**Table 1: Average Annual Respondent Burden and Cost – NESHAP for Cellulose Products** 

1. Applications N/A 2. Survey and Studies N/A 3. Reporting Requirements A. Familiarize with regulatory requirements complete survey and Studies A. Familiarize with regulatory requirements complete survey and Studies A. Familiarize with regulatory requirements complete survey and Studies does not survey and Studies not survey and Studies does not survey and Studies not survey		(A)	(B)
2. Survey and Studies  3. Reporting Requirements  A. Familiarize with regulatory requirements complete survey and Studies  A. Familiarize with regulatory requirements complete survey and	Burden item	hours per	occurrences
3. Reporting Requirements  A. Familiarize with regulatory requirements c 8 1  B. Required activities d 24 1  Attend periodic performance test 24 2  C. Create information See 3B  D. Gather existing information See 3B  E. Write report 2 1  Notification of construction/reconstruction e.f 2 1  Notification of actual startup e.f 2 1  Notification of applicability e.f 2 1  Notification of performance test f.g 2 1  Notification of CMS performance evaluation f.g 2 1  Notifications for equipment leaks e.f 2 1  Notifications for wastewater e.f 2 1  Notification of compliance status g.h 40 1  Semiannual report - no deviations f 16 2  Semiannual report - equipment leaks e.f 303 2	1. Applications	N/A	
A. Familiarize with regulatory requirements c  B. Required activities d  Prepare for periodic performance test  Attend periodic performance test  C. Create information  See 3B  D. Gather existing information  See 3B  E. Write report  Notification of construction/reconstruction e.f  Notification of actual startup e.f  Notification of applicability e.f  Notification of performance test t.g  Notification of CMS performance evaluation t.g  Notifications for equipment leaks e.f  Notifications for wastewater e.f  Notification of compliance status g.h  Notification of compliance status g.h  Semiannual report - no deviations i  See 3B  L. Write report  Notification of construction/reconstruction e.f  2 1  Notification of actual startup e.f  2 1  Notification of applicability e.f  2 1  Notification of compliance test t.g  2 1  Notifications for equipment leaks e.f  2 1  Notification of compliance status g.h  Ado 1  Semiannual report - no deviations i  8 2  Semiannual report - deviations j  16 2  Semiannual report - equipment leaks k  303 2	2. Survey and Studies	N/A	
B. Required activities description of periodic performance test attend periodic performance test act and periodic pe	3. Reporting Requirements		
Prepare for periodic performance test  Attend periodic performance test  C. Create information  D. Gather existing information  See 3B  E. Write report  Notification of construction/reconstruction e.f  Notification of actual startup e.f  Notification of applicability e.f  Notification of performance test f.g  Notification of CMS performance evaluation f.g  Notifications for equipment leaks e.f  Notifications for wastewater e.f  Notification of compliance status g.h  Notification of compliance status g.h  Semiannual report - no deviations i  See 3B  2 1  Notification of construction/reconstruction e.f  2 1  Notification of performance evaluation f.g  2 1  Notification of compliance evaluation f.g  2 1  Notification for wastewater e.f  2 1  Notification of compliance status g.h  40 1  Semiannual report - no deviations i  8 2  Semiannual report - deviations j  16 2  Semiannual report - equipment leaks k  303 2	A. Familiarize with regulatory requirements <sup>c</sup>	8	1
Attend periodic performance test  C. Create information  See 3B  D. Gather existing information  E. Write report  Notification of construction/reconstruction e.f  Notification of actual startup e.f  Notification of applicability e.f  Notification of performance test f.g  Notification of CMS performance evaluation f.g  Notifications for equipment leaks e.f  Notifications for wastewater e.f  Notification of compliance status g.h  Notification of compliance status g.h  Semiannual report - no deviations i  See 3B  2  1  Notification of construction e.f  2  1  Notification of applicability e.f  2  1  Notification of cMS performance evaluation f.g  2  1  Notifications for equipment leaks e.f  2  1  Notification of compliance status g.h  40  1  Semiannual report - no deviations i  8  2  Semiannual report - deviations j  16  2  Semiannual report - equipment leaks k  303  2	B. Required activities <sup>d</sup>		
C. Create information  D. Gather existing information  E. Write report  Notification of construction/reconstruction e.f  Notification of actual startup e.f  Notification of applicability e.f  Notification of performance test f.g  Notification of CMS performance evaluation f.g  Notifications for equipment leaks e.f  Notifications for wastewater e.f  Notification of compliance status g.h  Semiannual report - no deviations i  See 3B  See 3B  D. Gather existing information  See 3B  E. Write report  2  1  Notification of construction/reconstruction e.f  2  1  Notification of performance evaluation f.g  2  1  Notifications for equipment leaks e.f  2  1  Notification of compliance status g.h  40  1  Semiannual report - no deviations i  8  2  Semiannual report - deviations j  16  2  Semiannual report - equipment leaks k  303  2	Prepare for periodic performance test	24	1
