

**SUPPORTING STATEMENT  
ENVIRONMENTAL PROTECTION AGENCY**

**The Consolidated Air Rule (CAR) for the Synthetic Organic Chemical Manufacturing Industry (SOCMI) (Renewal)**

**1. Identification of the Information Collection**

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

The Consolidated Air Rule (CAR) for the Synthetic Organic Chemical Manufacturing Industry (SOCMI) (Renewal), EPA ICR Number 1854.10, OMB Control Number 2060-0443.

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

The Consolidated Federal Air Rule (CAR) for the Synthetic Organic Chemical Manufacturing Industry (SOCMI) published at 40 CFR Part 65 were promulgated on December 14, 2000, amended on August 27, 2007, November 12, 2010, August 11, 2011, and June 25, 2013. The 2010, 2011, and 2013 amendments make change of addresses for EPA offices in Region 1, 7 and 9. The amendments do not change any other requirements of the rule. The CAR regulations are optional compliance approach for new and existing SOCMI facilities that must comply with existing Subparts in the Code of Federal Regulations (CFR). The CAR is a consolidation of major portions of 15 different New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) pertaining to storage vessels, process vents, transfer racks, equipment leaks, and the general provisions for the three applicable parts (40 CFR Parts 60, 61, and 63). These Subparts from 40 CFR Parts 60, 61, and 63 are referred to as “referencing Subparts” because they have been amended to refer to the CAR as a compliance alternative. New facilities include those that commenced construction, modification or reconstruction after the date of proposal of the applicable referencing Subpart(s). The referencing subparts include 40 CFR Part 60, Subparts Ka, Kb, VV, VVa, DDD, III, NNN, and RRR; 40 CFR Part 61, Subparts BB, Y, and V; 40 CFR Part 63, Subparts F, G, H, and I. This information collection request (ICR) is for the CAR and its referencing Subparts and the information is being collected to assure compliance with 40 CFR Part 65.

Compliance with the CAR is a voluntary alternative. Sources may continue to comply with existing applicable rules or may choose to comply with the consolidated rule. All existing sources must be in compliance with the requirements of the CAR and/or its referencing Subparts within three years of the effective date (i.e., promulgation date) of the appropriate standard for the affected source. All new sources must be in compliance with the requirements of the CAR and/or its referencing Subparts upon startup or the promulgation date of standards for an affected source, whichever is later.

In general, the NSPS, NEHSAP, CAR, and maximum achievable control technology (MACT) standards require initial notifications, performance tests, and periodic reports by the owners/operators of the affected facilities. They are also required to maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility, or any period during which the monitoring system is inoperative. These notifications,

reports, and records are essential in determining compliance, and are required of all affected facilities subject to the standard.

Any owner/operator subject to the provisions of this part shall maintain a file containing these documents, and retain the file for at least two years, if not required to obtain or operate a regulated source under a title V permit, or five years if required to obtain or operate a regulated source under a title V permit following the generation date of such maintenance reports and records. All reports are sent to the delegated state or local authority. In the event that there is no such delegated authority, the reports are sent directly to the United States Environmental Protection Agency (EPA) regional office.

The “Affected Public” are owners or operators of synthetic organic chemical manufacturing facilities. The “burden” to the Affected Public may be found below in Table 8: Summary of Respondent and Agency Burden and Cost for Referencing Subparts and the CAR. The “burden” to the “Federal Government” is attributed entirely to work performed by either Federal employees or government contractors and may also be found below Table 8: Summary of Respondent and Agency Burden and Cost for Referencing Subparts and the CAR.

Over the next three years, approximately 5,198 respondents per year will be subject to the CAR at 40 CFR Part 65 or the referencing Subparts. It is assumed that all new sources will initially comply with the appropriate referencing Subpart. The number of respondents under each referencing Subpart that will opt to comply with the CAR is detailed in Table 4: Estimated Number of Sources Subject to Referencing Subparts that Will Opt to comply with the CAR. A breakdown of the number of respondents complying with the CAR and each referencing Subpart is provided in Column A of Table 8: Summary of Respondent and Agency Burden and Cost for Referencing Subparts and the CAR.

The Office of Management and Budget (OMB) approved the currently active ICR without any “Terms of Clearance”.

#### The CAR (Consolidated Air Rule)

The 2007 Direct Final Rule for Revisions to the CAR includes direct final amendments to the General Provisions of the CAR which allow source owners and operators to petition the Administrator for an extension of the regulatory deadline to conduct performance tests during *force majeure* events. A *force majeure* event is an event caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that resulted in not meeting the regulatory requirement to conduct performance tests within the specified timeframe despite the affected facility’s best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war, terrorism, equipment failure, or safety hazard beyond the control of the affected facility. The source owner or operator must provide to the Administrator a written description of the event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the performance test would be conducted.

### NSPS Subpart Ka: Storage Vessels for Petroleum Liquids

The NSPS for Subpart Ka were proposed on May 18, 1978, and promulgated on April 4, 1980, and was last amended on December 14, 2000. These standards apply to storage vessels of petroleum liquids that have a storage capacity greater than 151,416 liters (40,000 gallons), and for which construction, reconstruction, or modification commenced after May 18, 1978 and prior to July 23, 1984. There is a de minimis exemption located at §60.110a(b). The regulated pollutants are volatile organic compounds (VOC). The universe of sources subject to NSPS Subpart Ka is closed. Any new sources will be subject to NSPS Subpart Kb, the most recent VOC standard applicable to storage vessels. This information is being collected to assure compliance with 40 CFR Part 60, Subpart Ka.

### NSPS Subpart Kb: Volatile Organic Liquid (VOL) Storage Vessels

The NSPS for Subpart Kb were proposed on July 23, 1984, and promulgated on April 8, 1987, and was last amended on October 15, 2003. These standards apply to each storage vessel with a capacity greater than or equal to 75 cubic meters that is used to store volatile organic liquids, for which construction, reconstruction, or modification commenced after July 23, 1984. There are exemptions for specific storage vessels listed in §§60.110b(b), 60.110b(c), and 60.110b(d). The standards include visual inspection, leak detection, and repair for equipment configurations including fixed and floating roofs. The regulated pollutants are VOC. This information is being collected to assure compliance with 40 CFR Part 60, Subpart Kb.

### NSPS Subpart VV: Equipment Leaks of VOC in the SOCM I

The NSPS for Emissions of VOC from Equipment Leaks in the SOCM I were proposed on January 5, 1981, and promulgated on October 18, 1983, and was last amended on June 2, 2008. The standards apply to specific pieces of equipment contained within a process unit in the synthetic organic chemicals manufacturing industry which was constructed, modified, or reconstructed after the date of proposal and on or before November 7, 2006, and which produce as an intermediate or final product, one or more of the chemicals listed in §60.489. These include pumps in light liquid service, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, valves in gas/vapor service and light liquid service, pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, flanges, and other connectors. The regulated pollutants are VOC. The universe of sources subject to NSPS Subpart VV is closed. Any new sources will be subject to NSPS Subpart VVa, the most recent VOC standard applicable to equipment leaks. This information is being collected to assure compliance with 40 CFR Part 60, Subpart VV.

### NSPS Subpart VVa: Equipment Leaks of VOC in the SOCM I

NSPS Subpart VVa for Emissions of VOC from Equipment Leaks in the SOCM I were proposed on November 7, 2006, promulgated on November 16, 2007, and was last amended on June 2, 2008. These standards apply to equipment contained within a SOCM I process unit that is constructed, modified, or reconstructed after November 7, 2006. The regulated pollutants are

VOC. This information is being collected to assure compliance with 40 CFR Part 60, Subpart VVa.

#### NSPS Subpart DDD: VOC Emissions from the Polymer Manufacturing Industry

The NSPS for the polymer manufacturing industry were proposed on both September 30, 1987 and January 10, 1989, and promulgated on December 11, 1990, and was last amended on December 14, 2000. These standards apply to facilities involved in the manufacture of polypropylene, polystyrene, or poly (ethylene terephthalate) commencing construction, modification, or reconstruction after the date of proposal or after January 10, 1989, depending on the process section. The affected facilities include: 1) for polypropylene and polyethylene manufacturing: each raw material preparation section, each polymerization reaction section, each material recovery section, each product finishing section, and each product storage; 2) for polystyrene manufacturing processes: each material recovery section; and 3) for polyethylene (terephthalate) manufacturing: each polymerization reaction section. For equipment leaks, the affected facilities are each group of fugitive emissions equipment within any process unit. The regulated pollutants are VOC. This information is being collected to assure compliance with 40 CFR Part 60, Subpart DDD.

#### NSPS Subpart III: VOC Emissions from SOCOMI Air Oxidation Unit Processes

The NSPS for the SOCOMI Air Oxidation Unit Processes were proposed on October 21, 1983, and promulgated on June 29, 1990, and was last amended on December 14, 2000. These standards apply to the following facilities for which construction, modification or reconstruction is commenced after the date of proposal: 1) each air oxidation reactor not discharging its vent stream into a recovery device; 2) each combination of an air oxidation reactor and the recovery system into which its vent stream is discharged; and 3) each combination of two or more air oxidation reactors and the common recovery system into which their vent streams are discharged. The standards apply to the affected facility which produces one or more of the chemicals listed in §60.617 as a product, co-product, byproduct, or intermediate. The regulated pollutants are VOC. This information is being collected to assure compliance with 40 CFR Part 60, Subpart III.

#### NSPS Subpart NNN: VOC Emissions from SOCOMI Distillation Operations

The NSPS for the SOCOMI Distillation Operations were proposed on December 30, 1983, and promulgated on June 29, 1990, and was last amended on February 27, 2014. The 2014 makes technical corrections to references in §60.660(c)(4) and §60.665(h). These standards apply to the following facilities for which construction, modification or reconstruction is commenced after the date of proposal: 1) each distillation unit not discharging its vent stream into a recovery device; 2) each combination of a distillation unit and the recovery system into which its vent stream is discharged; and 3) Each combination of two or more distillation units and the common recovery system into which their vent streams are discharged. The standards apply to affected facilities producing one or more of the chemicals listed in §60.667 as a product, co-product, by-product, or intermediate. The regulated pollutants are VOC. This information is

being collected to assure compliance with 40 CFR Part 60, Subpart NNN.

#### NSPS Subpart RRR: VOC Emissions from SOCMI Reactor Processes

The NSPS for the synthetic organic chemical manufacturing industry (SOCMI) Reactor Processes were proposed on June 29, 1990, and promulgated on August 31, 1993, and was last-amended on December 14, 2000. These standards apply to affected facilities commencing construction, modification or reconstruction after the date of proposal: 1) each reactor process not discharging its vent stream into a recovery system; (2) each combination of a reactor processes and the recovery system into which its vent stream is discharged; (3) each combination of two or more reactor processes and the common recovery system into which their vent streams are discharged. The standard applies to affected facilities producing one or more of the chemicals listed in §60.707 as a product, co-product, by-product, or intermediate. The regulated pollutants are VOC. This information is being collected to assure compliance with 40 CFR Part 60, Subpart RRR.

#### NESHAP Subpart BB: Benzene Emissions from Benzene Transfer Operations

The National Emission Standards for Benzene Emissions from Benzene Transfer Operations were proposed on September 14, 1989, and promulgated on March 7, 1990, and was last-amended on December 14, 2000. The affected facility to which this subpart applies is the total of all loading racks handling a liquid containing 70 weight-percent or more benzene, at which benzene is loaded into tank trucks, railcars, or marine vessels at each benzene production facility and each bulk terminal. However, specifically exempted from this regulation are loading racks at which only the following are loaded: benzene-laden waste (covered under Subpart FF of Part 61), gasoline, crude oil, natural gas liquids, petroleum distillates (i.e., fuel oil, diesel, or kerosene), or benzene-laden liquid from coke by-product recovery plants. In addition, any affected facility which loads only liquid containing less than 70 weight-percent benzene or whose annual benzene loading is less than 1.3 million liters of 70 weight-percent or more benzene is exempt from the control requirements except for the recordkeeping and reporting requirements in §61.305(i). Marine vessels were given a one-year industry wide waiver of compliance, which was later extended to July 23, 1991, in order to allow for concurrent compliance with United States Coast Guard regulations. The regulated pollutant is benzene. This information is being collected to assure compliance with 40 CFR Part 61, Subpart BB.

#### NESHAP Subpart Y: Benzene Emissions from Benzene Storage Vessels

The NESHAP for Benzene Emissions from Storage Vessels were proposed in 1980, and re-promulgated in 1989 (54 FR 38077) as 40 CFR Part 61, Subpart Y, and was last-amended on December 14, 2000. Entities affected by this action are those owners and operators of benzene storage vessels that store benzene having a specific gravity within the range of specific gravities as specified in ASTM D836-84 for Industrial Grade Benzene, ASTM D835-85 for Refined Benzene-485, ASTM D2359-85a or 93 for Refined Benzene-535, and ASTM D4734-87 or 96 for Refined Benzene-545. Storage vessels with a design storage capacity less than 38 cubic meters (10,000 gallons) are exempt from the provisions of the subpart. Similarly, storage vessels

used for storing benzene at coke by-product facilities or vessels permanently attached to motor vehicles, such as trucks, rail cars, barges, ships, or pressure vessels designed to operate in excess of 204.9 kPa and without emissions to the atmosphere, are also exempt from this subpart. The regulated pollutant is benzene. This information is being collected to assure compliance with 40 CFR Part 61, Subpart Y.

#### NESHAP Subpart V: National Emission Standard for Equipment Leaks (Fugitive Emission Sources)

The NESHAP for National Emission Standard for Equipment Leaks (Fugitive Emission Sources) was promulgated on June 6, 1984 (49 FR 23573), and was last-amended on December 14, 2000. Affected facilities include the following sources that are intended to operate in volatile hazardous air pollutant (HAP) service: pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, flanges and other connectors, product accumulator vessels, and control devices or systems. The standards for this subpart are leak detection and repair (LDAR). The regulated pollutants are volatile HAPs. This information is being collected to assure compliance with 40 CFR Part 61, Subpart V.

#### NESHAP Subparts F, G, H, and I: The Hazardous Organic NESHAP (HON)

The MACT standards for the Hazardous Organic NESHAP (HON) were proposed on December 31, 1992, and promulgated on April 22, 1994. Subpart G was recently amended on February 27, 2014 to allow the use of Method 316 or Method 8260B in the SW-846 Compendium of Methods to determine HAP concentrations in wastewater streams. The HON standards apply to chemical manufacturing process units (CMPU's) in the SOCOMI that manufacture as a primary product one or more of the chemicals listed in Table 1 of 40 CFR Part 63, Subpart F; use as a reactant or manufacture as a product, by-product, or co-product, one or more of the organic HAPs listed in Table 2 of Subpart F; and are located at a plant site that is a major source as defined in section 112(a) of the Act. Additionally, styrene-butadiene rubber production, pesticide production, polybutadiene production, chlorinated hydrocarbon use in the production of chemicals, pharmaceutical production, and miscellaneous butadiene use are subject to the negotiated regulations affecting equipment leaks promulgated under Subpart I. The emission points include transfer racks, storage tanks, wastewater systems, process vents and equipment leaks. The regulations apply to existing sources as well as new sources commencing construction or reconstruction after the date of proposal. Hazardous air pollutants are the pollutants regulated under these subparts. This information is being collected to assure compliance with 40 CFR Part 63, Subparts F, G, H, and I.

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

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

The EPA is charged under Section 111 of the Clean Air Act (CAA), as amended, to establish standards of performance for new stationary sources that reflect:

. . . application of the best technological system of continuous emissions reduction which (taking into consideration the cost of achieving such emissions reduction, or any non-air quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated. Section 111(a)(1).

The Agency refers to this charge as selecting the best demonstrated technology (BDT). Section 111 also requires that the Administrator review and, if appropriate, revise such standards every eight years.

The EPA is also 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. In addition, section 114(a) states that the Administrator may require any owner/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.

In the Administrator's judgment, VOC, benzene and HAP emissions from storage vessels, process vents, transfer racks, and equipment leaks associated with the SOCOMI cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare. Therefore, the NSPS and NESHAP were promulgated for this source category at 40 CFR Parts 60, 61, and 63 referencing Subparts.

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

The recordkeeping and reporting requirements in the standards ensure compliance with the applicable regulations which were promulgated in accordance with the Clean Air Act. The collected information is also used for targeting inspections and as evidence in legal proceedings.

Performance tests are required in order to determine an affected facility's initial capability to comply with the emission standards. Continuous emission monitors are used to

ensure compliance with the standards at all times. During the performance test a record of the operating parameters under which compliance was achieved may be recorded and used to determine compliance in place of a continuous emission monitor.

The notifications required in the standards 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 standards are being met. The performance test may also be observed.

The required reports are used to determine periods of excess emissions, identify problems at the facility, verify operation/maintenance procedures and for compliance determinations.

### **3. Nonduplication, Consultations, and Other Collection Criteria**

The requested recordkeeping and reporting are required under 40 CFR Parts 60, 61, and 63 referencing Subparts.

#### **3(a) Nonduplication**

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.

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

An announcement of a public comment period for the renewal of this ICR was published in the Federal Register (81 FR 26546) on May 3, 2016. No comments were received on the burden published in the Federal Register.

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

The Agency has consulted industry experts and internal data sources to project the number of affected facilities and industry growth over the next three years. The primary source of information as reported by industry, in compliance with the recordkeeping and reporting provisions in the standard, is the Integrated Compliance Information System (ICIS). ICIS is EPA's database for the collection, maintenance, and retrieval of compliance data for industrial and government-owned facilities. The growth rate for the industry is based on our consultations with the Agency's internal industry experts.

Industry trade associations and other interested parties were provided an opportunity to comment on the burden associated with the standard as it was being developed and the standard



has been previously reviewed to determine the minimum information needed for compliance purposes. In developing this ICR, we contacted both: 1) the Society of Chemical Manufacturers and Affiliates (SOCMA), at (571) 348-5138 or [mountjoyb@socma.com](mailto:mountjoyb@socma.com); and 2) the American Fuel & Petrochemical Manufacturers (AFPM), at (202) 457-0480 or [info@apfm.org](mailto:info@apfm.org).

It is our policy to respond after a thorough review of comments received since the last ICR renewal as well as those submitted in response to the first Federal Register notice. In this case, no comments were received.

### **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 proper operation and maintenance of control equipment and the possibility of detecting violations would be less likely.

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

These reporting or recordkeeping requirements do not violate any of the regulations promulgated by OMB under 5 CFR Part 1320, Section 1320.5.

The standards at 40 CFR Part 63 Subparts F, G, and H require the respondents to maintain all records, including reports and notifications for at least five years (unless otherwise noted in the standards). The CAR standards require that respondents required to obtain or operate a regulated source under a title V permit to maintain all records, including reports and notifications for at least five years. All other referencing Subparts and respondents opting to comply with the CAR that are not required to obtain or operate a regulated source under a title V permit are required to maintain records for at least two years. This is consistent with the General Provisions as applied to the standards. EPA believes that the five-year records retention requirement is consistent with the Part 70 permit program and the five-year statute of limitations on which the permit program is based. The retention of records for five years allows EPA to establish the compliance history of a source, any pattern of non-compliance and to determine the appropriate level of enforcement action. EPA has found that the most flagrant violators have violations extending beyond five years. In addition, EPA would be prevented from pursuing the violators due to the destruction or nonexistence of essential records.

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

Any 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 (see 40 CFR 2; 41 FR 36902, September 1, 1976; amended by 43 FR 40000, September 8, 1978; 43 FR 42251, September 20, 1978; 44 FR 17674, March 23, 1979).

