

ATTACHMENT 1
SUPPORTING STATEMENT

Review of the New Source Performance Standards for VOC from Distillation Operations in

TABLES 1, 2, and 3

Annual Respondent Burden and Cost of the Review of the New Source Performance Standards for V

TABLE 4

Summary of Annual Respondent Burden and Cost of the Review of the New Source Performance St

TABLES 5, 6, and 7

Annual Agency Burden and Cost of the Review of the New Source Performance Standards for VOC

TABLE 8

Summary of Annual Agency Burden and Cost of the Review of the New Source Performance Stand:

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the SOCM I (40 CFR Part 60, Subpart NNNa) (Proposed Rule)

VOC from Distillation Operations in the SOCM I (40 CFR Part 60, Subpart NNNa) (Proposed Rule) –

Standards for VOC from Distillation Operations in the SOCM I (40 CFR Part 60, Subpart NNNa) (Prop

from Distillation Operations in the SOCM I (40 CFR Part 60, Subpart NNNa) (Proposed Rule) – Ye

Standards for VOC from Distillation Operations in the SOCM I (40 CFR Part 60, Subpart NNNa) (Propose

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Table 1: Annual Respondent Burden and Cost - Review of the New Source Performance Standard

\$101.24

Burden item	(A)	(B)	(C)	(D)	(E)
	Person-hours per occurrence	No. of occurrences per respondent per year	Person-hours per respondent per year (C=AxB)	Respondents per year ^a	Technical hours per year (E=CxD)
1. Applications	N/A				
2. Survey and Studies	N/A				
3. Reporting requirements					
A. Familiarize with regulatory requirements ^c					
New Sources	8	1	1	2.3	2
Existing Sources	1	1	1	0	0
B. Required activities					
Initial performance test report	60	1	60	2.3	140
Repeat performance test report ^d	60	1	60	0.47	28
C. Write report					
Notification of construction/modification	2	1	2	2.3	4.67
Notification of actual startup	1	1	1	2.3	2.33
Notification of initial/repeat performance test	2	1	2	2.8	5.6
Semiannual report	3	2	6	2.3	14
Subtotal for Reporting Requirements					
4. Recordkeeping requirements					
Records of operating parameters for control devices	1	12	12	2.3	28
Records of operating conditions exceeding last performance test	1	8	8	2.3	18.67
Records of flow events from a relief valve discharge ^e	1	1	1	0	0
Records for bypass lines ^e	1	1	1	0	0
Subtotal for Recordkeeping Requirements					
TOTAL LABOR BURDEN AND COST (rounded) ^f					
TOTAL CAPITAL AND O&M COST (rounded) ^f					
GRAND TOTAL (rounded) ^f					

Assumptions:

^a We have assumed that there will be 7 new respondents over the three-year period of this ICR. We have assumed that on 1 year.

^b This ICR uses the following labor rates for privately-owned sources: \$161.34 for managerial, \$101.24 for technical, and the United States Department of Labor, Bureau of Labor Statistics, May 2021, National Industry-Specific Occupational Employment Statistics - Chemical Manufacturing. These rates have been adjusted using a Fringe Benefit Loading Rate of 1.5 and an Overhead and Profit Rate (Loaded Rate = Fringe Benefit Loading Rate * Overhead and Profit Rate) to account for varying industry wage rates and to allocate costs to employing workers beyond their wages and benefits, including business expenses associated with hiring, training, and equipment.

^c This ICR assumes all existing respondents will have to familiarize with the regulatory requirements each year.

^d Assume 20 percent of initial performance tests must be repeated due to failure.

^e We have assumed that no respondents will bypass the control device or have a relief valve discharge to the atmosphere due to failure.

