

**SUPPORTING STATEMENT  
ENVIRONMENTAL PROTECTION AGENCY  
NESHAP FOR HAZARDOUS AIR POLLUTANTS FROM PETROLEUM REFINERIES  
40 CFR PART 63, SUBPART CC  
JULY 2015**

**1. Identification of the Information Collection**

**1(a) Title of the Information collection**

“National Emission Standards for Petroleum Refineries” (40 CFR Part 63, Subpart CC). This is a revision of an existing information collection request (ICR); the OMB Control Number is 2060-0340 and the EPA tracking number is 1692.08.

**1(b) Short Characterization/Abstract**

The EPA is finalizing revisions to 40 CFR part 63, subpart CC as it applies to existing and new petroleum refining process units and emission points located at refineries that are major sources of hazardous air pollutants (HAP) emissions. Emission points affected by the revisions are miscellaneous process vents, storage vessels, and equipment leaks. There are new provisions for delayed coking unit vents, for flares used as control devices, and for fence-line monitoring, which include new recordkeeping and reporting requirements. There are also additional requirements and clarifications for storage vessels, which include revisions to the inspection, recordkeeping, and reporting requirements. In addition, electronic reporting is now required for fence-line monitoring and performance testing. An overarching change to all NESHAP regulations is a change in EPA policy with regards to emission requirements and associated monitoring, recordkeeping and reporting during startup, shutdown, and malfunctions. These changes include new requirements for maintenance vents, for flare management, and for pressure relief management.

This information is being collected to assure compliance with 40 CFR part 63, subpart CC. The previous approved ICR for this subpart (1692.06) included estimates of the monitoring, recordkeeping, and reporting burden for 134 refineries, including process vents, storage vessels, and process units subject to leak detection and repair (LDAR). This ICR estimates burden due to final rule changes for 142 major source refineries for process vents, storage vessels, and process units subject to LDAR. This ICR also estimates the additional burden associated with the new fence-line monitoring requirements for the 142 major source refineries. The burden associated with startups, shutdowns and malfunctions did not change. The original ICR did not include burden estimates for wastewater operations or transfer operations because the recordkeeping and reporting requirements for these emission points are covered under other rules. This ICR also does not contain burden estimates for wastewater operations or transfer operations because there were no changes in the provisions for these emission points.

## **2. Need for and Use of the Collection**

### **2(a) Need/Authority for the Collection**

The EPA is charged under section 112 of the Clean Air Act, as amended, to establish standards of performance for each category or subcategory of major sources and area sources of hazardous air pollutants. These standards are applicable to new or existing sources of hazardous air pollutants and shall require the maximum degree of emission reduction. Section 112 also requires that the Administrator review and, if appropriate, revise such standards every 8 years. In addition, section 114(a) states that the Administrator may require any owner or operator subject to any requirement of this Act to:

(A) Establish and maintain such records; (B) make such reports; (C) install, use, and maintain such monitoring equipment, and use such audit procedures, or methods; (D) sample such emissions (in accordance with such procedures or methods, at such locations, at such intervals, during such periods, and in such manner as the Administrator shall prescribe); (E) keep records on control equipment parameters, production variables or other indirect data when direct monitoring of emissions is impractical; (F) submit compliance certifications in accordance with Section 114(a)(3); and (G) provide such other information as the Administrator may reasonably require.

Certain records and reports are necessary for the Administrator to confirm the compliance status of sources subject to NESHAP, identify any new or reconstructed sources subject to the standards, and confirm that the standards are being achieved on a continuous basis. These recordkeeping and reporting requirements are specifically authorized by section 114 of the Clean Air Act (42 U.S.C. 7414) and set out in the part 63 NESHAP General Provisions. The recordkeeping and reporting requirements for title V permits are contained in 40 CFR 70.6 and 40 CFR 71.6. Under parts 63 and 70 or 71, the owner or operator must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

### **2(b) Practical Utility/Users of the Data**

The control of emissions of HAP from petroleum refineries requires not only the installation of properly designed equipment, but also the operation and maintenance of that equipment. Emissions of HAP from petroleum refineries are the result of the operation of the affected facilities. The subject standards are achieved by the capture of HAP emissions using control devices and the reduction of emissions through leak detection and repair procedures. Depending on the emission point being controlled, affected sources may use flares, carbon adsorbers, combustion devices (including incinerators, boilers and process heaters), or other control devices that meet minimum control requirements. The notifications required in the applicable regulations are used to inform the Agency or delegated authority when a source becomes subject to the requirements of the regulations. The reviewing authority may then inspect the source to check if the pollution control devices are properly installed and operated, leaks are being detected and repaired, and the regulations are being met. Performance test reports are

needed as these are the Agency's record of a source's initial capability to comply with the emission standards, and serve as a record of the operating conditions under which compliance was achieved.