### 3(g) Sensitive Questions

The reporting or recordkeeping requirements in the standard do not include sensitive questions.

## 4. The Respondents and the Information Requested

### 4(a) Respondents/SIC Codes

The respondents to the recordkeeping and reporting requirements are owners or operators of synthetic organic chemical manufacturing facilities. The United States Standard Industrial Classification (SIC) codes for the respondents affected by the standards and the corresponding North American Industry Classification System (NAICS) codes are provided in the following table.

All Referenced Subparts	SIC Codes	NAICS Codes
Plastics Material and Resin Manufacturing	2821	325211
Artificial and Synthetic Fibers and Filaments Manufacturing	2824	325220
Paint and Coating Manufacturing	2851	325510
Petrochemical Manufacturing	2865, 2869	325110
Synthetic Dye and Pigment Manufacturing	2865	325130
Cyclic Crude, Intermediate, and Gum and Wood Chemical Manufacturing	2865	325194
Ethyl Alcohol Manufacturing	2869	325193
Other Basic Organic Chemical Manufacturing	2869, 2899	325199
Petroleum Refineries	2911	324110
Asphalt Paving Mixture and Block Manufacturing	2951	324121
Asphalt Shingle and Coating Materials Manufacturing	2952	324122
Petroleum Lubricating Oil and Grease Manufacturing	2992	324191
All Other Petroleum and Coal Products Manufacturing	2999	324199

<b>All Referenced Subparts</b>	<b>SIC Codes</b>	<b>NAICS Codes</b>
Solid Waste Collection	4212	562111
Hazardous Waste Collection	4212	562112
Other Waste Collection	4212	562119
General Freight Trucking, Local	4212, 4214	48411
Used Household and Office Goods Moving	4212, 4213, 4214	48421
Specialized Freight (except Used Goods) Trucking, Local	4212, 4214	48422
General Freight Trucking, Long-Distance, Truckload	4213	484121
General Freight Trucking, Long-Distance, Less Than Truckload	4213	484122
Specialized Freight (except Used Goods) Trucking, Long-Distance	4213	48423
Couriers and Express Delivery Services	4215	49211
Local Messengers and Local Delivery	4215	49221
Farm Product Warehousing and Storage	4221	49313
Refrigerated Warehousing and Storage	4222, 4226	49312
General Warehousing and Storage	4225, 4226	49311
Lessors of Mini-warehouses and Self-Storage Units	4225	53113
Other Warehousing and Storage	4226	49319
Other Support Activities for Road Transportation	4231, 4785	48849
Deep Sea Freight Transportation	4412	483111
Coastal and Great Lakes Freight Transportation	4424, 4432	483113
Inland Water Freight Transportation	4449	483211
Deep Sea Passenger Transportation	4481	483112
Coastal and Great Lakes Passenger Transportation	4481, 4482	483114
Inland Water Passenger Transportation	4482, 4489	483212

<b>All Referenced Subparts</b>	<b>SIC Codes</b>	<b>NAICS Codes</b>
Scenic and Sightseeing Transportation, Water	4489	48721
Port and Harbor Operations	4491	48831
Marine Cargo Handling	4491	48832
Navigational Services to Shipping	4492, 4499	48833
Marinas	4493	71393
Commercial Air, Rail, and Water Transportation Equipment Rental and Leasing	4499, 4741	532411
Other Support Activities for Water Transportation	4499, 4785	48839
Travel Agencies	4724	56151
Tour Operators	4725	56152
All Other Support Activities for Transportation	4729, 4789	488999
All Other Travel Arrangement and Reservation Services	4729	561599
Process, Physical Distribution, and Logistics Consulting Services	4731	541614
Freight Transportation Arrangement	4731	48851
Support Activities for Rail Transportation	4741, 4789	48821
Packing and Crating	4783	488991
Scenic and Sightseeing Transportation, Land	4789	48711
Food Service Contractors	4789	72231

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

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

In this ICR, all the data that is recorded or reported is required by the Consolidated Air Rule (CAR) for the Synthetic Organic Chemical Manufacturing Industry (SOCMI) (40 CFR Part 65) or the referencing Subparts.

Attachment A lists the recordkeeping and reporting requirements for the CAR and its referencing Subparts.

### Electronic Reporting

Some of the respondents are using monitoring equipment that automatically records parameter data. Although personnel at the affected facility must still evaluate the data, internal automation has significantly reduced the burden associated with monitoring and recordkeeping at a plant site.

#### **(ii) Respondent Activities**

<b>Respondent Activities</b>
Familiarization with the regulatory requirements.
Install, calibrate, maintain, and operate CMS for the appropriate control device(s).
Perform initial performance test and repeat performance tests if necessary.
Write the notifications and reports listed in Attachment A.
Enter information required to be recorded in Attachment A.
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.
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.
Transmit, or otherwise disclose the information.

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

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

Agency activities associated with the CAR are presented below in Table 1: Agency Activities; Agency burden associated with the CAR provisions are presented below in Table 2:

Average Annual EPA Burden and Cost for the CAR Provisions; Agency burden associated with the CAR direct final standards are presented below in Table 3: Average Annual EPA Burden and Cost for the CAR Direct Final Standards; and Agency burden associated with the referencing Subparts are shown below in Tables F-1 through F-12: Average Annual EPA Burden and Cost for the referencing Subparts, respectively. EPA conducts one or more of these activities in connection with the acquisition, analysis, storage, and distribution of the required information.

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

Following notification of startup, the reviewing authority could inspect the source to determine whether the pollution control devices are properly installed and operated. Performance test reports are used by the Agency to discern a source's initial capability to comply with the emission standard. Data and records maintained by the respondents are tabulated and published for use in compliance and enforcement programs. The quarterly, semiannual, or annual reports are used for problem identification, as a check on source operation and maintenance, and for compliance determinations.

Information contained in the reports is reported by state and local governments in the ICIS Air database, which is operated and maintained by EPA's Office of Compliance. ICIS is EPA's database for the collection, maintenance, and retrieval of compliance data for industrial and government-owned facilities. EPA uses ICIS for tracking air pollution compliance and enforcement by local and state regulatory agencies, EPA regional offices and EPA headquarters. EPA and its delegated Authorities can edit, store, retrieve and analyze the data.

The records required by the standards at 40 CFR Part 63 Subparts F, G, and H (unless otherwise noted in the standards) and the CAR standards for respondents required to obtain or operate a regulated source under a title V permit must be retained by the owner/operator for five years. The records required by all other referencing Subparts and the CAR standards for respondents not required to obtain or operate a regulated source under a title V permit must be retained by the owner/operator for two 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. Due to technical considerations involving the process operations and the types of control equipment employed, the recordkeeping and reporting requirements are the same for both small and large entities. The Agency considers these to be the minimum requirements 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 in below Table 5: Basis for Annual Respondent Burden and Cost for the CAR, and Tables G-1 through G-13: Annual Respondent Burden and Cost for the referencing Subparts, respectively.

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

Table 6: Annual Respondent Burden and Cost for the CAR Provisions, Table 7: Annual Respondent Burden and for the Direct Final Standards, and Tables G-1 through G-13: Annual Respondent Burden and Cost document the computation of individual burdens for the recordkeeping and reporting requirements applicable to the industry for the CAR and each of the referencing Subparts 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 three years from these recordkeeping and reporting requirements is estimated to be 2,210,000 (Total Labor Hours from Table 8: Summary of Respondent and Agency Burden and Cost for Referencing Subparts and the CAR, below). These hours are based on Agency studies and background documents from the development of the regulation, Agency knowledge and experience with the NSPS and NESHAP programs, the previously approved ICR, and any comments received.

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

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

This ICR uses the following labor rates:

Managerial	\$144.33 (\$68.73 + 110%)
Technical	\$108.28 (\$51.56 + 110%)
Clerical	\$53.34 (\$25.40 + 110%)

These rates are from the United States Department of Labor, Bureau of Labor Statistics, September 2016, "Table 2. Civilian Workers, by occupational and industry group." 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.

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

The type of industry costs associated with the information collection activities in the

subject standards are both labor costs which are addressed elsewhere in this ICR and the costs associated with continuous monitoring. The capital/startup costs are one-time costs when a facility becomes subject to the regulation. The annual operation and maintenance costs are the ongoing costs to maintain the monitor(s) and other costs such as photocopying and postage.

Because we assume that no new sources will opt to comply with the CAR at startup over the next 3 years, there is no capital/startup cost associated with the CAR. Facilities that comply with the CAR are assumed to have already purchased any equipment needed to comply with the referencing Subpart. There is no capital/startup cost associated with the Direct Final Rule for Revisions to the CAR. Both Capital/startup and O&M costs for the CAR and referencing Subparts are summarized below in Table 8: Summary of Respondent and Agency Burden and Cost for Referencing Subparts and the CAR.

Details of the capital/startup and O&M costs, as taken from the most recently approved ICR for the CAR and referencing Subparts, are detailed in Attachment J.

### (iii) Capital/Startup vs. Operation and Maintenance (O&M) Costs

(A)	(B)	(C)	(D)	(E)	(F)	(G)
Subpart	Capital/Startup Cost for One Respondent	Number of New Respondents with Capital/Startup Costs	Total Capital/Startup Cost, (B X C)	Annual O&M Costs for One Respondent	Number of Respondents with O&M	Total O&M, (E X F)
<b>NSPS Subpart Ka</b>	\$0	0	\$0	\$0	0	\$0
<b>NSPS Subpart Kb</b>	\$13,500	2	\$27,000	\$1,350	438	\$591,300
<b>NSPS Subpart VV</b>	\$0	0	\$0	\$0	0	\$0
<b>NSPS Subpart VVa</b>	\$1,400	3	\$4,200	\$0	0	\$0
<b>NSPS Subpart DDD</b>	\$30,000	10	\$300,000	\$7,000	150	\$1,050,000
<b>NSPS Subpart III</b>	\$13,500	1	\$13,500	\$1,350	17	\$22,950
<b>NSPS Subpart NNN</b>	\$13,500	177	\$2,389,500	\$1,350	2,407	\$3,249,450
<b>NSPS Subpart RRR</b>	\$25,000	20	\$500,000	\$500	275	\$137,500
<b>NESHAP Subpart BB</b>	\$0	0	\$0	\$0	0	\$0
<b>NESHAP Subpart Y</b>	\$0	0	\$0	\$0	0	\$0
<b>NESHAP Subpart V</b>	\$0	0	\$0	\$0	0	\$0
<b>NESHAP Subpart F</b>	\$0	0	\$0	\$0	0	\$0
<b>NESHAP Subpart G</b>	\$25,000	5	\$125,000	\$275,000	270	\$74,250,000
<b>NESHAP Subpart H</b>	\$1,400	9	\$12,600	\$0	0	\$0
<b>NESHAP Subpart I</b>	\$0	0	\$0	\$0	0	\$0
<b>CAR</b>	\$0	0	\$0	\$275,000	80	\$22,000,000
<b>CAR Revisions</b>	\$0	0	\$0	\$0	0	\$0
<b>Total for CAR and Referencing Subparts</b>				<b>\$3,370,000</b>		<b>\$101,000,000</b>



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

The total capital/startup costs for this ICR are \$3,370,000. This is the total of column D in the above table.

The total operation and maintenance (O&M) costs for this ICR are \$101,000,000. This is the total of column G.

The average annual cost for capital/startup and operation and maintenance costs to industry over the next three years of the ICR is estimated to be \$105,000,000. These are recordkeeping costs.

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

The only costs to the Agency are those costs associated with analysis of the reported information. EPA's overall 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 three years of the ICR is estimated to be \$1,500,000.

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

Managerial	\$64.80 (GS-13, Step 5, \$40.50 + 60%)
Technical	\$48.08 (GS-12, Step 1, \$30.05 + 60%)
Clerical	\$26.02 (GS-6, Step 3, \$16.26 + 60%)

These rates are from the Office of Personnel Management (OPM), 2017 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 this estimate is based appear below in Table 2: Average Annual EPA Burden and Cost for the CAR Provisions; Table 3: Average Annual EPA Burden and Cost for the Direct Final Standards; and Tables F-1 through F-12: Average Annual EPA Burden and Cost for the referencing Subparts, and is summarized overall in Table 8: Summary of Respondent and Agency Burden and Cost for Referencing Subparts and the CAR.

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

Based on our research for this ICR, on average over the next three years, the total number of respondents is 5,198. will be subject to the standard. For the CAR, the direct final rule for revisions to the CAR, and the referencing Subparts, the calculation of respondents is summarized in Column (A) of Table 8: Summary of Respondent and Agency Burden and Cost for Referencing Subparts and the CAR.

The number of Total Annual Responses is 13,477. For the CAR, the direct final rule for revisions to the CAR, and the referencing Subparts, the calculation of responses is summarized below in Column (B) of Table 8: Summary of Respondent and Agency Burden and Cost for Referencing Subparts and the CAR. A detailed breakdown of the Total Annual Responses specifically associated with the CAR, the direct final rule for revisions to the CAR, and the referencing Subparts is provided below in Table 9: Summary of Total Annual Responses for Referencing Subparts and the CAR.

The total annual labor costs are \$232,000,000. Details regarding these estimates may be found below in the following tables: Table 8: Summary of Respondent and Agency Burden and Cost for Referencing Subparts and the CAR; Table 6: Annual Respondent Burden and Cost for the CAR Provisions; Table 7: Annual Respondent Burden and Cost for the Direct Final Standards; and Tables G-1 through G-13: Annual Respondent Burden and Cost for the referencing Subparts.

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

The detailed bottom line burden hours and cost calculations for the respondents and the Agency are shown in Table 8: Summary of Respondent and Agency Burden and Cost for Referencing Subparts and the CAR, and are detailed, respectively, in Tables 2: Average Annual EPA Burden and Cost for the CAR Provisions and 6: Annual Respondent Burden and Cost for the CAR Provisions, plus Tables: 3: Average Annual EPA Burden and Cost for the Direct Final Standards and 7: Annual Respondent Burden and Cost for the Direct Final Standards; and in both Tables F-1 through F-12: Average Annual EPA Burden and Cost for the referencing Subparts and Tables G-1 through G-13: Annual Respondent Burden and Cost for the referencing Subparts.

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

The total annual labor hours are 2,210,000. Details regarding these estimates may be found in Table 6: Annual Respondent Burden and Cost for the CAR Provisions; Table 7: Annual Respondent Burden and Cost for the Direct Final Standards; and Tables G-1 through G-13: Annual Respondent Burden and Cost for the referencing Subparts, respectively.

We assume that burdens for managerial tasks take 5% of the time required for technical tasks because the typical tasks for managers are to review and approve reports. Clerical burdens are assumed to take 10% of the time required for technical tasks because the typical duties of clerical staff are to proofread the reports, make copies and maintain records.

Furthermore, the annual public reporting and recordkeeping burden for this collection of information is estimated to average 164 hours per response.

The total annual capital/startup and O&M costs to the regulated entity are \$105,000,000. The cost calculations are detailed in Section 6(b)(iii), Capital/Startup vs. Operation and Maintenance (O&M) Costs.

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

The average annual Agency burden and cost over next three years is estimated to be 32,000 labor hours at a cost of \$1,500,000. See Table 8: Summary of Respondent and Agency Burden and Cost for Referencing Subparts and the CAR and detailed in Table 2: Average Annual EPA Burden and Cost for the CAR Provisions; Table 3: Average Annual EPA Burden and Cost for the Direct Final Standards; and Tables F-1 through F-12: Average Annual EPA Burden and Cost for the referencing Subparts.

We assume that burdens for managerial tasks take 5% of the time required for technical tasks because the typical tasks for managers are to review and approve reports. Clerical burdens are assumed to take 10% of the time required for technical tasks because the typical duties of clerical staff are to proofread the reports, make copies and maintain records.

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

There is an increase in the total estimated respondent labor burden and associated labor, capital/startup and O&M costs. This increase is not due to any program changes. Overall, the change in burden from the most recently-approved ICR is due to two reasons. First, there is an increase in the number of sources subject to the standards; the estimated number of sources has been increased to reflect industry growth, which in turn increased the cost of those Subparts where growth is expected. There is an estimated growth in the number of sources for the following referencing Subparts: Subpart Kb, Subpart VVa, Subpart DDD, Subpart III, Subpart NNN, Subpart RRR, Subpart V, and Subparts F, G, H and I (i.e., the HON). Second, this ICR assumes that all existing sources will have to familiarize with the regulatory requirements each year resulting in a small increase in labor burden and associated labor costs for all of the Subparts.

There is a further overall increase in respondent burden costs from the most recently approved ICR due to the use of updated labor rates. This ICR references labor rates from the Bureau of Labor Statistics to calculate respondent burden costs.

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

The annual public reporting and recordkeeping burden for this collection of information is estimated to average 164 hours per response. 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, EPA has established a public docket for this ICR under Docket ID Number EPA-HQ-OECA-2013-0350. An electronic version of the public docket is available at <http://www.regulations.gov/> which may be used to obtain a copy of the draft collection of information, submit or view public comments, access the index listing of the contents of the 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 in this document. The documents are also available for public viewing at the Enforcement and Compliance Docket and Information Center in the EPA Docket Center (EPA/DC), EPA West, Room 3334, 1301 Constitution Ave., NW, Washington, DC. 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 docket center is (202) 566-1927. Also, you can send comments to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW, Washington, DC 20503, Attention: Desk Officer for EPA. Please include the EPA Docket ID Number EPA-HQ-OECA-2013-0350 and OMB Control Number 2060-0443 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: Agency Activities**

<b>Agency Activities</b>
Review notifications and reports, including performance test reports, and excess emissions reports, required to be submitted by industry.
Audit facility records.
Input, analyze, and maintain data in the Enforcement and Compliance History Online (ECHO) and ICIS.

**Table 2: Average Annual EPA Burden and Cost for the CAR Provisions**

Burden item	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Average hours per activity	Number of activities per plant per year	Estimated Technical hours per plant per year (C=AxB)	Sources per year	Technical hours per year (E=CxD)	Management hours per year (F=Ex0.05)	Clerical hours per year (G=Ex0.1)	Total cost per year (\$) <sup>a</sup>
Report review								
1. Initial notification of Part 65 applicability, Title V modification <sup>b</sup>	2	1	2	0	0	0	0	
2. Review equipment leak monitoring <sup>c</sup>	5	2	10	318	3,180	159	318	\$171,471.96
3. Review periodic reports <sup>d</sup>	4	1	4	80	320	16	32	\$17,255.04
<b>TOTAL ANNUAL BURDEN AND COST (rounded) <sup>e</sup></b>						<b>4,030</b>		<b>\$189,000</b>

**Assumptions:**

<sup>a</sup> This ICR uses the following labor rates: \$48.08 for technical, \$64.80 for managerial, and \$26.02 for clerical labor. These rates are from the Office of Personnel Management (OPM) 2017 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.

<sup>b</sup> Estimate all CAR sources must submit an initial notification. We estimate 1/3 of sources will submit initial notification in each of the three years covered by this ICR. This equates to 27 per year (80/3) during each of the three years following promulgation.

<sup>c</sup> Estimate 318 equipment leak sources will comply with the CAR (240 from the HON, 59 from Subpart VV and 19 from Subpart V - see Table 4). Reports for equipment leaks will be submitted semiannually (318 x 2 = 636 per year). See Attachment C for assumptions and further description of activities.

<sup>d</sup> Estimate 25 percent of the 320 SOCFI facilities, which equals 80 facilities, will opt to comply with the CAR and must submit periodic reports each year.