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

Costs for VOC from Distillation Operations in the SOCFI (40 CFR Part 60, Subpart NNNa) (Pro

\$161.34 \$45.17

(F)	(G)	(H)
Management hours per year (F=Ex0.05)	Clerical hours per year (G=Ex0.1)	Total cost per year (\$) ^b
0.12	0.23	\$265.59
0	0	\$0.00
7	14	\$15,935.36
1.4	2.8	\$3,187.07
0.23	0.47	\$531.18
0.12	0.23	\$265.59
0.3	0.6	\$637.41
1	1	\$1,593.54
226		\$22,416
1.4	2.8	\$3,187.07
1	2	\$2,124.71
0	0	\$0.00
0	0	\$0.00
54		\$5,312
280		\$27,700
		\$3,710,000
		\$3,740,000

average, there will be 2.3 new respondents per

\$45.17 for clerical labor. These rates are from Employment and Wage Estimates for NAICS and a Profit Rate of 1.4 (Mean Hourly Rate). These rates include the additional overhead business costs of supporting their employees.

During the three-year period of this ICR.

posed Rule)

Table 2: Annual Respondent Burden and Cost - Review of the New Source Performance St

\$101.24

Burden item	(A)	(B)	(C)	(D)	(E)
	Person-hours per occurrence	No. of occurrences per respondent per year	Person-hours per respondent per year (C=AxB)	Respondents per year ^a	Technical hours per year (E=CxD)
1. Applications	N/A				
2. Survey and Studies	N/A				
3. Reporting requirements					
A. Familiarize with regulatory requirements ^c					
New Sources	8	1	1	2.3	2
Existing Sources	1	1	1	2.3	2
B. Required activities					
Initial performance test report	60	1	60	2	140
Repeat performance test report ^d	60	1	60	0.47	28
C. Write report					
Notification of construction/modification	2	1	2	2	5
Notification of actual startup	1	1	1	2	2
Notification of initial/repeat performance test	2	1	2	2.80	5.6
Semiannual report	3	2	6	5	28
Subtotal for Reporting Requirements					
4. Recordkeeping requirements					
Records of operating parameters for control devices	1	12	12	2	28
Records of operating conditions exceeding last performance test	1	8	8	5	37
Records of flow events from a relief valve discharge ^e	1	1	1	0	0
Records for bypass lines ^e	1	1	1	0	0
Subtotal for Recordkeeping Requirements					
TOTAL LABOR BURDEN AND COST (rounded)^f					
TOTAL CAPITAL AND O&M COST (rounded)^f					
GRAND TOTAL (rounded)^f					

Assumptions:

^a We have assumed that there will be 7 new respondents over the three-year period of this ICR. We have assumed that per year.

^b This ICR uses the following labor rates for privately-owned sources: \$161.34 for managerial, \$101.24 for technical from the United States Department of Labor, Bureau of Labor Statistics, May 2021, National Industry-Specific Occupational Employment Statistics, NAICS 325000 - Chemical Manufacturing. These rates have been adjusted using a Fringe Benefit Loading Rate of 1 (Hourly Rate * Fringe Benefit Loading Rate * Overhead and Profit Rate = Loaded Rate) to account for varying industrial business costs of employing workers beyond their wages and benefits, including business expenses associated with labor.

^c This ICR assumes all existing respondents will have to familiarize with the regulatory requirements each year.

^d Assume 20 percent of initial performance tests must be repeated due to failure.

^e We have assumed that no respondents will bypass the control device or have a relief valve discharge to the atmosphere.

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

Standards for VOC from Distillation Operations in the SOCFI (40 CFR Part 60, Subpart NNNa)

\$161.34 \$45.17

(F)	(G)	(H)
Management hours per year (F=Ex0.05)	Clerical hours per year (G=Ex0.1)	Total cost per year (\$) ^b
0.12	0.23	\$265.59
0.12	0.23	\$265.59
7	14	\$15,935.36
1.4	2.8	\$3,187.07
0.23	0.47	\$531.18
0.12	0.23	\$265.59
0.3	0.6	\$637.41
1	3	\$3,187.07
245		\$24,275
1.4	2.8	\$3,187.07
2	4	\$4,249.43
0	0	\$0.00
0	0	\$0.00
75		\$7,437
320		\$31,700
		\$4,430,000
		\$4,460,000

that on average, there will be 2.3 new respondents

l, and \$45.17 for clerical labor. These rates are
ational Employment and Wage Estimates for
.5 and an Overhead and Profit Rate of 1.4 (Mean
try wage rates and the additional overhead
iring, training, and equipping their employees.

iere during the three-year period of this ICR.

