Polyvinyl Chloride and Copolymers (PVC) Production

Area Source NESHAP Burden Estimate

February 9, 2012

Worksheet Name	Description
PVC YR 1	NESHAP Burden Estimate for Industry in Year 1
PVC YR 2	NESHAP Burden Estimate for Industry in Year 2
PVC YR 3	NESHAP Burden Estimate for Industry in Year 3
PVC-Summary-PV	Summary of NESHAP Burden Estimate for Industry
Record&Reporting Burden Only	Calculation of Record Keeping and Reporting Burden for Industry
EPA YR 1	NESHAP Burden Estimate for EPA in Year 1
EPA YR 2	NESHAP Burden Estimate for EPA in Year 2
EPA YR 3	NESHAP Burden Estimate for EPA in Year 3
EPA Summary	Summary of NESHAP Burden Estimate for EPA
Hrs_Responses	Summary of Hours required by responses
Process Vent - T&M Costs	Process Vent Testing and Monitoring Costs
Resin T&M Costs	Stripped Resin Testing and Monitoring Costs
Wastewater T&M Costs	Wastewater Testing and Monitoring Costs
EquipmentLeaks - T&M Costs	Equipment Leaks - Testing and Monitoring Costs
Hourly Rates	Hourly Rate Calculations

	for Existing Are								r 1				
		(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)				
		Respondent Hours per	Non-Labor Costs	Number of Occurrences	Hours Per	Number of	Technical Hours	Management Hours	Clerical Hours	Total Labor Costs	Total Non-Labor	Total Responses	
		Occurrence	Per	Per	Respondent	Respondents Per Year	Per Year	Per Year	Per Year	Per Year	Costs	Per Year	
		(Technical	Occurrence	Respondent	Per Year	i ci i cui	i ci i cui	i ci i cui	1 ci rea	i ci i cui	Per Year	. ci i cu	
	Burden Item	hours)		Per Year	(C=A x C		(D x E)	(F x 0.05)	(F x 0.1)				l
 Application 	ns	N/A											
Surveys a	nd Studies	N/A											
3. Reporting	Requirements												
A. Read	and Understand Rule Requirements	25	\$100	1	25	2	50	3	5	\$5,439	\$200	0	a,I
B. Requ	ired Activities												
1) Ini	tial performance test, sampling, and report												
	a) Process Vents	32	\$43,198	1	32	2	64	3	6	\$6,962	\$86,395	0	a
	b) Resins	2	\$1,803	1	2	2	4	0	0	\$435	\$3,606	0	a
	c) wastewater	2	\$491	1	2	4	8	0	1	\$870	\$1,964	0	8
		2		0		4	0	0	0				-
	d) heat exchangers		\$0		0					\$0	\$0	0	9
	e) equipment leaks	2	\$177,360	1	2	2	4	0	0	\$435	\$354,720	0	1
2) Pe	riodic performance test, sampling, and report												
	a) Process Vents	32	\$43,198	1	32	0	0	0	0	\$0	\$0	0	
	b) Resins	1	\$601	11	11	2	22	1	2	\$2,393	\$13,222	0	
	c) wastewater	1	\$491	11	11	2	22	1	2	\$2,393	\$10,791	0	
	d) uncontrolled wastewater	1	\$491	1	1	0	0	0	0	\$0	\$0	0	
	e) heat exchangers	1	\$0	12	12	4	48	2	5	\$5,221	\$0	0	9
	f) equipment leaks	1	\$16,105	1	1	2	2	0	0	\$218	\$32,210	0	
3) Es	tablish operating parameters and monitoring plan												+
-,	a) Process Vents	3.5	\$0	1	3.5	2	7	0	1	\$761	\$0	0	a,1
4) (2)	ntinuous parameter monitoring	3.5		1	3.5	2	,	-	-	\$101	40	-	a,1
		0	\$64,244					-		**	A100 400	-	
	a) Initial capital costs (PRD Electronic Monitor)			1	0	2	0	0	0	\$0	\$128,488	0	a
	b) Annualized capital and O&M costs (PRD Electronic Monitor)	11	\$31,772	1	11	2	22	1	2	\$2,393	\$63,544	0	1
C. Crea	te Information	Incl. in 3.B											
