	All facilities	1/3 of facilities	2/3 of facilities
Number of Existing Facilities	26	9	17
Number of New Facilities	5	1	4
Total	31	10	21

Flare Management Plan - One-time cost	
Parameter	**Value**
Cost Per Flare	$7,400
Total Flares (all 31)	102
Total Flares (existing 26)	82
Avg. Cost Per Facility (all 31)	**$24,348**
Avg. Cost Per Facility (existing 26)	$23,338

Flare Monitor Costs (costs pulled from Flare Impacts memo)

Monitoring Equipment	Capital Equipment Cost ($/flare)	Annualized Cost ($/yr/flare)	Number of Flares Impacted
H2 Analyzer	35,400	22,450	20
Calorimeter	103,300	27,870	24
Flare Gas Flow Monitor	432,700	72,600	12
Steam Controls/Flow Monitor	672,700	111,500	53
Air Controls/Flow Monitor	161,300	48,600	5
Avg. Cost Per Facility (all 31)			

PRD Monitor

Costs not applicable to new facilities (don't have atmospheric PRDs)

Parameter	Capital Cost	Annual Cost
Total	$965,400	$130,000
# facilities with atmospheric PRDs	21	
Avg. Cost Per Facility (existing 26)	**$46,000**	**$6,200**

HEX El Paso Method Monitor

Parameter	Capital Cost	Annual Cost
Total (existing 26)	$69,000	$30,000
Total (all 31)	$137,000	$27,000
Avg. Cost Per Facility (existing 26)	**$2,700**	**$1,200**
Avg. Cost Per Facility (all 31)	**$4,400**	**$900**

Industry Wages

May 2016 National Industry-Specific Occupational Employment and Wage Estimates
Sectors 31, 32, and 33 - Manufacturing

Category	Occupation Code	Title	2016 Wage
Technical	17-2081	Environmental Enginee	42.46
Clerical	43-6014	Office and Administrati	17.91
Managerial	11-9041	Architectural and Engi	69.17

https://www.bls.gov/oes/2016/may/naics2_31-33.htm#17-0000

EPA Wages		
	Hourly Mean Wage	**With Fringe & Overhead**
(GS- 12, step 1) - Tech.	29.76	$47.62
(GS- 13, step 5) - Mgmt.	40.1	$64.16
(GS-6, step 3) - Cler.	16.1	$25.76
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/		

Nationwide Capital Equipment Cost ($)	Nationwide Total Annualized Cost ($/yr)
$708,000	$449,000
$2,479,200	$668,880
$5,192,400	$871,200
$35,653,100	$5,909,500
$806,500	$243,000
$1,446,000	**$263,000**

Loaded Wage
89.17
37.61
145.26

Capital/Startup and O&M Costs			
(A) Source & Monitor Type	(B) Capital/Startup Costs for One Respondent	(C) Number of Respondents with Capital/Startup Costs	(D) Total Capital/ Startup Cost (B X C)
Flare Monitors	$1,446,000	31	$44,826,000
PRD Monitor	$46,000	21	$966,000
Heat Exchangers - El Paso Method	$4,400	31	$136,400
TOTAL			$45,928,400

(a) Within a given year, there are a maximum of 31 respondents per information collection activity

Total Annual Responses			
(A) Information Collection Activity	(B) Number of Respondents	(C) Number of Responses	(D) Number of Existing Respondents That Keep Records But Do Not Submit Reports
Notification of Compliance Status			
Flares	41	1	0
PRDs	28	1	0
Periodic Reports			
Flares	41	2	0
PRDs	28	2	0
Decoking Operations	35	2	0
Maintenance Vents	41	2	0
HEX El Paso Method	41	2	0
TOTAL			

(E) Annual Cost (O&M and Capital) for One Respondent	(F) Number of Respondents[a]	(G) Total Annual Cost, (E X F)
$263,000	41	$10,783,000
$6,200	28	$173,600
$900	41	$36,900
		$10,993,500

y, however the values in column F reflect the sum of these respondents for years 2 and 3.

