

Table 1: Annual Respondent Burden and Cost – NSPS for Petroleum Refineries for which 14, 2007 (40 CFR Part 60, Subpart Ja) (Renewal)

Burden Item	(A) Person-hours per occurrence	(B) Number of occurrences per year per respondent ^a	(C) Person-hrs. per respondent per year (C=AxB)
1. Applications	N/A		
2. Survey and Studies			
A. Flare Management Plan	160	1	160
B. Flare Management Plan Revision ^b	8	1	8
C. Root Cause Analysis (flow)	45	4	180
D. Root Cause Analysis (sulfur)	24	3	72
3. Reporting Requirements			
A. Familiarize with rule requirements	1	1	1
B. Required Activities			
Initial performance tests on new facilities ^d	40	1	40
Repeat of initial performance tests on new facilities ^e	40	0.05	2
Initial CEMS Audits (RAA or CGA) new facilities ^f	36	1	36
CEMS Audits (RAA or CGA) existing facilities ^g	36	5.9	211
Initial Relative Accuracy Test new facilities ^f	24	6	144
Relative Accuracy Test existing facilities ^g	24	27.5	659
Initial CPMS Audits (RAA or CGA) new facilities ^f	36	4	144
CPMS Audits (RAA or CGA) existing facilities ^g	36	15.7	566
C. Create Information	See 3B		
D. Gather Existing Information	See 3E		
E. Write Report ^h			
Notification of construction, reconstruction, or modification	2	1	2
Notification of anticipated startup	2	1	2
Notification of actual startup	2	1	2
Notification of initial performance test	2	1	2
Report of performance test	See 3B		
Semiannual Emissions Reports ⁱ	16	2	32
Subtotal for Reporting Requirements			
4. Recordkeeping Requirements			
A. Familiarize with rule requirements	See 3A		
B. Plan Activities	See 3B		
C. Implement Activities	See 3B		
D. Develop Record System	N/A		
E. Time to Enter Information			
Records of operating parameters ^j	0.25	350	87.5

Construction, Reconstruction, or Modification Commenced after May

(D) Respondents per year ^b	(E) Technical person-hrs. per year (E=CxD)	(F) Management person-hrs. per year (F=Ex0.05)	(G) Clerical person- hrs. per year (G=Ex0.1)	(H) Annual costs (\$) ^c
0	0	0	0	\$0
32	256	13	26	\$33,534
150	27,000	1,350	2,700	\$3,536,784.00
150	10,800	540	1,080	\$1,414,713.60
150	150	7.5	15	\$19,648.8
100	4,000	200	400	\$523,968.00
100	200	10	20	\$26,198.40
100	3,600	180	360	\$471,571.20
150	31,680	1,584	3,168	\$4,149,826.56
100	14,400	720	1,440	\$1,886,284.80
150	98,880	4,944	9,888	\$12,952,488.96
100	14,400	720	1,440	\$1,886,284.80
150	84,960	4,248	8,496	\$11,129,080.32
100	200	10	20	\$26,198.40
100	200	10	20	\$26,198.40
100	200	10	20	\$26,198.40
100	200	10	20	\$26,198.40
150	4,800	240	480	\$628,761.60
		340,315		\$38,763,939
150	13,125	656	1,313	\$1,719,270.00

Labor Rate
Management
Technical
Clerical

	15,094			\$1,719,270
	355,000			\$40,500,000
				\$102,000,000
				\$143,000,000

(sulfur plant) times the occurrences per affected facility per respondent (refineries). For
 audit or testing.

ear period with at least one affected source. There will be no additional new petroleum
 es at each of the 150 petroleum refineries will become subject to the provisions of Subpart
 r modified and that these facilities will have initial performance testing costs. We assume

\$17.92 per hour for Technical labor, and \$57.02 per hour for Clerical labor. These rates are
 Occupational and Industry group.” The rates are from column 1, “Total Compensation.”
 industry.