D. Gather existing information  E. Write report  Notification of construction/reconstruction e,f  Notification of actual startup e,f  Notification of applicability e,f  Notification of performance test f,g  Notification of CMS performance evaluation f,g  Notifications for equipment leaks e,f  Notifications for wastewater e,f  Notification of compliance status g,h  Semiannual report - no deviations f  See 3B  E. Write report  2 1  Notification of construction/reconstruction e,f  2 1  Notification of actual startup e,f  2 1  Notification of CMS performance evaluation f,g  2 1  Notifications for wastewater e,f  2 1  Notification of compliance status g,h  40 1  Semiannual report - no deviations i  8 2  Semiannual report - deviations j  16 2  Semiannual report - equipment leaks k  303 2	Attend periodic performance test	24	2
E. Write report  Notification of construction/reconstruction e,f  Notification of actual startup e,f  Notification of applicability e,f  Notification of performance test f,g  Notification of CMS performance evaluation f,g  Notifications for equipment leaks e,f  Notifications for wastewater e,f  Notification of compliance status g,h  Semiannual report - no deviations i  Semiannual report - deviations j  Semiannual report - equipment leaks k  Notification of compliance status s,h  Semiannual report - deviations s,h  Semiannual report - deviations s,h  Semiannual report - equipment leaks k  Notification of compliance status s,h  Semiannual report - deviations s,h  Semiannual report - deviations s,h  Semiannual report - equipment leaks k  Notification of compliance status s,h  Semiannual report - deviations s,h  Semiannual report - deviations s,h  Semiannual report - equipment leaks k  Notification of compliance status s,h  Semiannual report - deviations s,h  Semiannual report - deviations s,h  Semiannual report - equipment leaks k  Notification of compliance status s,h  Semiannual report - equipment leaks k  Notification of compliance status s,h  Semiannual report - deviations s,h  Semiannual report - deviations s,h  Semiannual report - equipment leaks k	C. Create information	See 3B	
Notification of construction/reconstruction e,f 2 1  Notification of actual startup e,f 2 1  Notification of applicability e,f 2 1  Notification of performance test f,g 2 1  Notification of CMS performance evaluation f,g 2 1  Notifications for equipment leaks e,f 2 1  Notifications for wastewater e,f 2 1  Notification of compliance status g,h 40 1  Semiannual report - no deviations i 8 2  Semiannual report - deviations i 16 2  Semiannual report - equipment leaks k 303 2	D. Gather existing information	See 3B	
Notification of actual startup e,f 2 1  Notification of applicability e,f 2 1  Notification of performance test f,g 2 1  Notification of CMS performance evaluation f,g 2 1  Notifications for equipment leaks e,f 2 1  Notifications for wastewater e,f 2 1  Notification of compliance status g,h 40 1  Semiannual report - no deviations i 8 2  Semiannual report - deviations j 16 2  Semiannual report - equipment leaks k 303 2	E. Write report		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Notification of construction/reconstruction e,f	2	1
Notification of performance test $^{f,g}$ 21Notification of CMS performance evaluation $^{f,g}$ 21Notifications for equipment leaks $^{e,f}$ 21Notifications for wastewater $^{e,f}$ 21Notification of compliance status $^{g,h}$ 401Semiannual report - no deviations $^{i}$ 82Semiannual report - deviations $^{j}$ 162Semiannual report - equipment leaks $^{k}$ 3032	Notification of actual startup e,f	2	1
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Notification of applicability <sup>e,f</sup>	2	1
Notifications for equipment leaks $^{e,f}$ 21Notifications for wastewater $^{e,f}$ 21Notification of compliance status $^{g,h}$ 401Semiannual report - no deviations $^i$ 82Semiannual report - deviations $^j$ 162Semiannual report - equipment leaks $^k$ 3032	Notification of performance test f,g	2	1
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Notification of CMS performance evaluation f,g	2	1
Notification of compliance status <sup>g,h</sup> Semiannual report - no deviations <sup>i</sup> Semiannual report - deviations <sup>j</sup> Semiannual report - equipment leaks <sup>k</sup> 303	Notifications for equipment leaks <sup>e,f</sup>	2	1
Semiannual report - no deviations i       8       2         Semiannual report - deviations j       16       2         Semiannual report - equipment leaks k       303       2	Notifications for wastewater e,f	2	1
Semiannual report - deviations <sup>j</sup> 16 2 Semiannual report - equipment leaks <sup>k</sup> 303 2	Notification of compliance status <sup>g,h</sup>	40	1
Semiannual report - equipment leaks <sup>k</sup> 303 2	Semiannual report - no deviations <sup>i</sup>	8	2
	Semiannual report - deviations <sup>j</sup>	16	2
	Semiannual report - equipment leaks <sup>k</sup>	303	2
Seminimum report - wastewater   See 4E	Semiannual report - wastewater	See 4E	
Semiannual report - other <sup>1</sup> 8 2	Semiannual report - other <sup>1</sup>	8	2
Subtotal for Reporting Requirements	-		
4. Recordkeeping requirements			
A. Familiarize with regulatory requirements See 3A	A. Familiarize with regulatory requirements	See 3A	
B. Plan activities N/A	B. Plan activities	N/A	
C. Implement activities N/A	C. Implement activities	N/A	
D. Develop record system N/A	D. Develop record system	N/A	
E. Time to enter information	E. Time to enter information		
Records of failures to meet standards/actions taken to minimize emissions <sup>m</sup> 2 12	Records of failures to meet standards/actions taken to minimize emissions <sup>m</sup>	2	12
Records of continuous parameters monitoring system (CPMS) data <sup>n</sup> 1 365		1	365
Records of closed-loop systems ° 2 2	Records of closed-loop systems °	2	2
Records of nitrogen systems <sup>p</sup> 2 2	Records of nitrogen systems <sup>p</sup>	2	2
Records of material balances <sup>q</sup> 8 2	Records of material balances q	8	2