Reports are used for problem identification, as a check on source operation and maintenance, and for compliance determinations. The reporting frequency is semiannual except for fenceline monitoring results, which would be reported quarterly. The EPA is finalizing electronic reporting for fenceline monitoring and performance testing.

The information generated by the monitoring, recordkeeping and reporting requirements described in this ICR is used by the Agency to ensure that sources affected by the NESHAP continue to operate the control equipment in compliance with the regulation. Adequate monitoring, recordkeeping, and reporting are necessary to ensure compliance with the applicable regulations, as required by the Clean Air Act. The information collected from recordkeeping and reporting requirements is also used for targeting inspections and is of sufficient quality to be used as evidence in court.

### **3. Non-duplication, Consultations, and Other Collection Criteria**

The requested recordkeeping and reporting are required under 40 CFR part 63, subpart CC.

#### **3(a) Non-duplication**

For notifications and reporting not required to be submitted electronically, if the subject standards have not been delegated, the information is sent directly to the appropriate EPA regional office. Otherwise, the information is sent directly to the delegated state or local agency. If a state or local agency has adopted its own similar standards to implement the Federal standards, a copy of the report submitted to the state or local agency can be sent to the Administrator in lieu of the report required by the Federal standards. Therefore, no duplication exists.

Some of the petroleum refinery facilities subject to subpart CC will also be subject to requirements under the following regulations: New Source Performance Standards (NSPS) subparts J, Ja, K, Ka, Kb, VV, and QQQ, NESHAP (part 61) subpart FF, and NESHAP (part 63) subparts G, H, J, R, Y, and UUU. The burden requested in this NESHAP does not duplicate any of the industry burden accounted for under those regulations. The applicability section of this NESHAP delineates requirements where there are overlapping rules.

As stated in Section 1(b) of this ICR, the changes to this NESHAP do not affect the recordkeeping or reporting for marine vessel tank loading and unloading operations, bulk gasoline loading racks, and wastewater sources. Reporting and recordkeeping requirements for these sources are covered under other rules and are not duplicated in subpart CC.

#### **3(b) Public Notice Required Prior to ICR Submission to OMB**

This section is not applicable because this is a rule-related ICR.

### **3(c) Consultations**

The final amendments are based upon the data provided by each individual refinery in response to an EPA survey of the petroleum refinery industry in 2011 (data from calendar year 2010); these responses were compiled into a Petroleum Refinery Database. The final amendments were also developed in consultation with trade associations, including Matt Todd of the American Petroleum Institute (API) and David Freidman of the American Fuel and Petrochemical Manufacturers (AFPM). The assumptions made in the development of this ICR, including the estimate of the number of petroleum refineries subject to the standard, were updated by reviewing the EPA's Petroleum Refinery Database, as well as the Agency's internal data sources, such as our own industry experts and the Air Facility System (AFS), which is the EPA database for the collection, maintenance, and retrieval of all compliance data. The information in AFS is reported by industry as required in the recordkeeping and reporting provisions of the standard. AFS is operated and maintained by the EPA Office of Compliance. We have estimated that there are approximately 142 existing respondents subject to the standard, and no new sources will become subject to the standard over the 3-year period covered by this ICR. The Petroleum Refinery Database also provided information on process unit counts and equipment counts (*e.g.*, the number of delayed cokers and number of relief valves).

The EPA also provided a 60-day public comment period after proposal of the amendments to subpart CC. All affected parties were given the opportunity to comment on the proposed amendments during this period. The EPA considered all of the comments received and incorporated them as appropriate in the final amendments.

### **3(d) Effects of Less Frequent Collection**

Less frequent information collection would decrease the margin of assurance that facilities are continuing to meet the standards. Requirements for information gathering and recordkeeping are useful techniques to ensure that good operation and maintenance practices are applied and emission limitations are met. If the information required by these standards was collected less frequently, the likelihood of detecting poor operation and maintenance of control equipment and noncompliance would decrease.

### **3(e) General Guidelines**

None of these reporting or recordkeeping requirements violate any of the regulations established by OMB at 5 CFR 1320.5.

These standards require respondents to maintain all records, including reports and notifications, for at least 5 years. This is consistent with the General Provisions in 40 CFR part 63 subpart A as applied to the standards. The EPA believes that the 5-year records retention requirement is consistent with the Part 70 permit program and the 5-year statute of limitations on which the permit program is based. Also, the retention of records for 5 years would allow the EPA to establish the compliance history of a source and any pattern of compliance for purposes of determining the appropriate level of enforcement action. Historically, the EPA has found that the most flagrant violators frequently have violations extending beyond the 5 years. The EPA

would be prevented from pursuing the worst violators due to the destruction or nonexistence of records if records were retained for less than 5 years.

