# SUPPORTING STATEMENT ENVIRONMENTAL PROTECTION AGENCY NESHAP FOR HAZARDOUS AIR POLLUTANTS FROM PETROLEUM REFINERIES 40 CFR PART 63, SUBPART CC MARCH 2018

#### 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 1692.11.

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

The EPA is proposing 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. Many of the proposed revisions are technical corrections to the December 2015 amendments to 40 CFR part 63, subpart CC to correct typographical errors or incorrect cross-references and do not involve additional information collection or burden. There is, however, a proposed technical amendment that impacts the recordkeeping requirements in 40 CFR part 63, subpart CC for certain maintenance vents associated with equipment containing less than 72 lbs VOC as found at §63.655(i)(12)(iv).

The new recordkeeping requirement requires records used to estimate the total quantity of VOC in the equipment and the type and size limits of equipment that contain less than 72 lb of VOC at the time of the maintenance vent opening. As specified in §63.655(i)(12)(iv), additional records are required if the deinventory procedures were not followed for each maintenance vent opening or if the equipment opened exceeded the type and size limits (i.e., 72 lb VOC). These additional records include identification of the maintenance vent, the process units or equipment associated with the maintenance vent, the date of maintenance vent opening, and records used to estimate the total quantity of VOC in the equipment at the time the maintenance vent was opened to the atmosphere. These records will assist the EPA with determining compliance with the standards set forth in §63.643(c)(iv). They are expected to result in 16 hours and \$1,640 of additional burden to respondents, and 8 hours and \$379 additional burden to the EPA.

#### 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. 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

Emissions of HAP from petroleum refineries result from maintenance vent openings. The subject standards are achieved in part by the reduction of emissions from these sources through adherence to the maintenance vent opening provisions found in 63.643(c). The new recordkeeping requirements included in the proposed technical amendments will be used by the Agency to ensure that sources affected follow the regulation, as required by the Clean Air Act. The information collected from recordkeeping 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

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.

#### 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 proposed amendments were 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.

The EPA will provide a 45-day public comment period after proposal of the amendments to 40 CFR part 63 subpart CC. All affected parties will be given the opportunity to comment on the proposed amendments during this period. The EPA will consider all of the comments received and may incorporate them as appropriate in developing 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 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 <u>FR</u> 36902, September 1, 1976; amended by 43 <u>FR</u> 39999, September 8, 1978; 43 <u>FR</u> 42251, September 28, 1978; 44 <u>FR</u> 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 requirement for maintenance vents associated with equipment containing less than 72 lb VOC 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 are required by the proposed amendments to 40 CFR part 63, subpart CC - National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries.

A source must keep the following records:

Recordkeeping					
Records of information in semiannual reports.	63.655(i)				
Records for maintenance vents.	63.655(i)(12)				

#### (ii) Respondent Activities

The respondent activities that will be required by the proposed amendments to 40 CFR part 63 subpart CC include the following activities:

#### **Respondent Activities**

Read instructions.

Enter information required to be recorded above.

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.

#### **Agency Activities**

Audit facility records.

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

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 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. Due to technical considerations involving the process operations, the proposed amendments to the recordkeeping requirements are the same for both small and large 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: Proposed 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 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 the recordkeeping requirements is estimated to be 16 (Total Labor Hours from Table 1). 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 3-year period of this ICR is estimated assuming that each refinery (142) will have one maintenance vent opening per year requiring additional recordkeeping as specified in §63.655(i)(12)(iv).

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

#### (i) Estimating Labor Costs

This ICR uses the following labor rates:

Managerial	\$137.49	(\$65.47 + 110%)
Technical	\$103.99	(\$49.52 + 110%)
Clerical	\$46.26	(\$22.03 + 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 2016 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

There are no capital or operation and maintenance costs associated with the information collection requirements of the proposed amendments to 40 CFR part 63 subpart CC.

# (iii) Annualizing Capital Costs

There are no capital costs associated with the proposed amendments to 40 CFR part 63 subpart CC; therefore, there are no annualized capital costs associated with the information collection requirements of the these proposed amendments.

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

The only costs to the Agency are those costs associated with the examination of records maintained by the respondents; periodic inspection of sources of emissions; and the publication and distribution of collected information, as needed. It has been assumed that 25% of refineries would be audited over the 3-year period covered by this ICR.

The average annual Agency cost during the 3 years of the ICR is estimated to be \$379 (see Table 2 below.)

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

Managerial	\$64.16	(GS-13, Step 5, \$40.10 + 60%)
Technical	\$47.62	(GS-12, Step 1, \$29.76 + 60%)
Clerical	\$25.76	(GS-6, Step 3, \$16.10 + 60%)

These rates are from the Office of Personnel Management (OPM) 2016 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: Proposed 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. As all provisions in the December 2015 amendments to 40 CFR part 63, subpart CC are effective no later than January 2019, we expect all 142 refineries would be in compliance with the proposed revisions each year over the 3-year period covered by this ICR, therefore the total number of expected respondents is 142. We expect 1 maintenance vent opening requiring the additional recordkeeping as specified in §63.655(i)(12)(iv) at each of the 142 respondents sites, therefore we expect 142 annual responses over the 3-year period covered by the ICR.

