

P&R I	All facilities	1/3 of facilities	2/3 of facilities
# P&R I Facilities	19	6	13

Flare Management Plan - One-time cost	
Parameter	Value
Avg. Cost Per Facility	\$17,744

CECPI 2016 -> 2021
541.7
708

Flare Monitor Costs			
Monitoring Equipment	Capital Equipment Cost (\$/flare)	Annualized Cost (\$/yr/flare)	Number of Flares Impacted
H2 Analyzer	46,000	29,600	2
Calorimeter	135,000	37,100	6
Flare Gas Flow Monitor	565,600	97,700	6
Steam Controls/Flow Monitor	879,200	150,200	3
Air Controls/Flow Monitor	210,800	64,600	0
Avg. Cost Per Facility			

PRD Work Practice & Monitor		
Parameter	Capital Cost	Annual Cost
PRD Work Practice		
Implement Prevention Measures	\$410,000	\$40,900
Root Cause Analysis & Corrective Action	\$0	\$75,200
PRD Monitor	\$94,000	\$12,800
Total	\$504,000	\$128,900
# facilities with atmospheric PRDs	19	
Avg. Cost Per Facility	\$26,526	\$6,784

HEX El Paso Method Monitor & Repair		
Parameter	Capital Cost	Annual Cost
Total	\$48,325	\$9,933
# facilities with HEX	19	
Avg. Cost Per Facility	\$2,543	\$523

Carbon Adsorber Monitoring and Performance Test		
Parameter	Capital Cost	Annual Cost
Total	\$16,500	\$1,400
# facilities with Adsorber	1	
Avg. Cost Per Facility	\$16,500	\$1,400

Pressure Vessel Monitoring		
Parameter	Capital Cost	Annual Cost
Total	\$2,205	\$2,070
# facilities with Pressure Vessel	19	
Avg. Cost Per Facility	\$116	\$109

Storage Vessel Planned Routine Maintenance		
Parameter	Capital Cost	Annual Cost
Total	\$39,520	\$6,840
# facilities with Pressure Vessel	19	
Avg. Cost Per Facility	\$2,080	\$360

Dioxin/Furan Monitoring & Performance Testing		
Parameter	Capital Cost	Annual Cost
Total	\$560,000	\$325,000
# facilities producing chlorinated compoun	1	
Avg. Cost Per Facility	\$560,000	\$325,000

Fenceline Monitoring		
Parameter	Capital Cost	Annual Cost
Total	\$127,500	\$1,255,000
# facilities impacted	12	
Avg. Cost Per Facility	\$10,625	\$104,583

Process Vent TRE and Maintenance Vent Requirements		
Parameter	Capital Cost	Annual Cost
Revising the standard from a TRE calculation to control of all vent streams	\$746,263	\$1,870,151
Maintenance vent requirements	\$0	\$8,645
# facilities impacted	19	
Avg. Cost Per Facility	\$39,277	\$98,884

Industry Wages

May 2021 National Industry-Specific Occupational Employment and Wage Estimates
NAICS 325000 - Chemical Manufacturing

Category	Occupation Code	Mean hourly rate (\$/hr)	Fringe Benefit Loading Rate
Technical	17-2112	48.21	1.5
Management	11-9041	76.83	1.5
Clerical	43-9061	21.51	1.5

https://www.bls.gov/oes/2021/may/naics3_325000.htm

EPA Wages

	Hourly Mean Wage	With Fringe & Overhead
(GS- 12, step 1) - Tech.	32.02	\$51.23
(GS- 13, step 5) - Mgmt.	43.15	\$69.04
(GS-6, step 3) - Cler.	17.33	\$27.73

https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/pdf/2016/GS_h.pdf
or <https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/>

1.31

Nationwide Capital Equipment Cost (\$)	Nationwide Total Annualized Cost (\$/yr)
\$92,000	\$59,200
\$810,000	\$222,600
\$3,393,600	\$586,200
\$2,637,600	\$450,600
\$0	\$0
\$364,905	\$69,400

P&R I w/ CP
Facilities w/ Flares
Facilities w/ PV & SV
Facilities w/ Wastewater

CP Process Vent & Storage Vessel RTO	
Parameter	
Total	
# facilities that need an RTO	
Avg. Cost Per Facility	

Overhead and Profit Rate	Loaded Rate (\$/hr)
1.4	101.24
1.4	161.34
1.4	45.17

All facilities	1/3 of facilities	2/3 of facilities
1	0	1
1	0	1
1	0	1

Capital Cost	Annual Cost
\$10,205,000	\$5,276,000
7	
\$1,457,857	\$753,714

CP Process Vents and Tanks - Monitoring & Tes	
Parameter	
Monitor Capital Cost	
Monitor Annual Cost	
Initial Testing	
Testing: 5-yr Re-test	