(Proposed Rule)

Table 3: Annual Respondent Burden and Cost - Review of the New Source Performance St

\$101.24

Burden item	(A)	(B)	(C)	(D)	(E)
	Person-hours per occurrence	No. of occurrences per respondent per year	Person-hours per respondent per year (C=AxB)	Respondents per year ^a	Technical hours per year (E=CxD)
1. Applications	N/A				
2. Survey and Studies	N/A				
3. Reporting requirements					
A. Familiarize with regulatory requirements ^c					
New Sources	8	1	1	2.3	2.33
Existing Sources	1	1	1	4.7	4.67
B. Required activities					
Initial performance test report	60	1	60	2.33	140
Repeat performance test report ^d	60	1	60	0.47	28
C. Write report					
Notification of construction/modification	2	1	2	2.33	4.67
Notification of actual startup	1	1	1	2.33	2.33
Notification of initial/repeat performance test	2	1	2	2.80	5.6
Semiannual report	3	2	6	7	42
Subtotal for Reporting Requirements					
4. Recordkeeping requirements					
Records of operating parameters for control devices	1	12	12	2.33	28
Records of operating conditions exceeding last performance test	1	8	8	7	56
Records of flow events from a relief valve discharge ^e	1	1	1	0	0
Records for bypass lines ^e	1	1	1	0	0
Subtotal for Recordkeeping Requirements					
TOTAL LABOR BURDEN AND COST (rounded) ^f					
TOTAL CAPITAL AND O&M COST (rounded) ^f					
GRAND TOTAL (rounded) ^f					

Assumptions:

^a We have assumed that there will be 7 new respondents over the three-year period of this ICR. We have assumed that per year.

^b This ICR uses the following labor rates for privately-owned sources: \$161.34 for managerial, \$101.24 for technical from the United States Department of Labor, Bureau of Labor Statistics, May 2021, National Industry-Specific Occu NAICS 325000 - Chemical Manufacturing. These rates have been adjusted using a Fringe Benefit Loading Rate of 1 Hourly Rate * Fringe Benefit Loading Rate * Overhead and Profit Rate = Loaded Rate) to account for varying indus business costs of employing workers beyond their wages and benefits, including business expenses associated with I

^c This ICR assumes all existing respondents will have to familiarize with the regulatory requirements each year.

^d Assume 20 percent of initial performance tests must be repeated due to failure.

^e We have assumed that no respondents will bypass the control device or have a relief valve discharge to the atmospl

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

Standards for VOC from Distillation Operations in the SOCFI (40 CFR Part 60, Subpart NNNa)

\$161.34 \$45.17

(F)	(G)	(H)
Management hours per year (F=Ex0.05)	Clerical hours per year (G=Ex0.1)	Total cost per year (\$) ^b
0.12	0.23	\$265.59
0.23	0.47	\$531.18
7	14	\$15,935.36
1.4	2.8	\$3,187.07
0.23	0.47	\$531.18
0.12	0.23	\$265.59
0.3	0.6	\$637.41
2	4	\$4,780.61
264		\$26,134
1.4	2.8	\$3,187.07
3	6	\$6,374.14
0	0	\$0.00
0	0	\$0.00
97		\$9,561
361		\$35,700
		\$5,140,000
		\$5,180,000

at on average, there will be 2.3 new respondents

l, and \$45.17 for clerical labor. These rates are
ipational Employment and Wage Estimates for
.5 and an Overhead and Profit Rate of 1.4 (Mean
try wage rates and the additional overhead
iring, training, and equipping their employees.

ere during the three-year period of this ICR.