D. Gath	er Information	Incl. in 3.E											
E. Repo	rt Preparation												
1) In	tial Notification	5	\$0	1	5	2	10	1	1	\$1,088	\$0	2	a
2) Ba	tch precompliance report	5	\$0	1	5	2	10	1	1	\$1,088	\$0	2	a
3) No	tification of performance test with test plan	10	\$0	1	10	2	20	1	2	\$2,175	\$0	2	a
	tification of compliance status	20	\$0	1	20	2	40	2	4	\$4,351	\$0	2	a
	impliance report	25	\$0	1	25	0	0	0	0	\$0	\$0	0	b,
	tice of inspection	5	\$0	1	5	2	10	1	1	\$1,088	\$0	2	b,
	irmative defense	18	\$0	1	18	0	10	12	0	\$0	\$0	0	
		10	30	1	10	0	343	12	34	\$37,309	\$566,652	10	-
eportingSubto							343	17	34	\$37,309	\$500,052	10	-
	ing Requirements												_
A. Read I	nstructions	Incl. in 3.A											
B. Implen	nent Activities	N/A											
C. Develo	p Record System	N/A											
D. Record	d Information												
1) Re	ecords of process vent requirements	10	\$0	1	10	0	0	0	0	\$0	\$0	0	b
2) Re	ecords of resin stripper requirements	15	\$0	1	15	0	0	0	0	\$0	\$0	0	b
	ecords wastewater requirements	15	\$0	1	15	0	0	0	0	\$0	\$0	0	b.
	ecords of storage vessel requirements	10	\$0	1	10	0	0	0	0	\$0	\$0	0	b
	ecords of equipment leak requirements	25	\$0	1	25	0	0	0	0	\$0	\$0	0	b
	ecords of requipment reak requirements	10	\$0	1	10	0	0	0	0	\$0	30 \$0	0	b
													_
	ecords of other emission sources requirements	10	\$0	1	10	0	0	0	0	\$0	\$0	0	t
	nel Training	Incl. in 3.B											-
F. Time fo		N/A											
ecordkeeping	Subtotal						0	0	0	\$0	\$0	0	
OTAL:							343	17	34	\$37,309	\$566,652	10	
								Total Hours	Labor	Non-Labor	Total		
					Summary of Res	pondent Burden		394	\$37,309	\$566,652	\$603,962		
					Initial Capital and					\$128,688			
						al/Start-up and O	& M			\$566,652			

Table 1 - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements

FOOTNOTES

a One-time only costs.

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

c 2 area sources in affected source category

d 2 area sources are expected to perform testing for process vents.

e 2 area sources expected to perform testing for resins

f Estimated 1 uncontrolled stream and 1 wastewater stripper per facility. 1 wastewater stripper outlet is expected to require monthly testing; 1 uncontrolled stream will require annual testing (per facility).

g All heat exchnager testing and monitoring costs assumed to be incurred annually. 4 heat exchangers at 2 area sources.

h Non-Labor costs technically include labor to perform LDAR testing in addition to monitoring equipment and maintenance materials. Respondent hours are an estimation of the additional reporting required by the final rule.

i process vent testing is an annual occurrence, therefore no additional costs are expected in additional to the initial testing requirement.

j Hours for affirmative defense are shown only for illustration and are not included in the total burden estimate

k Annual cost. Annual costs are not incurred until the second year of operation. I Reporting subtotal does not include capital costs for PRD monitoring system.