Records of supporting calculations <sup>r</sup>	8	2	
Records for equipment leaks	See 3E		
All other records	See 3E		
F. Time to train personnel			
Initial training <sup>e,s</sup>	40	1	
Refresher training <sup>t</sup>	16	1	
G. Time to transmit or disclose information <sup>u</sup>			
Compile data	24	2	
Enter and verify information for semiannual report	16	2	
H. Time for audits			
Subtotal for Recordkeeping Requirements			
TOTAL LABOR BURDEN AND COST			
TOTAL ANNUALIZED CAPITAL AND O&M COST			
GRAND TOTAL			

## **Assumptions:**

- <sup>a</sup> We estimate that there are 8 sources that are subject to the standard which includes the following facilities: 3 cellu
- <sup>b</sup> This ICR uses the following labor rates: \$139.63 per hour for Managerial labor; \$119.47 per hour for Technical l
- <sup>c</sup> We have assumed that it will take the respondents 8 hours to familiarize themselves with the regulatory requireme
- <sup>d</sup> We estimate that it will take the respondent 24 hours to prepare for periodic performance test (e.g., prepare test pl
- <sup>e</sup> These requirements are one-time requirements that apply to new respondents. There are no new respondents estim
- <sup>f</sup> We estimate that it will take the respondent 2 hours to complete the notification.
- <sup>g</sup> We estimate that 6 facilities will need to submit notification of performance test, conduct the test, and report the r
- <sup>h</sup> We estimate that it will take each respondent 40 hours to prepare the notification of compliance status.
- <sup>i</sup> We have assumed that 80% of all respondents will report no deviation (0.8 x 8 respondents = 6.4).
- <sup>j</sup> We have assumed that 20% of all respondents will report a deviation (0.2 x 8 respondents = 1.6).
- <sup>k</sup> We estimate that it will take each respondent 303 hours on a semiannual basis to write reports for 3 cellulose ethe
- <sup>1</sup> All other reports, including changes of information, closed-vent systems, bypass lines, heat exchanger systems, an
- $^{\rm m}$  We have assumed that 5% of respondents will fail to meet standards each year (0.05 x 8 = 0.4). We estimate that
- <sup>n</sup> We estimate that it will take each respondent 1 hour to record information on a daily basis on process vent, storag
- <sup>o</sup> We estimate that it will take each respondent 2 hours to enter information on 1 cellulose ether facility with a close
- <sup>p</sup> We estimate that it will take each respondent 2 hours to enter information on 5 viscose process facilities with CS<sub>3</sub>
- <sup>q</sup> We estimate that it will take each respondent 8 hours to enter information on 5 viscose process facilities using ma
- <sup>r</sup> We estimate that it will take each respondent 8 hours to enter information on supporting calculations twice per year
- <sup>s</sup> We estimate that it will take each respondent 1 week (40 hours) to provide initial training to personnel with new s
- <sup>1</sup> We estimate that it will take each respondent 2 days (16 hours) to provide refresher training to personnel.
- <sup>u</sup> We have assumed that each respondent will enter and verify information for the semiannual report twice per year.