### **3(f) Confidentiality**

All information submitted to the Agency for which a claim of confidentiality is made will be safeguarded according to the Agency policies set forth in title 40, chapter 1, part 2, subpart B - Confidentiality of Business Information (CBI) (see 40 CFR 2; 41 FR 36902, September 1, 1976; amended by 43 FR 39999, September 8, 1978; 43 FR 42251, September 28, 1978; 44 FR 17674, March 23, 1979).

### **3(g) Sensitive Questions**

This section is not applicable because this ICR does not involve matters of a sensitive nature.

## **4. The Respondents and the Information Requested**

### **4(a) Respondents/NAICS Codes**

The potential respondents to the recordkeeping and reporting requirements under subpart CC are owners or operators of existing or new major source petroleum refineries that are major sources of HAP emissions. The North American Industry Classification System (NAICS) code is 324110 for petroleum refineries.

### **4(b) Information Requested**

#### **(i) Data Items**

All data in this ICR that are recorded and/or reported are required by the final amendments to 40 CFR part 63, subpart CC - National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries.

A source must make the following reports:

<b>Notification Reports</b>	
Notification of compliance status for storage vessels, control device bypass valves, delayed cokers, and relief valves	63.655(f), 63.655(f)(1)(i), 63.655(f)(1)(vii), 63.655(f)(1)(viii), 63.655(f)(4)
Notifications of inspections of storage vessels	63.655(h)(2)

<b>Reports</b>	
Semiannual reports for storage vessels, control device bypass valves, delayed cokers, maintenance vents, relief valves, and flares	63.655(g)(1) to (g)(5), 63.655(g)(6)(iii), 63.655(g)(10), 63.655(g)(11), 63.655(g)(12), 63.655(g)(13)
Quarterly reports for fenceline monitoring - electronic	63.655(h)(8)

A source must keep the following records:

<b>Recordkeeping</b>	
Records of information in semiannual reports.	63.655(i)
Records for storage vessels, control device bypass valves, delayed cokers, maintenance vents, fenceline, flares, and relief devices.	63.655(i)(1), 63.655(i)(4), 63.655(i)(7), 63.655(i)(8), 63.655(i)(9), 63.655(i)(11), 63.655(i)(12)

Electronic Reporting. As part of the final changes to this rule, all performance test reports are required to be submitted electronically. The EPA believes that the standardization achieved through electronic reporting will reduce the burden both to industry and the Agency. In addition, fenceline monitoring reports will be submitted to the EPA's Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through the EPA's Central Data Exchange (CDX). All other reports will continue to be submitted as required currently.

(ii) Respondent Activities

The respondent activities that will be required by the final amendments to subpart CC include the following activities:

<b>Respondent Activities</b>
Read instructions.
Install, calibrate, maintain, and operate continuous temperature monitors or other monitoring devices for HAP control devices.
Write the notifications and reports listed above.
Enter information required to be recorded above.

<b>Respondent Activities</b>
Submit the required reports developing, acquiring, installing, and utilizing technology and systems for the purpose of collecting, validating, and verifying information.
Develop, acquire, install, and utilize technology and systems for the purpose of processing and maintaining information.
Develop, acquire, install, and utilize technology and systems for the purpose of disclosing and providing information.
Train personnel to be able to respond to a collection of information.
Transmit, or otherwise disclose the information.

## **5. The Information Collected: Agency Activities, Collection Methodology, and Information Management**

### **5(a) Agency Activities**

The EPA conducts the following activities in connection with the acquisition, analysis, storage, and distribution of the required information.

<b>Agency Activities</b>
Review notifications and reports, periodic reports, and quarterly fence line monitoring reports, required to be submitted by industry.
Audit facility records.
Input, analyze, and maintain data in the Air Facility System (AFS).
Input, analyze, and maintain data in the Compliance and Emissions Data Reporting Interface (CEDRI).

### **5(b) Collection Methodology and Management**

Performance test reports are used by the Agency to discern a source's capability to comply with the emission standard. Data obtained during periodic visits by Agency personnel from records maintained by the respondents are tabulated and published for internal Agency use in compliance and enforcement programs. The quarterly, semiannual and annual reports are used for problem identification, as a check on source operation and maintenance, and for compliance determinations.