B. Required Ac 1) Initial perf a) Proc b) Resi c) wast d) heat e) equij 2) Periodic p	ements nderstand Rule Requirements dtvlites formance test, sampling, and report ess Vents ins	(A) Respondent Hours per Occurrence (Technical hours) N/A N/A 25 25 32 2	(B) Non-Labor Costs Per Occurrence	(C) Number of Occurrences Per Respondent Per Year	(D) Hours Per Respondent Per Year (C=A x C	(E) Number of Respondents Per Year	(F) Technical Hours Per Year (D x E)	(G) Management Hours Per Year (F x 0.05)	(H) Clerical Hours Per Year (F x 0.1)	Total Labor Costs Per Year	Total Non-Labor Costs Per Year	Total Responses Per Year	itnotes
2. Surveys and Stud 3. Repdring Require A. Read and UP B. Required Ac a) Initial perf a) Proc b) Resis c) wast d) heat e) equi 2) Periodic p	lies ements nderstand Rule Requirements tivities formance test, sampling, and report sess Vents ins tewater	hours) N/A N/A 25 32 2	\$100	Per Year			(D x E)	(F x 0.05)	(F x 0.1)		Per Year		Ē
2. Surveys and Stud 3. Repdring Require A. Read and UP B. Required Ac a) Initial perf a) Proc b) Resis c) wast d) heat e) equi 2) Periodic p	lies ements nderstand Rule Requirements tivities formance test, sampling, and report sess Vents ins tewater	N/A N/A 25 32 2			(C=A x C		(D x E)	(F x 0.05)	(F x 0.1)			<u> </u>	1 2
2. Surveys and Stud 3. Repdring Require A. Read and UP B. Required Ac a) Initial perf a) Proc b) Resis c) wast d) heat e) equi 2) Periodic p	ements nderstand Rule Requirements t/t/tiles formance test, sampling, and report ess Vents ins tewater	N/A 25 32 2		1									ЦĽ
3. Repdring Require A. Read and Ur B. Required Ac 1) Initial perf a) Proc b) Resi () wast () heat e) equi 2) Periodic p	ements nderstand Rule Requirements t/t/tiles formance test, sampling, and report ess Vents ins tewater	25 32 2		1								-	-
A. Read and Ur B. Required Ac 1) Initial pert a) Proc b) Resi c) wast d) heat e) equi 2) Periodic p	nderstand Rule Requirements t/t/tiles formance test, sampling, and report cess Vents ins tewater	32 2		1								<u> </u>	-
B. Required Ac 1) Initial perf a) Proc b) Resi c) wast d) heat e) equij 2) Periodic p	tivities formance test, sampling, and report sess Vents ins tewater	32 2		1			-		-			<u> </u>	+.
1) Initial perf a) Proc b) Resi c) wast d) heat e) equi 2) Periodic p	formance test, sampling, and report cess Vents ins tewater	2			25	0	0	0	0	\$0	\$0	0	a,b,
a) Proc b) Resi c) wast d) heat e) equi 2) Periodic p	sess Vents ins Lewater	2										L	-
b) Resi c) wast d) heat e) equip 2) Periodic p	ins tewater	2										L	
c) wast d) heat e) equi 2) Periodic p	tewater		\$43,198	1	32	0	0	0	0	\$0	\$0	0	a,c
d) heat e) equij 2) Periodic p			\$1,803	1	2	0	0	0	0	\$0	\$0	0	a,e
