ICR Summary Information	
Hours per Response	79
Number of Respondents	104
Total Estimated Burden Hours	30,800
Total Estimated Costs	$4,470,000
Annualized Capital O&M	$766,000
Total Annual Responses	389

Table 1: Annual Respondent Burden and Cost – NESHAP for Pulp and Paper Production (40 C

Burden Item	(A) Person hours per occurrence	(B) No. of occurrences per respondent per year	(C) Person hours per respondent per year (C=AxB)	(D) Respondents per year [a]
1. Applications	N/A			
2. Surveys and Studies	N/A			
3. Reporting Requirements				
A. Read and Understand Rule Requirements [d]	4	1	4	104
B. Required Activities				
1.1) Pulping processes (Non-Sulfite)				
a. Provide documentation that vent streams are introduced to the flame zone of a boiler, lime kiln, or recovery furnace, or [c, e]	24	1	24	4
b. Provide documentation that the control incinerator is operating at a minimum level of 1600 F and 0.75 sec residence time, or [c, f]	60	1	60	1
c. Performance test of control device - test method 308 [c, f, g, n]	24	0	0	1
1.2) Pulping Processes (Sulfite) [c, g, i, n]				
a. Performance test of control device - test method 308	24	1	24	1
2.1) Bleaching process vent scrubber [c, g, j, n]				
a. Performance test of scrubber or control device - test method 26A	24	1	24	4
3.1) Pulping wastewater treatment (Non-Sulfite)				
a. Performance test of condensate segregation and control device (test method 305), or [c, h, k, n]	24	1	24	4
b. Performance test of control device - test method 304 [c, h, l, n]	24	1	24	3
3.2) Pulping wastewater treatment (Sulfite) [c, h, m, n]				
a. Performance test of control device - test method 305	24	1	24	1
4.1) Repeat of performance test (5-yr intervals) [g, n, t]				
a. Test method 308 - pulping	24	1	24	6
b. Test method 26A - bleaching	24	1	24	30
4.2) Inspection of enclosures, closed vent, wastewater conveyance system [o]				
a. Initial/Annual inspection - test method 21	8	1	8	67
b. Monthly visual inspection	4	12	48	101
C. Create Information	See 3.B			
D. Gather Information	See 3.B			
E. Report Preparation				
1) Initial Notification Report (<45 days after promulgation) [c, d]	16	1	16	0
2) Notification of Compliance Status [c, d]	16	1	16	0

3) Initial Compliance Strategy Report [c, p]	40	1	40	0
4) Compliance Strategy Report Update [p]	16	1	16	0
5) Semiannual Summary Report [d]	16	2	32	104
6) Continuous Monitoring/Exceedance Reports [q]	24	2	48	16
7) Notification of Performance Test (>75 days before test) [c, r]	4	1	4	117
8) Notification of Construction / Reconstruction (>180 days before) [c, s]	4	1	4	16
9) Notification of Actual Startup (<150 days after startup) [c, s]	4	1	4	16
10) Affirmative Defense [u]	30	1	30	0
Subtotal for Reporting Requirements				
4. Recordkeeping Requirements				
A. Read Instructions	See 3.A			
B. Plan Activities	See 3.B			
C. Implement Activities	See 3.B			
D. Develop Record System [c, d, v]	40	1	40	0
E. Record Information				
Records of continuous monitoring for operating parameters [d]	2	52	104	104
Records of periodic inspections (monthly visual inspections and annual method 21) [d]	See 3.B			
Records of malfunctions [d]	2	12	24	104
F. Personnel Training	N/A			
G. Time for Audits	8	2	16	104
Subtotal for Recordkeeping Requirements				
Total Labor Burden and Costs (rounded) [v]				
Total Capital and O&M Cost (rounded) [v]				
GRAND TOTAL (rounded) [v]				

Assumptions:

[a] We assume that an average of 104 respondents (101 chemical pulp mills and 3 non-integrated paper mills) will be subjec become subject to the rule over the three-year period of the ICR. We also assume that 15% of facilities (15) will rebuild or

[b] This ICR uses the following labor rates: Managerial $157.61 ($75.05 + 110%); Technical $123.94 ($59.02 + 110%); and United States Department of Labor, Bureau of Labor Statistics, September 2021, "Table 2. Civilian Workers, by occupatio compensation." The rates have been increased by 110 percent to account for the benefit packages available to those emplo

[c] One-time activity. In out years, after initial compliance date, assume that 5% of mills affected as a result of unexplained

[d] All MACT I category mills are affected by this rule. The only MACT III category mills affected by this rule are those bl mills affected by this rule is 101 + 3 = 102.