(E) Total Annual Responses E=(BxC)+D
41
28
82
56
70
82
82
441

Table 1 - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Ethylene Production 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	(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)	(L) Total Number of Responses per Year (C X E)	Footnotes
1. Applications	NA												
2. Surveys and Studies	NA												
3. Reporting Requirements													
A. Read Rule	70	$0	1	70	31	2,170	217	109	2,496	$217,412	$0	0	a, b
B. Required Activities													c
1. Flare Monitors													d
a. Capital Cost	0	$1,446,000	1	0	0	0	0	0	0	$0	$0	0	
b. Annualized Cost	0	$263,000	1	0	0	0	0	0	0	$0	$0	0	
2. PRD Monitor													e
a. Capital Cost	0	$46,000	1	0	0	0	0	0	0	$0	$0	0	
b. Annualized Cost	0	$6,200	1	0	0	0	0	0	0	$0	$0	0	
3. HEX El Paso Method													
a. Capital Cost	0	$4,400	1	0	0	0	0	0	0	$0	$0	0	
b. Annualized Cost	0	$900	1	0	0	0	0	0	0	$0	$0	0	
C. Create Information	Inc. in 3B												
D. Gather Information	Inc. in 3E												
E. Report Preparation													c
1. Notification of Compliance Status													
a. Flares	5	$0	1	5	0	0	0	0	0	$0	$0	0	
b. PRDs	15	$0	1	15	0	0	0	0	0	$0	$0	0	
2. Periodic Report													
a. Flares	5	$0	2	10	0	0	0	0	0	$0	$0	0	
b. PRDs	10	$0	2	20	0	0	0	0	0	$0	$0	0	
c. Decoking Operations	3	$0	2	6	0	0	0	0	0	$0	$0	0	
d. Maintenance Vents	4	$0	2	8	0	0	0	0	0	$0	$0	0	
e. Bypass Lines	4	$0	2	8	0	0	0	0	0	$0	$0	0	f
f. HEX El Paso Method	3	$0	2	6	0	0	0	0	0	$0	$0	0	
Reporting Subtotal						2,170	217	109	2,496	$217,412	$0	0	

Table 1 - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Ethylene Production 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	(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)	(L) Total Number of Responses per Year (C X E)	Footnotes
4. Recordkeeping Requirements													c
A. Read Instructions	Inc. in 3.A												
B. Implement Activities	NA												
C. Develop Record System	NA												
D. Record information													
1. Daily Flame Impingement Inspec	0.083	$0	365	30	0	0	0	0	0	$0	$0	0	
2. Decoking Control Measures	2	$0	10	20	0	0	0	0	0	$0	$0	0	
3. Flares	0.4	$0	365	146	0	0	0	0	0	$0	$0	0	
4. PRDs	10	$0	1	10	0	0	0	0	0	$0	$0	0	
5. HEX El Paso Method	0	$0	1	0	0	0	0	0	0	$0	$0	0	g
6. Maintenance Vents	25	$0	1	25	0	0	0	0	0	$0	$0	0	
7. Bypass Lines	0	$0	1	0	0	0	0	0	0	$0	$0	0	
8. Flare Management Plan	75	$0	3	225	31	6,975	698	349	8,021	$698,825	$0	0	b
9. Degassing	3	$0	1	3	0	0	0	0	0	$0	$0	0	
E. Personnel Training	20	$0	1	20	0	0	0	0	0	$0	$0	0	
F. Time for Audits	NA												
Recordkeeping Subtotal						6,975	698	349	8,021	$698,825	$0	0	
TOTAL						9,145	915	457	10,517	$916,237	$0	0	

	Total Hours	Labor	Non-Labor	Total
Summary of Respondent Burden	10,517	$916,237	$0	$916,237

Initial Capital and Startup	$217,412
Annualized Capital/Start-up and O & M	$0

Footnotes:

(a) There are 26 currently operating facilities, and 5 facilities under construction. We assumed each of the 5 new facilities would commence operations within three years after promulgation of the rule. As such, costs are estimated for 31 facilities.

(b) This is a one-time cost (e.g., to read rule or develop plan).

(c) Assumed facilities will read the rule and perform certain one-time activities (e.g., develop flare management plan) in year 1. Assumed that one-third of the facilities would begin complying in year 2 and the remaining two-thirds of the facilities in year 3.

(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) 21 of the 31 facilities have atmospheric PRDs.

(f) Assumed that bypass lines were not used during the 3-year period, so no bypass line periodic reports would be submitted.

(g) Assumed recordkeeping hours are comparable to previously required water methods, and assigned 0 additional hours to implement the El Paso Method.