e) equi 2) Periodic p	t exchangers	2	\$491	1	2	0	0	0	0	\$0	\$0	0	a,f
2) Periodic p		-	\$0	0	0	0	0	0	0	\$0	\$0	0	g
	ipment leaks	2	\$177,360	1	2	0	0	0	0	\$0	\$0	0	h
	performance test, sampling, and report												
a) Proc	cess Vents	6.4	\$8,640	1	6.4	2	13	1	1	\$1,392	\$17,279	0	i
b) Resi	ins	1	\$601	12	12	2	24	1	2	\$2,611	\$14,424	0	e
c) wast	tewater	1	\$491	12	12	2	24	1	2	\$2,611	\$11,772	0	f
.,	ontrolled wastewater	1	\$491	1	1	2	2	0	0	\$218	\$981	0	f
	t exchangers	1	\$0	12	12	4	48	2	5	\$5,221	\$0	0	g
	pment leaks	1	\$16,105	12	12	2	40	0	0	\$218	\$32,210	0	h
	operating parameters and monitoring plan	1	910,103	1	1		4		~	4610	402,21U	<u> </u>	+"
												<u> </u>	+ .
	cess Vents	3.5	\$0	1	3.5	0	0	0	0	\$0	\$0	0	a,b,
	us parameter monitoring											Ļ	
	al capital costs (PRD Electronic Monitor)	0	\$64,244	1	0	0	0	0	0	\$0	\$0	0	a,t
b) Annu	ualized capital and O&M costs (PRD Electronic Monitor)	11	\$31,772	1	11	2	22	1	2	\$2,393	\$63,544	0	b
C. Create Inforr	mation	Incl. in 3.B											
D. Gather Infor	mation	Incl. in 3.E											
E. Report Prepa	aration												
1) Initial Noti	ification	5	\$0	1	5	0	0	0	0	\$0	\$0	0	a,b
2) Batch pre	compliance report	5	\$0	1	5	0	0	0	0	\$0	\$0	0	a,t
	on of performance test with test plan	10	\$0	1	10	0	0	0	0	\$0	\$0	0	a,t
	on of compliance status	20	\$0	1	20	0	0	0	0	\$0	\$0	0	a,t
5) Compliant		25	\$0	1	25	2	50	3	5	\$5,439	\$0	2	b,k
6) Notice of i		5	\$0	1	5	2	10	1	1	\$1,088	\$0	2	b,k
													-
7) Affirmative	e derense	18	\$0	1	18	0	18	12	0 19	\$0	\$0	0	j
ReportingSubtotal							195	10	19	\$21,189	\$140,210	4	
 Recordkeeping Req 												Ļ	
A. Read Instruction		Incl. in 3.A										L	
B. Implement Act		N/A											
C. Develop Reco	rd System	N/A											
D. Record Inform	nation												
1) Records of	of process vent requirements	10	\$0	1	10	2	20	1	2	\$2,175	\$0	0	b,k
2) Records of	of resin stripper requirements	15	\$0	1	15	2	30	2	3	\$3,263	\$0	0	b,k
3) Records v	wastewater requirements	15	\$0	1	15	2	30	2	3	\$3,263	\$0	0	b,k
	of storage vessel requirements	10	\$0	1	10	2	20	1	2	\$2,175	\$0	0	b,k
	of equipment leak requirements	25	\$0	1	25	2	50	3	5	\$5,439	\$0	0	b,k
	of heat exchanger requirements	10	\$0	1	10	2	20	1	2	\$2,175	\$0	0	b,i
	of other emission sources requirements	10	\$0	1	10	2	20	1	2	\$2,175	\$0	0	b,i
E. Personnel Trair		Incl. in 3.B		-	10	-	20	-	-	φ2,113		+ <u> </u>	10,0
F. Time for Audits												<u> </u>	+
		N/A								000.007		<u> </u>	+
Recordkeeping Subtota	80				l		190	9.5	19	\$20,667	\$0	0	
TOTAL:							385	19	38	\$41,856	\$140,210	4	
					Summary of Res			Total Hours 443	Labor \$41,856	Non-Labor \$140,210	Total \$182,066		
					Initial Capital and Annualized Capit	al/Startup and O	& M			\$0 \$140,210			