ting
Value
\$23,200
\$4,900
\$38,302
\$19,151

Capital/Startup and O&M Costs				
(A)	(B)	(C)	(D)	(E)
Source & Monitor Type	Capital/Startup Costs for One Respondent	Number of Respondents with Capital/Startup Costs	Total Capital/ Startup Cost (B X C)	Annual Cost (O&M and Capital) for One Respondent
Flare Monitors	\$364,905	19	\$6,933,195	\$69,400
PRD Work Practice & Monitors	\$26,526	19	\$503,994	\$6,784
Heat Exchangers - El Paso Method Monitors and Repair	\$2,543	19	\$48,317	\$523
Carbon Adsorber Monitors & Performance Test	\$16,500	1	\$16,500	\$1,400
Pressure Vessel Monitors	\$116	19	\$2,204	\$109
Storage Vessel Planned Routine Maintenance	\$2,080	19	\$39,520	\$360
Dioxin/Furan Monitors & Performance Test	\$560,000	1	\$560,000	\$325,000
Fenceline Monitoring	\$10,625	12	\$127,500	\$104,583
Process Vent TRE and Maintenance Vent Requirements	\$39,277	19	\$746,263	\$98,884
Chloroprene Process Vents & Storage Tanks - Control Device	\$1,457,857	1	\$1,457,857	\$753,714
Chloroprene Process Vents & Storage Tanks - Control Device Monitor	\$23,200	1	\$23,200	\$4,900
Chloroprene Process Vents & Storage Tanks - Control Device Testing	\$38,302	1	\$38,302	\$0
TOTAL			\$10,496,852	

- (a) Within a given year, there are a maximum of 19 respondents per information collection activity.
- (b) We estimate 1 respondents operate carbon adsorbers.
- (c) We estimate 1 respondents operate facilities that produce chlorinated compounds.
- (d) We estimate 12 respondents will be required to conduct fenceline monitoring.
- (e) We estimate there are a maximum of 1 respondents that operate equipment in chloroprene service.

Total Annual Responses				
(A)	(B)	(C)	(D)	(E)
Information Collection Activity	Number of Respondents	Number of Responses	Number of Existing Respondents That Keep Records But Do Not Submit Reports	Total Annual Responses E=(BxC)+D
Notification of Compliance Status				
Flares	19	1	0	19
PRDs	19	1	0	19
Continuous Process Vents	19	1	0	19
Batch Process Vents	19	1	0	19
Storage Vessels	19	1	0	19
Carbon Adsorbers	1	1	0	1
Chloroprene Process Vents & Storage Tanks	1	1	0	1

Chloroprene Wastewater Group 1	1	1	0	1
Periodic Reports				
Flares	19	2	0	38
PRDs	19	2	0	38
Continuous Maintenance Vents	19	2	0	38
Batch Maintenance Vents	19	2	0	38
Bypass Lines	0	2	0	0
HEX El Paso Method	19	2	0	38
Storage Vessel Routine Maintenance	19	2	0	38
Carbon Adsorbers	1	2	0	2
Pressure Vessels	19	2	0	38
Chloroprene Process Vents & Storage Tanks	1	2	0	2
Chloroprene Wastewater Group 1	1	2	0	2
Baseline Monitoring				
Site-specific monitoring plan	12	1	0	12
Corrective action plan	12	1	0	12
Quarterly reports	12	4	0	48
TOTAL				442

(F)	(G)
Number of Respondents ^a	Total Annual Cost, (E X F)
19	\$1,318,600
19	\$128,896
19	\$9,937
1	\$1,400
19	\$2,071
19	\$6,840
1	\$325,000
12	\$1,254,996
19	\$1,878,796
1	\$753,714
1	\$4,900
1	NA
	\$5,685,150

Table 1 - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the P&R I RTR - Year 1

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Non-Labor Costs Per Occurrence	(C) Number of Occurrences Per Respondent Per Year	(D) Technical Hours per Respondent Per Year (A X C)	(E) Number of Respondents Per Year ^a	(F) Technical Hours per Year (D X E)	(G) Clerical Hours per Year (F X 0.1)	(H) Management Hours per Year (F X .05)	(I) Total Hours per Year (F + G + H)	(J) Total Labor Costs Per Year ^b	(K) Total Non- Labor Costs Per Year (B x C x E)
a. Flares	5	\$0	1	5	0.00	0	0	0	0	\$0	\$0
b. PRDs	15	\$0	1	15	0.00	0	0	0	0	\$0	\$0
c. Continuous Process Vents	10	\$0	1	10	0.00	0	0	0	0	\$0	\$0
d. Batch Process Vents	10	\$0	1	10	0.00	0	0	0	0	\$0	\$0
e. Storage Vessels	10	\$0	1	10	0.00	0	0	0	0	\$0	\$0
f. Carbon Adsorbers ^e	5	\$0	1	5	0.00	0	0	0	0	\$0	\$0
g. Chloroprene Wastewater Group 1 ^h	4	\$0	1	4	0	0	0	0	0	\$0	\$0
h. Chloroprene Process Vents & Tanks ^h	4	\$0	1	4	0	0	0	0	0	\$0	\$0
2. Periodic Report											
a. Flares	5	\$0	2	10	0.00	0	0	0	0	\$0	\$0
b. PRDs	10	\$0	2	20	0.00	0	0	0	0	\$0	\$0
c. Continuous Maintenance	4	\$0	2	8	0.00	0	0	0	0	\$0	\$0
d. Batch Maintenance Vents	4	\$0	2	8	0.00	0	0	0	0	\$0	\$0
e. Bypass Lines ⁱ	4	\$0	2	8	0.00	0	0	0	0	\$0	\$0
f. HEX El Paso Method	3	\$0	2	6	0.00	0	0	0	0	\$0	\$0
g. Storage Vessel Routine Maintenance	3	\$0	2	6	0.00	0	0	0	0	\$0	\$0
h. Carbon Adsorbers ^e	3	\$0	2	6	0.00	0	0	0	0	\$0	\$0
i. Pressure Vessels	4	\$0	2	8	0.00	0	0	0	0	\$0	\$0
j. Chloroprene Process Vents and Tanks ^h	4	\$0	2	8	0	0	0	0	0	\$0	\$0
k. Chloroprene Wastewater Group 1 ^h	4	\$0	2	8	0	0	0	0	0	\$0	\$0
3. Fence Line Monitoring											
a. Site Monitoring plan	10	\$0	1	10	0.00	0	0	0	0	\$0	\$0
b. Corrective action plan	10	\$0	1	10	0	0	0	0	0	\$0	\$0
c. Quarterly reports	4	\$0	4	16	0.00	0	0	0	0	\$0	\$0
Reporting Subtotal						456	46	23	524	\$51,904	\$0