<sup>e</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

**Table 3: Average Annual EPA Burden and Cost for the Direct Final Standards**

Burden item	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Technical person-hours per occurrence	No. of occurrences per respondent per year	Technical person-hours per respondent per year (C=AxB)	Respondents per year	Technical hours per year (E=CxD)	Management hours per year (F=Ex0.05)	Clerical hours per year (G=Ex0.1)	Total cost per year (\$) <sup>a</sup>
Report review/filing	1	1	1	6	6	0.3	0.6	\$323.53
<b>TOTAL ANNUAL BURDEN AND COST (rounded) <sup>b</sup></b>						7		<b>\$324</b>

**Assumptions:**

<sup>a</sup> This ICR uses the following labor rates: \$48.08 for technical, \$64.80 for managerial, and \$26.02 for clerical labor. These rates are from the Office of Personnel Management (OPM) 2017 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.

<sup>b</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

**Table 4: Estimated Number of Sources Subject to Referencing Subparts that Will Opt to Comply with the CAR**

<b>Referencing Subpart</b>	<b>Estimated number of sources complying with the CAR<sup>a, b</sup></b>
Storage Vessels	
Ka	458
Kb	382
Y	0
Transfer Racks	
BB	0
Equipment Leaks	
V	19
VV	59
VVa	0
Process Vents	
III	1
NNN	71
RRR	8
DDD	5
HON F & G - Storage Vessels	800
HON F & G - Transfer Racks	320
HON H & I -- Equipment Leaks	240
HON F & G - Process Vents	640

**Assumptions:**

<sup>a</sup> This table provides estimates on a per-source basis, rather than a per-facility basis. Therefore, estimates correlate to (as described in the footnote to the appropriate Table), but do not match, facility entries in the reference subpart burden tables (Tables F-1 through F-12, and G-1 through G-13). For the purposes of this ICR, a source is defined as:

- One storage vessel (Subparts Ka, Kb, Y, and G);
- One process vent (Subparts DDD, III, NNN, RRR, and G);
- The collection of subject equipment for one process unit (Subparts VV, VVa, V, and H and I); or
- One transfer rack (Subparts BB and G).

<sup>b</sup> From the most recently approved ICR.



**Table 5: Basis for Annual Respondent Burden and Cost for the CAR**

Burden Item	Annual Burden in Technical Hours												Total <sup>d</sup>
	Process Vents		Storage Vessels		Transfer Racks		Equipment Leaks				Inventory		
	Per source <sup>b</sup>	Total <sup>c</sup>	Per source <sup>b</sup>	Total <sup>c</sup>	Per source <sup>b</sup>	Total <sup>c</sup>	With Connectors		Without Connectors <sup>a</sup>		Per source <sup>b</sup>	Total <sup>c</sup>	
							Per source <sup>b</sup>	Total <sup>c</sup>	Per source <sup>b</sup>	Total <sup>c</sup>			
1. Familiarize with regulatory requirements <sup>e</sup>	2.9	2,102.5	1.1	1,804	1.1	352	2.5	600	1	78	1.8	144	5,080.5
2. Plan activities	2.1	1,522.5	1.7	2,788	0.85	272	0.57	136.8	0.23	17.94	4.5	360	5,097.24
3. Training	1.3	942.5	0.5	820	0.5	160	0	0	0	0	0	0	1,922.5
4. Creation, testing, research and development	28	20,300	16	26,240	16	5,120	380	91,200	155	12,090	0	0	154,950
5. Gather information, monitor/ inspect	14	10,150	17	27,880	17	5,440	263	63,120	108	8,424	54	4,320	119,334
6. Process/compile and review	0	0	0	0	0	0	0	0	0	0	18	1,440	1,440
7. Complete forms	9	6,525	5.4	8,856	5.4	1,728	57	13,680	23	1,794	5.4	432	33,015
8. Record/disclose	28	20,300	2.8	4,592	2.8	896	4.7	1,128	1.9	148.2	9	720	27,784.2
9. Store/file	3	2,175	1.25	2,050	1.25	400	2.75	660	0.9	70.2	1.58	126.4	5,481.6
<b>TOTAL</b>	<b>88</b>	<b>64,018</b>	<b>46</b>	<b>75,030</b>	<b>45</b>	<b>14,368</b>	<b>711</b>	<b>170,525</b>	<b>290</b>	<b>22,622</b>	<b>94</b>	<b>7,542</b>	<b>354,105</b>

**Assumptions:**

<sup>a</sup> The HON, the basis for the CAR burden estimate, requires connector monitoring. Sources originally complying with Subpart V or VV will not be required to perform connector monitoring. Connector monitoring for these facilities is the average of the per source burden for Subparts V and VV. The average for Subparts V and VV is 294 hours, 40.9 percent less than the HON-based estimate. Per-source estimates for each burden item were estimated by multiplying the HON-based estimate by 40.9 percent.

<sup>b</sup> From the most recently approved CAR ICR.

<sup>c</sup> Total burden for each source type is the product of the per-source burden and the total number of sources estimated to opt to comply with the CAR. The estimated numbers of sources to comply with the CAR is from the most recently approved ICR and are detailed in Table 4:

- process vents - 725
- storage vessels - 1,640
- transfer racks - 320
- equipment leaks with connector monitoring - 240
- equipment leaks without connector monitoring - 78
- facilities (used for inventory estimate) - 80

<sup>d</sup> Total burden for each burden item is the sum of totals for each source type. This burden represents technical hours only and is the basis for determining total burden in Table 6.

<sup>e</sup> This ICR assumes all existing respondents will have to familiarize with the regulatory requirements each year.

**Table 6: Annual Respondent Burden and Cost for the CAR Provisions**

Burden item <sup>a</sup>	(A)	(B)	(C)	(D)	(E)	(F)	(G)
	Average hours per activity	Estimated number of activities per year per respondent	Technical hours per year per respondent	Estimated technical hours per year	Estimated managerial hours per year (E=Dx0.5)	Estimated clerical hours per year (F=Dx0.1)	Annual cost per year (\$)
1. Familiarize with regulatory requirements <sup>b</sup>	2.76	23	63.51	5,080.5	254.03	508.05	\$613,879.36
2. Plan activities	4.9	13	63.72	5,097.24	254.86	509.72	\$615,902.06
3. Training	6.01	4	24.03	1,922.5	96.13	192.25	\$232,296.64
4. Creation, testing, research, and development	19.56	99	1,936.88	154,950	7,747.5	15,495	\$18,722,685.98
5. Gather information, monitor/inspect	2.2	677	1,491.68	119,334	5,966.7	11,933.4	\$14,419,186.89
6. Process/compile and review	18	1	18	1,440	72	144	\$173,995.92
7. Complete forms	82.54	5	412.69	33,015	1,650.75	3,301.5	\$3,989,218.96
8. Record/disclose	13.36	26	347.30	27,784.2	1,389.21	2,778.42	\$3,357,178.78
9. Store/file	1.96	35	68.52	5,481.6	274.08	548.16	\$662,344.47
<b>TOTAL ANNUAL BURDEN AND COST (rounded) <sup>c</sup></b>					<b>407,000</b>		<b>\$42,800,000</b>
<b>TOTAL CAPITAL AND O&amp;M COST (rounded) <sup>c</sup></b>							<b>\$22,000,000</b>
<b>GRAND TOTAL (rounded) <sup>c</sup></b>							<b>\$64,800,000</b>

**Assumptions:**

<sup>a</sup> Following is a brief explanation of each column. A more detailed description is provided in Attachment E.

(a) Average hours per activity are back-calculated by dividing (c) by (b).

(b) Number of activities per year is based on the estimate of number of activities per year for the HON, with a reduction to reflect the consolidation of activities achieved through the CAR.

(c) Technical hours per year per respondent are the total technical hours for a burden item as estimated in Table 5, divided by 80 facilities.

(d) Estimated technical hours per year are the total technical hours for all facilities for each burden item, as estimated in Table 5.

(e) Estimated managerial hours per year are assumed to be 5 percent of technical hours.

(f) Estimated clerical hours per year are assumed to be 10 percent of technical hours.

(g) Annual Cost is the sum of costs for technical, managerial, and clerical hours. This ICR uses the following labor rates: \$108.28 for technical, \$144.33 for managerial, and \$53.34 for clerical labor. These rates are from the United States Department of Labor, Bureau of Labor Statistics, September 2016, "Table 2. Civilian workers, by occupational and industry group." 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>b</sup> This ICR assumes all existing respondents will have to familiarize with the regulatory requirements each year.

<sup>c</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.



**Assumptions:**

- <sup>a</sup> This ICR uses the following labor rates: \$108.28 for technical, \$144.33 for managerial, and \$53.34 for clerical labor. These rates are from the United States Department of Labor, Bureau of Labor Statistics, September 2016, “Table 2. Civilian workers, by occupational and industry group.” 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>b</sup> This ICR assumes all existing respondents will have to familiarize with the regulatory requirements each year.
- <sup>c</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

**Table 8: Summary of Respondent and Agency Burden and Cost for Referencing Subparts and the CAR**

Subpart	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
	Number of respondents	Total annual responses <sup>a</sup>	Respondent reporting burden hours <sup>a</sup>	Respondent recordkeeping burden hours <sup>a</sup>	Respondent burden hours <sup>a</sup>	Respondent burden Costs <sup>a</sup>	Agency burden hours <sup>b</sup>	Agency burden costs <sup>b</sup>	O&M Costs <sup>c</sup>	Capital/Startup costs <sup>c</sup>
NSPS Ka	174	194	722	45,931	46,653	\$4,901,852	115	\$5,392	\$0	\$0
NSPS Kb	802	2,465	28,888	81,254	110,142	\$11,572,662	1,120	\$52,531	\$591,300	\$27,000
NSPS VV	436	872	4,513	40,112	44,625	\$4,397,778	2,006	\$94,040	\$0	\$0
NSPS VVa	456	1004	7,671	43,298	50,968	\$5,355,256	2,756	\$129,208	\$0	\$4,200
NSPS DDD	150	324	6,169	1,627	7,796	\$819,110	800	\$37,530	\$1,050,000	\$300,000
NSPS III	17	36	219	184	403	\$42,339	92	\$4,292	\$22,950	\$13,500
NSPS NNN	2,407	5,238	33,881	26,164	60,046	\$6,308,983	13,023	\$610,613	\$3,249,450	\$2,389,500
NSPS RRR	275	598	3,856	2,989	6,845	\$719,153	1,486	\$69,667	\$137,500	\$500,000
NESHAP BB	54	216	7,662	4,844	12,506	\$1,314,032	497	\$23,294	\$0	\$0
NESHAP Y	4	8	60	9	69	\$7,183	9	\$431	\$0	\$0
NESHAP V	67	145	4,670	4,287	8,957	\$941,064	335	\$15,702	\$0	\$0
NESHAP F, G, H, and I	270	1,970	1,245,749	209,168	1,454,917	\$152,868,103	5,756	\$269,880	\$74,250,000	\$137,600
CAR <sup>d</sup>	80	400	368,965	38,256	407,221	\$42,786,689	4,025	\$188,727	\$22,000,000	\$0
CAR Revisions <sup>e</sup>	6	6	7	0	7	\$725	7	\$324	\$0	\$0
<b>TOTAL <sup>f</sup></b>	<b>5,198</b>	<b>13,477</b>	<b>1,710,000</b>	<b>498,000</b>	<b>2,210,000</b>	<b>\$232,000,000</b>	<b>32,000</b>	<b>\$1,500,000</b>	<b>\$101,000,000</b>	<b>\$3,370,000</b>

**Assumptions:**<sup>a</sup> From Tables G-1 through G-13.<sup>b</sup> From Tables F-1 through F-12.<sup>c</sup> From Attachment J.<sup>d</sup> From Tables 2 and 6.

<sup>e</sup> From Tables 3 and 7.

<sup>f</sup> Burden and cost totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.



**Table 9: Summary of Total Annual Responses for Referencing Subparts and the CAR**

(A)	(B)	(C)	(D)	(E)
Information Collection Activity	Number of Respondents	Number of Responses	Number of Existing Respondents That Keep Records But Do Not Submit Reports	Total Annual Responses E=(BxC)+D
<b>NSPS Ka</b>				
Notification of construction	0	1	0	0
Notification of actual startup	0	1	0	0
Notification of gap measurement	188	1	0	188
Report of seal gap excess	6	1	0	6
			<b>Subtotal</b>	<b>194</b>
<b>NSPS Kb</b>				
Notification of construction	37	1	0	37
Notification of actual startup	37	1	0	37
Notification of IFR internal inspection	28	1	0	28
Notification of EFR gap measurement	7	1	0	7
IFR internal inspection report	28	1	0	28
EFR 1st seal gap measurement	7	1	0	7
EFR 2nd seal gap measurement	7	1	0	7
CVS operating plan report	2	1	0	2
Report of IFR failure	61	1	0	61
Notification of IFR delay of repair/emptying	6	1	0	6
EFR 1st seal gap measurement report	765	1	0	765
EFR 2nd seal gap measurement report	765	1	0	765
Notification of refill	715	1	0	715
			<b>Subtotal</b>	<b>2,465</b>
<b>NSPS VV</b>				
Notification of construction	0	1	0	0
Notification of reconstruction/modification	0	1	0	0
Notification of actual startup	0	1	0	0
Notification of initial/repeat performance test	0	1	0	0
Semiannual report	436	2	0	872
			<b>Subtotal</b>	<b>872</b>
<b>NSPS VVa</b>				
Initial performance test report	38	1	0	38
Repeat performance test report	8	1	0	8
Notification of construction	23	1	0	23

Notification of reconstruction/modification	15	1	0	15
Notification of actual startup	38	1	0	38
Notification of initial/repeat performance test	46	1	0	46
Semiannual report	418	2	0	836
			<b>Subtotal</b>	<b>1,004</b>
<b>NSPS DDD</b>				
Initial performance test report	10	1	0	10
Repeat performance test report	2	1	0	2
Notification of construction/modification	10	1	0	10
Notification of actual startup	10	1	0	10
Notification of initial/repeat performance test	12	1	0	12
Semiannual report	140	2	0	280
			<b>Subtotal</b>	<b>324</b>
<b>NSPS III</b>				
Initial performance test report	1	1	0	1
Repeat performance test report	0.2	1	0	0.2
Notification of construction/modification	1	1	0	1
Notification of actual startup	1	1	0	1
Notification of initial/repeat performance test	1.2	1	0	1.2
Semiannual report	16	2	0	32
			<b>Subtotal</b>	<b>36.4</b>
<b>NSPS NNN</b>				
Initial performance test report	177	1	0	177
Repeat performance test report	35	1	0	35
Notification of construction/modification	177	1	0	177
Notification of actual startup	177	1	0	177
Notification of initial/repeat performance test	212	1	0	212
Semiannual report	2,230	2	0	4,460
			<b>Subtotal</b>	<b>5,238</b>
<b>NSPS RRR</b>				
Initial performance test report	20	1	0	20
Repeat performance test report	4	1	0	4
Notification of construction/modification	20	1	0	20
Notification of actual startup	20	1	0	20
Notification of initial/repeat performance test	24	1	0	24
Semiannual report	255	2	0	510
			<b>Subtotal</b>	<b>598</b>
<b>NESHAP BB</b>				
Initial emission test	0	1	0	0
Monitoring performance test	0	1	0	0
Notification of construction	0	1	0	0

Notification of anticipated startup	0	1	0	0
Notification of actual startup	0	1	0	0
Notification of emission test	0	1	0	0
Report of emission test	0	1	0	0
Notification of performance test	0	1	0	0
Report of performance test	0	1	0	0
Report facilities below cut-off	0	1	0	0
Quarterly parameter excesses	54	4	0	216
			<b>Subtotal</b>	<b>216</b>
<b>NESHAP Y</b>				
Annual IFR internal inspections and EFR seal gap measurements	4	1	0	4
Notification of construction/reconstruction	0	1	0	0
Notification of anticipated startup	0	1	0	0
Notification of actual startup	0	1	0	0
Notification of emission test	0	1	0	0
Report of emission test	0	1	0	0
Notification of control installation and refill at 1st IFR degassing	0	1	0	0
Annual inspection report	4	1	0	4
Supplemental delay report	0	1	0	0
Quarterly emission report	0	4	0	0
			<b>Subtotal</b>	<b>8</b>
<b>NESHAP V</b>				
Initial performance test report	2	1	0	2
Reference method 21/22 test	2	1	0	2
Repeat performance test report	0.4	1	0	0.4
Notification of construction/reconstruction	2	1	0	2
Notification of anticipated startup	2	1	0	2
Notification of actual startup	2	1	0	2
Notification of initial/repeat performance test	2.4	1	0	2.4
Application for alternative	0.5	1	0	0.5
Initial report	2	1	0	2
Semiannual report	65	2	0	130
			<b>Subtotal</b>	<b>145</b>
<b>NESHAP F, G, H, and I</b>				
Complete reports (new respondents; see Table G-12)	5	49	0	245
Complete reports (existing respondents; see Table G-13)	345	5	0	1,725
			<b>Subtotal</b>	<b>1,970</b>
<b>CAR Provisions</b>				
Complete forms (see Table 6)	80	5	0	400
			<b>Subtotal</b>	<b>400</b>

<b>CAR Direct Final Standards</b>				
Write report (see Table 7)	6	1	0	6
			<b>Subtotal</b>	<b>6</b>
<b>Total responses (all subparts)</b>				<b>13,477</b>

## Attachment A

### Part 1: Recordkeeping and Reporting under the Consolidated Air Rule

1. General Records
  - Maintain notifications, records, and reports as specified in §65.4(a) and §65.4(c).
2. Storage Vessel Records
  - Storage vessel records where emissions are controlled by a fixed roof and internal floating roof (IFR), external floating roof (EFR), or EFR converted into an IFR as specified in §65.47.
  - Storage vessel records where emissions are controlled by a control device as specified in §65.159 for flare compliance determination and §65.163 for closed vent systems.
  - Storage vessel records where emissions are routed to a fuel gas system or process as specified in §65.163.
3. Process Vent Records
  - General process vent records as specified in §§65.66, 65.63, and 65.160.
  - Process vent records where emissions are controlled by a control device as specified in §65.159 for flare compliance determination records and §§65.162 and 65.163.
  - Process vent records where recovery devices are used to maintain the total resource effectiveness (TRE) index value above 1.0 as specified in §65.160.
4. Transfer Rack Records
  - General Transfer Rack Records as specified in §§65.83, 65.87, and 65.160.
  - Transfer Rack Records where emissions are controlled by a control device (except for low-throughput transfer operations) as specified in §§65.159, 65.162, and 65.163.
  - Low-throughput transfer operation records where emissions are controlled by a control device as specified in §§65.159 and 65.163.
5. Equipment Leak Records
  - General equipment leak records as specified in §§65.103, 65.104, and 65.105. Specific equipment leak records where equipment leak emissions are not controlled by a control device or routed to a process or fuel gas system as specified in §§65.106, 65.109, 65.111, and 65.120.
  - Equipment leak records where emissions are controlled by a control device as specified in §§65.159 and 65.163.
6. Notification of Initial Startup
  - Submit Notification of Initial Startup as specified in §65.5(a), (b), (f), and (g) and 65.48(a).
  - Submit Initial Notification for Part 65 Applicability as specified in §65.5(a), (c), (f), and (g).