[e] Approximately 85% of mills use a recovery boiler, power boiler, or lime kiln for control of pulping vents. There are 97 r 5% of 82= 4.

[f] Approximately 15% of mills use incineration for pulping lines (assuming half of these provide acceptable design specs (5% of 7 = 1

[g] Estimate includes test plan, test report, and parametric monitoring setup. Method 308 tests for pulping lines and method

[h] Estimate includes test plan, test report, and parametric monitoring setup. Method 304 and 305 are for wastewater stream

[i.] Assume that 4 sulfite pulping mills will conduct performance tests. Per footnote "c", 5% of 4 = 1.

[j.] 63 MACT I and 3 MACT III category mills have bleaching lines that use chlorinated compounds. Per footnote "c", 5% of
= 4 facilities total.

[k.] Estimated that each kraft mill has one pulping wastewater control device, with 60% of mills using stream strippers (60%
15% of 3 = 1 facility. 3 + 1 = 4 facilities total. Facilities with steam strippers are assumed to perform initial condensate se

[l.] Approximately 40% of kraft mills use biotreatment. (40% of 89 = 36) Per footnote "c," 5% of 36 = 2. Per footnote "n", 15
biotreatment control will perform initial performance tests.

[m.] Assume sulfite mills will monitor gas scrubber parameters and use Water-9 Model for emission estimates.

[n.] Assumed that 15% of performance tests are failed and need to be repeated.

[o.] Initial and annual activity. Assumed that EPA is notified each year of the testing. Assumed 2/3 of all MACT I mills have
test using method 21 (2/3 x 101 = 67). Monthly visual inspections are to be conducted by chemical pulp mills (101).

[p.] The requirement for a compliance strategy report is now obsolete (required before 2006 only).

[q.] Assumed that 15% of all affected mills during any one quarter will be required to submit an exceedance report in additio

[r.] EPA must be notified of all tests including out-year repeat performance tests and tests conducted at 5-year intervals.

[s.] Assumed 15% of all affected mills conduct construction or reconstruction per year. (15% of 104 = 16).

[t.] Kraft/soda/semichemical mills using compliance options requiring testing (7 mills) are likely to have 3 emission points th
stripper off gases). Sulfite mills (4) are likely to have 1 emission point to be tested. Total no. M308 tests = [(7 mills x 3 pc
repeat M308 tests = 29/5 = 6 tests. Mills bleaching with chlorinated compounds (66 mills) are likely to have two emission
x 2) x 1.15 = 152. Annual no. of 5-yr repeat M26A tests = 152/5=30 tests.

[u.] Assumes no affirmative defense review.

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

FR Part 63, Subpart S) (Renewal)

(E) Technical person- hours per year (E=CxD)	(F) Management person hours per year (Ex0.05)	(G) Clerical person hours per year (Ex0.1)	(H) Cost, $ [b]
416	20.8	41.6	$57,438.16
96	4.8	9.6	$13,254.96
60	3	6	$8,284.35
0	0	0	$0.00
24	1	2	$3,313.74
96	4.8	9.6	$13,254.96
96	4.8	9.6	$13,254.96
72	3.6	7.2	$9,941.22
24	1.2	2.4	$3,313.74
144	7.2	14.4	$19,882.44
720	36	72	$99,412.20
536	26.8	53.6	$74,006.86
4,848	242.4	484.8	$669,375.48
0	0	0	$0
0	0	0	$0

Labor Rates	
Management	$157.61
Technical	$123.94
Clerical	$62.52

0	0	0	$0
0	0	0	$0
3,328	166.4	332.8	$459,505.28
768	38.4	76.8	$106,039.68
468	23.4	46.8	$64,617.93
64	3.2	6.4	$8,836.64
64	3.2	6.4	$8,836.64
0	0	0	$0
13,598			***$1,632,569***
0	0	0	$0
10816	540.8	1081.6	$1,493,392.16
2496	124.8	249.6	$344,628.96
1664	83.2	166.4	$229,752.64
17,222			***$2,067,774***
30,800			***$3,700,000***
			$766,000
			$4,470,000

:t to this rule. We assume that one new source each year will
ıe or more existing process units in a given year.

l Clerical $62.52 ($29.77 + 110%). These rates are from the
ɔnal and industry group." The rates are from column 1, "Total
ɔyed by private industry.

exceedances.

eaching with chlorinated compounds (3 mills). Total number of

ıon-sulfite pulping mills. (85% of 97 = 82). Per footnote "c,"

7), and half conduct performance tests (7)). Per footnote "c",

26A tests for bleaching lines.
s.

f 66 = 3 facilities. Per footnote "n", 15% of 3 = 1 facility. 3 + 1

of 89 = 53). Per footnote "c," 5% of 53= 3. Per footnote "n",
gregation and performance tests.