Table 1 - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the P&R I RTR - Year 1

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Non-Labor Costs Per Occurrence	(C) Number of Occurrences Per Respondent Per Year	(D) Technical Hours per Respondent Per Year (A X C)	(E) Number of Respondents Per Year ^a	(F) Technical Hours per Year (D X E)	(G) Clerical Hours per Year (F X 0.1)	(H) Management Hours per Year (F X .05)	(I) Total Hours per Year (F + G + H)	(J) Total Labor Costs Per Year ^b	(K) Total Non- Labor Costs Per Year (B x C x E)
4. Recordkeeping Requirements											
A. Read Instructions	Inc. in 3.A										
B. Implement Activities	NA										
C. Develop Record System	NA										
D. Record information											
1. Flares	0.4	\$0	365	146	0.00	0	0	0	0	\$0	\$0
2. PRDs	10	\$0	1	10	0.00	0	0	0	0	\$0	\$0
3. HEX El Paso Method ^k	0	\$0	1	0	0.00	0	0	0	0	\$0	\$0
4. Continuous Maintenance Vents	1	\$0	1	1	0.00	0	0	0	0	\$0	\$0
5. Batch Maintenance Vents	1	\$0	1	1	0.00	0	0	0	0	\$0	\$0
6. Bypass Lines	0	\$0	1	0	0.00	0	0	0	0	\$0	\$0
7. Chloroprene Process Vents & Tanks ^h	2	\$0	1	2	0	0	0	0	0	\$0	\$0
8. Flare Management Plan	75	\$0	1	75	0.00	0	0	0	0	\$0	\$0
9. Tank Degassing	3	\$0	1	3	0.00	0	0	0	0	\$0	\$0
10. Parameter monitoring for adsorbers, condensers, and carbon adsorbers ^e	1	\$0	1	1	0.00	0	0	0	0	\$0	\$0
11. Continuous Process Vent Dioxin/Furan concentration ^f	1	\$0	1	1	0.00	0	0	0	0	\$0	\$0
12. Back-end Process Vent Dioxin/Furan Concentration ^f	1	\$0	1	1	0.00	0	0	0	0	\$0	\$0
13. Pressure Vessels	2	\$0	1	2	0.00	0	0	0	0	\$0	\$0
14. Chloroprene Wastewater Group 1 ^h	10	\$0	1	10	0	0	0	0	0	\$0	\$0
15. Fenceline Monitoring - Meteorological data ^g	0.4	\$0	365	146	0.00	0	0	0	0	\$0	\$0
16. Fenceline Monitoring - Sampling	1	\$0	365	365	0.00	0	0	0	0	\$0	\$0
E. Personnel Training ^c	16	\$0	1	16	19.00	304	30	15	350	\$34,602	\$0
F. Time for Audits	NA										
Recordkeeping Subtotal						304	30	15	350	\$34,602	\$0
TOTAL						760	76	38	874	\$86,506	\$0
								Total Hours	Labor	Non-Labor	Total
Summary of Respondent Burden								874	\$86,506	\$0	\$86,506
Initial Capital and Startup											\$51,904
Annualized Capital/Start-up and O & M											\$0

Footnotes:

- (a) We have assumed that there are approximately 19 existing respondents, with no additional sources becoming subject to the rule over the three-year period of this ICR. We assume that one-third of the existing facilities would begin complying in year 2 and the remaining two-thirds of the existing facilities in year 3.
- (b) This ICR uses the following labor rates for privately-owned sources: \$161.34 for managerial, \$101.24 for technical, and \$45.17 for clerical labor. These rates are from the United States Department of Labor, Bureau of Labor Statistics, May 2021, National Industry-Specific Occupational Employment and Wage Estimates for NAICS 325000 - Chemical Manufacturing. These rates have been adjusted using a Fringe Benefit Loading Rate of 1.5 and an Overhead and Profit Rate of 1.4 (Mean Hourly Rate * Fringe Benefit Loading Rate * Overhead and Profit Rate = Loaded Rate) to account for varying industry wage rates and the additional overhead business costs of employing workers beyond their wages and benefits, including business expenses associated with hiring, training, and equipping their employees.
- (c) This is a one-time cost.
- (d) Includes costs for the following monitoring equipment: H2 analyzer, calorimeter, flare gas flow monitor, steam controls/flow monitor, and air controls/flow monitor.
- (e) We estimate 1 respondent operates carbon adsorbers.
- (f) We estimate 1 respondent operates facilities that produce chlorinated compounds.
- (g) We estimate 12 respondents will be required to conduct fenceline monitoring. All 12 facilities would begin complying with requirements in year 2 and submit corrective action plans in year 3.
- (h) Only applicable to facilities with ethylene oxide emissions. We assume these facilities will begin complying in year 2. Note, there are not startup/capital & O&M costs for wastewater.
- (i) Retests only occur after five years from the initial performance test, and thus would not occur over the period covered by this ICR.