The total annual labor costs are \$1,640. Details regarding these estimates may be found below in Table 1: Annual Respondent Burden and Cost: Proposed 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 for the recordkeeping requirements in the proposed amendments to subpart CC for the 142 facilities that are subject is 16 person-hours, with an annual average cost of approximately \$1,640. Details regarding these estimates may be found below in Table 1: Annual Respondent Burden and Cost: Proposed Amendments to NESHAP for Petroleum Refineries (40 CFR Part 63, Subpart CC).

The are no annualized capital costs associated with the proposed amendments.

#### (ii) The Agency Tally

The average annual Agency burden and cost associated with the proposed amendments over next 3 years is estimated to be 8 labor hours at a cost of approximately \$379. See below Table 2: Annual Burden and Cost to the Federal/State Government: Proposed 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 proposed amendments to 40 CFR part 63, subpart CC.

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

The average annual respondent burden for the proposed amendments for subpart CC is estimated at 16 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.

Although this ICR shows a net burden increase incremental to the burden included in the previous approved ICR for this subpart (1692.10), the proposed amendments are actually projected to reduce respondent burden by approximately \$11.5-million per year. Most of the cost reduction is attributable to revisions of the maintenance vent provisions related to the availability of a pure hydrogen supply for equipment containing pyrophoric catalyst, inclusion of specific provisions for pilot-operated and balanced bellows PRDs, and inclusion of specific provisions related to steam tube air entrainment for flares. A detailed memorandum documenting the estimated burden reduction has been included in the docket for this rulemaking (see memorandum titled, "Impact Estimates for the 2017 Proposed Revisions to Refinery MACT 1," in Docket ID No. EPA-HQ-OAR-2010-0682).

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 <a href="https://www.regulations.gov">www.regulations.gov</a>, 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. 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.

Table 1. Annual Respondent Burden and Cost: Proposed Amendments to NESHAP for Petroleum Refineries (40 CFR Part 63, Subpart CC).

	(A)	(B) No. of	(C)	(D)	(E)	(F)	(G)	(H)
Burden item	Person- hours per occurrence	occurrences per respondent per year	Person- hours per respondent per year (C=A×B)	Respondents per year <sup>a</sup>	Technical person- hours per year (E=C×D)	Management person-hours per year (E×0.05)	Clerical person- hours per year (E×0.1)	Cost,\$ <sup>b</sup>
1. Applications	N/A							
2. Survey and Studies	N/A							
3. Acquisition, Installation, and Utilization of Technology and Systems	N/A							
4. Reporting Requirements	N/A							
5. Recordkeeping Requirements	N/A							
A. Read instructions	See 5E							
B. Plan activities	See 5E							
C. Implement activities	See 5E							
D. Develop record system	N/A							
E. Time to enter information								
Maintenance Vents - <72 lb/day	0.1	1	0.1	142	14.2	0.71	1.42	\$1,640
F. Training	See 5E							
Subtotal Labor Burden					14.2	0.71 16.33	1.42	\$1,640
Annualized Capital Cost								N/A
Operation and Maintenance Costs								N/A
TOTAL LABOR BURDEN AND COST <sup>c</sup>								\$1,640

<sup>&</sup>lt;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>&</sup>lt;sup>b</sup> This ICR uses the following labor rates: \$137.49 per hour for Executive, Administrative, and Managerial labor; \$103.99 per hour for Technical labor, and \$46.26 per hour for Clerical labor. These rates are from the United States Department of Labor, Bureau of Labor Statistics, May 2016. 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>&</sup>lt;sup>c</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: Proposed Amendments to NESHAP for Petroleum Refineries (40 CFR Part 63, Subpart CC).

	(A)	(B)	(C)	(D)	(E)	(F)	(G)
Activity	Hours per occurrence	Occurrences per plant per year	Plants per year <sup>a</sup>	Technical person-hours per year (E=B×C)	Management person-hours per year (D×0.05)	Clerical person- hours per year (D×0.1)	Cost, \$ b
Audit Record Review							
Maintenance vents - <72 lb/day	0.2	1	36	7.1	0.36	0.71	\$379
TOTAL LABOR BURDEN AND COST					8.2		\$379

#### **Assumptions:**

<sup>&</sup>lt;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>&</sup>lt;sup>b</sup> This ICR uses the following labor rates: Managerial rate of \$64.16 per hour (GS-13, Step 5, \$40.10 + 60%), Technical rate of \$47.62 per hour (GS-12, Step 1, \$29.76 + 60%), and Clerical rate of \$25.76 per hour (GS-6, Step 3, \$16.10 + 60%). These rates are from the Office of Personnel Management (OPM) 2016 General Schedule, which excludes locality rates of pay.

 $<sup>^{\</sup>rm c}$  Assumes that 25% of the respondents will be audited over the 3-year period of the ICR.