5% of 2 = 1 facility. 2 + 1 = 3 facilities total. Facilities with

positive pressure points in their vent systems and will have to

n to the summary report. (15% of 104 = 16).

ıat would require 5-year repeat testing (LVHC, HVLC, and
ɔints) + (4 mills x 1 point)] x 1.15 = 29. Annual no. of 5-year
points requiring M26A testing. Total no. of M26A tests = (66

79 hr/response

Table 2: Average Annual EPA Burden and Cost – NESHAP for Pulp and Paper Production

Burden item	(A) Person hours per occurrence	(B) No. of occurrences per respondent per year	(C) Person hours per respondent per year (C=AxB)	(D) Respondents per year [a]
1. Applications	N/A			
2. Surveys and Studies	N/A			
3. Reporting Requirements				
A. Read and Understand Rule Requirements [a]	4	1	4	104
B. Required Activities				
Initial Performance Tests				
1.1) Pulping processes (Non-Sulfite)				
a. Review documentation that vent streams are introduced to the flame zone of a boiler, lime kiln, or recovery furnace, or [c, d]	8	1	8	4
b. Review documentation that the control incinerator is operating at a minimum level of 1600 F and 0.75 sec residence time, or [c, e]	8	1	8	1
c. Review performance test of control device - test method 308 [c, e, j]	8	1	8	1
1.2) Pulping Processes (Sulfite) [c, f, j]				
a. Review performance test of control device	8	1	8	1
2.1) Bleaching process vent scrubber [c, g, j]				
a. Review performance test of scrubber or control device	8	1	8	4
3.1) Pulping wastewater treatment (Non-Sulfite)				
a. Review of performance test of condensate segregation and control device, or [c, h, j]	8	1	8	4
b. Review of performance test of biotreatment unit [c, i, j]	8	1	8	3
3.2) Pulping wastewater treatment (Sulfite) [c, d, j]				
a. Review performance test of control device	8	1	8	1
4.1) Repeat of performance test (5-yr intervals) [j, q]				
a. Test method 308 - pulping	8	1	8	6
b. Test method 26A - bleaching	8	1	8	30
4.2) Inspection of enclosures, closed vent, wastewater conveyance system [k]				
a. Initial/Annual inspection - test method 21	0	1	0	67
b. Monthly visual inspection	0	12	0	101
C. Create Information	See 3.B			
D. Gather Information	See 3.B			
E. Report Preparation				
1) Review Initial Notification Report [c]	4	1	4	0
2) Review Notification of Compliance Status [c]	4	1	4	0
3) Review Initial Compliance Strategy Report [c, p]	4	1	4	0
4) Review Compliance Strategy Report Update [c, p]	4	1	4	0
5) Review Semiannual Summary Report [l]	2	2	4	104

6) Review Continuous Monitoring/Exceedance Reports [m]	2	2	4	16
7) Review Notification of Performance Test [c, n]	4	1	4	117
8) Review Notification of Construction / Reconstruction [c, o]	4	1	4	16
9) Review Notification of Actual Startup [c, o]	4	1	4	16
10) Review Affirmative Defense [r]	8	1	8	0
4. Recordkeeping Requirements				
A. Read Instructions	See 3.A			
B. Plan Activities	See 3.B			
C. Implement Activities	See 3.B			
D. Record Information				
Review records of continuous monitoring for operating parameters [l]	1	1	1	104
Review records of malfunctions [l]	1	1	1	104
E. Personnel Training	N/A			
F. Time for Audits	8	2	16	104
TOTAL (rounded) [s]				

Assumptions:

[a] We assume that an average of 104 respondents (101 chemical pulp mills and 3 non-integrated paper mills) will be s
will become subject to the rule over the three-year period of the ICR. We also assume that 15% of facilities (16) will

[b] This cost is based on the average hourly labor rate as follows: Managerial $70.56 (GS-13, Step 5, $44.10 + 60%); T
$28.34 (GS-6, Step 3, $17.17 + 60%). This ICR assumes that Managerial hours are 5 percent of Technical hours, and
from the Office of Personnel Management (OPM), 2021 General Schedule, which excludes locality, rates of pay. The
benefit packages available to government employees.