Table 1 - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the P&R I RTR - Year 2

	(A) Respondent Hours per Occurrence (Technical hours)	(B) Non-Labor Costs Per Occurrence	(C) Number of Occurrences Per Respondent Per Year	(D) Technical Hours per Respondent Per Year (A X C)	(E) Number of Respondents Per Year ^a	(F) Technical Hours per Year (D X E)	(G) Clerical Hours per Year (F X 0.1)	(H) Management Hours per Year (F X .05)	(I) Total Hours per Year (F + G + H)	(J) Total Labor Costs Per Year ^b	(K) Total Non- Labor Costs Per Year (B x C x E)
1. Notification of Compliance Status											
a. Flares	5	\$0	1	5	6.00	30	3	2	35	\$3,415	\$0
b. PRDs	15	\$0	1	15	6.00	90	9	5	104	\$10,244	\$0
c. Continuous Process Vents	10	\$0	1	10	6.00	60	6	3	69	\$6,829	\$0
d. Batch Process Vents	10	\$0	1	10	6.00	60	6	3	69	\$6,829	\$0
e. Storage Vessels	10	\$0	1	10	6.00	60	6	3	69	\$6,829	\$0
f. Carbon Adsorbers ^e	5	\$0	1	5	1.00	5	1	0	6	\$569	\$0
g. Chloroprene Wastewater Group 1 ^h	4	\$0	1	4	1	4	0	0	5	\$455	\$0
h. Chloroprene Process Vents & Tanks ^h	4	\$0	1	4	1	4	0	0	5	\$455	\$0
2. Periodic Report											
a. Flares	5	\$0	2	10	6.00	60	6	3	69	\$6,829	\$0
b. PRDs	10	\$0	2	20	6.00	120	12	6	138	\$13,659	\$0
c. Continuous Maintenance	4	\$0	2	8	6.00	48	5	2	55	\$5,464	\$0
d. Batch Maintenance Vents	4	\$0	2	8	6.00	48	5	2	55	\$5,464	\$0
e. Bypass Lines ⁱ	4	\$0	2	8	0.00	0	0	0	0	\$0	\$0
f. HEX El Paso Method	3	\$0	2	6	6.00	36	4	2	41	\$4,098	\$0
g. Storage Vessel Routine Maintenance	3	\$0	2	6	6.00	36	4	2	41	\$4,098	\$0
h. Carbon Adsorbers ^e	3	\$0	2	6	1	6	1	0	7	\$683	\$0
i. Pressure Vessels	4	\$0	2	8	6.00	48	5	2	55	\$5,464	\$0
j. Chloroprene Process Vents and Tanks ^h	4	\$0	2	8	1	8	1	0	9	\$911	\$0
k. Chloroprene Wastewater Group 1 ^h	4	\$0	2	8	1	8	1	0	9	\$911	\$0
3. Fence Line Monitoring											
a. One-Step monitoring plan	10	\$0	1	10	12	120	12	6	138	\$13,659	\$0
b. Corrective action plan	10	\$0	1	10	0	0	0	0	0	\$0	\$0
c. Quarterly reports	4	\$0	4	16	12	192	19	10	221	\$21,854	\$0
Reporting Subtotal						1,043	104	52	1,199	\$118,719	\$3,396,370

Table 1 - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the P&R I RTR - Year 2

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Non-Labor Costs Per Occurrence	(C) Number of Occurrences Per Respondent Per Year	(D) Technical Hours per Respondent Per Year (A X C)	(E) Number of Respondents Per Year ^a	(F) Technical Hours per Year (D X E)	(G) Clerical Hours per Year (F X 0.1)	(H) Management Hours per Year (F X .05)	(I) Total Hours per Year (F + G + H)	(J) Total Labor Costs Per Year ^b	(K) Total Non- Labor Costs Per Year (B x C x E)
4. Recordkeeping Requirements											
A. Read Instructions	Inc. in 3.A										
B. Implement Activities	NA										
C. Develop Record System	NA										
D. Record information											
1. Flares	0.4	\$0	365	146	6.00	876	88	44	1,007	\$99,710	\$0
2. PRDs	10	\$0	1	10	6.00	60	6	3	69	\$6,829	\$0
3. HEX El Paso Method ^k	0	\$0	1	0	0	0	0	0	0	\$0	\$0
4. Continuous Maintenance Vents	1	\$0	1	1	6.00	6	1	0	7	\$683	\$0
5. Batch Maintenance Vents	1	\$0	1	1	6.00	6	1	0	7	\$683	\$0
6. Bypass Lines ^j	0	\$0	1	0	0	0	0	0	0	\$0	\$0
7. Chloroprene Process Vents & Tanks ^h	2	\$0	1	2	1	2	0	0	2	\$228	\$0
8. Flare Management Plan	75	\$0	1	75	6.00	450	45	23	518	\$51,221	\$0
9. Tank Degassing	3	\$0	1	3	6.00	18	2	1	21	\$2,049	\$0
10. Parameters monitoring for adsorbers, condensers, and carbon adsorbers ^e	1	\$0	1	1	1	1	0	0	1	\$114	\$0
11. Continuous Process Vent Dioxin/Furan concentration ^f	1	\$0	1	1	1	1	0	0	1	\$114	\$0
12. Back-end Process Vent Dioxin/Furan Concentration ^f											
13. Pressure Vessels	2	\$0	1	2	6.00	12	1	1	14	\$1,366	\$0
14. Chloroprene Wastewater Group 1 ^h	10	\$0	1	10	1	10	1	1	12	\$1,138	\$0
15. Fenceline Monitoring - Meteorological data ^g	0.4	\$0	365	146	12	1,752	175	88	2,015	\$199,420	\$0
16. Fenceline Monitoring - Sampling	1	\$0	365	365	12	4,380	438	219	5,037	\$498,549	\$0
E. Personnel Training ^c	16	\$0	1	16	0.00	0	0	0	0	\$0	\$0
F. Time for Audits	NA										
Recordkeeping Subtotal						7,574	757	379	8,710	\$862,104	\$0
TOTAL						8,617	862	431	9,910	\$980,823	\$3,396,370