(Proposed Rule)

Table 4 - Summary of Annual Respondent Burden and Cost - Review of

Year	Total Labor Hours	Labor Costs
1	280	\$27,700
2	320	\$31,700
3	361	\$35,700
Total (rounded)	961	\$95,100
Average (rounded)	320	\$31,700

the New Source Performance Standards for VOC from Distillation

Non-Labor (Capital/Startup and O&M) Costs	Total Costs
\$3,710,000	\$3,737,700
\$4,430,000	\$4,461,700
\$5,140,000	\$5,175,700
\$13,300,000	\$13,400,000
\$4,430,000	\$4,460,000

n Operations in the SOCFI (40 CFR Part 60, Subpart NNNa) (Proposed Rule)

Table 5: Average Annual EPA Burden and Cost Year One - Review of the New Source Perfor

Burden item	(A)	(B)	(C)	(D)
	Person-hours per occurrence	No. of occurrences per respondent per year	Person-hours per respondent per year (C=AxB)	Respondents per year ^a
Report review: New plant				
Notification of construction/ modification	2	1	2	2.3
Notification of actual startup	2	1	2	2.3
Notification of initial/repeat performance test	2	1	2	2.8
Initial performance test	8	1	8	2.3
Repeat performance test ^c	8	1	8	0.5
Semiannual report	2	2	4	2.3
TOTAL (rounded) ^d				

Assumptions:

^a We have assumed that there will be 7 new respondents over the three-year period of this ICR. We have assumed that year.

^b This ICR uses the following labor rates: \$69.04 for managerial, \$51.23 for technical, and \$27.73 for clerical labor. Management (OPM), 2021 General Schedule, which excludes locality rates of pay. The rates have been increased by 6 available to government employees.

^c Assume 20 percent of initial performance tests must be repeated due to failure.

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

Performance Standards for VOC from Distillation Operations in the SOCFI (40 CFR Part 60, Sul

\$51.23 \$69.04 \$27.73

(E)	(F)	(G)	(H)
Technical hours per year (E=CxD)	Management hours per year (F=Ex0.05)	Clerical hours per year (G=Ex0.1)	Total cost per year (\$) ^b
4.67	0.23	0.47	\$268.12
4.67	0.23	0.47	\$268.12
5.60	0.28	0.56	\$321.75
18.7	0.93	1.87	\$1,072.49
3.73	0.19	0.37	\$214.50
9.33	0.47	0.93	\$536.25
54			\$2,680

on average, there will be 2.3 new respondents per

These rates are from the Office of Personnel
 0 percent to account for the benefit packages

part NNNa) (Proposed Rule)

Table 6: Average Annual EPA Burden and Cost Year Two - Review of the New Source Perfo

Burden item	(A)	(B)	(C)	(D)
	Person-hours per occurrence	No. of occurrences per respondent per year	Person-hours per respondent per year (C=AxB)	Respondents per year ^a
Report review: New plant				
Notification of construction/ modification	2	1	2	2.3
Notification of actual startup	2	1	2	2.3
Notification of initial/repeat performance test	2	1	2	2.8
Initial performance test	8	1	8	2.3
Repeat performance test ^c	8	1	8	0.5
Semiannual report	2	2	4	4.7
TOTAL (rounded) ^d				

Assumptions:

^a We have assumed that there will be 7 new respondents over the three-year period of this ICR. We have assumed that year.

^b This ICR uses the following labor rates: \$69.04 for managerial, \$51.23 for technical, and \$27.73 for clerical labor. Management (OPM), 2021 General Schedule, which excludes locality rates of pay. The rates have been increased by 6% available to government employees.

^c Assume 20 percent of initial performance tests must be repeated due to failure.