Some of the information contained in the reports is entered into AFS, which is operated and maintained by the EPA's Office of Compliance and Enforcement. AFS is the EPA's database for the collection, maintenance, and retrieval of compliance and annual emission inventory data for over 100,000 industrial and government-owned facilities. The data entered into AFS is focused on compliance inspections, enforcement actions, and issuance of permits. The EPA uses AFS for tracking air pollution compliance and enforcement by state and local

regulatory agencies, EPA Regional Offices and EPA Headquarters. The EPA and its delegated authorities can edit, store, retrieve and analyze the data.

As part of the final revisions to this rule, all data that are required to be reported electronically will be collected through the EPA's Compliance and Emissions Data Reporting Interface (CEDRI), which is part of the EPA's Central Data Exchange. The data collected via CEDRI will be more extensive than the data collected through AFS and will be visible to the public through WebFIRE.

The records required by this regulation must be retained by the owner or operator for 5 years.

### **5(c) Small Entity Flexibility**

A majority of the respondents are large entities (*i.e.*, large businesses). However, the impact on small entities (*i.e.*, small businesses) was taken into consideration during the development of the regulation. A small entity for petroleum refineries is defined as a firm having no more than 1,500 employees. The fenceline monitoring requirements includes provisions to use fewer monitoring locations for refineries that have smaller plot sizes and these provisions are expected to reduce the burden for smaller refineries, regardless of whether these smaller refineries are small entities. The EPA considers these requirements the minimum needed to ensure compliance and, therefore, cannot reduce them further for small entities. To the extent that larger businesses can use economies of scale to reduce their burden, the overall burden will be reduced.

### **5(d) Collection Schedule**

The specific frequency for each information collection activity within this request is shown below in Table 1: Annual Respondent Burden and Cost: Final Amendments to NESHAP for Petroleum Refineries (40 CFR Part 63, Subpart CC).

## **6. Estimating the Burden and Cost of the Collection**

Table 1 documents the computation of individual burdens for the recordkeeping and reporting requirements applicable to the industry for each year for the subpart included in this ICR. The individual burdens are expressed under standardized headings believed to be consistent with the concept of burden under the Paperwork Reduction Act. Where appropriate, specific tasks and major assumptions have been identified. Responses to this information collection are mandatory.

The Agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB Control Number.

### **6(a) Estimating Respondent Burden**

The average annual burden to industry over the next 3 years from these recordkeeping and reporting requirements is estimated to be 99,722 (Total Labor Hours from Table 1). The recordkeeping hours shown below in Table 1 are 68,854. The reporting requirement hours shown



below in Table 1 are 30,868. These hours are based on Agency studies and background documents from the development of the regulation and Agency knowledge and experience with the NESHAP program, the previously approved ICR for this subpart, and any comments received on previous ICRs and regulations. The average annual burden over the next 3 years was estimated using the number of facilities that would be in compliance in year two (94.7), assuming one-third of all facilities would become compliant each year for 3 years.

## **6(b) Estimating Respondent Costs**

### **(i) Estimating Labor Costs**

This ICR uses the following labor rates:

Managerial	\$130.26	(\$62.03 + 110%)
Technical	\$84.95	(\$40.45 + 110%)
Clerical	\$41.18	(\$19.61 + 110%)

Labor rates and associated costs are based on the Bureau of Labor Statistics (BLS) data. Technical, management, and clerical average hourly rates for private industry workers were taken from the Occupational Employment Statistics: NAICS 324 (Petroleum and Coal Products Manufacturing), May 2009 Employment and Wage Estimates. These BLS rates represent salaries plus fringe benefits and do not include the cost of overhead. The rates have been increased by 110 percent to account for the benefit packages available to those employed by private industry.

### **(ii) Estimating Capital and Operation and Maintenance Costs**

The capital/startup costs are one-time costs when a facility becomes subject to the revised portion of the standards or when a facility becomes subject to the standard as a result of reconstruction. (Capital costs due to reconstruction are not addressed in this ICR; only capital costs that are the result of rule changes are addressed here.) The capital costs include the costs for fenceline monitoring equipment, costs for flare monitoring equipment, and the cost for relief valve monitoring equipment. The cost for delayed coker monitoring equipment (*i.e.*, temperature and pressure monitors) are not included, as it is assumed that each coke drum already has at least one of those monitors as part of normal operation.

The annual operation and maintenance costs are the ongoing costs to maintain monitors and other costs such as performance testing. For fenceline monitoring, costs will vary depending on the physical size (not capacity) of the refinery where a small refinery is less than 750 acres, a medium refinery is between 750 acres and 1,500 acres, and a large refinery is greater than 1,500 acres. It was assumed that all refineries would use in-house labor to collect samples and would conduct sample analysis in-house. The operation and maintenance costs for this ICR are assumed to be 10 percent of the capital cost for fenceline monitoring equipment.