	Total Hours	Labor	Non-Labor	Total
Summary of Respondent Burden	9,910	\$980,823	\$3,396,370	\$4,377,193
Initial Capital and Startup				\$2,425,346
Annualized Capital/Start-up and O & M				\$3,396,370

Footnotes:

- (a) We have assumed that there are approximately 19 existing respondents, with no additional sources becoming subject to the rule over the three-year period of this ICR. We assume that one-third of the existing facilities would begin complying in year 2 and the remaining two-thirds of the existing facilities in year 3.
- (b) This ICR uses the following labor rates for privately-owned sources: \$161.34 for managerial, \$101.24 for technical, and \$45.17 for clerical labor. These rates are from the United States Department of Labor, Bureau of Labor Statistics, May 2021, National Industry-Specific Occupational Employment and Wage Estimates for NAICS 325000 - Chemical Manufacturing. These rates have been adjusted using a Fringe Benefit Loading Rate of 1.5 and an Overhead and Profit Rate of 1.4 (Mean Hourly Rate * Fringe Benefit Loading Rate * Overhead and Profit Rate = Loaded Rate) to account for varying industry wage rates and the additional overhead business costs of employing workers beyond their wages and benefits, including business expenses associated with hiring, training, and equipping their employees.
- (c) This is a one-time cost.
- (d) Includes costs for the following monitoring equipment: H2 analyzer, calorimeter, flare gas flow monitor, steam controls/flow monitor, and air controls/flow monitor.
- (e) We estimate 1 respondent operates carbon adsorbers.
- (f) We estimate 1 respondent operates facilities that produce chlorinated compounds.
- (g) We estimate 12 respondents will be required to conduct fenceline monitoring. All 12 facilities would begin complying with requirements in year 2 and submit corrective action plans in year 3.
- (h) Only applicable to facilities with ethylene oxide emissions. We assume these facilities will begin complying in year 2. Note, there are not startup/capital & O&M costs for wastewater.

Table 1 - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the P&R I RTR - Year 2

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Non-Labor Costs Per Occurrence	(C) Number of Occurrences Per Respondent Per Year	(D) Technical Hours per Respondent Per Year (A X C)	(E) Number of Respondents Per Year ^a	(F) Technical Hours per Year (D X E)	(G) Clerical Hours per Year (F X 0.1)	(H) Management Hours per Year (F X .05)	(I) Total Hours per Year (F + G + H)	(J) Total Labor Costs Per Year ^b	(K) Total Non- Labor Costs Per Year (B x C x E)
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(i) Retests only occur after five years from the initial performance test, and thus would not occur over the period covered by this ICR.

Table 1 - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the P&R I RTR - Year 3

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Non-Labor Costs Per Occurrence	(C) Number of Occurrences Per Respondent Per Year	(D) Technical Hours per Respondent Per Year (A X C)	(E) Number of Respondents Per Year	(F) Technical Hours per Year (D X E)	(G) Clerical Hours per Year (F X 0.1)	(H) Management Hours per Year (F X .05)	(I) Total Hours per Year (F + G + H)	(J) Total Labor Costs Per Year	(K) Total Non-Labor Costs Per Year (B x C x E)
a. Flares	5	\$0	1	5	13	65	7	3	75	\$7,399	\$0
b. PRDs	15	\$0	1	15	13	195	20	10	224	\$22,196	\$0
c. Continuous Process Vents	10	\$0	1	10	13	130	13	7	150	\$14,797	\$0
d. Batch Process Vents	10	\$0	1	10	13	130	13	7	150	\$14,797	\$0
e. Storage Vessels	10	\$0	1	10	13	130	13	7	150	\$14,797	\$0
f. Carbon Adsorbers ^e	5	\$0	1	5	1	5	1	0	6	\$569	\$0
g. Chloroprene Wastewater Group 1 ^h	4	\$0	1	4	1	4	0	0	5	\$455	\$0
h. Chloroprene Process Vents & Tanks ^h	4	\$0	1	4	1	4	0	0	5	\$455	\$0
2. Periodic Report											
a. Flares	5	\$0	2	10	13	130	13	7	150	\$14,797	\$0
b. PRDs	10	\$0	2	20	13	260	26	13	299	\$29,594	\$0
c. Continuous Maintenance	4	\$0	2	8	13	104	10	5	120	\$11,838	\$0
d. Batch Maintenance Vents	4	\$0	2	8	13	104	10	5	120	\$11,838	\$0
e. Bypass Lines ^j	4	\$0	2	8	0	0	0	0	0	\$0	\$0
f. HEX El Paso Method	3	\$0	2	6	13	78	8	4	90	\$8,878	\$0
g. Storage Vessel Routine Maintenance	3	\$0	2	6	13	78	8	4	90	\$8,878	\$0
h. Carbon Adsorbers ^e	3	\$0	2	6	1	6	1	0	7	\$683	\$0
i. Pressure Vessels	4	\$0	2	8	13	104	10	5	120	\$11,838	\$0
j. Chloroprene Process Vents and Tanks ^h	4	\$0	2	8	1	8	1	0	9	\$911	\$0
k. Chloroprene Wastewater Group 1 ^h	4	\$0	2	8	1	8	1	0	9	\$911	\$0
3. Fenceline Monitoring											
a. On-Site Monitoring plan	10	\$0	1	10	13	130	13	7	150	\$14,797	\$0
b. Corrective action plan	10	\$0	1	10	19	190	19	10	219	\$21,627	\$0
c. Quarterly reports	4	\$0	4	16	13	208	21	10	239	\$23,675	\$0
Reporting Subtotal						2,071	207	104	2,382	\$235,730	\$4,628,790