Table 2 - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements

FOOTNOTES

a One-time only costs.

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

c 2 area sources in affected source category

d 2 area sources are expected to perform testing for process vents.

e 2 area sources expected to perform testing for resins

f Estimated 1 uncontrolled stream and 1 wastewater stripper per facility. 1 wastewater stripper outlet is expected to require monthly testing; 1 uncontrolled stream will require annual testing (per facility).

g All heat exchnager testing and monitoring costs assumed to be incurred annually. 4 heat exchangers at 2 area sources.

h Non-Labor costs technically include labor to perform LDAR testing in addition to monitoring equipment and maintenance materials. Respondent hours are an estimation of the additional reporting required by the final rule.

i process vent testing is an annual occurrence, therefore no additional costs are expected in additional to the initial testing requirement.

j Hours for affirmative defense are shown only for illustration and are not included in the total burden estimate

k Annual cost. Annual costs are not incurred until the second year of operation. I Reporting subtotal does not include capital costs for PRD monitoring system.

nearmagn near<		for Existing Are						cturing L						
network <			(A) Respondent Hours per	(B) Non-Labor Costs	(C) Number of Occurrences	(D) Hours Per	(E) Number of Respondents	(F) Technical Hours	(G) Management Hours	(H) Clerical Hours	Labor Costs	Non-Labor	Responses	s
1. Appendix 4.00 1.00<					Respondent	Per Year	Per Year				Per Year		Per Year	otnote
2. shorp . main pair . mai					Per Year	(C=A x C		(D x E)	(F x 0.05)	(F x 0.1)			<u> </u>	Ĕ
2. heigen spanned property propery property property													<u> </u>	
Λ memory Λ memory 			N/A										<u> </u>	
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1)1pm important1pm importan			25	9100	1	23	-		0	0	40	40		a,0
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n n<			32	\$43.198	1	32	0	0	0	0	\$0	\$0	0	a,c
nnn <t< td=""><td></td><td>·</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>a,e</td></t<>		·												a,e
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main matrix <td></td> <td></td> <td>6.4</td> <td>\$9.640</td> <td>1</td> <td>6.4</td> <td>2</td> <td>12</td> <td>1</td> <td>1</td> <td>\$1 202</td> <td>\$17.270</td> <td><u> </u></td> <td>i</td>			6.4	\$9.640	1	6.4	2	12	1	1	\$1 202	\$17.270	<u> </u>	i
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howaized capita and OAM costs (PRD Electronic Montor)11 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td><u> </u></td><td></td></t<>													<u> </u>	
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1) in1 bit Motification58010580105000000008080003) Modification of operimance test with test plan1050101000 <td< td=""><td></td><td></td><td>Incl. in 3.E</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>			Incl. in 3.E											
2) Beh preconduce report 5 80 1 5 0 0 0 0 00 80 80 0 3) Nutrication of performance testite 20 50 11 10 00 0 0 00 80 80 0 4) Nutrication of compliance status 20 50 11 120 50 10														
3) Netfication of compane test whit hesp plan 10 10 10 10 10 0 0 0 0 80 10 20 80 1 20 0 0 0 0 80 80 10 6) Compliance status 25 50 10 12 50 50 55 55.0 50 <t< td=""><td>1) Ini</td><td>tial Notification</td><td>5</td><td>\$0</td><td>1</td><td></td><td>0</td><td>0</td><td>0</td><td>0</td><td>\$0</td><td>\$0</td><td>0</td><td>a,t</td></t<>	1) Ini	tial Notification	5	\$0	1		0	0	0	0	\$0	\$0	0	a,t
A) Natiliation of complance status 20 80 1 20 0 0 0 80 80 0 6) Opplance report 25 80 1 25 2 50 30 5 55,439 30 2 7) All mative defense 18 80 1 15 2 10 1 1.08.08 30 2 7) All mative defense 18 80 1 18 0 18 12 0 30 50 50 Reporting/Satchal 1 18 80 1 18 0 18 12 0 30 50 50 A Read Instructions Incl. n 3.A 1	2) Ba	tch precompliance report	5	\$0		5	0	0		0	\$0	\$0	0	a,t
5) Compliance report 25 80 1 25 2 50 3 5 85,439 80 2 6) Nadice of inspection 5 80 1 5 2 10 1 1 81,08 50 2 7, Alfmanke defense 18 50 1 18 0 18 12 0 80 50 0 Reporting Station 10 10 10 19 \$21,199 \$140,210 4 A. Read Instructions Incl. n 3.A	3) No	tification of performance test with test plan	10	\$0	1	10	0	0	0	0	\$0	\$0	0	a,t
6) Make or inspection 5 50 1 5 2 10 1 1.0 \$1,088 \$00 2 7, Allmative denses 18 50 1 18 0 18 12 0 \$	4) No	tification of compliance status	20	\$0	1	20	0	0	0	0	\$0	\$0	0	a,t
γ A mative defense 18 \$0 1 18 0 18 12 0 \$0 \$0 0 Regarding/stand/ad Image	5) Co	mpliance report	25	\$0	1	25	2	50	3	5	\$5,439	\$0	2	b,k
Rep Incl. I	6) No	tice of inspection	5	\$0	1	5	2	10	1	1	\$1,088	\$0	2	b,k
I. Recordkeeping Requirements Incl. in 3.A Incl. in 3.B Incl. in 3	7) Af	irmative defense	18	\$0	1	18	0	18	12	0	\$0	\$0	0	j
A Read instructions Incl. in 3.A Incl. in 3.B	ReportingSubto	tal						195	10	19	\$21,189	\$140,210	4	1
B. Implement Activities NA Implement Activities ImplematActivities ImplementActites	 Recordkeepi 	ng Requirements												
NA NA Image: NAA Image	A. Read In	nstructions	Incl. in 3.A											
D. Record Information Image: Constraint of the information <td>B. Implem</td> <td>ent Activities</td> <td>N/A</td> <td></td>	B. Implem	ent Activities	N/A											
D. Record information Image: heat of the instant of the image: heat of the image	C. Develo	p Record System	N/A											
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Table 3 - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements

FOOTNOTES

a One-time only costs.

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

c 2 area sources in affected source category

d 2 area sources are expected to perform testing for process vents.

e 2 area sources expected to perform testing for resins

f Estimated 1 uncontrolled stream and 1 wastewater stripper per facility. 1 wastewater stripper outlet is expected to require monthly testing; 1 uncontrolled stream will require annual testing (per facility).

g All heat exchnager testing and monitoring costs assumed to be incurred annually. 4 heat exchangers at 2 area sources.

h Non-Labor costs technically include labor to perform LDAR testing in addition to monitoring equipment and maintenance materials. Respondent hours are an estimation of the additional reporting required by the final rule.

i process vent testing is an annual occurrence, therefore no additional costs are expected in additional to the initial testing requirement.

j Hours for affirmative defense are shown only for illustration and are not included in the total burden estimate

k Annual cost. Annual costs are not incurred until the second year of operation. I Reporting subtotal does not include capital costs for PRD monitoring system.

						Non-Labor (Annualized Capital/Startup and	
Year	Technical Hours	Management Hours	Clerical Hours	Total Hours	Labor Costs	O&M) Costs	Total Costs
1	343	17	34	394	\$37,309	\$566,652	\$603,962
2	385	19	38	443	\$41,856	\$140,210	\$182,066
3	385	19	38	443	\$41,856	\$140,210	\$182,066
Total	1,113	56	111	1,279	\$121,022	\$847,073	\$968,094
Average	371	19	37	426	\$40,341	\$282,358	\$322,698

Table 4 - Summary of Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for Existing Area Sources: Polyvinyl Chloride and Copolymer Manufacturing Units