7. Initial Compliance Status Report

- Submit Initial Compliance Status Report as specified in §65.5(a), (d), (f), and (g).
- Storage vessels as specified in §§65.163 and 65.164.
- Process vents as specified in §§65.63, 65.67, 65.160, 65.164, and 65.165.
- Low-volume transfer racks as specified in §§65.164 and 65.165.
- High-volume transfer racks as specified in §§65.83, 65.164, and 65.165.
- Equipment leaks as specified in §§65.117, 65.118, 65.119, and 65.120.

1. Periodic Reports

- Submit Periodic Reports as specified in §65.5(a), (e), (f), and (g) and §65.6(c).
- Storage vessel records where emissions are controlled by an IFR, EFR, or EFR converted into an IFR as specified in §65.48.
- Storage vessels where emissions are controlled by a control device as specified in §65.166.
- Process vents as specified in §§65.67 and 65.166.
- Low-volume transfer racks as specified in §65.166.
- High-volume transfer racks as specified in §65.166.
- Equipment leaks as specified in §65.120.
- Closed vent systems as specified in §§65.143 and 65.166.
- Flares as specified in §65.166.

9. Other Notification and Reports

- Request for alteration of time periods or postmarks as specified in §65.5(h).
- Submit Startup, Shutdown, and Malfunction Report as specified in §65.5(a) and §65.6(c) (can be included with a periodic report).
- Application for waiver of recordkeeping or reporting requirements as specified in §65.7.
- Request for approval of alternative monitoring or recordkeeping provisions as specified in §65.7.
- Storage vessel refilling notification as specified in §65.48.
- Storage vessel seal gap measurement notification as specified in §65.48.
- Process vent Group 2A without a recovery device monitoring and recordkeeping and reporting plan as specified in §65.63.
- Process vent report of a process change if not included with the periodic report as specified in §65.67.
- Intent to conduct a performance test as specified in §65.67.
- Process vent report according to the plan for Group 2A process vents without a recovery device as specified in §65.67.
- Equipment leaks written request for alternative means of emission limitation as specified in §65.102.

**Part 2: Burden for NSPS Sources Not Electing to Comply with the CAR**

- Initial notifications as specified in §60.7.
- Provide notification of construction or reconstruction as specified in §60.7(a)(1).
- Provide notification of actual startup as specified in §60.7(a)(3).

- Provide notification of physical or operational change as specified in §60.7(a)(4).
- Demonstration of continuous monitoring system as specified in §60.7(a)(5).
- Performance test as specified in §60.8.
- Report on initial performance test results as specified in §60.8(a).
- Provide notification of initial performance test as specified in §60.8(d).

**Requirements Specific to NSPS Subpart Ka**

- Submit information prior to construction on vapor recovery and return or disposal system including emissions data, operations design specifications, and maintenance plan as specified in §60.113a(a)(2)(i-iv).
- Submit notification 30 days prior to seal gap measurement as specified in §60.113a(a)(1)(iv).
- Report within 60 days when a seal gap measurement exceeds the limits of §60.112a as specified in §60.113a(a)(1)(i)(E).
- Record gap measurements: Secondary seals every year and Primary seals every five years as specified in §60.113a(a)(1)(i)(D).
- Record whenever the liquid is changed, stored, period of storage, and maximum true vapor pressure as specified in §60.115a(a).

**Requirements Specific to NSPS Subpart Kb**

- Notification 30 days prior to re/filling vessel for (a)(1) and (a)(4) IFR inspections as specified in §60.113b(a)(5).
- Notification 30 days prior to seal gap measurements as specified in §60.113b(b)(5).
- Notification 30 days prior to re/filling vessel for (b)(6) EFR inspections as specified in §60.113b(b)(6).
- Submit operating plan for closed vent or exempt control device as specified in §60.113b(c).
- Report describing control equipment and IFR control certification as specified in §60.115b(a)(1).
- Record of each inspection required at §60.113b(a), as specified in 60.115b(a)(2).
- Report of visual defects as specified in §60.115b(a)(3).
- Report of seal holes/tears as specified in §60.115b(a)(4).
- Report describing control equipment and EFR control certification as specified in §60.115b(b)(1).
- Report results of seal gap measurements required at §60.113b(b)(1) within 60 days, as specified in §60.115b(b)(2).
- Record of each gap measurement required at §60.113b(b), as specified in 60.115b(b)(3).
- Report gaps exceeding limits within 30 days of inspection required by §60.113b(b)(4), as specified in §60.115b(b)(4).
- Records kept on closed-vent system as specified in §60.115b(c).
- Report of flare measurements as specified in §60.115b(d)(1).
- Records kept on flare as specified in §60.115b(d)(2).

- Report semiannually periods of pilot flame absent from flare as specified in §60.115b(d)(3).
- Records of dimensions and capacity of vessel as specified in §60.116b(b).
- Record of VOL stored, period of storage, and maximum true vapor pressure of lower kPa vessels as specified in §60.116b(c).
- Record of VOL stored, period of storage, and maximum true vapor pressure of higher kPa vessels as specified in §60.116b(d).

**Requirements Specific to NSPS Subpart VV and VVa**

- Recordkeeping as specified in §§60.486 and 60.486a.
- Semiannual reporting as specified in §§60.487(a) through (c) and 60.487a(a) through (c).
- Notification of alternative standard selected as specified in §§60.487(d) and 60.487a(d).
- Report Performance tests as specified in §§60.487(e) and 60.487a(e).

**Requirements Specific to NSPS Subpart DDD**

- Initial performance test results or specified alternative reports as specified in §60.565.
- Semiannual reports of deviations from monitoring parameters, monitoring exceedances, changes in process operations, and periods during which control device is inoperative as specified in §60.565(k).
- Records of periods when flow monitor indicates emission stream is being diverted away from the control device as specified in §60.565(b).
- Records of monitoring parameters as specified in §60.565(c), (d), (e), (f), (g), (h).
- Results of monitoring during performance tests, including the vent system used to vent each affected stream to the control device; evidence of compliance with incineration requirements; evidence of compliance with boiler or process heater operation, and records from flare or pilot light flame heat sensing monitoring and periods of operation when the flare or pilot flame is absent as specified in §60.565(a), (b), (c), (d), (e), (f).
- Changes in production capacity, feedstock type, or catalyst type or replacement, or removal or addition of product recovery equipment as specified in §60.565(g).
- Evidence of compliance with elected alternative provisions, and all periods of operation during which the performance boundaries are exceeded as specified in §60.565(h).

**Requirements Specific to NSPS Subpart III**

- Notification of the specific provisions of the standards for which the owner has elected to comply as specified in §60.615(a).
- Record data measured during each performance test as specified in §§60.615(b) and 60.615(h)(3).
- Continuously record equipment operating parameters as specified in §§60.615(c) and 60.615(g).



- Record periods of operation during which the performance boundaries established during the most recent performance test are exceeded as specified in §§60.615(c) and 60.615(g).
- Continuously record the indication of vent stream flow to the control device as specified in §60.615(d).
- Record all periods of operation of a boiler or process heater as specified in §60.615(e).
- Record results of flare pilot flame monitoring and all periods of operations in which the pilot flame is absent as specified in §60.615(f).
- Record changes in production capacity, feedstock type, catalyst type, or replacement, removal, or addition of recovery equipment or an air oxidation reactor as specified in §60.615(h)(1).
- Record any recalculation of the TRE index value as specified in §60.615(h)(2).
- Written report of initial performance test results as specified in §§60.8 and 60.615(b).
- For the semiannual report, exceedances of parameter boundaries established during the most recent performance test as specified in §60.615(j)(1).
- For the semiannual report, all periods when the vent stream is diverted from the control device or has no flowrate as specified in §60.615(j)(2).
- For the semiannual report, all periods when the boiler or process heater was not operated as specified in §60.615(j)(3).
- For the semiannual report, all periods in which the flare pilot flame was absent as specified in §60.615(j)(4).
- For the semiannual report, any recalculation of the TRE index value as specified in §60.615(j)(5).

**Requirements Specific to NSPS Subpart NNN**

- Notification of the specific provisions of the standards for which the owner has elected to comply as specified in §60.665(a).
- Record data measured during each performance test as specified in §§60.665(b) and 60.665(h)(3).
- Continuously record equipment operating parameters as specified in §§60.665(c) and 60.665(g).
- Record periods of operation during which the performance boundaries established during the most recent performance test are exceeded as specified in §§60.665(c) and 60.665(g).
- Continuously record the indication of vent stream flow to the control device as specified in §60.665(d).
- Record all periods of operation of a boiler or process heater as specified in §60.665(e).
- Record results of flare pilot flame monitoring and all periods of operations in which the pilot flame is absent as specified in §60.665(f).
- Record changes in production capacity, feedstock type, catalyst type, or replacement, removal, or addition of recovery equipment or an air oxidation reactor as specified in §60.665(h)(1).
- Record any recalculation of the TRE index value as specified in §60.665(h)(2).

- Record data showing that the vent stream flowrate is less than 0.008 m<sup>3</sup>/min and any change in equipment or process operation that increases the operating vent stream flowrate, including a measurement of the new flowrate, as specified in §60.665(i).
- Record any change in equipment or process operation that increases the design production capacity of the process unit as specified in §60.665(j).
- Written report of performance test results as specified in §§60.8 and 60.665(b).
- For demonstrating compliance with the low capacity exemption levels, a report detailing the design production capacity of the process unit as specified in §60.665(n).
- For demonstrating compliance with the low flow exemption level, a report of the flowrate measurement as specified in §60.665(o).
- For the semiannual report, exceedances of parameter boundaries established during the most recent performance test as specified in §60.665(l)(1).
- For the semiannual report, all periods when the vent stream is diverted from the control device or has no flowrate as specified in §60.665(l)(2).
- For the semiannual report, all periods when the boiler or process heater was not operated as specified in §60.665(l)(3).
- For the semiannual report, all periods in which the flare pilot flame was absent as specified in §60.615(l)(4).
- For the semiannual report, any change in equipment or process operation that increases the operating vent stream flowrate above the low flow exemption level as specified in §60.665(l)(5).
- For the semiannual report, any change in equipment or process operation that increases the design production capacity above the low capacity exemption level as specified in §60.665(l)(6).
- For the semiannual report, any recalculation of the TRE index value as specified in §60.665(l)(7).

#### **Requirements Specific to NSPS Subpart RRR**

- Notification of the specific provisions of the standards for which the owner has elected to comply as specified in §60.705(a).
- Exceedances of parameter boundaries established during the most recent performance test as specified in §60.705(l)(1).
- All periods when the vent stream is diverted from the control device as specified in §60.705(l)(2).
- All periods in which the flare pilot flame was absent as specified in §60.705(l)(3).
- For the semiannual report, any changes in equipment or process operation that increases the operating vent stream flowrate above the low flow exemption level as specified in §60.705(l)(4).
- For the semiannual report, any change in equipment or process operation that increases the design production capacity above the low capacity exemption level as specified in §60.705(l)(5).
- For the semiannual report, any recalculation of the TRE index value as specified in §60.705(l)(6).
- For the semiannual report, all periods recorded in which the seal mechanism is broken or the bypass line valve position has changed. A record of the serial number of the

car-seal or a record to show that the key to unlock the bypass line valve was checked out must be maintained to demonstrate the period, the duration, and frequency in which the bypass line was operated as specified in §60.705(l)(7).

- For the semiannual report, any change in equipment or process operation that increases the vent stream concentration above the low concentration exemption level, including a measurement of the new vent stream concentration as specified in §60.705(l)(8).
- For the initial report, written report of performance test results as specified in §§60.8 and 60.705(b).
- Record data measured during each performance test as specified in §§60.705(b) and 60.705(g)(3).
- Continuously record equipment operating parameters as specified in §60.705(c).
- Records of diversion of vent stream from the control device as specified in §60.705(d)(1).
- For seal mechanisms, records of monthly visual inspections and of all periods where the mechanism is broken or there are bypass line valve position, serial number, or key configuration changes as specified in §60.705(d)(2).
- Record results of flare pilot flame monitoring and all periods of operations in which the pilot flame is absent as specified in §60.705(e).
- Record periods of operation during which the performance boundaries established during the most recent performance test are exceeded as specified in §60.705(f).
- Record changes in production capacity, feedstock type, catalyst type, or replacement, removal, or addition of recovery equipment or reactors as specified in §60.705(g)(1).
- Record any recalculation of the TRE index value as specified in §60.705(g)(2).
- Records to indicate that the vent stream flowrate is less than 0.011 scm/min and of any change in equipment or process operation that increases the operating vent stream flowrate, including measurement of the new vent stream flowrate as specified in §60.705(h).
- For demonstrating compliance with the design production capacity provision, records of any change in equipment or process operation that increases design production capacity of the process unit as specified in §60.705(i).
- For demonstrating compliance with the low concentration exemption, records of any change in equipment or process operation that increases the concentration of the vent stream as specified in §60.705(j).
- For demonstrating compliance with the low capacity exemption levels, a report detailing the design production capacity of the process unit as specified in §60.665(n).
- For demonstrating compliance with the low flow exemption level, a report of the flowrate measurement as specified in §60.665(o).

**Part 3: Burden for 40 CFR Part 61 NESHAP Sources Not Electing to Comply with the CAR**

- Construction or modification application as specified in §61.07.
- Provide notification of anticipated startup as specified in §61.09(a)(1).
- Provide notification of actual startup as specified in §61.09(a)(2).
- Source status report as specified in §61.10(a).

- Initial performance test as specified in §61.13.
- Provide notification of initial performance test as specified in §61.13.
- Report on initial performance test results as specified in §61.13(f).
- Provide notification of physical or operational change as specified in §61.15.

**Requirements Specific to NESHAP Subpart BB**

- Obtain vapor tightness documentation at §61.305(h) every 12 months as specified in §61.302(d).
- Maintain vapor-tightness file on each affected facility as specified in §§61.302(d) and (e).
- Record of measurements during each performance test as specified in §61.305(a).
- Engineering report as specified in §61.305(a)(5).
- Record of monitoring equipment parameters and excess emissions as specified in §61.305(b).
- Record vent valves status and maintain for at least two years as specified in §61.305(c).
- Records of periods of operation of steam generator or process heater kept up-to-date as specified in §61.305(d).
- Records of flare operation and monitoring kept up-to-date as specified in §61.305(e).
- Quarterly report by sources subject to §61.302 as specified in §61.305(f).
- Documentation of vapor-tightness required under §§61.302(d) and (e) on permanent file as specified in §61.305 (g).
- Documentation of vapor-tightness renewed at least once per year as specified in §61.305(h).
- Record and report information when exempt under §§61.300(b) and 61.305(i) as specified in §61.305(i).
- Record of closed-vent system annual leak inspection required at §§61.242-11(e) and (f) as specified in §61.302(k).

**Requirements Specific to NESHAP Subpart Y**

- Initial source report as specified in §61.274.
- Report of annual and periodic inspections for IFR as specified in §61.275(a).
- Supplemental annual periodic report for IFR as specified in §61.275(a)(3).
- Report of 5- or 10-year internal inspections for IFR as specified in §61.275(b).
- Report of annual seal gap measurements for EFR as specified in §61.275(d).
- Report of 5-year seal gap measurements for EFR as specified in §61.275(d).
- Supplemental annual periodic report for EFR as specified in §61.275(d)(2).
- Quarterly report of excess emissions for closed vent systems with control devices as specified in §61.275(e).
- Record of storage vessel design capacity as specified in §61.276(b).
- Record of information on closed vent systems with control devices as specified in §61.276(c).

**Requirements Specific to NESHAP Subpart V**

- Application for alternative means of emissions limitation as specified in §61.244.
- Recordkeeping as specified in §61.246.
- Reporting as specified in §61.247.

**Part 4: Burden for 40 CFR Part 63 NESHAP Sources Not Electing to Comply with the CAR (MACT Subparts F, G, H and I: The HON)**

1. Notifications

- Notification of construction or reconstruction as specified in §§63.5, 63.9, 63.100, 63.151, 63.182, and 63.192.
- Notification of anticipated date of initial startup as specified in §§63.5, 63.9, 63.151, 63.182, and 63.192.
- Notification of actual date of initial startup as specified in §§63.9, 63.151, 63.182, and 63.192.
- Notification of process changes as specified in §§63.100, 63.118, 63.146, 63.151, 63.152, 63.182, and 63.192.
- Notification of performance test as specified in §63.103.
- Notification for storage tanks as specified in §63.192.

2. Reporting - Initial and Notification of Compliance Status

- Initial report requirements as specified in §§63.117, 63.122, 63.129, 63.146, 63.151, 63.182, and 63.192.
- Reporting of operating parameter levels as specified in §§63.117, 63.120, 63.122, 63.129, 63.130, 63.146, 63.151, 63.182, and 63.192.
- Statement of compliance/noncompliance as specified in §§63.117, 63.120, 63.122, 63.127, 63.128, 63.129, 63.151, 63.152, 63.182, and 63.192.

3. Reporting - Periodic and Event Triggered

- Startup, shutdown and malfunction as specified in §§63.6, 63.10, 63.103, and 63.105.
- Exceedance of parameter boundaries established during the most recent performance test as specified in §§63.118, 63.122, 63.130, 63.146, 63.148, 63.151, 63.152, 63.182, and 63.192.
- Any change in equipment or process operation that increases emission levels above requirements in the standard as specified in §§63.103, 63.104, 63.122, 63.130, 63.146, 63.148, 63.151, 63.152, 63.182, and 63.192.
- Written report of performance tests as specified in §§63.117, 63.120, 63.122, 63.129, 63.146, 63.151, 63.152, 63.182, and 63.192.
- Delay of repair as specified in §§63.104, 63.122, 63.182, and 63.192.

4. Recordkeeping

- General Recordkeeping as specified in §63.103.
- Record of data measured during each performance test as specified in §§63.117, 63.118, 63.123, 63.129, 63.130, 63.147, 63.148, 63.151, 63.152, 63.181, and 63.192.
- Record of periods of operation during which the performance boundaries established

- in the Notification of Compliance Status are exceeded as specified in §§63.118, 63.120, 63.123, 63.130, 63.147, 63.148, 63.151, and 63.152.
- Records of Monthly visual inspections as specified in §§63.118, 63.130, 63.147, 63.148, 63.181, and 63.192.
  - Records of Annual visual inspections as specified in §§63.123, 63.147, 63.148, 63.181 and 63.192.
  - TRE records for process vents as specified in §63.117.
  - Monitoring records as specified in §§63.118 and §63.123.
  - Records of process changes for process vents as specified in §63.118.
  - Records of delay of repair as specified in §§63.120 and §63.123.
  - Record of storage vessel size as specified in §63.123.
  - Record of vent system configuration for transfer racks as specified in §63.129.
  - Record of design criteria for equipment leaks as specified in §63.118.
  - Record of startup, shutdown and malfunction as specified in §§63.6, 63.103, 63.105, and 63.152.
  - Records of continuous monitoring systems as specified in §63.103.

B-1

**Attachment B**

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**Attachment C**

**Assumptions and Item Descriptions for Table 2**

Assumptions:

Assumptions are the same as Attachment E, and:

(A) That there are 318 total sources (240 from the HON, 59 from Subpart VV, 0 from Subpart VVa, and 19 from Subpart V) that must submit semiannual reports from equipment leak detection and repair programs as well as semiannual periodic reports. This equates to 636 EPA activities (318 \* 2) during each of the three years following promulgation.

(B) That all sources have already submitted an initial notification of Part 65 applicability and no new respondents will opt to comply with Part 65.

Item descriptions:

(a) Average hours per activity are estimates of the specific activities and are the basis for estimating the overall burden.

(b) Number of activities per year represents the number of reports expected to be reviewed and other related activities during the course of the year, based upon assumptions (A) and (B), above.