Manufacturing (40 CFR Part 63, Subpart UUUU) (Revised)

, iviaiiuiaci	Wanufacturing (40 CFR Part 65, Subpart 0000) (Revised)					
		\$119.47	\$139.63	\$58.15	Labor Cost Per Hour	
(C)	(D)	(E)	(F)	(G)	(H)	
Person hours per respondent per year (C=AxB)	Respondents per year <sup>a</sup>	Technical person- hours per year (E=CxD)	Management person hours per year (F=Ex0.05)	Clerical person hours per year (G=Ex0.1)	Total Cost per year <sup>b</sup>	
8	2.7	21	1.1	2.1	\$2,822	
24	2	48	2.4	4.8	\$6,349	
48	2	96	4.8	9.6	\$12,697	
2	0	0	0	0	\$0	
2	0	0	0	0	\$0	
2	0	0	0	0	\$0	
2	2	4	0.2	0.4	\$529	
2	2	4	0.2	0.4	\$529	
2	0	0	0	0	\$0	
2	0	0	0	0	\$0	
40	2.7	107	5.3	11	\$14,108	
16	6.4	102	5.1	10	\$13,544	
32	1.6	51	2.6	5.1	\$6,772	
606	3	1,818	91	182	\$240,458	
16	8	128	6.4	13	\$16,930	
			2,737		\$314,739	
24	0.4	10	0.5	1.0	\$1,270	
365	8	2,920	146	292	\$386,215	
4	1	4	0.2	0.4	\$529	
4	5	20	1	2	\$2,645	
16	5	80	4	8	\$10,581	

16	8	128	6.4	13	\$16,930
40	0	0	0	0	\$0
16	8	128	6.4	13	\$16,930
48	8	384	19	38	\$50,790
32	8	256	13	26	\$33,860
		4,519			\$519,750
		7,256			\$834,489
					\$120,135
					\$954,624

lose ether; 1 cellulosic sponge; 3 cellulose food casing; and 1 cellophane (for a total of 8 respondents). We estimate no abor, and \$58.15 per hour for Clerical labor. These rates are from the United States Department of Labor, Bureau of Labor, in the first year after publication of RTR amendments (8 respondents/3 years = 2.7). an) and 24 hours to attend the test. We also estimate 2 plant personnel will attend the test. nated over the 3-year period of this ICR.

esults through CEDRI. No performance test required for the 2 cellulosic sponge and cellophane facilities because these

r facilities subject to leak detection and repair (LDAR) requirements.

ıd storage vessel control device maintenance, will be reported twice per year for all 8 facilities.

each respondent will take 2 hours 12 times per year to keep records of failures to meet the standards and the actions take e tank and wastewater monitoring and inspections.

ed-loop system.

, unloading and storage operations.

terial balances.

ır.

ources.

No. of responses
0
0
0
2
2
0
0
2.7
12.8
3.2
6
6
16
51

	143		
new sources will becom	e subject to the rule ea	ich year over the 3-year period of this ICR.	
abor Statistics, Decembe	r 2018, Table 2. Civilia	an Workers, by Occupational and Industry Group.	The rates are from co
C -1:		· · · · · · · · · · · · · · · · · · ·	. 1. 1
facilities use recovery de	evices to meet the emis	ssion limit. These facilities are required to conduc	t a compliance demons

Hours per response

en to minimize emissions..





ce test (8 respondents/3 years = 2.7).

