 per hour for Technical labor, and \$25.76 per hour for Clerical labor. These rates are from the Office of Personnel Management (OPM), 2016 General Schedule, which excludes locality rates of pay. The rates have been increased by 60 percent to account for the benefit packages available to government employees. These rates can be obtained from the OPM web site, <https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/2016/general-schedule/>

n Total cost is based on the number of trips taken by EPA to observe performance tests in year 1 (3.A. & 3.B.) multiplied by \$1128 per trip. The source for hotel and meals/incidental costs is based on FY' 15 per diem rates, averaged across all locations in the United States. Airfares are estimated based on experience from other rulemakings. See: <http://www.gsa.gov/portal/category/100120>

o Number of occurrences is based on the assumption that one public and one private landfill subject to controls will have at least one wellhead exceedance that takes longer than 60 days to correct.

p While this data is being collected to inform future standards, it is assumed the agency will briefly review each report submitted by the landfills during the reporting year. Since the initial year reports include historical data, when available, the review of the report in the initial year will take additional time than subsequent year reports.

**Table C.3. Annual Federal Government Burden and Cost of Recordkeeping and Reporting
for Municipal Solid Waste Landfills - Subpart Cf - Year 3, Proposed Option 2.5/34**

Burden Item	EPA hours per occurrence (A)	Number of occurrences per year (B)	EPA hours per occurrence per year (C=AxB)	Technical hours per year (D=C)	Management hours per year (E=Dx0.05)	Clerical hours per year (F=Dx0.1)	(H) Costs, \$ ^k	Footnotes
1. Read and understand rule requirements	40	0	0	0	0	0	\$0	a
2. Enter and update information into agency recordkeeping system	2	1,192	2,384	2,384	119	238	\$127,306	b
3. Required activities								
A. Observe initial performance test	12	20	240	240	12	24	\$12,816	c, d
B. Observe surface methane monitoring quarterly	20	143	2,856	2,856	143	286	\$297,310	c
C. Review operating parameters	1	100	100	100	5	10	\$5,340	d
D. Review continuous parameter monitoring	1	714	714	714	36	71	\$38,128	e
E. Review notification of performance test	2	100	200	200	10	20	\$10,680	d
4 Excess Emissions Enforcement Activities	24	10	240	240	12	24	\$12,816	f
5. Reporting requirements								
A. Review initial design capacity report	1	0	0	0	0	0	\$0	g
B. Review amended design capacity report	1	25	25	25	1	3	\$1,335	h
C. Review annual NMOC emission rate report	2	11	21	21	1	2	\$1,121	i
D. Review landfill closure report	1	17	17	17	1	2	\$908	j
E. Review equipment removal report	1	0	0	0	0	0	\$0	k
F. Review Collection and Control System Design Plan	15	100	1,500	1,500	75	150	\$80,100	d
G. Review Revised Collection and Control System Design Plan	5	10	50	50	3	5	\$2,670	l
H. Review Initial Performance Test	12	100	1,200	1,200	60	120	\$64,080	d
I. Review Annual Report	2	714	1,428	1,428	71	143	\$76,255	e
J. Review Corrective Action Analysis	1.25	2	3	3	0.1	0.3	\$134	o
K. Review Implementation Timeline	1.25	2	3	3	0.1	0.3	\$134	o
L. Review Root Cause Analysis	1.25	2	3	3	0.1	0.3	\$134	o
M. Wet Landfills Monitoring Report	1	257	257	257	12.9	25.7	\$13,724	p
6. Travel Expenses for Tests Attended	3 days * (\$118 hotel + \$58 meals/incidentals) + (\$600 round trip) = \$1128 per trip						\$183,638	n
TOTAL BURDEN AND COST (SALARY)				11,240	562	1,124	\$928,627	
TOTAL ANNUAL HOURS						12,925		

a Number of occurrences is the number of EPA Regions (10 regions). This is a one-time occurrence that is only incurred during the first year of compliance.

b Number of occurrences is based on the total number of landfills that are subject to the standard based on size as well as the number of open landfills that fall below the thresholds of the standard.

c Number of occurrences is based on the assumption that EPA personnel will observe 20% of the landfills where initial performance tests and surface methane monitoring that occur. Cost to conduct surface methane monitoring includes time for monitor rental for agency as well as agency labor, which is \$1,014 per occurrence based on the size of the landfills expected to install controls beginning in year 2020.

d Number of occurrences is based on the estimated number of additional controlled open landfills in the third year of the ICR. This is a one-time occurrence that is only incurred during the first year of compliance.

e Number of occurrences is based on the estimated number of all controlled landfills in the third year of the ICR.

f Number of occurrences is based on the assumption that of the landfills that test, 10% of them will have exceedances and need enforcement.

g Based on the regulatory database, no additional existing landfills with design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume and thus will complete the initial design capacity report will report in the third year of this ICR. This is a one-time requirement and the small open landfills were assumed to report in the first year of the ICR.

h Number of occurrences is based on the number of landfills that reported recent modifications or were anticipated to modify during the period of 2014-2018. See: Summary of Landfill Dataset Used in the Cost and Emission Impacts Analysis of Landfill Regulations for more discussion of how modified landfills were identified.

i Number of occurrences is the number of uncontrolled open landfills that use Tier 1 or Tier 2 calculations for their NMOC reports.

j Based on the estimated number of landfills closing in the third year of this ICR, according to the regulatory database.

k We have assumed that no landfills will remove equipment during this ICR period.

l Assumes 10 percent of respondents submitting a design plan will submit a revised design plan to account for changes to the landfill or the GCCS as allowed for in 60.38f(e).

m Assumes the following labor rates: \$64.16 per hour for Management labor; \$47.62 per hour for Technical labor, and \$25.76 per hour for Clerical labor. These rates are from the Office of Personnel Management (OPM), 2016 General Schedule, which excludes locality rates of pay. The rates have been increased by 60 percent to account for the benefit packages available to government employees. These rates can be obtained from the OPM web site, <https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/2016/general-schedule/>

n Total cost is based on the number of trips taken by EPA to observe performance tests in year 1 (3.A. & 3.B.) multiplied by \$1128 per trip. The source for hotel and meals/incidental costs is based on FY' 15 per diem rates, averaged across all locations in the United States. Airfares are estimated based on experience from other rulemakings. See: <http://www.gsa.gov/portal/category/100120>

o Number of occurrences is based on the assumption that one public and one private landfill subject to controls will have at least one wellhead exceedance that takes longer than 60 days to correct.

p While this data is being collected to inform future standards, it is assumed the agency will briefly review each report submitted by the landfills during the reporting year. Since the initial year reports include historical data, when available, the review of the report in the initial year will take additional time than subsequent year reports.