There are 84 small refineries, 27 medium refineries and 31 large refineries, for a total of 142 refineries. The total capital and annual operation and maintenance costs for fenceline monitoring program as fully implemented for all 142 major source refineries are shown in the table below.

<b>Capital vs. Operation and Maintenance (O&amp;M) Costs for Fenceline Monitoring</b>					
	(A) Capital Cost for One Affected Facility	(B) Number of Affected Facilities	(C) Total Capital Cost (A × B)	(D) Annual O&M Costs for One Affected Facility <sup>a</sup>	(E) Total Annual O&M Cost (D × B)
Small	\$86,650	84	\$7,278,600	\$8,665	\$727,860
Medium	\$89,270	27	\$2,410,290	\$8,927	\$241,029
Large	\$90,880	31	\$2,817,280	\$9,088	\$281,728
<b>TOTAL</b>		142	\$12,506,170		\$1,250,617 <sup>b</sup>

<sup>a</sup> Assumed to be 10 percent of capital cost.

<sup>b</sup> Note: This cost does not match the O&M cost in Table 1 because this value represents the cost to all refineries, and the value in Table 1 represents the annual cost for the average number of refineries subject to subpart CC in the second year (94.7).

There are 510 flares that would be subject to the flare monitoring requirements at the 142 major source refineries. The total capital and annual operation and maintenance costs for flare monitoring for the 3-year initial compliance period are shown in the table below. The costs shown in the table are the totals for the 3-year period for all 142 major source refineries.

<b>Capital vs. Operation and Maintenance (O&amp;M) Costs for Flare Monitoring</b>					
Monitoring Equipment or Material	(A) Capital Cost for One Affected Flare	(B) Number of Affected Flares	(C) Total Capital Cost (A × B)	(D) Annual O&M Costs for One Affected Flare	(E) Total Annual O&M Cost (D × B)
Calorimeter	\$105,000	85	\$8,925,000	\$20,100	\$1,708,500
H2 Analyzer	\$36,000	243	\$8,748,000	\$20,000	\$4,860,000
Steam Controls/Flow Monitor	\$684,000	190	\$129,960,000	\$59,730	\$11,348,700
Air Controls/ Flow Monitor	\$164,000	37	\$6,068,000	\$36,520	\$1,351,240
Average Natural Gas (NG) Costs per Flare to Meet NHV <sub>cz</sub> Targets	\$0	190	\$0	\$100,030	\$19,005,700
Steam Costs (Savings) per Flare for Steam Controls to Meet NHV <sub>cz</sub> Targets	\$0	190	\$0	(\$56,470)	\$(10,729,300)
Engineering Calculation Costs	\$7,000	267	\$1,869,000	\$12,500	\$3,337,500
<b>TOTAL</b>		510	\$155,570,000		\$30,882,340

For relief valves, it was estimated that the total capital cost to install a monitor on each relief valve is \$3,882,880 for an estimated 4,800 relief valves over the next 3 years. Additionally, it was estimated that the cost for relief valves requiring additional prevention measures would be \$5,800,000 (note, an additional \$1,400,000 in labor was estimated to evaluate the appropriate prevention measures).

(iii) Annualizing Capital Costs

The annualized capital costs associated with the information collection requirements of the final amendments is \$17,500,000 per year. Capital costs were annualized using an interest rate of 7 percent and a useful equipment life ranging from a 10-year to 20-year period, depending on the type of equipment installed. Therefore, the capital recovery factor (CRF) ranges from 0.094 to 0.1424 depending on the type of equipment installed.

**6(c) Estimating Agency Burden and Cost**

The only costs to the Agency are those costs associated with analysis of the reported information. The EPA compliance and enforcement program includes activities such as: the examination of records maintained by the respondents; periodic inspection of sources of emissions; and the publication and distribution of collected information.

The average annual Agency cost during the 3 years of the ICR is estimated to be \$75,394 (see Table 2 below.)

This cost is based on the average hourly labor rate as follows:

Managerial	\$61.36	(GS-13, Step 5, \$38.35 + 60%)
Technical	\$45.52	(GS-12, Step 1, \$28.45 + 60%)
Clerical	\$24.64	(GS-6, Step 3, \$15.40 + 60%)

These rates are from the Office of Personnel Management (OPM) 2009 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. Details upon which the Agency cost is based appear below in Table 2: Annual Burden and Cost to the Federal/State Government: Final Amendments to NESHAP for Petroleum Refineries (40 CFR Part 63, Subpart CC).