Table 1 - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the P&R I RTR - Year 3

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Non-Labor Costs Per Occurrence	(C) Number of Occurrences Per Respondent Per Year	(D) Technical Hours per Respondent Per Year (A X C)	(E) Number of Respondents Per Year	(F) Technical Hours per Year (D X E)	(G) Clerical Hours per Year (F X 0.1)	(H) Management Hours per Year (F X .05)	(I) Total Hours per Year (F + G + H)	(J) Total Labor Costs Per Year	(K) Total Non-Labor Costs Per Year (B x C x E)	
4. Recordkeeping Requirements												
A. Read Instructions	Inc. in 3.A											
B. Implement Activities	NA											
C. Develop Record System	NA											
D. Record information												
1. Flares	0.4	\$0	365	146	13	1,898	190	95	2,183	\$216,038	\$0	
2. PRDs	10	\$0	1	10	13	130	13	7	150	\$14,797	\$0	
3. HEX El Paso Method ^k	0	\$0	1	0	0	0	0	0	0	\$0	\$0	
4. Continuous Maintenance Vents	1	\$0	1	1	13	13	1	1	15	\$1,480	\$0	
5. Batch Maintenance Vents	1	\$0	1	1	13	13	1	1	15	\$1,480	\$0	
6. Bypass Lines ^l	0	\$0	1	0	0	0	0	0	0	\$0	\$0	
7. Chloroprene Process Vents & Tanks ^h	2	\$0	1	2	1	2	0	0	2	\$228	\$0	
8. Flare Management Plan	75	\$0	1	75	13	975	98	49	1,121	\$110,978	\$0	
9. Tank Degassing	3	\$0	1	3	13	39	4	2	45	\$4,439	\$0	
10. Parameter monitoring for adsorbers, condensers, and carbon adsorbers ^e	1	\$0	1	1	1	1	0	0	1	\$114	\$0	
11. Continuous Process Vent Dioxin/Furan concentration ^f	1	\$0	1	1	1	1	0	0	1	\$114	\$0	
12. Back-end Process Vent Dioxin/Furan Concentration ^f												
13. Pressure Vessels	2	\$0	1	2	13	26	3	1	30	\$2,959	\$0	
14. Effluents Wastewater Group 1 ^h	10	\$0	1	10	1	10	1	1	12	\$1,138	\$0	
15. Fenceline Monitoring - Meteorological data ^g	0.4	\$0	365	146	13	1,898	190	95	2,183	\$216,038	\$0	
16. Fenceline Monitoring - Sampling	1	\$0	365	365	13	4,745	475	237	5,457	\$540,095	\$0	
E. Personnel Training ^c	16	\$0	1	16	0.00	0	0	0	0	\$0	\$0	
F. Time for Audits	NA											
Recordkeeping Subtotal						9,751	975	488	11,214	\$1,109,898	\$0	
TOTAL						11,822	1,182	591	13,595	\$1,345,628	\$4,628,790	
								Total Hours	Labor	Non-Labor	Total	
								Summary of Respondent Burden	13,595	\$1,345,628	\$4,628,790	\$5,974,418
								Initial Capital and Startup			\$5,144,862	
								Annualized Capital/Start-up and O & M			\$4,628,790	

Footnotes:

- (a) We have assumed that there are approximately 19 existing respondents, with no additional sources becoming subject to the rule over the three-year period of this ICR. We assume that one-third of the existing facilities would begin complying in year 2 and the remaining two-thirds of the existing facilities in year 3.
- (b) This ICR uses the following labor rates for privately-owned sources: \$161.34 for managerial, \$101.24 for technical, and \$45.17 for clerical labor. These rates are from the United States Department of Labor, Bureau of Labor Statistics, May 2021, National Industry-Specific Occupational Employment and Wage Estimates for NAICS 325000 - Chemical Manufacturing. These rates have been adjusted using a Fringe Benefit Loading Rate of 1.5 and an Overhead and Profit Rate of 1.4 (Mean Hourly Rate * Fringe Benefit Loading Rate * Overhead and Profit Rate = Loaded Rate) to account for varying industry wage rates and the additional overhead business costs of employing workers beyond their wages and benefits, including business expenses associated with hiring, training, and equipping their employees.
- (c) This is a one-time cost.
- (d) Includes costs for the following monitoring equipment: H2 analyzer, calorimeter, flare gas flow monitor, steam controls/flow monitor, and air controls/flow monitor.
- (e) We estimate 1 respondent operates carbon adsorbers.
- (f) We estimate 1 respondent operates facilities that produce chlorinated compounds.
- (g) We estimate 12 respondents will be required to conduct fenceline monitoring. All 12 facilities would begin complying with requirements in year 2 and submit corrective action plans in year 3.
- (h) Only applicable to facilities with ethylene oxide emissions. We assume these facilities will begin complying in year 2. Note, there are not startup/capital & O&M costs for wastewater.
- (i) Retests only occur after five years from the initial performance test, and thus would not occur over the period covered by this ICR.