[c] One-time activity. After initial compliance date, assume that 5% of mills affected as a result of unexplained exceed

[d] Approximately 85% of mills use a recovery boiler, power boiler, or lime kiln for control of pulping vents. There are
"c," 5% of 82= 4.

[e] Approximately 15% of mills use incineration for pulping lines (assuming half of these provide acceptable design sp
"c", 5% of 7 = 1

[f] Assume that 4 sulfite pulping mills will conduct performance tests. Per footnote "c", 5% of 4 = 1

[g] 63 MACT I and 3 MACT III category mills have bleaching lines that use chlorinated compounds. Per footnote "c",
+ 1 = 4 facilities total.

[h] Estimated that each kraft mill has one pulping wastewater control device, with 60% of mills using stream strippers (
"n", 15% of 3 = 1 facility. 3 + 1 = 4 facilities total. Facilities with steam strippers are assumed to perform initial conc

[i] Approximately 40% of kraft mills use biotreatment. (40% of 89 = 36) Per footnote "c," 5% of 36 = 2. Per footnote "n
biotreatment control will perform initial performance tests.

[j] Assumed that 15% of performance tests are failed and need to be repeated.

[k] Initial and annual activity. Assumed that EPA is notified each year of the testing. Assumed 2/3 of all MACT I mills
to test using method 21 (2/3 x 101 = 67). Monthly visual inspections are to be conducted by chemical pulp mills (101

[l] Performed for all affected mills. (104)

[m] Assumed that 15% of all mills during any one quarter will be required to submit an exceedance report in addition to

[n] EPA must be notified of all tests including out-year repeat performance tests and tests conducted at 5-year intervals.

[o] Assumed 15% of mills conduct construction or reconstruction per year. (15% of 104 = 16)

[p] The requirement for a compliance strategy report is now obsolete (required before 2006 only).

[q] Kraft/soda/semichemical mills using compliance options requiring testing (7 mills) are likely to have 3 emission poi
stripper off gases). Sulfite mills (4) are likely to have 1 emission point to be tested. Total no. M308 tests = [(7 mills x
year repeat M308 tests = 29/5 = 6 tests. Mills bleaching with chlorinated compounds (66 mills) are likely to have two
tests = (66 x 2) x 1.15 = 152. Annual no. of 5-yr repeat M26A tests = 152/5=30 tests.

[r] Assumes no affirmative defense review.

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

(40 CFR Part 63, Subpart S) (Renewal)

(E) Technical person- hours per year (E=CxD)	(F) Management person hours per year (Ex0.05)	(G) Clerical person hours per year (Ex0.1)	(H) Cost, $ [b]
416	20.8	41.6	$24,432.51
32	1.6	3	$1,879.42
8	0.4	0.8	$469.86
8	0.4	0.8	$469.86
8	0.4	0.8	$469.86
32	1.6	3.2	$1,879.42
32	1.6	3.2	$1,879.42
24	1.2	2.4	$1,409.57
8	0.4	0.8	$469.86
48	2.4	4.8	$2,819.14
240	12	24	$14,095.68
0	0	0	$0
0	0	0	$0
0	0	0	$0
0	0	0	$0
0	0	0	$0
0	0	0	$0
416	20.8	41.6	$24,432.51

Labor Rates	
Management	$70.56
Technical	$52.37
Clerical	$28.34

64	3.2	6.4	$3,758.85
468	23.4	46.8	$27,486.58
64	3.2	6.4	$3,758.85
64	3.2	6.4	$3,758.85
0	0	0	$0
104	5.2	10.4	$6,108.13
104	5.2	10.4	$6,108.13
1664	83.2	166.4	$97,730.05
4,370			**$223,000**

ubject to this rule. We assume that one new source each year rebuild one or more existing process units in a given year.