Record Keeping and Reporting Burden by Emission Point

Note: This table is used to caluclate 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)							
ETHISSION POINT	(\$)	Initial Notes	Yr 1	Yr 2	Yr 3					
Resins	\$2,639	a,b,d	\$2,393	\$6,806.13	\$6,806.13					
Process Vents	\$9,927	a,b,c,d	\$0	\$4,500.12	\$4,500.12					
Wastewater	\$3,074	a,b,d	\$2,393	\$7,023.67	\$7,023.67					
Equipment Leaks	\$2,639	a,b,d	\$2,611	\$8,981.60	\$8,981.60					
Storage Vessels	\$2,204	a,d	\$0	\$3,107.82	\$3,107.82					
Heat Exchange Systems	\$2,204	a,b,d	\$5,221	\$8,328.96	\$8,328.96					
Other Sources	\$2,204	a,d	\$0	\$3,107.82	\$3,107.82					
Total	\$24,892		\$12,617.75	\$41,856.12	\$41,856.12					

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
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	(A)		(B)	(C)	(D)	(E)	(F)
Burden Item	Number of Occurrences Per Year		EPA Hours Per Occurrence	Tech Hours Per Year (C=AxB)	Management Hours Per Year (D=Cx0.05)	Clerical Hours Per Year (E=Cx0.1)	EPA Cost Per Year (a,b)
1. Applications				not app	licable	· · ·	
2. Read and Understand Rule Requirements 10 16 160 8 16							\$8,292
3. Required Activities							
A. Observe initial performance tests	0	b	48	19	1	2	\$995
B. Excess emissions Enforcement Activities	0	d	24	0	0	0	\$0
C. Create Information				not app	licable		
D. Gather Information				not app	licable		
E. Report Reviews							
1) Review initial notification	2		3	6	0	1	\$311
2) Review batch precompliance report	2		5	10	1	1	\$518
3) Review notification of performance test	2		10	20	1	2	\$1,036
4) Review notification of compliance status	2		40	80	4	8	\$4,146
5) Review compliance report	0		20	0	0	0	\$0
6) Review notice of inspection	2		3	6	0	1	\$311
7) Review affirmative defense	0		10	0	0	0	\$0
F. Prepare annual summary report	1	с	8	8	0	1	\$415
4. Travel expenses: (1 person * 30 hours per year / 8 hours per da	ay * \$75 per diem) + (\$6	600 per round trip)	=	\$881	per trip	\$353
TOTAL				309	15	31	\$16,376

Table 5 - Annual Designated Administrator Burden and Cost of Recordkeeping and Reporting Requirements for Existing AreaSources: Polyvinyl Chloride and Copolymer Manufacturing Units - Year 1

FOOTNOTES

a Figures may not add exactly due to rounding.

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

c Using four hours per state to write annual summary report.

d Assume no emissions exceedances

	(A)		(B)	(C)	(D)	(E)	(F)
Burden Item	Number of Occurrences Per Year		EPA Hours Per Occurrence	Tech Hours Per Year (C=AxB)	Management Hours Per Year (D=Cx0.05)	Clerical Hours Per Year (E=Cx0.1)	EPA Cost Per Year (a,b)
1. Applications				not app	licable	• · · ·	
2. Read and Understand Rule Requirements	0		16	0	0	0	\$0
3. Required Activities							
A. Observe initial performance tests	0	b	48	0	0	0	\$0
B. Excess emissions Enforcement Activities	0	d	24	0	0	0	\$0
C. Create Information				not app	licable		
D. Gather Information				not app	licable		
E. Report Reviews							
1) Review initial notification	0		3	0	0	0	\$0
2) Review batch precompliance report	0		5	0	0	0	\$0
3) Review notification of performance test	0		10	0	0	0	\$0
4) Review notification of compliance status	0		40	0	0	0	\$0
5) Review compliance report	2		20	40	2	4	\$2,073
6) Review notice of inspection	2		3	6	0	1	\$311
7) Review affirmative defense	0		10	0	0	0	\$0
F. Prepare annual summary report	1	с	8	8	0	1	\$415
4. Travel expenses: (1 person * 30 hours per year / 8 hours per d	ay * \$75 per diem) + (\$6	600 per round trip)	=	n/a	per trip	\$0
TOTAL				54	3	5	\$2,798

Table 6 - Annual Designated Administrator Burden and Cost of Recordkeeping and Reporting Requirements for Existing Area Sources: Polyvinyl Chloride and Copolymer Manufacturing Units - Year 2

FOOTNOTES

a Figures may not add exactly due to rounding.