(c) Estimated technical hours per year is the product of (a) and (b).

(d) Estimated managerial hours per year is 5 percent of (c).

(e) Estimated clerical hours per year is 10 percent of (c).

(f) Annual cost per year is the total cost of technical, managerial, and clerical hours and overhead using this formula:

$$(H_t \times \$48.08/\text{hour}) + (H_m \times \$64.80/\text{hour}) + (H_c \times \$26.02/\text{hour}) = (H)$$

Where:

H<sub>t</sub> is (c), or technical hours,  
H<sub>m</sub> is (d), or managerial hours, and  
H<sub>c</sub> is (e), or clerical hours.

These rates are from the Office of Personnel Management (OPM), 2017 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.



Report Review:

1) Initial notification of Part 65 applicability, Title V modification represents the EPA review of either the initial notification of Part 65 applicability report or the source's Title V modification through which the source notifies EPA that it intends to comply with the CAR. As noted in the supporting statement text, the EPA does not expect any new sources to elect to comply with the CAR during the 3-year period following promulgation.

2) Review equipment leak monitoring represents the review and screening of periodic reports received as a result of the equipment leaks standard.

3) Review periodic reports represents the EPA review of periodic reports from new and existing sources.

TOTAL ANNUAL BURDEN AND COST (ROUNDED) is the sum of columns (e), (f), and (g), and of (h), respectively.

D-1

**Attachment D**

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## Attachment E

### Assumptions and Item Descriptions for Table 6

#### Assumptions:

(A) That there are 345 existing facilities, of which 80 chose to comply with the CAR.

(B) That the average representative source will consist of a variety of sources. The total number of sources expected to comply with the CAR includes (from Table 4):

- 1,640 storage vessels;
- 320 transfer racks;
- 240 collections of subject equipment, including connectors;
- 78 collections of subject equipment, not including connectors;
- 80 facility wide inventories of emission points; and
- 725 process vents.

(C) That there are 5 percent (0.05) managerial and 10 percent (0.10) clerical hours required for every technical hour.

(D) That some activities necessary to generate reports involve creating records in the process, and that these activities are assumed to be reports activities alone, to avoid double counting these as records activities as well. Therefore, only items 8 and 9 are considered records burdens directly.

#### Item descriptions:

(a) Average hours per activity is back-calculated by dividing (b) into (c). Since the activities within each burden category can vary significantly, it is too inaccurate to assume an average to use to calculate (c). Estimated activity technical hours are calculated in Table 5 and entered into column (d); (a) is then back-calculated with an estimated (b).

(b) Estimated number of activities per year per source represents the assumed typical number of separate activities a source may encounter during one year. This number may vary from facility to facility depending on consolidation of activities, co-located readings, etc. Since so much variability exists, it is important to note that this is an estimate. This number was only used to back-calculate (a). The numbers are based on the number of activities per year estimated for complying with the HON. The numbers have been reduced to reflect the consolidation of activities achieved through the CAR.

(c) Technical hours per year per respondent is the total technical hours for a burden item, as estimated in Table 5, divided by 80 facilities. Because of the variability in the number and combination of sources at a facility, this value could vary widely.

(d) Estimated technical hours per year is the sum of total technical hours for all sources for each burden item, as estimated in Table 5.

(e) Estimated managerial hours per year is 5 percent of (d).

(f) Estimated clerical hours per year is 10 percent of (d).

(g) Annual cost per year is the total cost of technical, managerial, and clerical hours and overhead using this formula:

$$(H_t \times \$108.28/\text{hour}) + (H_m \times \$144.33/\text{hour}) + (H_c \times \$53.34/\text{hour}) = (G)$$

Where:

- H<sub>t</sub> is (d), or technical hours,
- H<sub>m</sub> is (e), or managerial hours, and
- H<sub>c</sub> is (f), or clerical hours.

These rates are from the United States Department of Labor, Bureau of Labor Statistics, September 2016, Table 2. Civilian workers, by occupational and industry group. 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.

#### Report Review:

- 1) Familiarize with regulatory requirements consists of the activities, less training, which involve comprehending the provisions in the standard and understanding how they apply to the respective points at a facility.
- 2) Plan activities represents such burdens as design, redesign, and scheduling, as well as selecting methods of compliance.
- 3) Training represents the portion of activities from 1) Familiarize with regulatory requirements for which an average facility would elect to provide class room instruction. The standard does not require specific training itself.
- 4) Creation, testing, research, and development are the activities involving testing, retesting, establishing operating ranges for parameters, and analyzing point by point applicability. Monitor-related refit, calibration, and maintenance activities also are included under this heading.
- 5) Gather information, monitor/inspect are the activities involving physical inspections of equipment, collection of monitored data, and other related activities.

6) Process/compile and review are the activities that involve analysis of the collected information for accuracy and compliance, as well as appropriate records and reports required as a result.

7) Complete forms represents the activities normally associated with filling out forms. Since the standard requires no standard forms, these activities relate to the preparing of formal reports and cover letters.

8) Record/disclose are solely recordkeeping activities which occur once the appropriate report information has been extracted; see assumption, (D) above. These activities involve software translation, duplication, or archival processes normally associated with data management and storage common to this industry.

9) Store/file are activities which are solely recordkeeping which occur once the appropriate report information has been extracted; see assumption (D), above. These activities involve the management life cycle of records, from the time they are filed and boxed up, to the time they are disposed.

TOTAL ANNUAL BURDEN AND COST (rounded) is the sum of columns (d), (e), (f), and of (g), respectively.

### Attachment F: Average Annual EPA Burden and Cost for Referencing Subparts

**Table F-1: Average Annual EPA Burden and Cost for Subpart Ka**

Burden item	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Person-hours per occurrence <sup>e</sup>	No. of occurrences per respondent per year	Person-hours per respondent per year (C=AxB)	Respondents per year <sup>a</sup>	Technical hours per year (E=CxD)	Management hours per year (F=Ex0.05)	Clerical hours per year (G=Ex0.1)	Total cost per year (\$) <sup>b</sup>
Report review: New plant								
Vapor recovery <sup>c</sup>	N/A							
Report review: Existing plant								
Notification of reconstruction	2	1	2	0	0	0	0	\$0
Notification of modification	2	1	2	0	0	0	0	\$0
Notification of seal gap measurement <sup>d</sup>	0.5	1	0.5	188	94	4.7	9.4	\$5,068.67
Report of gap excesses <sup>d,e</sup>	1	1	1	6	6	0.3	0.6	\$323.53
<b>TOTAL ANNUAL BURDEN AND COST (rounded)<sup>f</sup></b>						<b>115</b>		<b>\$5,390</b>

**Assumptions:**

<sup>a</sup> Assume that there will be no new source subject to the requirements of this regulation. Similar new sources will be subject to NSPS Subpart Kb. There are 174 existing sources with an average of 50 tanks per facility.

<sup>b</sup> This ICR uses the following labor rates: \$48.08 for technical, \$64.80 for managerial, and \$26.02 for clerical labor. These rates are from the Office of Personnel Management (OPM) 2017 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.

<sup>c</sup> One-time only activity required at start of construction. Any new storage vessel being constructed would be subject to NSPS Subpart Kb.

<sup>d</sup> Estimate that 10 percent of respondents (17) will use a vapor recovery control system and 90 percent (157) will use a floating roof system. Respondents using vapor recovery control are not required to do seal gap measurements. All tanks using floating roof system (157) will perform a secondary seal gap measurement. Twenty percent (31) will conduct a primary seal gap measurement. Total respondents submitting a notification of either primary or secondary gap measurement: 157 + 31 = 188.

<sup>e</sup> Assume that 3 percent of respondents submitting a notification of either primary or secondary gap measurement (188) will have excessive seal gaps (primary or secondary) requiring that a single report be filed once a year. (188x3%=5.64, rounded to 6)

<sup>f</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

**Table F-2: Average Annual EPA Burden and Cost for Subpart Kb**

Burden item	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Person-hours per occurrence	No. of occurrences per respondent per year	Person-hours per respondent per year (C=AxB)	Respondents per year <sup>a</sup>	Technical hours per year (E=CxD)	Management hours per year (F=Ex0.05)	Clerical hours per year (G=Ex0.1)	Total cost per year (\$) <sup>b</sup>
Report review: New plant								
Notification of construction	2	1	2	37	74	3.7	7.4	\$3,990.23
Notification of anticipated startup	1	1	1	37	37	1.85	3.7	\$1,995.11
Notification of actual startup	1	1	1	37	37	1.85	3.7	\$1,995.11
Notification of initial inspection	1	1	1	37	37	1.85	3.7	\$1,995.11
Report review: Existing plant								
IFR failure report <sup>c</sup>	1	1	1	61	61	3.05	6.1	\$3,289.24
Notification of IFR delay of repair/emptying <sup>d</sup>	1.2	1	1.2	6	7.2	0.36	0.72	\$388.24
Notification of refill <sup>e</sup>	1	1	1	721	721	36.05	72.1	\$38,877.76
<b>TOTAL ANNUAL BURDEN AND COST (rounded) <sup>f</sup></b>						<b>1,120</b>		<b>\$52,500</b>

**Assumptions:**

<sup>a</sup> We estimate 765 existing respondents with an average of 8,716 regulated vessels in service will be subject over the next three years. We also estimate 75 percent (6,537) of vessels have an internal floating roof (IFR), 20 percent (1,743) have an external floating roof (EFR), and 5 percent (436) have a closed vent system (CVS). For new sources, we estimate 37 respondents per year will become subject to Subpart Kb, and assume a distribution similar to that of existing respondents; therefore, 28 new respondents have an IFR, 7 have an ERF, and 2 have a CVS. These estimates do not include sources subject to both Subpart Kb and the HON, which we assume will comply with the HON instead.

<sup>b</sup> This ICR uses the following labor rates: \$48.08 for technical, \$64.80 for managerial, and \$26.02 for clerical labor. These rates are from the Office of Personnel Management (OPM) 2017 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.

<sup>c</sup> Estimate 10 percent failure rate for the 612 respondents choosing annual visual inspections, yielding 61 reports.

<sup>d</sup> Estimate 10 percent of failed IFRs either are delayed in repair or are emptied, yielding 6 notifications.



<sup>e</sup> Assume all 6,565 IFR tanks will be serviced routinely through a shutdown, and degassed once every ten years. One tenth of these tanks will be degassed each year, for an annual average of 657 per year. This number was added to the estimated 64 visual inspection failures that would lead to internal inspections, for a total estimate of 721 notifications of refill.

<sup>f</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

**Table F-3: Average Annual EPA Burden and Cost for Subpart VV**

Burden item	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Person-hours per occurrence <sup>e</sup>	No. of occurrences per respondent per year	Person-hours per respondent per year (C=AxB)	Respondents per year <sup>a</sup>	Technical hours per year (E=CxD)	Management hours per year (F=Ex0.05)	Clerical hours per year (G=Ex0.1)	Total cost per year (\$) <sup>b</sup>
Report review: New plant								
Notification of construction	8	1	8	0	0	0	0	\$0
Notification of reconstruction/modification	2	1	2	0	0	0	0	\$0
Notification of actual startup	0.5	1	0.5	0	0	0	0	\$0
Notification of initial/repeat test	0.5	1	0.5	0	0	0	0	\$0
Review test results	2	1	2	0	0	0	0	\$0
Report review: Existing plant								
Semiannual emission report	2	2	4	436	1,744	87.2	174.4	\$94,039.97
<b>TOTAL ANNUAL BURDEN AND COST (rounded)<sup>c</sup></b>						<b>2,010</b>		<b>\$94,000</b>

**Assumptions:**

<sup>a</sup> All new sources are subject to Subpart VVa. There is an average of 436 existing sources per year that will be subject to Subpart VV over the next three years. These estimates do not include sources subject to both Subpart VV and the HON, which we assume comply with the HON instead.

<sup>b</sup> This ICR uses the following labor rates: \$48.08 for technical, \$64.80 for managerial, and \$26.02 for clerical labor. These rates are from the Office of Personnel Management (OPM) 2017 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.

<sup>c</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

**Table F-4: Average Annual EPA Burden and Cost for Subpart VVa**

Burden item	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Person-hours per occurrence <sup>e</sup>	No. of occurrences per respondent per year	Person-hours per respondent per year (C=AxB)	Respondents per year <sup>a</sup>	Technical hours per year (E=CxD)	Management hours per year (F=Ex0.05)	Clerical hours per year (G=Ex0.1)	Total cost per year (\$) <sup>b</sup>
Report review: New plant								
Notification of construction <sup>c</sup>	8	1	8	23	184	9.2	18.4	\$9,921.65
Notification of reconstruction/modification <sup>c</sup>	2	1	2	15	30	1.5	3	\$1,617.66
Notification of actual startup	0.5	1	0.5	38	19	0.95	1.9	\$1,024.52
Notification of initial/repeat test <sup>d</sup>	0.5	1	0.5	46	23	1.15	2.3	\$1,240.21
Review test results <sup>d</sup>	2	1	2	46	92	4.6	9.2	\$4,960.82
Report review: Existing plant								
Semiannual emission report	2.45	2	4.9	418	2,048.2	102.41	204.82	\$110,443.04
<b>TOTAL ANNUAL BURDEN AND COST (rounded) <sup>e</sup></b>						<b>2,760</b>		<b>\$129,000</b>

**Assumptions:**

<sup>a</sup> Assume there will be an average of 38 new, modified, or reconstructed facilities each year and an average of 418 existing facilities over the next 3 years. Since Subpart VVa is more stringent than the HON and MON, no sources are assumed to be complying with the HON or MON instead of Subpart VVa.

<sup>b</sup> This ICR uses the following labor rates: \$48.08 for technical, \$64.80 for managerial, and \$26.02 for clerical labor. These rates are from the Office of Personnel Management (OPM) 2017 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.

<sup>c</sup> Estimate 23 sources will be new due to construction while 15 will be due to reconstruction or modification.

<sup>d</sup> Assume 20 percent of initial performance tests must be repeated due to failure.

<sup>e</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

**Table F-5: Average Annual EPA Burden and Cost for Subpart DDD**

Burden item	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Person-hours per occurrence	No. of occurrences per respondent per year	Person-hours per respondent per year (C=AxB)	Respondents per year <sup>a</sup>	Technical hours per year (E=CxD)	Management hours per year (F=Ex0.05)	Clerical hours per year (G=Ex0.1)	Total cost per year (\$) <sup>b</sup>
Report review: New plant								
Notification of construction/modification	2	1	2	10	20	1	2	\$1,078.44
Notification of actual startup	2	1	2	10	20	1	2	\$1,078.44
Initial performance test	8	1	8	10	80	4	8	\$4,313.76
Repeat performance test <sup>c</sup>	8	1	8	2	16	0.8	1.6	\$862.75
Report review: Existing plant								
Semiannual report	2	2	4	140	560	28	56	\$30,196.32
<b>TOTAL ANNUAL BURDEN AND COST (rounded) <sup>d</sup></b>						<b>800</b>		<b>\$37,500</b>

**Assumptions:**

<sup>a</sup> Assume 10 new affected sources per year and an average of 140 existing affected sources over the next three years.

<sup>b</sup> This ICR uses the following labor rates: \$48.08 for technical, \$64.80 for managerial, and \$26.02 for clerical labor. These rates are from the Office of Personnel Management (OPM) 2017 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.

<sup>c</sup> Assume 20 percent of initial performance tests must be repeated due to failure.

<sup>d</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

**Table F-6: Average Annual EPA Burden and Cost for Subpart III**

Burden item	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Person-hours per occurrence	No. of occurrences per respondent per year	Person-hours per respondent per year (C=AxB)	Respondents per year <sup>a</sup>	Technical hours per year (E=CxD)	Management hours per year (F=Ex0.05)	Clerical hours per year (G=Ex0.1)	Total cost per year (\$) <sup>b</sup>
Report review: New plant								
Notification of construction/modification	2	1	2	1	2	0.1	0.2	\$107.84
Notification of anticipated startup	2	1	2	1	2	0.1	0.2	\$107.84
Notification of actual startup	2	1	2	1	2	0.1	0.2	\$107.84
Initial performance test	8	1	8	1	8	0.4	0.8	\$431.38
Repeat performance test <sup>c</sup>	8	1	8	0.2	1.6	0.08	0.16	\$86.28
Report review: Existing plant								
Semiannual report	2	2	4	16	64	3.2	6.4	\$3,451.01
<b>TOTAL ANNUAL BURDEN AND COST (rounded) <sup>d</sup></b>						<b>92</b>		<b>\$4,290</b>

**Assumptions:**

<sup>a</sup> Assume 1 new affected source per year and an average of 16 existing affected sources over the next three years. This does not include sources subject to both Subpart III and the HON, which are assumed to be complying with the HON.

<sup>b</sup> This ICR uses the following labor rates: \$48.08 for technical, \$64.80 for managerial, and \$26.02 for clerical labor. These rates are from the Office of Personnel Management (OPM) 2017 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.

<sup>c</sup> Assume 20 percent of initial performance tests must be repeated due to failure.

<sup>d</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

**Table F-7: Average Annual EPA Burden and Cost for Subpart NNN**

Burden item	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Person-hours per occurrence	No. of occurrences per respondent per year	Person-hours per respondent per year (C=AxB)	Respondents per year <sup>a</sup>	Technical hours per year (E=CxD)	Management hours per year (F=Ex0.05)	Clerical hours per year (G=Ex0.1)	Total cost per year (\$) <sup>b</sup>
Report review: New plant								
Notification of construction/modification	2	1	2	177	354	17.7	35.4	\$19,088.39
Notification of actual startup	2	1	2	177	354	17.7	35.4	\$19,088.39
Initial performance test	8	1	8	177	1,416	70.8	141.6	\$76,353.55
Repeat performance test <sup>c</sup>	8	1	8	35	280	14	28	\$15,098.16
Report review: Existing plant								
Semiannual report	2	2	4	2,230	8,920	446	892	\$480,984.24
<b>TOTAL ANNUAL BURDEN AND COST (rounded) <sup>d</sup></b>						<b>13,000</b>		<b>\$611,000</b>

**Assumptions:**

<sup>a</sup> Assume 177 new affected sources per year subject to Subpart NNN and not the HON, and 2,23 existing affected sources over the next three years. These estimates do not include sources subject to both Subpart NNN and the HON, which are assumed to be complying with the HON.

<sup>b</sup> This ICR uses the following labor rates: \$48.08 for technical, \$64.80 for managerial, and \$26.02 for clerical labor. These rates are from the Office of Personnel Management (OPM) 2017 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.

<sup>c</sup> Assume 20 percent of initial performance tests must be repeated due to failure.

<sup>d</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

**Table F-8: Average Annual EPA Burden and Cost for Subpart RRR**

Burden item	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Person-hours per occurrence	No. of occurrences per respondent per year	Person-hours per respondent per year (C=AxB)	Respondents per year <sup>a</sup>	Technical hours per year (E=CxD)	Management hours per year (F=Ex0.05)	Clerical hours per year (G=Ex0.1)	Total cost per year (\$) <sup>b</sup>
Report review: New plant								
Notification of construction/modification	2	1	2	20	40	2	4	\$2,156.88
Notification of actual startup	2	1	2	20	40	2	4	\$2,156.88
Initial performance test	8	1	8	20	160	8	16	\$8,627.52
Repeat performance test <sup>c</sup>	8	1	8	4	32	1.6	3.2	\$1,725.50
Report review: Existing plant								
Semiannual report	2	2	4	255	1,020	51	102	\$55,000.44
<b>TOTAL ANNUAL BURDEN AND COST (rounded) <sup>d</sup></b>						<b>1,490</b>		<b>\$69,700</b>

**Assumptions:**

<sup>a</sup> Assume 20 new affected sources per year subject to Subpart RRR and not the HON, and 255 existing affected sources over the next three years. These estimates do not include sources subject to both Subpart RRR and the HON, which are assumed to be complying with the HON.