**6(d) Estimating the Respondent Universe and Total Burden and Costs**

There are currently 142 major source refineries in the United States and no new refineries are expected to be built during the next 3-year period. For the fence-line monitoring requirements, and the new monitoring requirements for relief valves, it was assumed that one-third of all refineries would come into compliance with requirements each year over the next 3 years. This means that by the end of year one, 47.3 refineries would be in compliance; by the end of year two, 94.7 refineries would be in compliance; and by the end of year three, all 142 refineries would be in compliance with the updated rule. Over the 3-year period, an average of 94.7 refineries will be reporting under the new requirements  $((47.3+94.7+142)/3)$ .

<b>Number of Respondents</b>					
	<b>Respondents That Submit Reports</b>		<b>Respondents That Do Not Submit Any Reports</b>		
Year	(A) Number of New Respondents <sup>a</sup>	(B) Number of Existing Respondents	(C) Number of Existing Respondents that keep records but do not submit reports	(D) Number of Existing Respondents That Are Also New Respondents	(E) Number of Respondents (E=A+B+C-D)
1	0	47.3	0	0	47.3
2	0	94.7	0	0	94.7
3	0	142	0	0	142
Average	0	94.7	0	0	94.7

<sup>a</sup> New respondents include sources with constructed, reconstructed, and modified affected facilities.

Column D is subtracted to avoid double-counting respondents. As shown above, the average Number of Respondents over the 3-year period of this ICR is 94.7.

The total number of annual responses per year is calculated using the following table:

<b>Total Annual Responses</b>				
(A) Information Collection Activity	(B) Number of Respondents <sup>a</sup>	(C) Number of Responses	(D) Number of Existing Respondents That Keep Records But Do Not Submit Reports	(E) Total Annual Responses E=(B×C)+D
Notification of storage vessel inspections <sup>b</sup>	94.7	1	0	94.7
Fenceline monitoring data transmission <sup>c</sup>	94.7	4	0	378.8
Notification of compliance status <sup>d</sup>	47.3	2.67	0	126.3
Notification of compliance status <sup>e</sup>	94.7	2	0	189.4
Semiannual reports <sup>f</sup>	94.7	8.17	0	773.7
Semiannual reports <sup>g</sup>	9.5	1	0	9.5
Flare Management Plan <sup>h</sup>	94.7	3.6	0	340.8
			Total	1,912

<sup>a</sup> There are 142 major source petroleum refineries that have one or more affected sources subject to the standard. No new or reconstructed facilities are expected over the next 3 years. We assumed that approximately one-third of facilities would comply with the amended rule in each of the 3 years following promulgation, so that 47.3 facilities would comply and be subject the first year, 94.7 facilities would be subject the second year, and 142 facilities would be subject the third year. We assumed costs based on the second year, with 94.7 facilities subject to the rule.

<sup>b</sup> 113 new tanks will be subject to tank inspection requirements under subpart CC.

<sup>c</sup> Quarterly reports required.

<sup>d</sup> Notification of compliance status is a one-time response, so used number of facilities subject per year for storage vessels and delayed coking units.

<sup>e</sup> Assumed that there are so many relief valves and flares, that facilities will not bring all units into compliance in the same year. Instead, used number of facilities in the second year.

<sup>f</sup> Semiannual reports are already required under subpart CC but additional information will be reported due to newly added requirements.

<sup>g</sup> Semiannual reports for maintenance events are expected for 10% of the reporters during second year.

<sup>h</sup> Assume 510 flares per 142 facilities, so  $510 \times 94.7 / 510 = 340$  expected to develop FMP in 2nd year. Then  $340 / 94.7 = 4$  flares per respondent.

The number of Total Annual Responses is approximately 1,912. The total annual labor costs are approximately \$8,300,000. Details regarding these estimates may be found below in Table 1: Annual Respondent Burden and Cost: Final Amendments to NESHAP for Petroleum Refineries (40 CFR Part 63, Subpart CC).

### **6(e) Bottom Line Burden Hours Burden Hours and Cost Tables**

The detailed bottom line burden hours and cost calculations for the respondents and the Agency are shown in Tables 1 and 2, respectively, and summarized below.

#### **(i) Respondent Tally**

The bottom line respondent burden hours and costs, presented in Table 1, are calculated by adding person-hours per year down each column for technical, managerial, and clerical staff, and by adding down the cost column. The average annual burden in the second year for the recordkeeping and reporting requirements in the final amendments to subpart CC for the 142 facilities that are subject is 99,722 person-hours, with an annual average cost of approximately \$8,300,000. Details regarding these estimates may be found below in Table 1: Annual Respondent Burden and Cost: Final Amendments to NESHAP for Petroleum Refineries (40 CFR Part 63, Subpart CC).