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

c Using four hours per state to write annual summary report.

d Assume no emissions exceedances

	(A)		(B)	(C)	(D)	(E)	(F)
Burden Item	Number of Occurrences Per Year		EPA Hours Per Occurrence	Tech Hours Per Year (C=AxB)	Management Hours Per Year (D=Cx0.05)	Clerical Hours Per Year (E=Cx0.1)	EPA Cost Per Year (a,b)
1. Applications				not app		, ,	
2. Read and Understand Rule Requirements 0 16 0 0							\$0
3. Required Activities							
A. Observe initial performance tests0b48000\$0							
B. Excess emissions Enforcement Activities	0	d	24	0	0	0	\$0
C. Create Information				not app	licable		
D. Gather Information				not app	licable		
E. Report Reviews							
1) Review initial notification	0		3	0	0	0	\$0
2) Review batch precompliance report	0		5	0	0	0	\$0
3) Review notification of performance test	0		10	0	0	0	\$0
4) Review notification of compliance status	0		40	0	0	0	\$0
5) Review compliance report	2		20	40	2	4	\$2,073
6) Review notice of inspection	2		3	6	0	1	\$311
7) Review affirmative defense	0		10	0	0	0	\$0
F. Prepare annual summary report	1	с	8	8	0	1	\$415
4. Travel expenses: (1 person * 30 hours per year / 8 hours per d	ay * \$75 per diem) + (\$6	00 per round trip)	=	n/a	per trip	\$0
TOTAL				54	3	5	\$2,798

Table 7 - Annual Designated Administrator Burden and Cost of Recordkeeping and Reporting Requirements for Existing Area Sources: Polyvinyl Chloride and Copolymer Manufacturing Units - Year 3

FOOTNOTES

a Figures may not add exactly due to rounding.

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

c Using four hours per state to write annual summary report.

d Assume no emissions exceedances

Year	Technical Hours	Management Hours	Clerical Hours	Total Hours	Labor Costs	Non-Labor Costs	Total Costs
1	309	15	31	356	\$16,376	\$0	\$16,376
2	54	3	5	62	\$2,798	\$0	\$2,798
3	54	3	5	62	\$2,798	\$0	\$2,798
Total	417	21	42	480	\$21,973	\$0	\$21,973
Average	139	7	14	160	\$7,324	\$0	\$7,324

Table 8 - Summary of Annual Designated Administrator Burden and Cost of Recordkeeping and Reporting Requirements forExisting Area Sources: Polyvinyl Chloride and Copolymer Manufacturing Units

Response Hours Analysis

		Reporting				
	Hours # of Respondents # of Response					
Year 1	394	2	10			
Year 2	224	2	4			
Year 3	224	2	4			
Total	842	6	18			
Average Annual	281	2	6			

Total hours	1,279
Hours per year	426
# of responses per respondent (annual)	3
Hours per response (annual)	71
Reporting hours per response (annual)	46.8050
Recorkeeping hours per response (annual)	24.2778

Cost per response (non-labor)	47,059.59
· · · · ·	

2. Required activities	Hours per Occurrence	Occurrence per Year	Total Hours Per Year
a. Perf. spec. tests (certif.) for CMS	11	1	11

Notes:

2. Person-hours per occurrence for CMS performance specification costs are based on the performance specification costs to certify CMS (\$700) divided by the composite hourly labor rate (\$66.41/hr).

Sources: 1. Bureau of Labor Statistics, Occupational Employment Statistics, May 2008 National Industry-Specific Occupational Employment and Wage Estimates. 2. Hospital/Medical/Infectious Waste Incinerators (HMIWI) [EPA-HQ-OAR2006-0534] Testing and Monitoring Options and Costs Memo (IV-B-66).