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

Performance Standards for VOC from Distillation Operations in the SOCFI (40 CFR Part 60, Subpart G)

\$51.23 \$69.04 \$27.73

(E)	(F)	(G)	(H)
Technical hours per year (E=CxD)	Management hours per year (F=Ex0.05)	Clerical hours per year (G=Ex0.1)	Total cost per year (\$) ^b
4.67	0.23	0.47	\$268.12
4.67	0.23	0.47	\$268.12
5.60	0.28	0.56	\$321.75
18.7	0.93	1.87	\$1,072.49
3.73	0.19	0.37	\$214.50
18.67	0.93	1.87	\$1,072.49
64			\$3,220

On average, there will be 2.3 new respondents per

These rates are from the Office of Personnel
 10 percent to account for the benefit packages

part NNa) (Proposed Rule)

Table 7: Average Annual EPA Burden and Cost Year Three - Review of the New Source Per

Burden item	(A)	(B)	(C)	(D)
	Person-hours per occurrence	No. of occurrences per respondent per year	Person-hours per respondent per year (C=AxB)	Respondents per year ^a
Report review: New plant				
Notification of construction/ modification	2	1	2	2.3
Notification of actual startup	2	1	2	2.3
Notification of initial/repeat performance test	2	1	2	2.8
Initial performance test	8	1	8	2.3
Repeat performance test ^c	8	1	8	0.5
Semiannual report	2	2	4	7.0
TOTAL (rounded) ^d				

Assumptions:

^a We have assumed that there will be 7 new respondents over the three-year period of this ICR. We have assumed that year.

^b This ICR uses the following labor rates: \$69.04 for managerial, \$51.23 for technical, and \$27.73 for clerical labor. Management (OPM), 2021 General Schedule, which excludes locality rates of pay. The rates have been increased by 6% available to government employees.

^c Assume 20 percent of initial performance tests must be repeated due to failure.

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

Performance Standards for VOC from Distillation Operations in the SOCFI (40 CFR Part 60, S

\$51.23 \$69.04 \$27.73

(E)	(F)	(G)	(H)
Technical hours per year (E=CxD)	Management hours per year (F=Ex0.05)	Clerical hours per year (G=Ex0.1)	Total cost per year (\$) ^b
4.67	0.23	0.47	\$268.12
4.67	0.23	0.47	\$268.12
5.60	0.28	0.56	\$321.75
18.7	0.93	1.87	\$1,072.49
3.73	0.19	0.37	\$214.50
28.00	1.40	2.80	\$1,608.74
75			\$3,750

on average, there will be 2.3 new respondents per

These rates are from the Office of Personnel
 0 percent to account for the benefit packages

ubpart NNNa) (Proposed Rule)

Table 8: Summary of Average Annual EPA Burden and Cost - Review of the New Source Performan

Year	Total Hours	Labor Costs	Non-Labor Costs	Total Costs
1	54	\$2,680	\$0	\$2,680
2	64	\$3,220	\$0	\$3,220
3	75	\$3,750	\$0	\$3,750
Total (Rounded)	193	\$9,650	\$0	\$9,650
Average (Rounded)	64	\$3,220	\$0	\$3,220

ence Standards for VOC from Distillation Operations in the SOCFI (40 CFR Part 60, Subpart NNNa) (E

Proposed Rule)

Capital/Startup vs. Operation and Maintenance		
(A)	(B)	(C)
Continuous Monitoring Device ^a	Capital/Startup Cost for One Respondent	Number of New Respondents ^{a, b}
Flare monitoring requirements	\$3,752,223	0.74
Maintenance vent requirements	N/A	N/A
Non-flare control of vent streams	\$39,277	0.86
Carbon cannisters	\$26,500	0.25
H2 Analyzer	\$46,274	0.12
Calorimeter	\$134,967	0.12
Flare Gas Flow Monitor	\$565,578	0.12
Steam Controls/Flow Monitor	\$879,215	0.12
Avg. NG Cost per Flare to Meet NHVcz	\$0	0.12
Steam Cost Savings per Flare to Meet NHVcz	\$0	0.12
Total ^c		

^a Costs are shown in 2021 \$. Respondent counts and monitoring and control requirements are based on the meeting (B) review for the SOCOMI air oxidation unit processes, distillation operations, and reactor processes NSPS sources.