The annualized capital costs associated with the final amendments are approximately \$17,500,000. The operation and maintenance costs associated with the final amendments are approximately \$32,100,000 for all facilities (\$21,400,000 in the second year). The cost calculations are detailed in Section 6(b)(ii), Capital vs. Operation and Maintenance (O&M) Costs and 6(b)(iii), Annualizing Capital Cost.

#### **(ii) The Agency Tally**

The average annual Agency burden and cost over next 3 years is estimated to be 1,698 labor hours at a cost of approximately \$75,400. See below Table 2: Annual Burden and Cost to the Federal/State Government: Final Amendments to NESHAP for Petroleum Refineries (40 CFR Part 63, Subpart CC).

### **6(f) Reasons for Change in Burden**

The change in burden estimate reflects the additional requirements of the final amendments to 40 CFR part 63, subpart CC.

### **6(g) Burden Statement**

The average annual respondent burden for the final amendments for subpart CC is estimated at 99,722 hours. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB Control Number. The OMB Control Numbers for EPA regulations are listed at 40 CFR part 9 and 48 CFR chapter 15.

To comment on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including the use of automated collection techniques, the EPA has established a public docket for this ICR under Docket ID Number EPA-HQ-OAR-2010-0682, which is available for on-line viewing at [www.regulations.gov](http://www.regulations.gov), or in person viewing at the Air and Radiation Docket and Information Center in the EPA Docket Center (EPA/DC), EPA West, Room B102, 1301 Constitution Avenue, NW, Washington, D.C. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566-1744, and the telephone number for the Air and Radiation Docket and Information Center is (202) 566-1742. An electronic version of the public docket is available at [www.regulations.gov](http://www.regulations.gov). This site can be used to submit or view public comments, access the index listing of the contents of the public docket, and to access those documents in the public docket that are available electronically. When in the system, select "search," then key in the Docket ID Number identified above. Also, you can send comments to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW, Washington, D.C. 20503, Attention: Desk Officer for EPA. Please include the EPA Docket ID Number EPA-HQ-OAR-2010-0682 in any correspondence.

### **Part B of the Supporting Statement**

This part is not applicable because no statistical methods were used in collecting this information.



Burden item	(A) Person-hours per occurrence	(B) No. of occurrences per respondent per year	(C) Person-hours per respondent per year (C=A×B)	(D) Respondents per year <sup>a</sup>	(E) Technical person-hours per year (E=C×D)	(F) Management person-hours per year (E×0.05)	(G) Clerical person-hours per year (E×0.1)	(H) Cost,\$ <sup>b</sup>
Fenceline monitoring data transmission	1	4	4	94.7	379	18.9	37.9	\$36,193
Notification of compliance status <sup>d</sup>								
Storage vessels, delayed cokers	1	2.67	2.67	47.3	126	6.32	12.6	\$12,075
Relief valves, flares	1	2	2	94.7	189	9.5	19	\$18,097
Notification of storage vessel inspection	0.5	1	0.5	94.7	47.3	2.37	4.73	\$4,524
Compliance reports <sup>e</sup>								
Storage vessels	0.00511	2	0.0102	94.7	0.967	0.0483	0.0967	\$92
Relief valves	0.5	2	1	94.7	227	11.4	22.7	\$21,704
Bypass lines	0.075	2	0.15	94.7	14.2	0.710	1.42	\$1,357
Delayed cokers	0.25	0.167	0.0417	94.7	3.95	0.198	0.395	\$378
Flares	1.5	2	3	94.7	284	14.2	28.4	\$27,145
Maintenance Vents	1	1	1	9.5	9	0.5	0.9	\$905
5. Recordkeeping Requirements								
A. Read instructions	See 4A							
B. Plan activities	See 4A							
C. Implement activities	See 4B							
D. Develop record system	N/A							
E. Time to enter information								
Storage vessels	variable	variable	4.09	94.7	387	19.3	38.7	\$36,967
Relief valves	0.5	3.2	2	94.7	151	7.6	15.1	\$14,469
Bypass lines	0.355	0.211	0.075	94.7	7.1	0.35	0.71	\$679
Fenceline monitoring	0.5	26	13.0	94.7	1,231	61.5	123	\$117,628
Delayed cokers	0.0167	501	8.35	94.7	790	39.5	79.0	\$75,509
Flares	0.05	365	18.3	94.7	1,728	86.4	173	\$165,132
Maintenance Vents	1	1	1	9.5	9	0.5	0.9	\$905