<sup>b</sup> This ICR uses the following labor rates: \$48.08 for technical, \$64.80 for managerial, and \$26.02 for clerical labor. These rates are from the Office of Personnel Management (OPM) 2017 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.

<sup>c</sup> Assume 20 percent of initial performance tests must be repeated due to failure.

<sup>d</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

**Table F-9: Average Annual EPA Burden and Cost for Subpart BB**

Burden item	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Person-hours per occurrence	No. of occurrences per respondent per year	Person-hours per respondent per year (C=AxB)	Respondents per year <sup>a</sup>	Technical hours per year (E=CxD)	Management hours per year (F=Ex0.05)	Clerical hours per year (G=Ex0.1)	Total cost per year (\$) <sup>b</sup>
Report review: New plant								
Notification of construction	0.5	1	0.5	0	0	0	0	\$0
Notification of anticipated startup	0.5	1	0.5	0	0	0	0	\$0
Notification of actual startup	0.5	1	0.5	0	0	0	0	\$0
Initial report	8	1	8	0	0	0	0	\$0
Notification of emission test	0.5	1	0.5	0	0	0	0	\$0
Report of emission test	4	1	4	0	0	0	0	\$0
Notification of performance test	0.5	1	0.5	0	0	0	0	\$0
Report of performance test	8	1	8	0	0	0	0	\$0
Review test results	8	1	8	0	0	0	0	\$0
Report review: Existing plant								
Quarterly report	2	4	8	54	432	21.6	43.2	\$23,294.30
<b>TOTAL ANNUAL BURDEN AND COST (rounded) <sup>c</sup></b>						<b>497</b>		<b>\$23,300</b>

**Assumptions:**

<sup>a</sup> We estimate an average of 54 existing facilities will be subject to the standard, and that no new sources will become subject over the next three years. We estimate 3 tank truck/railcars and 131 marine vessels are subject to the standards. We assume 50 percent of marine vessels (66) operate at negative pressure and do not conduct annual vapor-tightness tests. We also assume all other transfer racks subject to Subpart BB are complying with the HON.

<sup>b</sup> This ICR uses the following labor rates: \$48.08 for technical, \$64.80 for managerial, and \$26.02 for clerical labor. These rates are from the Office of Personnel Management (OPM) 2017 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.

<sup>c</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.



**Table F-10: Average Annual EPA Burden and Cost for Subpart Y**

Burden item	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Person-hours per occurrence	No. of occurrences per respondent per year	Person-hours per respondent per year (C=AxB)	Respondents per year <sup>a</sup>	Technical hours per year (E=CxD)	Management hours per year (F=Ex0.05)	Clerical hours per year (G=Ex0.1)	Total cost per year (\$) <sup>b</sup>
Report review: New plant								
Notification of construction	See NSPS Kb							
Notification of anticipated startup	See NSPS Kb							
Notification of actual startup	See NSPS Kb							
Notification of performance test	N/A							
Report of performance test	N/A							
Notification of control installation and refill at 1st IFR degassing <sup>c</sup>	1	1	1	0	0	0	0	\$0
Report review: Existing plant								
Annual IFR internal inspection and EFR seal gap measurement	2	1	2	4	8	0.4	0.8	\$431.38
Supplemental delay report <sup>d</sup>	1	1	1	0	0	0	0	\$0
Quarterly emission report <sup>e</sup>	N/A							
<b>TOTAL ANNUAL BURDEN AND COST (rounded) <sup>f</sup></b>						<b>9</b>		<b>\$431</b>

**Assumptions:**

<sup>a</sup> Estimate there will be 4 existing sources not covered by the HON. The burden for all new sources is included in the NSPS Subpart Kb regulation for storage vessels at 40 CFR Part 60.

<sup>b</sup> This ICR uses the following labor rates: \$48.08 for technical, \$64.80 for managerial, and \$26.02 for clerical labor. These rates are from the Office of Personnel Management (OPM) 2017 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.

<sup>c</sup> We believe that all vessels have been degassed and that all controls have been installed, as they were to be installed within 10 years of promulgation.

<sup>d</sup> Estimate two percent of existing sources will request delay of repair in the annual report.

<sup>e</sup> Assume no sources will select the option to have a fixed roof vented to a control device, and thus have no quarterly reports of excess emissions.

<sup>f</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

**Table F-11: Average Annual EPA Burden and Cost for Subpart V**

Burden item	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Person-hours per occurrence <sup>e</sup>	No. of occurrences per respondent per year	Person-hours per respondent per year (C=AxB)	Respondents per year <sup>a</sup>	Technical hours per year (E=CxD)	Management hours per year (F=Ex0.05)	Clerical hours per year (G=Ex0.1)	Total cost per year (\$) <sup>b</sup>
Report review: New plant								
Notification of construction	2	1	2	2	4	0.2	0.4	\$215.69
Notification of anticipated startup	2	1	2	2	4	0.2	0.4	\$215.69
Notification of actual startup	2	1	2	2	4	0.2	0.4	\$215.69
Initial performance test	8	1	8	2	16	0.8	1.6	\$862.75
Repeat performance test <sup>c</sup>	8	1	8	0.4	3.2	0.16	0.32	\$172.55
Semiannual report	2	2	4	65	260	13	26	\$14,019.72
<b>TOTAL ANNUAL BURDEN AND COST (rounded)<sup>d</sup></b>						<b>335</b>		<b>\$15,700</b>

**Assumptions:**

<sup>a</sup> Assume 2 new sources per year and 65 existing sources subject to Subpart V, but not the HON.

<sup>b</sup> This ICR uses the following labor rates: \$48.08 for technical, \$64.80 for managerial, and \$26.02 for clerical labor. These rates are from the Office of Personnel Management (OPM) 2017 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.

<sup>c</sup> Assume 20 percent of initial performance tests must be repeated due to failure.

<sup>d</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

**Table F-12: Average Annual EPA Burden and Cost for Sources Subject to the HON**

Burden item	(A)	(B)	(C)	(D)	(E)	(F)
	Average hours per activity	Number of activities per year	Technical hours per year (C=AxB)	Management hours per year (D=Cx0.05)	Clerical hours per year (E=Cx0.1)	Total cost per year (\$)
Report review:						
1. Initial	2	5	10	0.5	1	\$539.22
2. Implementation plan or permit	20	5	100	5	10	\$5,392.20
3. Compliance status	40	5	200	10	20	\$10,784.40
4. Review equipment leak monitoring	7	265	1,855	92.75	185.5	\$100,025.31
5. Notification of construction/reconstruction	2	5	10	0.5	1	\$539.22
6. Notification of anticipated startup	2	5	10	0.5	1	\$539.22
7. Notification of actual startup	2	5	10	0.5	1	\$539.22
8. Notification of performance test	2	5	10	0.5	1	\$539.22
9. Review of test results	8	5	40	2	4	\$2,156.88
10. Review periodic reports	4	690	2,760	138	276	\$148,824.72
<b>TOTAL ANNUAL BURDEN AND COST (rounded)</b>				<b>5,760</b>		<b>\$270,000</b>

See Attachment H for assumptions and further description of activities.

**Attachment G: Annual Respondent Burden and Cost for Referencing Subparts**

**Table G-1: Annual Respondent Burden and Cost for Subpart Ka**

Burden item	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Person-hours per occurrence	No. of occurrences per respondent per year	Person-hours per respondent per year (C=AxB)	Respondents per year <sup>a</sup>	Technical hours per year (E=CxD)	Management hours per year (F=Ex0.05)	Clerical hours per year (G=Ex0.1)	Total cost per year (\$) <sup>b</sup>
1. Applications	N/A							
2. Survey and Studies	N/A							
3. Reporting requirements								
A. Familiarize with regulatory requirements <sup>c</sup>	1	1	1	174	174	8.7	17.4	\$21,024.51
B. Required activities								
Vapor recovery information	20	1	20	0	0	0	0	\$0
Measure seal gap	See 4E							
C. Create information	See 3B							
D. Gather existing information <sup>d</sup>	1	1	1	157	157	7.85	15.7	\$18,970.39
E. Write report								
Notification of construction	2	1	2	0	0	0	0	\$0
Notification of actual startup	2	1	2	0	0	0	0	\$0
Notification of gap measurement <sup>d</sup>	1.5	1	1.5	188	282	14.1	28.2	\$34,074.20
Report of seal gap excess <sup>e</sup>	2.5	1	2.5	6	15	0.75	1.5	\$1,812.46
Information on vapor recovery	See 3B							
<b>Subtotal for Reporting Requirements</b>					<b>722</b>			<b>\$75,882</b>
4. Recordkeeping requirements								
A. Familiarize with regulatory requirements	See 3A							

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B. Plan activities	See 3B							
C. Implement activities	See 3B							
D. Develop record system	N/A							
E. Time to enter information								
New tank seal gap measurements	5	50	250	0	0	0	0	\$0
Secondary seal gap measurements <sup>d, e, f</sup>	5	50	250	157	39,250	1,962.5	3,925	\$4,742,597.13
Primary seal gap measurements <sup>d, e, g</sup>	2	10	20	31	620	31	62	\$74,914.91
Fill/refill record <sup>h, i</sup>	0.2	10	2	35	70	3.5	7	\$8,458.14
<b>Subtotal for Recordkeeping Requirements</b>						<b>45,931</b>		<b>\$4,825,970</b>
<b>TOTAL ANNUAL BURDEN AND COST (rounded)<sup>j</sup></b>						<b>46,700</b>		<b>\$4,900,000</b>
<b>TOTAL CAPITAL AND O&amp;M COST (rounded)<sup>j</sup></b>								<b>\$0</b>
<b>GRAND TOTAL (rounded)<sup>j</sup></b>								<b>\$4,900,000</b>

**Assumptions:**

<sup>a</sup> Assume that there will be no new source subject to the requirements of this regulation. Similar new sources will be subject to NSPS Subpart Kb. There are 174 existing sources with an average of 50 tanks per facility.

<sup>b</sup> This ICR uses the following labor rates: \$108.28 for technical, \$144.33 for managerial, and \$53.34 for clerical labor. These rates are from the United States Department of Labor, Bureau of Labor Statistics, September 2016, "Table 2. Civilian workers, by occupational and industry group." 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> This ICR assumes all existing respondents will have to familiarize with the regulatory requirements each year.

<sup>d</sup> Estimate that 10 percent of respondents (17) will use a vapor recovery control system and 90 percent (157) will use a floating roof system. Respondents using vapor recovery control are not required to do seal gap measurements. All tanks using floating roof system (157) will perform a secondary seal gap measurement. Twenty percent (31) will conduct a primary seal gap measurement. Total respondents submitting a notification of either primary or secondary gap measurement: 157 + 31 = 188.

<sup>e</sup> Assume that 3 percent of respondents submitting a notification of either primary or secondary gap measurement (188) will have excessive seal gaps (primary or secondary) requiring that a single report be filed once a year.

<sup>f</sup> Estimate five hours to conduct secondary seal gap measurements annually for the average 50 tanks per respondent.

<sup>g</sup> Estimate two hours to conduct primary seal measurements every five years for the average 50 tanks per respondent (10 tanks per respondent per year).

<sup>h</sup> During any one year, a respondent would change liquid at approximately 20 percent of all facilities (35).

<sup>i</sup> Estimate 0.2 hours per tank to record a liquid change at 20 percent of the average of 50 tanks per facility (10).

<sup>j</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

**Table G-2: Annual Respondent Burden and Cost for Subpart Kb**

Burden item	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Person-hours per occurrence	No. of occurrences per respondent per year	Person-hours per respondent per year (C=AxB)	Respondents per year <sup>a</sup>	Technical hours per year (E=CxD)	Management hours per year (F=Ex0.05)	Clerical hours per year (G=Ex0.1)	Total cost per year (\$) <sup>b</sup>
1. Applications	N/A							
2. Survey and Studies	N/A							
3. Reporting requirements								
A. Familiarize with regulatory requirements <sup>c</sup>	1	1	1	802	802	40.1	80.2	\$96,906.06
B. Required activities								
One-time-only requirements								
Notification of construction	2	1	2	37	74	3.7	7.4	\$8,941.46
Notification of actual startup	2	1	2	37	74	3.7	7.4	\$8,941.46
Notification of physical/operational changes <sup>d</sup>	N/A							
Notification of malfunction <sup>d</sup>	N/A							
Notification of initial inspection								
IFR internal inspection	2	1	2	28	56	2.8	5.6	\$6,766.51
EFR gap measurement	2	1	2	7	14	0.7	1.4	\$1,691.63
Initial inspection report								
IFR internal inspection report	12	1	12	28	336	16.8	33.6	\$40,599.05
EFR 1st seal gap measurement	12	1	12	7	84	4.2	8.4	\$10,149.76
EFR 2nd seal gap measurement	8	1	8	7	56	2.8	5.6	\$6,766.51
CVS operating plan report	8	1	8	2	16	0.8	1.6	\$1,933.29





<b>GRAND TOTAL (rounded) <sup>i</sup></b>								<b>\$12,200,000</b>
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**Assumptions:**

<sup>a</sup> We estimate 802 existing respondents with an average of 8,753 regulated vessels in service will be subject over the next three years. We also estimate 75 percent (6,565) of vessels have an internal floating roof (IFR), 20 percent (1,751) have an external floating roof (EFR), and 5 percent (438) have a closed vent system (CVS). For new sources, we estimate 37 sources per year will become subject to Subpart Kb, and assume a distribution similar to that of existing respondents; therefore, 28 new respondents have an IFR, 7 have an ERF, and 2 have a CVS. These estimates do not include sources subject to both Subpart Kb and the HON, which we assume comply with the HON instead.

<sup>b</sup> This ICR uses the following labor rates: \$108.28 for technical, \$144.33 for managerial, and \$53.34 for clerical labor. These rates are from the United States Department of Labor, Bureau of Labor Statistics, September 2016, "Table 2. Civilian workers, by occupational and industry group." 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> This ICR assumes all existing respondents will have to familiarize with the regulatory requirements each year.

<sup>d</sup> The General Provision notifications of modification or malfunction will be covered by other notifications within the subpart.

<sup>e</sup> For each of the 6,537 IFRs associated with the 765 existing respondents, 80 percent (612) will conduct an annual visual inspection, while 20 percent (153) will conduct an internal inspection. These activities are required to generate the information for the IFR failure report and EFR primary and secondary seal gap reports, but do not require response.

<sup>f</sup> Estimate 10 percent failure rate for the 612 respondents choosing annual visual inspections, yielding 61 reports.

<sup>g</sup> Estimate 10 percent of failed IFRs either are delayed in repair or are emptied, yielding 6 notifications.

<sup>h</sup> Assume all 6,537 IFR tanks will be serviced routinely through a shutdown, and degassed once every ten years. One tenth of these tanks will be degassed each year, for an annual average of 654 per year. This number was added to the estimated 61 visual inspection failures that would lead to internal inspections, for a total estimate of 715 notifications of refill.

<sup>i</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

**Table G-3: Annual Respondent Burden and Cost for Subpart VV**

Burden item	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Person-hours per occurrence <sup>e</sup>	No. of occurrences per respondent per year	Person-hours per respondent per year (C=AxB)	Respondents per year <sup>a</sup>	Technical hours per year (E=CxD)	Management hours per year (F=E $\times$ 0.05)	Clerical hours per year (G=E $\times$ 0.1)	Total cost per year (\$) <sup>b</sup>
1. Applications	N/A							
2. Survey and Studies	N/A							
3. Reporting requirements								
A. Familiarize with regulatory requirements <sup>c</sup>	1	1	1	436	436	21.8	43.6	\$52,682.10
B. Required activities								
Initial performance test report	48	1	48	0	0	0	0	\$0
Repeat performance test report <sup>d</sup>	48	1	48	0	0	0	0	\$0
C. Create information	See 3B							
D. Gather existing information	See 3E							
E. Write report								
Notification of construction	2	1	2	0	0	0	0	\$0
Notification of reconstruction/modification	2	1	2	0	0	0	0	\$0
Notification of actual startup	2	1	2	0	0	0	0	\$0
Notification of initial/repeat performance test	2	1	2	0	0	0	0	\$0
Semiannual report	4	2	8	436	3,488	174.4	348.8	\$421,456.78
<b>Subtotal for Reporting Requirements</b>					<b>4,513</b>			<b>\$474,139</b>
4. Recordkeeping requirements								
A. Familiarize with regulatory requirements	See 3A							
B. Plan activities	See 4C							

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C. Implement activities	See 3B							
D. Develop record system	N/A							
E. Time to enter information								
Records of operating parameters	80	1	80	436	34,880	1,744	3,488	\$3,923,638.99
F. Train personnel	N/A							
G. Audits	N/A							
<b>Subtotal for Recordkeeping Requirements</b>						<b>40,112</b>		<b>\$3,923,639</b>
<b>TOTAL ANNUAL BURDEN AND COST (rounded) <sup>e</sup></b>						<b>44,600</b>		<b>\$4,400,000</b>
<b>TOTAL CAPITAL AND O&amp;M COST (rounded) <sup>e</sup></b>								<b>\$0</b>
<b>GRAND TOTAL (rounded) <sup>e</sup></b>								<b>\$4,400,000</b>

**Assumptions:**

<sup>a</sup> All new sources are subject to Subpart VVa. There is an average of 436 existing sources per year that will be subject to Subpart VV over the next three years. These estimates do not include sources subject to both Subpart VV and the HON, which we assume comply with the HON instead.

<sup>b</sup> This ICR uses the following labor rates: \$108.28 for technical, \$144.33 for managerial, and \$53.34 for clerical labor. These rates are from the United States Department of Labor, Bureau of Labor Statistics, September 2016, "Table 2. Civilian workers, by occupational and industry group." 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> This ICR assumes all existing respondents will have to familiarize with the regulatory requirements each year.

<sup>d</sup> Assume 20 percent of performance tests must be repeated.