Technical $52.37 (GS-12, Step 1, $32.73 + 60%); and Clerical Clerical hours are 10 percent of Technical hours. These rates are rates have been increased by 60 percent to account for the

ances.

e 97 non-sulfite pulping mills. (85% of 97 = 82). Per footnote

ecs (7), and half conduct performance tests (7)). Per footnote

5% of 66 = 3 facilities. Per footnote "n", 15% of 3 = 1 facility. 3

60% of 89 = 53). Per footnote "c," 5% of 53= 3. Per footnote lensate segregation and performance tests.

n", 15% of 2 = 1 facility. 2 + 1 = 3 facilities total.Facilities with

have positive pressure points in their vent systems and will have).

the summary report. (15% of 104 = 16)

nts that would require 5-year repeat testing (LVHC, HVLC, and
x 3 points) + (4 mills x 1 point)] x 1.15 = 29. Annual no. of 5-
emission points requiring M26A testing. Total no. of M26A

Capital/Startup vs. Operation and Maintenance			
(A)	**(B)**	**(C)**	**(D)**
Continuous Monitoring Device	**Capital/Startup Cost for One Respondent**	**Number of New Respondents [a]**	**Total Capital/Startup Cost, (B X C)**
Method 308 [b]	$0	0	$0
Method 26A [c]	$0	0	$0
Method 304 [d]	$0	0	$0
Method 305 [e]	$0	0	$0
Method 21 [f]	$0	0	$0
Totals (rounded) [g]			**$0**

[a] Continuous monitoring requirements are for parametric monitoring and these systems are already in place; t
reporting requirements. It is assumed that all mills will contract a testing company to provide sampling and a
the test methods required for this rule, the purchase of service for each method is estimated below. These esti

[b] We estimate that 8 respondents need to complete Method 308 testing (1 pulping process (non-sulfite), 1 pul

[c] We estimate that 34 respondents need to complete Method 26A testing (4 bleaching process vent scrubbers

[d] We estimate that 3 respondents need to complete Method 304 testing (3 pulping wastewater treatment (non-

[e] We estimate that 5 respondents need to complete Method 305 testing (4 pulping wastewater treatment (non-

[f] We estimate that 67 respondents need to complete Method 21 testing (Inspection of enclosures, closed vents

[g] Totals have been rounded to 3 significant digits. Figures may not add exactly due to rounding.

(O&M) Costs

(E)	(F)	(G)
Annual O&M Costs for One Respondent	**Number of Respondents with O&M**	**Total O&M, (E X F)**
$14,000	8	$112,000
$10,000	34	$340,000
$11,000	3	$33,000
$16,000	5	$80,000
$3,000	67	$201,000
		$766,000

Notes for EPA:

<--totals match with rows 12,

<--totals match with rows 16 a

<--totals match with rows 19 c

<--totals match with rows 18 a

<--totals match with rows 26 c

$766,000

herefore, no new equipment would be required by the recordkeeping and
nalytical services for air and water tests. Based on EPA's experience with
imates include labor, materials, and analytical costs.

ping process (sulfite), and 6 repeat performance tests).

and 30 repeat performance tests).

sulfite)).

sulfite) and 1 pulping wastewater treatment (sulfite)).

, and wastewater conveyance systems).

14, and 23 of Table 1

and 24 of Table 1

of Table 1

and 21 of Table 1

of Table 1

Total Annual Responses				
(A)	(B)	(C)	(D)	(E)
Information Collection Activity	Number of Respondents [a]	Number of Responses	Number of Existing Respondents That Keep Records But Do Not Submit Reports	Total Annual Responses E=(BxC)+D
Initial notification report	0	1	0	0
Notification of compliance status	0	1	0	0
Initial compliance strategy report	0	1	0	0
Compliance strategy report update	0	1	0	0
Semiannual summary report	104	2	0	208
Continuous monitoring / exceedance report	16	2	0	32
Notification of performance test	117	1	0	117
Notification of construction / reconstruction	16	1	0	16
Notification of actual startup	16	1	0	16
			Total	**389**

[a] We estimate all respondents will submit semiannual reports, 15% of respondents will need to submit continuous monitoring/exceedance reorts, 15% of respondents will rebuild one or more process units in a given year and thus need to submit notifications of reconstruction, actual startup, and performance tests. In addition respondents need to perform repeat performance tests every five years.

Number of Respondents				
	Respondents That Submit Reports		Respondents That Do Not Submit Any Reports	
	(A)	(B)	(C)	(D)
Year	Number of New Respondents [a]	Number of Existing Respondents	Number of Existing Respondents that keep records but do not submit reports	Number of Existing Respondents That Are Also New Respondents
1	16	104	0	16
2	16	104	0	16
3	16	104	0	16
Average	16	104	0	16

[a] New respondents include sources with constructed and reconstructed, and modified affected facilities. 16 respondents wi process units in a given year. In this standard, existing respondents submit initial notifications.

(E)
Number of Respondents (E=A+B+C-D)
104
104
104
104

ll rebuild one or more