

Burden Item	(A) Respondent Hours per Occurrence	(B) Number of Occurrences Per Respondent Per Year	(C) Hours Per Respondent Per Year (C=A x B)	(D) Number of Respondents Per Year ^a	(E) Technical Hours Per Year (C x D)	(F) Management Hours Per Year (E x 0.05)	(G) Clerical Hours Per Year (E x 0.1)	(H) Total Labor Costs Per Year ^a
1. Applications	N/A							
2. Surveys and Studies	N/A							
3. Reporting Requirements								
A. Familiarization with Regulatory Requirements								
New sources ^{c,d}	320	1	320	0	0	0	0	\$0
Existing sources ^e	8	1	8	4	32	1.6	3.2	\$4,191.74
B. Required Activities								
1) Initial performance test, sampling, and report								
a) Process Vents ^{c,f}	120	1	120	0	0	0	0	\$0
b) Resins ^g	36	1	36	0	0	0	0	\$0
c) wastewater ^h	8	1	8	0	0	0	0	\$0
d) uncontrolled wastewater ^h	40	1	40	0	0	0	0	\$0
e) heat exchangers ⁱ	8	1	8	0	0	0	0	\$0
f) equipment leaks ^j	850	1	850	0	0	0	0	\$0
2) Periodic performance test, sampling, and report								
a) Process Vents ^f	17.1	350	5,985	4	23,940	1,197.00	2,394.00	\$3,135,948.48
b) Resins ^g	36	350	12,600	4	50,400	2,520	5,040	\$6,601,996.80
c) wastewater ^h	8	12	96	4	384	19.2	38.4	\$50,300.93
d) uncontrolled wastewater ^h	40	1	40	4	160	8	16	\$20,958.72
e) heat exchangers ⁱ	8	12	96	4	384	19.2	38.4	\$50,300.93
f) equipment leaks ^j	43	12	510	4	2,040	102	204	\$267,223.68
3) Establish operating parameters and monitoring plan								
a) Process Vents ^{c,d,f}	8	1	8	0	0	0	0	\$0
4) Continuous parameter monitoring								
a) Initial capital costs (PRD Electronic Monitor) ^k	524	1	524	0	0	0	0	\$0
b) Annualized capital and O&M costs (PRD Electronic Monitor) ^k	24	1	24	1.08	25.92	1.30	2.59	\$3,395.31
5) Other requirements								
a) equipment openings, initial measurement ^m	1.5	1	1.5	0	0	0	0	\$0
b) equipment openings, daily measurement ^m	1.5	350	525	4	2,100	105	210	\$275,083.20
c) gasholders ^m	24	1	24	0	0	0	0	\$0
d) storage vessels ^m	40	1	40	0	0	0	0	\$0
e) bypasses, initial requirement ^m	40	1	40	0	0	0	0	\$0
f) bypasses, ongoing inspection ^m	1	12	12	4	48	2.4	5	\$6,287.62
C. Create Information	See 3.B							
D. Gather Information	See 3.E							
E. Report Preparation								
1) Initial Notification ^{c,d}	5	1	5	0	0	0	0	\$0
2) Batch precompliance report ^{c,d}	5	1	5	0	0	0	0	\$0
3) Notification of performance test with test plan ^{c,d}	10	1	10	0	0	0	0	\$0
4) Notification of compliance status ^{c,d}	20	1	20	0	0	0	0	\$0
5) Compliance report ^d	40	2	80	4	320	16	32	\$41,917.44
6) Notice of inspection ^d	5	1	5	4	20	1	2	\$2,619.84
Reporting Subtotal						91,832		\$10,460,224.69
4. Recordkeeping Requirements								
A. Familiarization with Regulatory Requirements	See 3.A							
B. Implement Activities	N/A							
C. Develop Record System	N/A							
D. Record Information								
1) Records of process vent requirements ^d	10	1	10	4	40	2	4	\$5,239.68
2) Records of resin stripper requirements ^d	15	1	15	4	60	3	6	\$7,859.52
3) Records of wastewater requirements ^d	15	1	15	4	60	3	6	\$7,859.52
4) Records of storage vessel requirements ^d	10	1	10	4	40	2	4	\$5,239.68
5) Records of equipment leak requirements ^d	25	1	25	4	100	5	10	\$13,099.20
6) Records of heat exchanger requirements ^d	10	1	10	4	40	2	4	\$5,239.68
7) Records of other emission sources requirements	10	1	10	4	40	2	4	\$5,239.68
E. Personnel Training	See 3.B							
F. Time for Audits	N/A							
Recordkeeping Subtotal						437		\$49,776.96
TOTAL LABOR BURDEN AND COSTS (rounded):^a						92,300		\$10,500,000
TOTAL CAPITAL AND O&M COSTS (rounded): ^a								\$1,440,000
GRAND TOTAL (rounded): ^a								\$11,900,000

^a Assumes that, over the next three years, approximately 4 respondents per year will be subject to the standard, and no additional respondents per year will become subject to the standard.