<sup>e</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

**Table G-4: Annual Respondent Burden and Cost for Subpart VVa**

Burden item	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Person-hours per occurrence <sup>e</sup>	No. of occurrences per respondent per year	Person-hours per respondent per year (C=AxB)	Respondents per year <sup>a</sup>	Technical hours per year (E=CxD)	Management hours per year (F=Ex0.05)	Clerical hours per year (G=Ex0.1)	Total cost per year (\$) <sup>b</sup>
1. Applications	N/A							
2. Survey and Studies	N/A							
3. Reporting requirements								
A. Familiarize with regulatory requirements <sup>c</sup>	1	1	1	456	456	22.8	45.6	\$55,098.71
B. Required activities								
Initial performance test report	48	1	48	38	1,824	91.2	182.4	\$220,394.83
Repeat performance test report <sup>d</sup>	48	1	48	8	384	19.2	38.4	\$46,398.91
C. Create information	See 3B							
D. Gather existing information	See 3E							
E. Write report								
Notification of construction <sup>e</sup>	2	1	2	23	46	2.3	4.6	\$5,558.20
Notification of reconstruction/modification <sup>e</sup>	2	1	2	15	30	1.5	3	\$3,624.92
Notification of actual startup	2	1	2	38	76	3.8	7.6	\$9,183.12
Notification of initial/repeat performance test <sup>d</sup>	2	1	2	46	92	4.6	9.2	\$11,116.41
Semiannual report	4.5	2	9	418	3,762	188.1	376.2	\$454,564.34
<b>Subpart for Reporting Requirements</b>					<b>7,671</b>			<b>\$805,939</b>
4. Recordkeeping requirements								
A. Familiarize with regulatory requirements	See 3A							
B. Plan activities	See 4C							

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C. Implement activities	See 3B							
D. Develop record system	N/A							
E. Time to enter information								
Records of operating parameters - average facilities <sup>f</sup>	89.5	1	89.5	376	33,652	1,682.6	3,365.2	\$4,066,187.99
Records of operating parameters - small facilities <sup>f</sup>	95.2	1	95.2	42	3,998.4	199.92	399.84	\$483,128.67
F. Train personnel	N/A							
G. Audits	N/A							
<b>Subtotal for Recordkeeping Requirements</b>						<b>43,298</b>		<b>\$4,549,317</b>
<b>TOTAL ANNUAL BURDEN AND COST (rounded) <sup>g</sup></b>						<b>51,000</b>		<b>\$5,360,000</b>
<b>TOTAL CAPITAL AND O&amp;M COST (rounded) <sup>g</sup></b>								<b>\$4,200</b>
<b>GRAND TOTAL (rounded) <sup>g</sup></b>								<b>\$5,360,000</b>

**Assumptions:**

<sup>a</sup> Assume there will be an average of 38 new, modified, or reconstructed facilities each year and an average of 418 existing facilities over the next 3 years. Since Subpart VVa is more stringent than the HON and MON, no sources are assumed to be complying with the HON or MON instead of Subpart VVa.

<sup>b</sup> This ICR uses the following labor rates: \$108.28 for technical, \$144.33 for managerial, and \$53.34 for clerical labor. These rates are from the United States Department of Labor, Bureau of Labor Statistics, September 2016, "Table 2. Civilian workers, by occupational and industry group." 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> This ICR assumes all existing respondents will have to familiarize with the regulatory requirements each year.

<sup>d</sup> Assume 20 percent of initial performance tests must be repeated due to failure.

<sup>e</sup> Estimate 23 sources will be new due to construction while 15 will be due to reconstruction or modification.

<sup>f</sup> Assume 10 percent are small facilities that will record instrument readings manually while the other 90 percent use automated equipment to capture instrument readings electronically.

<sup>g</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

**Table G-5: Annual Respondent Burden and Cost for Subpart DDD**

Burden item	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Person-hours per occurrence	No. of occurrences per respondent per year	Person-hours per respondent per year (C=AxB)	Respondents per year <sup>a</sup>	Technical hours per year (E=CxD)	Management hours per year (F=Ex0.05)	Clerical hours per year (G=Ex0.1)	Total cost per year (\$) <sup>b</sup>
1. Applications	N/A							
2. Survey and Studies	N/A							
3. Reporting requirements								
A. Familiarize with regulatory requirements <sup>c</sup>	1	1	1	150	150	7.5	15	\$18,124.58
B. Required activities								
Initial performance test report	360	1	360	10	3,600	180	360	\$434,989.80
Repeat performance test report <sup>d</sup>	360	1	360	2	720	36	72	\$86,997.96
C. Write report								
Notification of construction/modification	2	1	2	10	20	1	2	\$2,416.61
Notification of actual startup	1	1	1	10	10	0.5	1	\$1,208.31
Notification of initial/repeat performance test	2	1	2	12	24	1.2	2.4	\$2,899.93
Semiannual report	3	2	6	140	840	42	84	\$101,497.62
<b>Subtotal for Reporting Requirements</b>					<b>6,169</b>			<b>\$648,135</b>
4. Recordkeeping requirements								
Records of operating parameters for control devices	1	12	12	10	120	6	12	\$14,499.66
Records of operating conditions exceeding last performance test	1	8	8	140	1,120	56	112	\$135,330.16
Records of startup, shutdown, malfunction, etc.	0.25	5	1.25	140	175	8.75	17.5	\$21,145.34
<b>Subtotal for Recordkeeping Requirements</b>					<b>1,627</b>			<b>\$170,975</b>

<b>TOTAL ANNUAL BURDEN AND COST (rounded) <sup>e</sup></b>						<b>7,800</b>		<b>\$819,000</b>
<b>TOTAL CAPITAL AND O&amp;M COST (rounded) <sup>e</sup></b>								<b>\$1,350,000</b>
<b>GRAND TOTAL (rounded) <sup>e</sup></b>								<b>\$2,170,000</b>

**Assumptions:**

<sup>a</sup> Assume 10 new affected sources per year and an average of 140 existing affected sources over the next three years.

<sup>b</sup> This ICR uses the following labor rates: \$108.28 for technical, \$144.33 for managerial, and \$53.34 for clerical labor. These rates are from the United States Department of Labor, Bureau of Labor Statistics, September 2016, "Table 2. Civilian workers, by occupational and industry group." 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> This ICR assumes all existing respondents will have to familiarize with the regulatory requirements each year.

<sup>d</sup> Assume 20 percent of initial performance tests must be repeated due to failure.

<sup>e</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.



**Table G-6: Annual Respondent Burden and Cost for Subpart III**

Burden item	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Person-hours per occurrence	No. of occurrences per respondent per year	Person-hours per respondent per year (C=AxB)	Respondents per year <sup>a</sup>	Technical hours per year (E=CxD)	Management hours per year (F=Ex0.05)	Clerical hours per year (G=Ex0.1)	Total cost per year (\$) <sup>b</sup>
1. Applications	N/A							
2. Survey and Studies	N/A							
3. Reporting requirements								
A. Familiarize with regulatory requirements <sup>c</sup>	1	1	1	17	17	0.85	1.7	\$2,054.12
B. Required activities								
Initial performance test report	60	1	60	1	60	3	6	\$7,249.83
Repeat performance test report <sup>d</sup>	60	1	60	0.2	12	0.6	1.2	\$1,449.97
C. Write report								
Notification of construction/modification	2	1	2	1	2	0.1	0.2	\$241.66
Notification of actual startup	1	1	1	1	1	0.05	0.1	\$120.83
Notification of initial/repeat performance test	2	1	2	1.2	2.4	0.12	0.24	\$289.99
Semiannual report	3	2	6	16	96	4.8	9.6	\$11,599.73
<b>Subtotal for Reporting Requirements</b>						<b>219</b>		<b>\$23,006</b>
4. Recordkeeping requirements								
Records of operating parameters for control devices	1	12	12	1	12	0.6	1.2	\$1,449.97
Records of operating conditions exceeding last performance test	1	8	8	16	128	6.4	12.8	\$15,466.30
Records of startup, shutdown, malfunction, etc.	0.25	5	1.25	16	20	1	2	\$2,416.61
<b>Subtotal for Recordkeeping Requirements</b>						<b>184</b>		<b>\$19,333</b>

<b>TOTAL ANNUAL BURDEN AND COST (rounded) <sup>e</sup></b>						<b>403</b>		<b>\$42,300</b>
<b>TOTAL CAPITAL AND O&amp;M COST (rounded) <sup>e</sup></b>								<b>\$36,500</b>
<b>GRAND TOTAL (rounded) <sup>e</sup></b>								<b>\$78,800</b>

**Assumptions:**

<sup>a</sup> Assume 1 new affected source per year and an average of 16 existing affected sources over the next three years. This does not include sources subject to both Subpart III and the HON, which are assumed to be complying with the HON.

<sup>b</sup> This ICR uses the following labor rates: \$108.28 for technical, \$144.33 for managerial, and \$53.34 for clerical labor. These rates are from the United States Department of Labor, Bureau of Labor Statistics, September 2016, "Table 2. Civilian workers, by occupational and industry group." 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> This ICR assumes all existing respondents will have to familiarize with the regulatory requirements each year.

<sup>d</sup> Assume 20 percent of initial performance tests must be repeated due to failure.

<sup>e</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

**Table G-7: Annual Respondent Burden and Cost for Subpart NNN**

Burden item	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Person-hours per occurrence	No. of occurrences per respondent per year	Person-hours per respondent per year (C=AxB)	Respondents per year <sup>a</sup>	Technical hours per year (E=CxD)	Management hours per year (F=Ex0.05)	Clerical hours per year (G=Ex0.1)	Total cost per year (\$) <sup>b</sup>
1. Applications	N/A							
2. Survey and Studies	N/A							
3. Reporting requirements								
A. Familiarize with regulatory requirements <sup>c</sup>	1	1	1	2,407	2,407	120.35	240.7	\$290,839.01
B. Required activities								
Initial performance test report	60	1	60	177	10,620	531	1,062	\$1,283,219.91
Repeat performance test report <sup>d</sup>	60	1	60	35	2,100	105	210	\$253,744.05
C. Write report								
Notification of construction/modification	2	1	2	177	354	17.7	35.4	\$42,774.00
Notification of actual startup	1	1	1	177	177	8.85	17.7	\$21,387.00
Notification of initial/repeat performance test	2	1	2	212	424	21.2	42.4	\$51,232.13
Semiannual report	3	2	6	2,230	13,380	669	1,338	\$1,616,712.09
<b>Subtotal for Reporting Requirements</b>						<b>33,881</b>		<b>\$3,559,908</b>
4. Recordkeeping requirements								
Records of operating parameters for control devices	1	12	12	177	2,124	106.2	212.4	\$256,643.98
Records of operating conditions exceeding last performance test	1	8	8	2,230	17,840	892	1,784	\$2,155,616.12
Records of startup, shutdown, malfunction, etc.	0.25	5	1.25	2,230	2,787.5	139.38	278.75	\$336,815.02

<b><i>Subtotal for Recordkeeping Requirements</i></b>								<b>26,164</b>	<b>\$2,749,075</b>
<b>TOTAL ANNUAL BURDEN AND COST (rounded) <sup>e</sup></b>								<b>60,000</b>	<b>\$6,310,000</b>
<b>TOTAL CAPITAL AND O&amp;M COST (rounded) <sup>e</sup></b>									<b>\$5,640,000</b>
<b>GRAND TOTAL (rounded) <sup>e</sup></b>									<b>\$12,000,000</b>

**Assumptions:**

<sup>a</sup> Assume 177 new affected sources per year subject to Subpart NNN and not the HON, and 2,230 existing affected sources over the next three years. These estimates do not include sources subject to both Subpart NNN and the HON, which are assumed to be complying with the HON.

<sup>b</sup> This ICR uses the following labor rates: \$108.28 for technical, \$144.33 for managerial, and \$53.34 for clerical labor. These rates are from the United States Department of Labor, Bureau of Labor Statistics, September 2016, "Table 2. Civilian workers, by occupational and industry group." 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> This ICR assumes all existing respondents will have to familiarize with the regulatory requirements each year.

<sup>d</sup> Assume 20 percent of initial performance tests must be repeated due to failure.

<sup>e</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

**Table G-8: Annual Respondent Burden and Cost for Subpart RRR**

Burden item	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Person-hours per occurrence	No. of occurrences per respondent per year	Person-hours per respondent per year (C=AxB)	Respondents per year <sup>a</sup>	Technical hours per year (E=CxD)	Management hours per year (F=Ex0.05)	Clerical hours per year (G=Ex0.1)	Total cost per year (\$) <sup>b</sup>
1. Applications	N/A							
2. Survey and Studies	N/A							
3. Reporting requirements								
A. Familiarize with regulatory requirements <sup>c</sup>	1	1	1	275	275	13.75	27.5	\$33,228.39
B. Required activities								
Initial performance test report	60	1	60	20	1,200	60	120	\$144,996.60
Repeat performance test report <sup>d</sup>	60	1	60	4	240	12	24	\$28,999.32
C. Write report								
Notification of construction/modification	2	1	2	20	40	2	4	\$4,833.22
Notification of actual startup	1	1	1	20	20	1	2	\$2,416.61
Notification of initial/repeat performance test	2	1	2	24	48	2.4	4.8	\$5,799.86
Semiannual report	3	2	6	255	1,530	76.5	153	\$184,870.67
<b>Subtotal for Reporting Requirements</b>						<b>3,856</b>		<b>\$405,145</b>
4. Recordkeeping requirements								
Records of operating parameters for control devices	1	12	12	20	240	12	24	\$28,999.32
Records of operating conditions exceeding last performance test	1	8	8	255	2,040	102	204	\$246,494.22
Records of startup, shutdown, malfunction, etc.	0.25	5	1.25	255	318.75	15.94	31.88	\$38,514.72
<b>Subtotal for Recordkeeping Requirements</b>						<b>2,989</b>		<b>\$314,008</b>

<b>TOTAL ANNUAL BURDEN AND COST (rounded) <sup>e</sup></b>						<b>6,840</b>		<b>\$719,000</b>
<b>TOTAL CAPITAL AND O&amp;M COST (rounded) <sup>e</sup></b>								<b>\$638,000</b>
<b>GRAND TOTAL (rounded) <sup>e</sup></b>								<b>\$1,360,000</b>

**Assumptions:**

<sup>a</sup> Assume 20 new affected sources per year subject to Subpart RRR and not the HON, and 255 existing affected sources over the next three years. These estimates do not include sources subject to both Subpart RRR and the HON, which are assumed to be complying with the HON.

<sup>b</sup> This ICR uses the following labor rates: \$108.28 for technical, \$144.33 for managerial, and \$53.34 for clerical labor. These rates are from the United States Department of Labor, Bureau of Labor Statistics, September 2016, "Table 2. Civilian workers, by occupational and industry group." 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> This ICR assumes all existing respondents will have to familiarize with the regulatory requirements each year.

<sup>d</sup> Assume 20 percent of initial performance tests must be repeated due to failure.

<sup>e</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

**Table G-9: Annual Respondent Burden and Cost for Subpart BB**

Burden item	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Person-hours per occurrence	No. of occurrences per respondent per year	Person-hours per respondent per year (C=AxB)	Respondents per year <sup>a</sup>	Technical hours per year (E=CxD)	Management hours per year (F=Ex0.05)	Clerical hours per year (G=Ex0.1)	Total cost per year (\$) <sup>b</sup>
1. Applications	N/A							
2. Survey and Studies	N/A							
3. Reporting requirements								
A. Familiarize with regulatory requirements <sup>c</sup>	1	1	1	54	54	2.7	5.4	\$6,525
B. Required activities								
Initial emission test	20	1	20	0	0	0	0	\$0
Monitoring performance test	280	1	280	0	0	0	0	\$0
Vapor-tightness test tank truck and railcars	11	1	11	3	33	1.65	3.3	\$3,987.41
Marine vessels	80	1	80	66	5,280	264	528	\$637,985.04
Closed vent leak inspection	8	1	8	54	432	21.6	43.2	\$52,198.78
C. Create information	See 3B							
D. Gather existing information	See 3E							
E. Write report								
Notification of construction	2	1	2	0	0	0	0	\$0
Notification of anticipated startup	2	1	2	0	0	0	0	\$0
Notification of actual startup	2	1	2	0	0	0	0	\$0
Notification of emission test	2	1	2	0	0	0	0	\$0
Report of emission test	8	1	8	0	0	0	0	\$0
Notification of performance test	2	1	2	0	0	0	0	\$0
Report of performance test	8	1	8	0	0	0	0	\$0

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Report facilities below cut-off <sup>d</sup>	8	1	8	0	0	0	0	\$0
Quarterly parameter excesses	4	4	16	54	864	43.2	86.4	\$104,397.55
<b>Subtotal for Reporting Requirements</b>						<b>7,662</b>		<b>\$805,094</b>
4. Recordkeeping requirements								
A. Familiarize with regulatory requirements	See 3A							
B. Plan activities	See 4C							
C. Implement activities	See 3B							
D. Develop record system	N/A							
E. Time to enter information								
Facilities above cut-off	1.5	52	78	54	4,212	210.6	421.2	\$508,938.07
Facilities below cut-off <sup>d</sup>	0.5	52	26	0	0	0	0	\$0
F. Train personnel	N/A							
<b>Subtotal for Recordkeeping Requirements</b>						<b>4,844</b>		<b>\$508,938</b>
<b>TOTAL ANNUAL BURDEN AND COST (rounded) <sup>e</sup></b>						<b>12,500</b>		<b>\$1,310,000</b>
<b>TOTAL CAPITAL AND O&amp;M COST (rounded) <sup>e</sup></b>								<b>\$0</b>
<b>GRAND TOTAL (rounded) <sup>e</sup></b>								<b>\$1,310,000</b>

**Assumptions:**

<sup>a</sup> We estimate an average of 54 existing facilities will be subject to the standard, and that no new sources will become subject over the next three years. We estimate 3 tank truck/railcars and 131 marine vessels are subject to the standards. We assume 50 percent of marine vessels (66) operate at negative pressure and do not conduct annual vapor-tightness tests. We also assume all other transfer racks subject to Subpart BB are complying with the HON.

<sup>b</sup> This ICR uses the following labor rates: \$108.28 for technical, \$144.33 for managerial, and \$53.34 for clerical labor. These rates are from the United States Department of Labor, Bureau of Labor Statistics, September 2016, "Table 2. Civilian workers, by occupational and industry group." 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> This ICR assumes all existing respondents will have to familiarize with the regulatory requirements each year.

<sup>d</sup> For sources below the low quantity applicability for control requirements, a report is only required the first year of operation. We assume existing sources previously have submitted this report.

<sup>e</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.



**Table G-10: Annual Respondent Burden and Cost for Subpart Y**

Burden item	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Person-hours per occurrence	No. of occurrences per respondent per year	Person-hours per respondent per year (C=AxB)	Respondents per year <sup>a</sup>	Technical hours per year (E=CxD)	Management hours per year (F=Ex0.05)	Clerical hours per year (G=Ex0.1)	Total cost per year (\$) <sup>b</sup>
1. Applications	N/A							
2. Survey and Studies	N/A							
3. Reporting requirements								
A. Familiarize with regulatory requirements <sup>c</sup>	1	1	1	4	4	0.2	0.4	483.322
B. Required activities								
Initial performance test	N/A							
C. Create information								
Annual IFR internal inspections and EFR seal gap measurements	8	1	8	4	32	1.6	3.2	\$3,866.58
D. Gather existing information	See 3C							
E. Write report								
Notification of construction/reconstruction	See NSPS Kb							
Notification of anticipated startup	See NSPS Kb							
Notification of actual startup	See NSPS Kb							
Notification of emission test	N/A							
Report of emission test	N/A							
Notification of control installation and refill at 1st IFR degassing <sup>d</sup>	2	1	2	0	0	0	0	\$0
Annual inspection report	2	2	4	4	16	0.8	1.6	\$1,933.29
Supplemental delay report <sup>e</sup>	2	1	2	0	0	0	0	\$0

Quarterly emission report <sup>f</sup>	None expected							
<b>Subtotal for Reporting Requirements</b>						<b>60</b>		<b>\$6,283</b>
4. Recordkeeping requirements								
A. Familiarize with regulatory requirements	See 3A							
B. Plan activities	See 4C							
C. Implement activities								
Filing and maintaining records	2	1	2	4	8	0.4	0.8	\$966.64
D. Develop record system	See 4C							
E. Time to enter information	See 4C							
F. Train personnel	N/A							
G. Audits	N/A							
<b>Subtotal for Recordkeeping Requirements</b>						<b>9</b>		<b>\$900</b>
<b>TOTAL ANNUAL BURDEN AND COST (rounded) <sup>g</sup></b>						<b>69</b>		<b>\$7,180</b>
<b>TOTAL CAPITAL AND O&amp;M COST (rounded) <sup>g</sup></b>								<b>\$0</b>
<b>GRAND TOTAL (rounded) <sup>g</sup></b>								<b>\$7,180</b>

**Assumptions:**

<sup>a</sup> Estimate there will be 4 existing sources not covered by the HON. The burden for all new sources is included in the NSPS Subpart Kb regulation for storage vessels at 40 CFR Part 60.