part Ja over the three-year period of this ICR (100 affected facilities per year) due to being
 ne one CEMS monitor and two CPMS monitors needed for each newly affected facility.
 and that Relative Accuracy Audits or Cylinder Gas Audits take 36 hours. We assume that
 at the relative accuracy test or RATA are conducted twice a year (3 x 2/yr), and take 24

ere there are 5.9 CEMS at each refinery (280 flare CEMS + 600 other equipment CEMS)/150
 its take 36 hours. We assume that relative accuracy tests are required for each CEMS and
 + 280 flare CPMS + 600 other equipment CEMS + 900 other equipment CPMS)/150
 ssume there are 7.9 CPMS at each refinery (280 flare CPMS + 900 other equipment
 nder Gas Audits take 36 hours.

tes:
147.40
117.92
57.02

These rates were updated 2/4/19 to match the United States Department of Labor, Bureau of Labor Statistics, June

responses
hr/response

· 2018, “Table 2. Civilian Workers, by occupational and industry group

Table 2: Average Annual EPA Burden and Cost – NSPS for Petroleum Refineries for which Co Modification Commenced After May 14, 2007 (40 CFR Part 60, Subpart Ja) (Renewal)

Activity	(A) Person-hours per occurrence	(B) No. of occurrences per respondent per year	(C) Person-hours per respondent per year (C=AxB)	(D) Respondents per year ^a	(E) Technical Person-hours per year (E=CxD)
New Affected Facilities:					
Report Review					
Notification of construction, reconstruction, or modification ^c	2	1	2	100	200
Notification of anticipated startup ^d	0.5	1	0.5	100	50
Notification of actual startup ^d	0.5	1	0.5	100	50
Notification of performance test ^d	0.5	1	0.5	100	50
Flare management plans ^e	1	1	1	32	32
Review performance test results	8	1	8	100	800
Emission Reports	4.2	1	4.2	100	420
Existing Plants:					
Semiannual Emissions Reports ^f	4.2	2	8.4	150	1260
TOTAL (rounded)^g					

Assumptions:

^a Assume that there are approximately 150 petroleum refineries (respondents) that are subject to the rule over a 3-year period of this ICR, but we assume that two facilities will become subject to the provisions of Subpart Ja over the three-year period of this ICR (100 affected facilities reconstructed, or modified and that these facilities will perform initial performance testing.

^b This cost is based on the following labor rates which incorporates a 1.6 benefits multiplication factor to account for government rate of \$65.71 (GS-13, Step 5, \$41.07 + 60%), Technical rate of \$48.75 (GS-12, Step 1, \$30.47 + 60%), and Clerical rate of \$30.47. These rates are from the Office of Personnel Management (OPM) “2018 General Schedule” which excludes locality rates.

^c We have assumed that all sources with newly affected facilities (due to being constructed, reconstructed, or modified) will perform initial performance testing.

^d We have assumed that all sources with newly affected facilities (due to being constructed, reconstructed, or modified) will perform initial performance testing.

^e Some plans will need more review than others, depending on complexity of flare connections and baseline calculations; time spent per plan.

^f We have assumed that all existing plants will be required to complete semiannual emissions reports.

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

Construction, Reconstruction, or

(F) Management person-hours per year (Ex0.05)	(G) Clerical person- hours per year (Ex0.1)	(H) Cost, \$ ^b
10	20	\$10,935
2.5	5	\$2,734
2.5	5	\$2,734
2.5	5	\$2,734
1.6	3.2	\$1,750
40	80	\$43,739
21	42	\$22,963
63	126	\$68,888.61
3,290		\$156,000

Labor Rates:	
Management	65.71
Technical	48.75
Clerical	26.38

These rates were updated 2/4/19 to m

riod. There will be no additional new
ilities at each of the 150 petroleum
s per year) due to being constructed,

ernment overhead expenses: Managerial
of \$26.38 (GS-6, Step 3, \$16.49 + 60%).
of pay.

will take 2 hours to complete report.

will take 0.5 hours to complete report.

assume 1 hour is the average amount of

atch the rates from the Office of Personnel Management (OPM), 2018 General Schedule.

CEPCI Cost Index for Equipment

Year 2006	606.5
Year 2018	751.5
Cost Increase	124%