^b Labor rates are \$147.40 for managerial, \$117.92 for technical, and \$57.02 for clerical. These rates from the United States Department of Labor, Bureau of Labor Statistics, September June 2018, "Table 2. Civilian Workers, by occupational and industry group." The rates are from column 1, "Total compensation." The rates have been increased by 110 percent to account for the benefit packages available to those employed by private industry.

^c Costs apply only to newly-applicable sources.

^d Cost incurred by a facility regardless of the number of affected units at the plant.

^e There are 4 area sources in the affected source category.

^f It is assumed that performance testing for process vents will take 120 hours per occurrence initially. The initial compliance and operating procedure development for continuous compliance and will take 8 hours. The daily monitoring of parameters will take on avg 17.1 hr per facility per day over 350 day/yr.

^g It is assumed that performance testing for process vents will take 4 hours per sample for 9 samples per facility, initially and daily (350 days per year). See continuous monthly sampling & testing of Non-VC TOHAP in O&M section.

^h Estimated 1 uncontrolled stream and 1 wastewater stripper per facility. 1 wastewater stripper outlet is expected to require monthly testing; 5 uncontrolled stream will require annual testing (per facility). It will take 4 hours per sample for 2 samples per stream.

ⁱ It is assumed that performance testing on heat exchangers will take 4 hours per sample for 2 samples per facility, initially and monthly.

^j For Equipment leaks, we estimate approx 10,000 components per facility and 5 minutes per component, plus additional time calibration of analytical device for a total of 850 hr per facility. For continuous monitoring, we assume 1 hr is required per component for leak repair, if detected. It was assumed that overall continuous compliance of leak monitoring will take 5% of the time with initial monitoring per month.

^k We assume the initial performance testing for pressure relief devices (PRD), would take 524 hours per facility. Periodically, corrective action for discharge from a PRD would take 24 hours. It is estimated that 27% of the respondents would experience discharge from a PRD each year.

^l It will take 8 employees 40 hours per person to read and understand the rule requirements.

Record Keeping and Reporting Burden by Emission Point

Note: This table is used to calculate the record keeping and reporting burden by emission point for the PVC NESHAP. The costs presented in the table below represent costs not otherwise included in the PVC NESHAP Impact estimate (i.e., testing and monitoring costs are already included in the PVC NESHAP impacts estimate, therefore, they are not included in the table below). The costs presented in the table below should be added to the previously calculated PVC Impacts to obtain an impacts estimate which includes record keeping and reporting.

Record Keeping and Reporting Burden By Emission Point					
Emission Point	Initial Cost (\$)	Initial Notes	Annual Cost (\$/yr)		
			Yr 1	Yr 2	Yr 3
Resins	#REF!	a,b,d	#REF!	#REF!	\$6,616,218.79
Process Vents	#REF!	a,b,c,d	#REF!	#REF!	\$3,147,550.63
Wastewater	#REF!	a,b,d	#REF!	#REF!	\$85,481.64
Equipment Leaks	#REF!	a,b,d	#REF!	#REF!	\$290,080.66
Storage Vessels	#REF!	a,d	#REF!	#REF!	\$11,602.15
Heat Exchange Systems	#REF!	a,b,d	#REF!	#REF!	\$61,903.08
Other Sources	#REF!	a,d	#REF!	#REF!	\$11,602.15
Total	#REF!		#REF!	#REF!	\$10,224,439.09

- a Labor/Non Labor Costs to "Read/Understand Rule Requirements" divided by 7 emission points
- b Initial Performance Test/Sampling/Report
- c Establishment of operating parameters and monitoring plan
- d Report preparation for item 3.E.1-6 divided by 7 emission points
- e Periodic sampling/testing/and monitoring (not applicable for process vents in year 1)
- f Years 2 and 3 include items 3.E.5 and 3.E.6 divided by 7 emission points
- g In year 2 and 3, recordkeeping items under 4.D are included
- h includes annual labor cost for PRD monitoring system