Table 2: Average Annual EPA Burden and Cost – NESHAP for Cellulose Products Manufacturin

					\$48.75
	(A)	(B)	(C)	(D)	(E)
Activity	EPA person- hours per occurrence	No. of occurrences per plant per year	EPA person hours per plant per year (C=AxB)	Plants per year <sup>a</sup>	Technical person- hours per year (E=CxD)
Activity					
Attend performance test <sup>c</sup>	24	1	24	0.2	4.8
Excess emissions enforcement activities <sup>d</sup>	120	1	120	0.06	7.2
Review reports					
Notification of construction/reconstruction <sup>e</sup>	2	1	2	0	0
Notification of actual startup <sup>e</sup>	2	1	2	0	0
Notification of applicability <sup>e</sup>	2	1	2	0	0
Notification of performance test <sup>f</sup>	2	1	2	2	4
Notification of CMS performance evaluation <sup>f</sup>	2	1	2	2	4
Notification of compliance status <sup>g</sup>	4	1	4	2.7	11
Report of performance test h	8	1	8	2	16
Report of CMS performance evaluation h	8	1	8	2	16
Semiannual report - no deviations <sup>i</sup>	2	2	4	6.4	26
Semiannual report - deviations <sup>j</sup>	8	2	16	1.6	26
Semiannual report - equipment leaks <sup>k</sup>	8	2	16	3	48
Semiannual report - wastewater k	8	2	16	3	48
Semiannual report - other <sup>1</sup>	2	2	4	8	32
TOTAL ANNUAL BURDEN AND COST					

## **Assumptions:**

<sup>&</sup>lt;sup>a</sup> We estimate that there are 8 sources that are subject to the standard which includes the following facilities: 3 cellulose ethe

<sup>&</sup>lt;sup>b</sup> This cost is based on the following labor rates which incorporates a 1.6 benefits multiplication factor to account for govern

 $<sup>^{\</sup>rm c}$  We estimate that it will take EPA personnel 24 hours to attend performance tests at 10% of facilities required to test (0.1 x

<sup>&</sup>lt;sup>d</sup> We estimate that 10% of the affected facilities will be required to retest as a result of deviations, and EPA personnel will at

<sup>&</sup>lt;sup>e</sup> We estimate that it will take EPA personnel 2 hours to complete review of the initial notifications (construction/reconstruct

<sup>&</sup>lt;sup>f</sup> We estimate that it will take EPA personnel 2 hours to complete review of the notifications of performance test and CMS p

g We estimate that it will take EPA personnel 4 hours to complete review of the notification of compliance status for all 8 fac

h We estimate that it will take EPA personnel 8 hours to complete review of the performance test and CMS performance eva

<sup>&</sup>lt;sup>i</sup> We have assumed that 80% of respondents will report no deviations (0.8 x 8 respondents = 6.4) and that it will take EPA pc

<sup>&</sup>lt;sup>j</sup>We have assumed that 20% of respondents will report deviations (0.2 x 8 respondents = 1.6) and that it will take EPA personal report deviations (0.2 x 8 respondents = 1.6) are the respondents are the respondent are the respondent

<sup>&</sup>lt;sup>k</sup> We estimate that it will take EPA personnel 8 hours two times per year to review the reports of 3 cellulose ether facilities si

<sup>&</sup>lt;sup>1</sup>We estimate that it will take EPA personnel 2 hours two times per year to review all other reports, including changes of info

\$65.71	\$26.38	Labor Cost per Hour
(F)	(G)	(H)
Management person-hours per year (F=Ex0.05)	Clerical person- hours per year (G=Ex0.1)	Cost, \$ b
0.2	0.5	\$262
0.4	0.7	\$394
0.4	0.7	ΨΟΟΨ
0	0	\$0
0	0	\$0
0	0	\$0
0.2	0.4	\$219
0.2	0.4	\$219
0.5	1.1	\$583
0.8	1.6	\$875
0.8	1.6	\$875
1.3	2.6	\$1,400
1.3	2.6	\$1,400
2.4	4.8	\$2,624
2.4	4.8	\$2,624
1.6	3.2	\$1,750
278		\$13,224

r; 1 cellulosic sponge; 3 cellulose food casing; and 1 cellophane (for a total of 8 respondents). We estimate no new sources will ment overhead expenses: Managerial rate of \$65.71 (GS-13, Step 5, \$41.07 + 60%), Technical rate of \$48.75 (GS-12, Step 1, 6 respondents/3 years = 0.2).

tend 10% of these tests (0.1 x 0.1 x 6 respondents = 0.06).

tion, actual startup, applicability of standard).

erformance evaluation for facilities required to test (6 respondents/3 years = 2).

cilities (8 respondents/3 years = 2.7).

luation data for facilities required to test (6 respondents/3 years = 2).

ersonnel 2 hours two times per year to review those reports.

nnel 8 hours two times per year to review those reports.

ubject to LDAR and wastewater requirements.

ormation, closed-vent systems, bypass lines, heat exchanger systems, and storage vessel control device maintenance, for all 8 fa