Table 2 - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Ethylene Production 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	(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)	(L) Total Number of Responses per Year (C X E)	Footnotes
1. Applications	NA												
2. Surveys and Studies	NA												
3. Reporting Requirements													
A. Read Rule	70	$0	1	70	0	0	0	0	0	$0	$0	0	a, b
B. Required Activities													c
1. Flare Monitors													d
a. Capital Cost	0	$1,446,000	1	0	10	0	0	0	0	$0	$14,460,000	0	
b. Annualized Cost	0	$263,000	1	0	10	0	0	0	0	$0	$2,630,000	0	
2. PRD Monitor													e
a. Capital Cost	0	$46,000	1	0	7	0	0	0	0	$0	$322,000	0	
b. Annualized Cost	0	$6,200	1	0	7	0	0	0	0	$0	$43,400	0	
3. HEX El Paso Method													
a. Capital Cost	0	$4,400	1	0	10	0	0	0	0	$0	$44,000	0	
b. Annualized Cost	0	$900	1	0	10	0	0	0	0	$0	$9,000	0	
C. Create Information	Inc. in 3B												
D. Gather Information	Inc. in 3E												
E. Report Preparation													c
1. Notification of Compliance Status													
a. Flares	5	$0	1	5	10	50	5	3	58	$5,009	$0	10	
b. PRDs	15	$0	1	15	7	105	11	5	121	$10,520	$0	7	
2. Periodic Report													
a. Flares	5	$0	2	10	10	100	10	5	115	$10,019	$0	20	
b. PRDs	10	$0	2	20	7	140	14	7	161	$14,027	$0	14	
c. Decoking Operations	3	$0	2	6	9	54	5	3	62	$5,410	$0	18	
d. Maintenance Vents	4	$0	2	8	10	80	8	4	92	$8,015	$0	20	
e. Bypass Lines	4	$0	2	8	0	0	0	0	0	$0	$0	0	f
f. HEX El Paso Method	3	$0	2	6	10	60	6	3	69	$6,011	$0	20	
Reporting Subtotal						589	59	29	677	$59,011	$2,682,400	109	

Table 2 - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Ethylene Production 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	(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)	(L) Total Number of Responses per Year (C X E)	Footnotes
4. Recordkeeping Requirements													c
A. Read Instructions	Inc. in 3.A												
B. Implement Activities	NA												
C. Develop Record System	NA												
D. Record information													
1. Daily Flame Impingement Inspec	0.083	$0	365	30	10	304	30	15	350	$30,474	$0	0	
2. Decoking Control Measures	2	$0	10	20	10	200	20	10	230	$20,038	$0	0	
3. Flares	0.4	$0	365	146	10	1,460	146	73	1,679	$146,277	$0	0	
4. PRDs	10	$0	1	10	7	70	7	4	81	$7,013	$0	0	
5. HEX El Paso Method	0	$0	1	0	10	0	0	0	0	$0	$0	0	g
6. Maintenance Vents	25	$0	1	25	10	250	25	13	288	$25,047	$0	0	
7. Bypass Lines	0	$0	1	0	0	0	0	0	0	$0	$0	0	
8. Flare Management Plan	75	$0	3	225	0	0	0	0	0	$0	$0	0	b
9. Degassing	3	$0	1	3	0	0	0	0	0	$0	$0	0	
E. Personnel Training	20	$0	1	20	31	620	62	31	713	$62,118	$0	0	
F. Time for Audits	NA												
Recordkeeping Subtotal						2,904	290	145	3,340	$290,967	$0	0	
TOTAL						3,493	349	175	4,017	$349,978	$2,682,400	109	

	Total Hours	Labor	Non-Labor	Total
Summary of Respondent Burden	4,017	$349,978	$2,682,400	$3,032,378

Initial Capital and Startup	$14,826,000
Annualized Capital/Start-up and O & M	$2,682,400

Footnotes:

(a) There are 26 currently operating facilities, and 5 facilities under construction. We assumed each of the 5 new facilities would commence operations within three years after promulgation of the rule. As such, costs are estimated for 31 facilities.

(b) This is a one-time cost (e.g., to read rule or develop plan).

(c) Assumed facilities will read the rule and perform certain one-time activities (e.g., develop flare management plan) in year 1. Assumed that one-third of the facilities would begin complying in year 2 and the remaining two-thirds of the facilities in year 3.

(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) 21 of the 31 facilities have atmospheric PRDs.

(f) Assumed that bypass lines were not used during the 3-year period, so no bypass line periodic reports would be submitted.

(g) Assumed recordkeeping hours are comparable to previously required water methods, and assigned 0 additional hours to implement the El Paso Method.