Annual Notes
e,f,g
e,f,g
e,f,g
e,f,g,h
e,f,g
e,f,g
e,f,g

2018

48.75

65.71

26.38

Annual Designated Administrator Burden and Cost of Recordkeeping and Reporting Requirements for Existing Area Sources: Polyvinyl Chloride

Burden Item	(A) EPA person- hours per occurrence	(B) No. of occurrences per plant per year	(C) EPA person- hours per plant per year (C=AxB)	(D) Plants Per Year ^a	(E) Technical person- hours per year (E=CxD)	(F) Management person-hours per year (Ex0.05)	(G) Clerical person- hours per year (Ex0.10)	(H) EPA Cost Per Year ^b
1. Applications	not applicable							
2. Familiarize with Rule Requirements	16	0	0	0	0	0	0	\$0
3. Required Activities								
A. Observe initial performance tests ^c	48	0	0	0	0	0	0	\$0
B. Excess emissions -- Enforcement Activities ^d	24	0	0	0	0	0	0	\$0
C. Create Information	not applicable							
D. Gather Information	not applicable							
E. Report Reviews								
1) Review initial notification	3	0	0	0	0	0	0	\$0
2) Review batch precompliance report	5	0	0	0	0	0	0	\$0
3) Review notification of performance test	10	0	0	0	0	0	0	\$0
4) Review notification of compliance status	40	0	0	0	0	0	0	\$0
5) Review compliance report	20	2	40	4	160	8	16	\$8,747.76
6) Review notice of inspection	3	1	3	4	12	0.6	1.2	\$656.08
F. Prepare annual summary report ^e	8	1	8	1	8	0.4	0.8	\$437.39
TOTAL (rounded) ^f					207			\$9,840

^a Assumes that, over the next three years, approximately 4 respondents per year will be subject to the standard, and no additional respondents per year will become subject to the standard.

^b Labor rates are \$65.71 for managerial (GS-13, Step 5, \$41.07 + 60%), \$48.75 for technical (GS-12, Step 1, \$30.47 + 60%), and \$26.38 for clerical (GS-6, Step 3, \$16.49 + 60%). These rates from the Office of Personnel Management 2018 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.

^c Assumes EPA personnel attend 20 percent of the initial process vent stack tests.

^d Assumes no emissions exceedances.

^e Assumes four hours per state to write annual summary report.

Capita	
(A)	(B)
Continuous Monitoring Device	Capital/Startup Cost for One Respondent
PRD Electronic Monitor ³	\$375,000
VC Ambient monitoring ⁶	
Gas holders	\$5,000
Process Vent Testing	\$43,198
Resin Sampling and Monitoring ¹	\$1,803
Resin: Non-VC TOHAP testing ⁴	\$1,950
Wastewater Testing ²	\$491
Wastewater Testing: Non-VC TOHAP testing	\$650
Uncontrolled Wastewater testing	\$0
Uncontrolled Wastewater testing: Non-VC TOHAP testing ⁵	\$3,250
Equipment Leak Testing	\$177,360

¹ Monthly testing (\$601 x 12 months = \$7,212 per year)

² Monthly testing (\$491 x 12 months = \$5,892 per year)

³ The capital cost of the PRD monitor is \$15,000 per device, and it is assumed that 25 devices per faci

⁴ The costs of Non-VC TOHAP testing is \$650 per sample, and three samples per facility.

⁵ The costs of Non-VC TOHAP testing is \$650 per sample, and five samples per facility.

⁶ Assumes 3.65 GC monitors per facility with an annual O&M cost of \$45,000 per monitor.

l/Startup vs. Operation and Maintenance (O&M) Costs

(C)	(D)	(E)
Number of New Respondents	Total Capital/Startup Cost, (B X C)	Annual O&M Costs for One Respondent
Continuous Parameter Monitoring		
0	\$0	\$31,772
		\$164,250
0	\$0	
Periodic Testing		
0	\$0	\$99,080
0	\$0	\$7,212
0	\$0	\$23,400
0	\$0	\$5,892
0	\$0	\$7,800
0	\$0	\$491
0	\$0	\$3,250
0	\$0	\$16,105
Total		
	\$0	

lity require indicators.

(F)	(G)
Number of Respondents with O&M	Total O&M, (E X F)
4	\$127,088
4	\$657,000
4	\$396,320
4	\$28,848
4	\$93,600
4	\$23,568
4	\$31,200
4	\$1,964
4	\$13,000
4	\$64,420
	\$1,440,000