^b Number of respondents is based on 19 new sources becoming subject to 40 CFR Part 60, Subpart IIIa, NNN. 7 of the 19 will be subject to Subpart NNNa and have adjusted the respondent counts for capital/startup costs by and O&M estimates for sources subject to NNNa (approximately 2.333 new sources per year for the three-year period) approximately 0.3684 (7/19 = 0.3684) to apportion the costs to the 7 sources that will be subject to Subpart NNN separately under EPA ICR Numbers 2756.01 and 2759.01.

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

ance (O&M) Costs

(D)	(E)	(F)	(G)
Total Capital/Startup Cost, (B X C) ^a	Annual O&M Costs for One Respondent	Number of Respondents with O&M ^{a, b}	Total O&M, (E X F) ^a
\$2,764,796	\$789,173	2.21	\$1,744,487
N/A	\$455	6.63	\$3,019
\$33,764	\$98,429	2.58	\$253,844
\$6,509	\$2,500	0.74	\$1,842
\$5,683	\$29,581	0.37	\$10,898
\$16,575	\$37,115	0.37	\$13,674
\$69,457	\$97,733	0.37	\$36,007
\$107,974	\$150,221	0.37	\$55,345
\$0	\$110,031	0.37	\$40,538
\$0	-\$62,117.19	0.37	-\$22,885.28
\$3,000,000			\$2,140,000

memorandum from Eastern Research Group, Inc. to EPA titled "CAA 111(b)(1) Subparts III, NNN, and RRR," March 2023, EPA-HQ-OAR-2022-0730.

for Subpart IIIa, or RRRa during the three-year period of this ICR. We have assumed that 7 years is the useful life of the equipment (2.333/19 = 0.1211) to apportion the capital costs over the 7-year period of this ICR). We have adjusted the annual O&M costs by a factor of 0.1211. The burden and costs for Subparts IIIa and RRRa are accounted for

Summary of Total Annual Responses

(A)	(B)	(C)
Information Collection Activity	Number of Respondents¹	Number of Responses
Initial performance test report	2.3	1
Repeat performance test report	0.5	1
Notification of construction/modification	2.3	1
Notification of actual startup	2.3	1
Notification of initial/repeat performance test	2.8	1
Semiannual report	4.7	2

¹ Assumes no existing respondents and a total of 7 new respondents will become subject to the standard per year. Assumes 2.3 new respondents per year will submit initial notifications and initial test report semiannual reports.

(D)	(E)
Number of Existing Respondents That Keep Records But Do Not Submit Reports	Total Annual Responses E=(BxC)+D
0	2.3
0	0.5
0	2.3
0	2.3
0	2.8
0	9.3
Total (rounded)	20

ard during the three-year period of this ICR, 2.3 new respondents
ts and an overall average of 4.7 respondents per year will submit

Number of Respondents			
	Respondents That Submit Reports		Respondents That Do Not Submit Any Reports
	(A)	(B)	(C)
Year	Number of New Respondents ¹	Number of Existing Respondents	Number of Existing Respondents that keep records but do not submit reports
1	2.3	0	0
2	2.3	2.3	0
3	2.3	4.7	0
Average	2.3	2.3	

¹New respondents include sources with constructed, reconstructed and modified affected facilities. We have assumed a period of this ICR. We have assumed that on average, there will be 2.3 new respondents per year.

(D)	(E)
Number of Existing Respondents That Are Also New Respondents	Number of Respondents (E=A+B+C-D)
0	2.3
0	4.7
0	7.0
	4.7

ed that there will be 7 new respondents over the three-year