Table 4 - Summary of Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the P&R I RTR

Year	Technical Hours	Clerical Hours	Management Hours	Total Labor Hours	Labor Costs	Non-Labor (Annualized Capital/Startup and O&M) Costs	Total Costs
1	760	76	38	874	\$86,506	\$0	\$86,506
2	8,617	862	431	9,910	\$980,823	\$3,396,370	\$4,377,193
3	11,822	1,182	591	13,595	\$1,345,628	\$4,628,790	\$5,974,418
Total	21,199	2,120	1,060	24,379	\$2,412,957	\$8,025,161	\$10,438,118
Average	7,066	707	353	8,126	\$804,319	\$2,675,054	\$3,479,373

Table 5 - Annual Agency Burden and Cost of Recordkeeping and Reporting Requirements for the P&R I RTR - Year 1

Burden Item	(A) Number of Occurrences Per Year	(B) Technical Hours Per Occurrence	(C) Tech Hours Per Year (C=A x B)	(D) Management Hours Per Year (D = C x 0.05)	(E) Clerical Hours Per Year (E = C x 0.1)	(F) Total Hours Per Year (C+D+E)	(G) Total Cost Per Year ^b
1. Applications	not applicable						
2. Read and Understand Rule Requirements ^a	45	24	1080	54	108	1242	\$62,053
3. Required Activities							
A. Observe stack tests	0	16	0	0	0	0	\$0
B. Excess emissions -- Enforcement Activities	0	24	0	0	0	0	\$0
C. Create Information	not applicable						
D. Gather Information	not applicable						
E. Report Reviews							
1. Review notification of compliance status							
a. Flares	0	2	0	0	0	0	\$0
b. PRDs	0	2	0	0	0	0	\$0
c. Continuous Process Vents	0	2	0	0	0	0	\$0
d. Batch Process Vents	0	2	0	0	0	0	\$0
e. Storage Vessels	0	2	0	0	0	0	\$0
f. Carbon Adsorbers	0	2	0	0	0	0	\$0
g. Chloroprene Wastewater Group 1	0	2	0	0	0	0	\$0
h. Chloroprene Process Vents & Tanks	0	2	0	0	0	0	\$0
2. Review periodic reports							
a. Flares	0	2	0	0	0	0	\$0
b. PRDs	0	2	0	0	0	0	\$0
c. Continuous Maintenance Vents	0	2	0	0	0	0	\$0
d. Batch Maintenance Vents	0	2	0	0	0	0	\$0
d. Bypass Lines	0	2	0	0	0	0	\$0
e. HEX El Paso Method	0	2	0	0	0	0	\$0
f. Storage Vessel Routine Maintenance	0	2	0	0	0	0	\$0
g. Carbon Adsorbers	0	2	0	0	0	0	\$0
h. Pressure Vessels	0	2	0	0	0	0	\$0
i. Chloroprene Process Vents	0	2	0	0	0	0	\$0
k. Chloroprene Wastewater Group 1	0	2	0	0	0	0	\$0
3. Review flare management plan	0	5	0	0	0	0	\$0
4. Fenceline Monitoring							
a. Site specific monitoring plan	0	5	0	0	0	0	\$0
b. Corrective action plan	0	5	0	0	0	0	\$0
c. Quarterly reports	0	2	0	0	0	0	\$0
F. Prepare annual summary report	1	10	10	1	1	12	\$575
4. Travel expenses: (1 person * 30 hours per year / 8 hours per day * \$75 per diem) + (\$600 per round trip) =				\$0	per trip		\$0
TOTAL			1090	55	109	1254	\$62,628

Footnotes:

(a) Number of occurrences is the number of states and EPA Regions with affected sources (35 states + 10 EPA regions = 45 respondents).

(b) These rates are from the Office of Personnel Management (OPM), 2021 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.

Table 5 - Annual Agency Burden and Cost of Recordkeeping and Reporting Requirements for the P&R I RTR - Year 2