Table 3 - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Ethylene Production 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)	(L) Total Number of Responses per Year (C X E)	Footnotes
1. Applications	NA												
2. Surveys and Studies	NA												
3. Reporting Requirements													
A. Read Rule	70	$0	1	70	0	0	0	0	0	$0	$0	0	a, b
B. Required Activities													c
1. Flare Monitors													d
a. Capital Cost	0	$1,446,000	1	0	21	0	0	0	0	$0	$30,366,000	0	
b. Annualized Cost	0	$263,000	1	0	31	0	0	0	0	$0	$8,153,000	0	
2. PRD Monitor													e
a. Capital Cost	0	$46,000	1	0	14	0	0	0	0	$0	$644,000	0	
b. Annualized Cost	0	$6,200	1	0	21	0	0	0	0	$0	$130,200	0	
3. HEX El Paso Method													
a. Capital Cost	0	$4,400	1	0	21	0	0	0	0	$0	$92,400	0	
b. Annualized Cost	0	$900	1	0	31	0	0	0	0	$0	$27,900	0	
C. Create Information	Inc. in 3B												
D. Gather Information	Inc. in 3E												
E. Report Preparation													c
1. Notification of Compliance Status													
a. Flares	5	$0	1	5	31	155	16	8	178	$15,529	$0	31	
b. PRDs	15	$0	1	15	21	315	32	16	362	$31,560	$0	21	
2. Periodic Report													
a. Flares	5	$0	2	10	31	310	31	16	357	$31,059	$0	62	
b. PRDs	10	$0	2	20	21	420	42	21	483	$42,080	$0	42	
c. Decoking Operations	4	$0	2	8	26	208	21	10	239	$20,840	$0	52	
d. Maintenance Vents	4	$0	2	8	31	248	25	12	285	$24,847	$0	62	
e. Bypass Lines	4	$0	2	8	0	0	0	0	0	$0	$0	0	f
f. HEX El Paso Method	3	$0	2	6	31	186	19	9	214	$18,635	$0	62	
Reporting Subtotal						1,842	184	92	2,118	$184,550	$8,311,100	332	

Table 3 - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Ethylene Production 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)	(L) Total Number of Responses per Year (C X E)	Footnotes
4. Recordkeeping Requirements													c
A. Read Instructions	Inc. in 3.A												
B. Implement Activities	NA												
C. Develop Record System	NA												
D. Record information													
1. Daily Flame Impingement Inspec	0.083	$0	365	30	31	943	94	47	1,084	$94,471	$0	0	
2. Decoking Control Measures	2	$0	10	20	31	620	62	31	713	$62,118	$0	0	
3. Flares	0.4	$0	365	146	31	4,526	453	226	5,205	$453,460	$0	0	
4. PRDs	10	$0	1	10	21	210	21	11	242	$21,040	$0	0	
5. HEX El Paso Method	0	$0	1	0	31	0	0	0	0	$0	$0	0	g
6. Maintenance Vents	25	$0	1	25	31	775	78	39	891	$77,647	$0	0	
7. Bypass Lines	0	$0	1	0	0	0	0	0	0	$0	$0	0	
8. Flare Management Plan	75	$0	3	225	0	0	0	0	0	$0	$0	0	b
9. Degassing	3	$0	1	3	2	6	1	0	7	$601	$0	0	
E. Personnel Training	20	$0	1	20	31	620	62	31	713	$62,118	$0	0	
F. Time for Audits	NA												
Recordkeeping Subtotal						7,700	770	385	8,855	$771,455	$0	0	
TOTAL						9,542	954	477	10,973	$956,005	$8,311,100	332	

	Total Hours	Labor	Non-Labor	Total
Summary of Respondent Burden	10,973	$956,005	$8,311,100	$9,267,105

Initial Capital and Startup	$31,102,400
Annualized Capital/Start-up and O & M	$8,311,100

Footnotes:

(a) There are 26 currently operating facilities, and 5 facilities under construction. We assumed each of the 5 new facilities would commence operations within three years after promulgation of the rule. As such, costs are estimated for 31 facilities.

(b) This is a one-time cost (e.g., to read rule or develop plan).

(c) Assumed facilities will read the rule and perform certain one-time activities (e.g., develop flare management plan) in year 1. Assumed that one-third of the facilities would begin complying in year 2 and the remaining two-thirds of the facilities in year 3.

(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) 21 of the 31 facilities have atmospheric PRDs.

(f) Assumed that bypass lines were not used during the 3-year period, so no bypass line periodic reports would be submitted.

(g) Assumed recordkeeping hours are comparable to previously required water methods, and assigned 0 additional hours to implement the El Paso Method.