Burden item	(A) Person-hours per occurrence	(B) No. of occurrences per respondent per year	(C) Person-hours per respondent per year (C=A×B)	(D) Respondents per year <sup>a</sup>	(E) Technical person-hours per year (E=C×D)	(F) Management person-hours per year (E×0.05)	(G) Clerical person-hours per year (E×0.1)	(H) Cost,\$ <sup>b</sup>
F. Training	8.5	1	8.5	47.3	402	20.1	40.2	\$38,455
Subtotal Labor Burden					86,705	4,336	8,671	\$8,288,270
					99,722			
Annualized Capital Cost								\$17,518,336
Operation and Maintenance Costs <sup>f</sup>								\$21,421,971
<b>TOTAL LABOR BURDEN AND COST<sup>g</sup></b>								<b>\$38,940,307</b>

<sup>a</sup> We have determined that 142 major source petroleum refineries currently operate in the US. No new or reconstructed facilities are expected over the next 3 years. We assumed that approximately one-third of facilities would comply with the amended rule in each of the 3 years following promulgation, so that 47.3 facilities would comply and be subject the first year, 94.7 facilities would be subject the second year, and 142 facilities would be subject the third year. We assumed costs based on the second year, with 94.7 facilities subject to the rule.

<sup>b</sup> This ICR uses the following labor rates: \$130.26 per hour for Executive, Administrative, and Managerial labor; \$84.95 per hour for Technical labor, and \$41.18 per hour for Clerical labor. These rates are from the United States Department of Labor, Bureau of Labor Statistics, May 2009. The rates are from column 1, "Total compensation." The rates have been increased by 110 percent to account for the benefit packages available to those employed by private industry.

<sup>c</sup> These values are consistent with the *Fenceline Monitoring Technical Support Document*, located in Docket ID No. EPA-HQ-OAR-2010-0682.

<sup>d</sup> Notification of compliance status is a one-time response, so used number of facilities subject per year for storage vessels and delayed coking units. Assumed that there are so many relief valves and flares, that facilities will not bring all units into compliance in the same year. Instead, used number of facilities in the second year.

<sup>e</sup> These costs represent the additional burden associated with the amendments to subpart CC. These costs are in addition to the current cost of semiannual compliance reporting. For maintenance vents, assumed 10% of year 2 reporters would need to report for this source type.

<sup>f</sup> The operating and maintenance cost of fenceline monitoring and flare monitoring in the second year.

<sup>g</sup> The total labor burden and cost is the sum of the total labor cost, the annualized capital cost, and the operation and maintenance cost.

**Table 2. Annual Burden and Cost to the Federal/State Government: Final Amendments to NESHAP for Petroleum Refineries (40 CFR Part 63, Subpart CC).**

Activity	(A) Hours per occurrence	(B) Hours per plant per year	(C) Plants per year <sup>a</sup>	(D) Technical person-hours per year (E=B×C)	(E) Management person-hours per year (D×0.05)	(F) Clerical person- hours per year (D×0.1)	(G) Cost, \$ <sup>b</sup>
Report Review							
Notification of compliance status – Storage vessels, delayed cokers	1	2	47.3	94.7	4.73	9.47	\$4,833
Notification of compliance status – Relief valves, flares	1	2	94.7	189	9.5	18.9	\$9,666
Request for alternative monitoring for fenceline requirements	1	1	4.7	5	0.2	0.5	\$242
Flare management plan review	1	1	94.7	95	4.7	9.5	\$4,833
Semiannual reports – Storage	0.25	0.5	94.7	47.3	2.37	4.73	\$2,416
Semiannual reports – Relief valves	1	2	94.7	189	9.47	18.9	\$9,666
Semiannual reports – Bypass lines	0.25	0.5	94.7	47.3	2.37	4.73	\$2,416
Semiannual reports – Delayed cokers	0.25	0.5	94.7	47.3	2.37	4.73	\$2,416
Semiannual reports – Flares	2	4	94.7	379	18.9	37.9	\$19,332
Semiannual reports - Maintenance Vents	0.25	0.5	9.5	5	0.2	0.5	\$242
Semiannual report for fenceline monitoring	1	4	94.7	379	18.9	37.9	\$19,332
<b>TOTAL LABOR BURDEN AND COST</b>					1,698		\$75,394

**Assumptions:**

<sup>a</sup> We have determined that 142 major source petroleum refineries currently operate in the US. No new or reconstructed facilities are expected over the next 3 years.

<sup>b</sup> This ICR uses the following labor rates: Managerial rate of \$61.36 per hour (GS-13, Step 5, \$38.35 + 60%), Technical rate of \$45.52 per hour (GS-12, Step 1, \$28.45 + 60%), and Clerical rate of \$24.64 per hour (GS-6, Step 3, \$15.40 + 60%). These rates are from the Office of Personnel Management (OPM) 2009 General Schedule, which excludes locality rates of pay.