Burden Item	(A) Number of Occurrences Per Year	(B) Technical Hours Per Occurrence	(C) Tech Hours Per Year (C=A x B)	(D) Management Hours Per Year (D = C x 0.05)	(E) Clerical Hours Per Year (E = C x 0.1)	(F) Total Hours Per Year (C+D+E)	(G) Total Cost Per Year ^b
1. Applications	not applicable						
2. Read and Understand Rule Requirements ^a	0	24	0	0	0	0	\$0
3. Required Activities							
A. Observe stack tests	3	16	48	2	5	55	\$2,758
B. Excess emissions -- Enforcement Activities	0	24	0	0	0	0	\$0
C. Create Information	not applicable						
D. Gather Information	not applicable						
E. Report Reviews							
1. Review notification of compliance status							
a. Flares	6	2	12	1	1	14	\$689
b. PRDs	6	2	12	1	1	14	\$689
c. Continuous Process Vents	6	2	12	1	1	14	\$689
d. Batch Process Vents	6	2	12	1	1	14	\$689
e. Storage Vessels	6	2	12	1	1	14	\$689
f. Carbon Adsorbers	1	2	2	0	0	2	\$115
g. Chloroprene Wastewater Group 1	1	2	2	0	0	2	\$115
h. Chloroprene Process Vents & Tanks	1	2	2	0	0	2	\$115
2. Review periodic reports							
a. Flares	12	2	24	1	2	28	\$1,379
b. PRDs	12	2	24	1	2	28	\$1,379
c. Continuous Maintenance Vents	12	2	24	1	2	28	\$1,379
d. Batch Maintenance Vents	12	2	24	1	2	28	\$1,379
e. Bypass Lines	0	2	0	0	0	0	\$0
f. HEX El Paso Method	12	2	24	1	2	28	\$1,379
g. Storage Vessel Routine Maintenance	12	2	24	1	2	28	\$1,379
h. Carbon Adsorbers	2	2	4	0	0	5	\$230
i. Pressure Vessels	12	2	24	1	2	28	\$1,379
j. Chloroprene Process Vents	2	2	4	0	0	5	\$230
k. Chloroprene Wastewater Group 1	2	2	4	0	0	5	\$230
3. Review flare management plan	6	5	30	2	3	35	\$1,724
4. Fenceline Monitoring							
a. Site specific monitoring plan	12	5	60	3	6	69	\$3,447
b. Corrective action plan	0	5	0	0	0	0	\$0
c. Quarterly reports	48	2	96	5	10	110	\$5,516
F. Prepare annual summary report	1	10	10	1	1	12	\$575
4. Travel expenses: (1 person * 30 hours per year / 8 hours per day * \$75 per diem) + (\$600 per round trip) =				\$881	per trip		\$2,644
TOTAL			490	25	49	564	\$30,798

Footnotes:

(a) Number of occurrences is the number of states and EPA Regions with affected sources (35 states + 10 EPA regions = 45 respondents).

(b) These rates are from the Office of Personnel Management (OPM), 2021 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.

Table 5 - Annual Agency Burden and Cost of Recordkeeping and Reporting Requirements for the P&R I RTR - Year 3

Burden Item	(A) Number of Occurrences Per Year	(B) Technical Hours Per Occurrence	(C) Tech Hours Per Year (C=A x B)	(D) Management Hours Per Year (D = C x 0.05)	(E) Clerical Hours Per Year (E = C x 0.1)	(F) Total Hours Per Year (C+D+E)	(G) Total Cost Per Year ^b
1. Applications	not applicable						
2. Read and Understand Rule Requirements ^a	0	24	0	0	0	0	\$0
3. Required Activities							
A. Observe stack tests	2	16	32	2	3	37	\$1,839
B. Excess emissions -- Enforcement Activities	0	24	0	0	0	0	\$0
C. Create Information	not applicable						
D. Gather Information	not applicable						
E. Report Reviews							
1. Review notification of compliance status							
a. Flares	13	2	26	1	3	30	\$1,494
b. PRDs	13	2	26	1	3	30	\$1,494
c. Continuous Process Vents	13	2	26	1	3	30	\$1,494
d. Batch Process Vents	13	2	26	1	3	30	\$1,494
e. Storage Vessels	13	2	26	1	3	30	\$1,494
f. Carbon Adsorbers	1	2	2	0	0	2	\$115
g. Chloroprene Wastewater Group 1	1	2	2	0	0	2	\$115
h. Chloroprene Process Vents & Tanks	1	2	2	0	0	2	\$115
2. Review periodic reports							
a. Flares	26	2	52	3	5	60	\$2,988
b. PRDs	26	2	52	3	5	60	\$2,988
c. Continuous Maintenance Vents	26	2	52	3	5	60	\$2,988
d. Batch Maintenance Vents	26	2	52	3	5	60	\$2,988
e. Bypass Lines	0	2	0	0	0	0	\$0
f. HEX El Paso Method	26	2	52	3	5	60	\$2,988
g. Storage Vessel Routine Maintenance	26	2	52	3	5	60	\$2,988
h. Carbon Adsorbers	2	2	4	0	0	5	\$230
i. Pressure Vessels	26	2	52	3	5	60	\$2,988
j. Chloroprene Process Vents	2	2	4	0	0	5	\$230
k. Chloroprene Wastewater Group 1	2	2	4	0	0	5	\$230
3. Review flare management plan	13	5	65	3	7	75	\$3,735
4. Fenceline Monitoring							
a. Site specific monitoring plan	13	5	65	3	7	75	\$3,735
b. Corrective action plan	19	5	95	5	10	109	\$5,458
c. Quarterly reports	52	2	104	5	10	120	\$5,976
F. Prepare annual summary report	1	10	10	1	1	12	\$575
4. Travel expenses: (1 person * 30 hours per year / 8 hours per day * \$75 per diem) + (\$600 per round trip) =				\$881	per trip		\$1,763
TOTAL			883	44	88	1015	\$52,497

Footnotes:

(a) Number of occurrences is the number of states and EPA Regions with affected sources (35 states + 10 EPA regions = 45 respondents).

(b) These rates are from the Office of Personnel Management (OPM), 2021 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.

Table 8 - Summary of Annual Agency Burden and Cost of Recordkeeping and Reporting Requirements for the P&R I RTR

Year	Technical Hours	Management Hours	Clerical Hours	Total Hours	Labor Costs	Non-Labor Costs	Total Costs
1	1,090	55	109	1,254	\$62,628	\$0	\$62,628
2	490	25	49	564	\$30,798	\$0	\$30,798
3	883	44	88	1,015	\$52,497	\$0	\$52,497
Total	2,463	123	246	2,832	\$145,922	\$0	\$145,922
Average	821	41	82	944	\$48,641	\$0	\$48,641