Table 4 - Summary of Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Ethylene Production 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	9,145	915	457	10,517	$916,237	$0	$916,237
2	3,493	349	175	4,017	$349,978	$2,682,400	$3,032,378
3	9,542	954	477	10,973	$956,005	$8,311,100	$9,267,105
Total	22,180	2,218	1,109	25,507	$2,222,220	$10,993,500	$13,215,720
Average	7,393	739	370	8,502	$740,740	$3,664,500	$4,405,240

Year	Number of Respondents	Number of Responses	Reporting Hours	Recordkeeping Hours	Total Hours	Hours per Response	Hours Per Respondent
1	31	0	2,496	8,021	10,517	--	2,629
2	31	109	677	3,340	4,017	37	1,004
3	31	332	2,118	8,855	10,973	33	2,743
Total	31	441	5,291	20,216	25,507	58	6,377
Average	31	147	1,764	6,739	8,502	58	2,126

Table 5 - Annual Agency Burden and Cost of Recordkeeping and Reporting Requirements for the Ethylene Production 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	Footnotes
1. Applications	not applicable							
2. Read and Understand Rule Requirements	11	70	770	39	77	886	$41,118	a
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	5	0	0	0	0	$0	
b. PRDs	0	5	0	0	0	0	$0	
2. Review compliance reports								
a. Flares	0	2	0	0	0	0	$0	
b. PRDs	0	2	0	0	0	0	$0	
c. Decoking Operations	0	2	0	0	0	0	$0	
d. Maintenance Vents	0	2	0	0	0	0	$0	
e. HEX El Paso Method	0	2	0	0	0	0	$0	
3. Review flare management plan	31	5	155	8	16	178	$8,277	
F. Prepare annual summary report	1	10	10	1	1	12	$534	
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			935	47	94	1075	$49,929	

Footnotes:

a Number of occurrences is the number of states and EPA Regions with affected sources (6 states + 5 EPA regions = 11 respondents).

Table 6 - Annual Agency Burden and Cost of Recordkeeping and Reporting Requirements for the Ethylene Production 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	Footnotes
1. Applications	not applicable							
2. Read and Understand Rule Requirements	0	70	0	0	0	0	$0	a
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	10	5	50	3	5	58	$2,670	
b. PRDs	7	5	35	2	4	40	$1,869	
2. Review compliance reports								
a. Flares	20	2	40	2	4	46	$2,136	
b. PRDs	14	2	28	1	3	32	$1,495	
c. Decoking Operations	18	2	36	2	4	41	$1,922	
d. Maintenance Vents	20	2	40	2	4	46	$2,136	
e. HEX El Paso Method	20	2	40	2	4	46	$2,136	
3. Review flare management plan	0	5	0	0	0	0	$0	
F. Prepare annual summary report	1	10	10	1	1	12	$534	
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			279	14	28	321	$14,899	

Footnotes:

a Number of occurrences is the number of states and EPA Regions with affected sources (6 states + 5 EPA regions = 11 respondents).

Table 7 - Annual Agency Burden and Cost of Recordkeeping and Reporting Requirements for the Ethylene Production 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	Footnotes
1. Applications	not applicable							
2. Read and Understand Rule Requirements	0	70	0	0	0	0	$0	a
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	31	5	155	8	16	178	$8,277	
b. PRDs	21	5	105	5	11	121	$5,607	
2. Review compliance reports								
a. Flares	62	2	124	6	12	143	$6,622	
b. PRDs	42	2	84	4	8	97	$4,486	
c. Decoking Operations	52	2	104	5	10	120	$5,554	
d. Maintenance Vents	62	2	124	6	12	143	$6,622	
e. HEX El Paso Method	62	2	124	6	12	143	$6,622	
3. Review flare management plan	0	5	0	0	0	0	$0	
F. Prepare annual summary report	1	10	10	1	1	12	$534	
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			830	42	83	955	$44,322	

Footnotes:

a Number of occurrences is the number of states and EPA Regions with affected sources (6 states + 5 EPA regions = 11 respondents).

Table 8 - Summary of Annual Agency Burden and Cost of Recordkeeping and Reporting Requirements for the Ethylene Production RTR

Year	Technical Hours	Management Hours	Clerical Hours	Total Hours	Labor Costs	Non-Labor Costs	Total Costs
1	935	47	94	1,075	$49,929	$0	$49,929
2	279	14	28	321	$14,899	$0	$14,899
3	830	42	83	955	$44,322	$0	$44,322
Total	2,044	102	204	2,351	$109,150	$0	$109,150
Average	681	34	68	784	$36,383	$0	$36,383