<sup>b</sup> This ICR uses the following labor rates: \$108.28 for technical, \$144.33 for managerial, and \$53.34 for clerical labor. These rates are from the United States Department of Labor, Bureau of Labor Statistics, September 2016, "Table 2. Civilian workers, by occupational and industry group." 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> This ICR assumes all existing respondents will have to familiarize with the regulatory requirements each year.

<sup>d</sup> We believe that all vessels have been degassed and that all controls have been installed, as they were to be installed within 10 years of promulgation.

<sup>e</sup> Estimate two percent of existing sources will request delay of repair in the annual report.

<sup>f</sup> Assume no sources will select the option to have a fixed roof vented to a control device, and thus have no quarterly reports of excess emissions.

<sup>g</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

**Table G-11: Annual Respondent Burden and Cost for Subpart V**

Burden item	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Person-hours per occurrence	No. of occurrences per respondent per year	Person-hours per respondent per year (C=AxB)	Respondents per year <sup>a</sup>	Technical hours per year (E=CxD)	Management hours per year (F=Ex0.05)	Clerical hours per year (G=Ex0.1)	Total cost per year (\$) <sup>b</sup>
1. Applications	N/A							
2. Survey and Studies	N/A							
3. Reporting requirements								
A. Familiarize with regulatory requirements <sup>c</sup>	1	1	1	67	67	3.35	6.7	\$8,095.64
B. Required activities								
Initial performance test	20	1	20	2	40	2	4	\$4,833.22
Reference method 21/22 test	4	1	4	2	8	0.4	0.8	\$966.64
Repeat performance test <sup>d</sup>	20	1	20	0.4	8	0.4	0.8	\$966.64
C. Create information	See 3B							
D. Gather existing information	See 3B							
E. Write report								
Notification of construction/reconstruction	2	1	2	2	4	0.2	0.4	\$483.32
Notification of anticipated startup	2	1	2	2	4	0.2	0.4	\$483.32
Notification of actual startup	2	1	2	2	4	0.2	0.4	\$483.32
Notification of initial/repeat performance test <sup>d</sup>	2	1	2	2.4	4.8	0.24	0.48	\$579.99
Report of performance test	See 3B							
Application for alternative	10	1	10	0.5	5	0.25	0.5	\$604.15
Initial report	8	1	8	2	16	0.8	1.6	\$1,933.29
Semiannual report	30	2	60	65	3,900	195	390	\$471,238.95
<b>Subtotal for Reporting Requirements</b>						<b>4,670</b>		<b>\$490,668</b>

4. Recordkeeping requirements								
A. Familiarize with regulatory requirements	See 3A							
B. Plan activities	See 4C							
C. Implement activities	See 3B							
D. Develop record system	N/A							
E. Time to enter information								
Record of startup, shutdown, malfunction, etc.	1.5	1	1.5	2	3	0.15	0.3	\$362.49
Record of operation, parameters, and emissions	0.1	365	36.5	65	2,372.5	118.63	237.25	\$286,670.36
Record of leaks detected	0.4	52	20.8	65	1,352	67.6	135.2	\$163,362.84
F. Train personnel	N/A							
G. Audits	N/A							
<b>Subtotal for Recordkeeping Requirements</b>						<b>4,287</b>		<b>\$450,396</b>
<b>TOTAL ANNUAL BURDEN AND COST (rounded) <sup>e</sup></b>						<b>8,960</b>		<b>\$941,000</b>
<b>TOTAL CAPITAL AND O&amp;M COST (rounded) <sup>e</sup></b>								<b>\$0</b>
<b>GRAND TOTAL (rounded) <sup>e</sup></b>								<b>\$941,000</b>

**Assumptions:**

<sup>a</sup> Assume 2 new sources per year and 65 existing sources subject to Subpart V, but not the HON.

<sup>b</sup> This ICR uses the following labor rates: \$108.28 for technical, \$144.33 for managerial, and \$53.34 for clerical labor. These rates are from the United States Department of Labor, Bureau of Labor Statistics, September 2016, "Table 2. Civilian workers, by occupational and industry group." 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> This ICR assumes all existing respondents will have to familiarize with the regulatory requirements each year.

<sup>d</sup> Assume 20 percent of initial performance tests must be repeated due to failure.

<sup>e</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

**Table G-12: Annual Respondent Burden and Cost for New Sources Subject to the HON**

Burden item	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Average hours per activity	Number of activities per year per respondent	Technical hours per year per respondent	Estimated number of New Respondents	Estimated technical hours per year (E=CxD)	Estimated managerial hours per year (F=Ex0.05)	Estimated clerical hours per year (G=Ex0.1)	Total cost per year (\$) <sup>b</sup>
1. Familiarize with regulatory requirements	2.69	93	250	5	1,250	62.5	125	\$151,038.13
2. Plan activities	3.82	93	355	5	1,775	88.75	177.5	\$214,474.14
3. Training	3.47	38	132	5	660	33	66	\$79,748.13
4. Creation, testing, research, and development	2.4	1,778	4,266	5	21,330	1,066.5	2,133	\$2,577,314.57
5. Gather information, monitor/inspect	1.4	2,102	2,943	5	14,715	735.75	1,471.5	\$1,778,020.81
6. Process/compile and review	0.8	50	40	5	200	10	20	\$24,166.10
7. Complete reports	11.37	49	557	5	2,785	139.25	278.5	\$336,512.94
8. Record/disclose	9.98	49	489	5	2,445	122.25	244.5	\$295,430.57
9. Store/file	5.18	51	264	5	1,320	66	132	\$159,496.26
<b>TOTAL ANNUAL BURDEN AND COST (rounded)</b>					<b>53,500</b>			<b>\$5,620,000</b>
<b>TOTAL CAPITAL AND O&amp;M COST (rounded)</b>								See Table G-13
<b>GRAND TOTAL (rounded)</b>								<b>\$5,620,000</b>

**Assumptions:**

(a) Average hours per activity are back-calculated by dividing (c) by (b).

(d) - From previously approved ICR.

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

See Attachment I for assumptions and further description of activities.

**Table G-13: Annual Respondent Burden and Cost for Existing Sources Subject to the HON**

Burden item	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Average hours per activity	Number of activities per year per respondent	Technical hours per year per respondent <sup>a</sup>	Technical hours per year per respondent for wastewater <sup>a</sup>	Estimated technical hours per year (E=Cx265+Dx80)	Estimated managerial hours per year (F=Ex0.05)	Estimated clerical hours per year (G=Ex0.1)	Total cost per year (\$) <sup>b</sup>
1. Familiarize with regulatory requirements	3.61	23	69	14	19,405	970.25	1,940.5	\$2,344,715.85
2. Plan activities	6.08	13	61	18	17,605	880.25	1,760.5	\$2,127,220.95
3. Training	5.25	4	17	4	4,825	241.25	482.5	\$583,007.16
4. Creation, testing, research, and development	17.85	99	1,617	150	440,505	22,025.25	44,050.5	\$53,226,439.40
5. Gather information, monitor/inspect	2.5	677	1,693	0	448,645	22,432.25	44,864.5	\$54,209,999.67
6. Process/compile and review	20	1	20	0	5,300	265	530	\$640,401.65
7. Complete reports	81.2	5	388	18	104,260	5,213	10,426	\$12,597,787.93
8. Record/disclose	17.46	26	442	12	118,090	5,904.5	11,809	\$14,268,873.75
9. Store/file	6.77	35	222	15	60,030	3,001.5	6,003	\$7,253,454.92
<b>TOTAL ANNUAL BURDEN AND COST (rounded)</b>					<b>1,400,000</b>			<b>\$147,000,000</b>
<b>TOTAL CAPITAL AND O&amp;M COST (rounded)</b>								<b>\$74,400,000</b>
<b>GRAND TOTAL (rounded)</b>								<b>\$221,000,000</b>

**Assumptions:**

(a) = (c + d)/(b).

(c) - there are 265 existing sources out of the 345 total that will continue to comply with the HON.

(d) - the 80 facilities complying with the CAR will still be required to comply with HON requirements for wastewater.

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

See Attachment I for assumptions and further description of activities.

**Attachment H**

**Assumptions and Item Descriptions for Attachment F: Table F-12**

Assumptions:

(A) That all existing and new sources must submit an initial report within 120 days of promulgation and an implementation plan or permit application within 12 or 18 months of the compliance date. It is assumed that initial reports and implementation plans have been submitted for existing sources and these reports are only required for new sources. The new sources are most likely to be collocated within existing plants and be included in those existing source reports.

(B) That semiannual reports of results from equipment leak detection and repair programs are required by the equipment leak standard. Sources are required to comply with the equipment leak standard by 6 months after promulgation. It is assumed that an average of 345 facilities will submit reports semiannually (345 existing facilities x 2 reports/facility = 690) (even those that use the CAR will still have to submit reports under the HON for wastewater).

Item Descriptions:

(a) Average hours per activity are estimates of the specific activities and are the basis for estimating the overall burden.

(b) Number of activities per year represents the number of reports expected to be reviewed and other related activities during the course of the year. Under the performance test headings, these numbers are based upon assumptions (A) and (B), above. For one-time reports, the total number of reports expected over the three-year period was divided by three to get an annual average incorporating assumption (B), above.

(c) Estimated technical hours per year is the product of (a) and (b).

(d) Estimated managerial hours per year is 5 percent of (c).

(e) Estimated clerical hours per year is 10 percent of (c).

(f) Annual cost per year is the sum of costs for technical, managerial, and clerical hours based on rates from the Office of Personnel Management (OPM), 2017 General Schedule, which excludes locality rates of pay.

Managerial	\$64.80 (GS-13, Step 5, \$40.50 + 60%)
Technical	\$48.08 (GS-12, Step 1, \$30.05 + 60%)
Clerical	\$26.02 (GS-6, Step 3, \$16.26 + 60%)

## H-2

$$(H^t \times \$48.08/\text{hour}) + (H^m \times \$64.80/\text{hour}) + (H^c \times \$26.02/\text{hour}) = (G)$$

Where:

$H^t$  is (c), or technical hours

$H^m$  is (d), or managerial hours, and

$H^c$  is (e), clerical hours

Report Review:

- 1) Initial represents the EPA review of all initial reports received.
- 2) Implementation plan or permit represents the EPA review of all implementation plans, or permit applications if submitted in lieu of an implementation plan.
- 3) Compliance status represents compliance status verification by the EPA for the portions of the standard which a source must comply with before the compliance date (see assumption (A), above).
- 4) Review equipment leak monitoring represents the review and screening of periodic reports received as a result of the equipment leaks standard.
- 5) Notification of construction/reconstruction represents the EPA review of this notification from new sources.
- 6) Notification of anticipated startup represents the EPA review of this notification from new sources.
- 7) Notification of actual startup represents the EPA review of this notification from new sources.
- 8) Notification of performance test represents the EPA review of this notification from new sources.
- 9) Review of test results represents the EPA review of performance test results for new sources.
- 10) Review periodic reports represents the EPA review of periodic reports.

TOTAL ANNUAL BURDEN AND COST (ROUNDED) is the sum of columns (c), (d), and (e), and of (f), respectively. Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.



## Attachment I

### Assumptions and Item Descriptions for Attachment G: Tables G-12 and G-13

#### Assumptions:

(A) That there are 265 existing facilities out of 345 that will continue to comply with the HON, rather than the CAR. The 80 facilities complying with the CAR will still be required to comply with the HON wastewater provisions, as the CAR does not include wastewater provisions. The total number of facilities will increase by 5 new facilities per year. Since new facilities must be in compliance at startup, the general periodic recordkeeping and reporting burdens are included, which accounts for the difference in the technical hours per facility. No new facilities are expected to comply directly with the CAR.

(B) That the average representative source, new and existing, will consist of the following points of burden:

- 20 parameters to monitor at control devices throughout the facility
- 10 affected storage tanks of various capacities
- 3 affected major wastewater streams
- 4 affected transfer rack operations
- 3 overall leak detection and repair programs for 2,000 points
- 1 emissions averaging program that involves 10 emission points
- 1 facility wide inventory of emission points, Group 1 and Group 2
- 8 process vents per facility

(C) That there are 5 percent (0.05) managerial and 10 percent (0.10) clerical hours required for every technical hour.

(D) That some activities necessary to generate reports involve creating records in the process, and that these activities are assumed to be reports activities alone, to avoid double counting these as records activities as well. Therefore, only items 8 and 9 are considered records burdens directly.

#### Item Descriptions:

(a) Average hours per activity is back-calculated by dividing (b) into (c). Since the activities within each burden category can vary significantly, it is too inaccurate to assume an average to use to calculate (c). Estimated activity technical hours are summarized to obtain (c) first, then back calculate for (a) with an estimated (b).

(b) Number of activities per year per respondent represents the assumed typical number of separate activities a respondent may encounter during one year. This number may vary from facility to facility, depending on consolidation of activities, collocated readings, etc.

Since so much variability exists, it is important to note that this is an estimate. This number only was used to back-calculate (a).

(c) Technical hours per year per respondent is the actual best estimate of the burden for each burden item. The three-year separate activity burdens were divided by three, where appropriate, and then summarized to include in this column. The technical hours for new respondents are higher because some periodic compliance reports and records are required at startup. Existing respondents do not encounter these reporting and recordkeeping burdens for three years after promulgation.

(d) Table G-12 Estimated number of new respondents reflects the number given in assumption (A), above. Table G-13 Technical hours per year per respondent for wastewater are the annual technical hours associated with recordkeeping and reporting to ensure compliance with requirements for wastewater. As discussed in assumption (A), facilities complying with the CAR will comply with HON wastewater requirements. Burden hours per source, per emission type are shown in Table 5.

(e) Estimated technical hours per year is the product of (c) and (d) for new facilities (Table G-12). For Table G-13, estimated technical hours are the product of (c) and the number of existing facilities complying with all of the HON (265) added to the product of (d) and the number of facilities complying with only the wastewater provisions (80).

(f) Estimated managerial hours per year is 5 percent of (e).

(g) Estimated clerical hours per year is 10 percent of (e).

(h) Annual cost per year is from the United States Department of Labor, Bureau of Labor Statistics, September 2016, Table 2. Civilian workers, by occupational and industry group. 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.

Managerial	\$144.33 (\$68.73 + 110%)
Technical	\$108.28 (\$51.56 + 110%)
Clerical	\$53.34 (\$25.40 + 110%)

$$(H^t \times \$108.28/\text{hour}) + (H^m \times \$144.33/\text{hour}) + (H^c \times \$53.34/\text{hour}) = (G)$$

Where:

$H^t$  is (e), or technical hours

$H^m$  is (f), or managerial hours, and

$H^c$  is (g), clerical hours

Report Review:

- 1) Familiarize with regulatory requirements are the activities, less training, which involve comprehending the provisions in the standard and understanding how they apply to the respective points at a facility. We assume existing facilities will have to familiarize with the regulatory requirements each year.
- 2) Plan activities represent such burdens as design, redesign, scheduling as well as drafting the implementation plan, and selecting methods of compliance.
- 3) Training represents the portion (assumed 40 percent) of activities from 1) Familiarize with regulatory requirements for which an average facility would elect to provide classroom instruction. The standard does not require specific training itself.
- 4) Creation, testing, research, and development are the activities involving testing, retesting, establishing operating range for parameters and analyzing point-by-point applicability. Monitor related refit, calibration, and maintenance activities are also included under this heading.
- 5) Gather information, monitor/inspect are the activities involving physical inspections of equipment, collection of monitored data, and other related activities.
- 6) Process/compile and review are the activities that involve analysis of the information collected for accuracy, compliance, and appropriate reports and records required as a result.
- 7) Complete reports represents the activities normally associated with filling out forms. Since the standard requires no standard forms, these activities relate to the preparing of formal reports and cover letters as appropriate.
- 8) Record/disclose are activities which are solely recordkeeping which occur once the appropriate report information has been extracted [see assumption (D), above]. These activities involve software translation, duplication, or archival processes normally associated with data management and storage common to this industry.
- 9) Store/file again are activities which are solely recordkeeping which occur once the appropriate report information has been extracted [see assumption (D), above]. These activities involve the management life cycle of records, from the time they are filed and boxed up, to the time they are disposed.

TOTAL ANNUAL BURDEN AND COST (ROUNDED) is the sum of columns (e), (f), and (g), and of (h), respectively. Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

## Attachment J

### Summary of Capital/Startup and Operation & Maintenance Costs for the CAR and Its Referencing Subparts

**Note: Totals for capital and O&M costs have been rounded to 3 significant figures. Figures may not add exactly due to rounding.**

#### NSPS Subpart Ka

- a. Total Capital/Startup Cost of Monitoring Equipment:  
The total capital/Startup costs for this ICR are \$0.
- b. Total Cost of Operation and Maintenance of Monitoring Equipment:  
The total operating and maintenance (O&M) Costs for this ICR is \$0.
- c. Total Capital/Startup and O&M Cost:  
The total capital and O&M Costs are \$0.

#### NSPS Subpart Kb

- a. Total Capital/Startup Cost of Monitoring Equipment:  
The total capital/Startup costs for this ICR are \$27,000. This is the cost for 2 new storage tanks to install monitoring equipment associated with the CVS routed to a control device. The storage tanks will use equipment similar to that used for Subparts NNN and III; therefore, the startup costs are approximately \$13,500 per facility for a total of \$27,000. There are no capital/startup costs for the remaining 35 new storage tanks complying by either an IFR or EFR.
- b. Total Cost of Operation and Maintenance of Monitoring Equipment:  
The average annualized burden is estimated to be \$1,350 per year per affected facility (\$13,500 discounted over 10 years by straight line depreciation method) for both new (2) and existing affected sources (436) using CVS routed to a control device, for a total of \$591,300.
- c. Total Capital/Startup and O&M Cost:  
The total capital and O&M Costs are \$618,000.

#### NSPS Subpart VV

- a. Total Capital/Startup Cost of Monitoring Equipment:  
The capital/startup costs of this regulation are \$0. We assume facilities that are already complying with Subpart VV will not need to buy an additional monitor and that no additional facilities will become subject to Subpart VV in the future.

- b. Total Cost of Operation and Maintenance of Monitoring Equipment:  
Operation of monitors is included in monitoring costs. Maintenance costs for these units are incidental; therefore, no maintenance or operation costs will be incurred.
- c. Total Capital/Startup and O&M Cost:  
The total capital and O&M Costs are \$0.

### **NSPS Subpart VVa**

- a. Total Capital/Startup Cost of Monitoring Equipment:  
The capital/startup costs of this regulation total \$4,200. This is based on the average cost of a monitor (\$7,000) with a 5-year expected life. The equipment is not capitalized, so no discount rate applies. The average annual cost is, therefore, \$7,000/5, or \$1,400/yr. It is estimated that only area sources that construct new process units might purchase a monitoring instrument. All other sources should have monitoring equipment because they are either subject to MACT rules or have been subject to NSPS Subpart VV for other processes. We assume 38 process units are subject to NSPS Subpart VVa each year, where 60 percent of all new sources are newly constructed sources and 15 percent of all new sources are area sources. Therefore, an estimated 3 facilities with a new process unit will buy a monitoring instrument to comply with NSPS Subpart VVa, yielding a total capital/startup cost of \$1,400 x 3, or \$4,200.
- b. Total Cost of Operation and Maintenance of Monitoring Equipment:  
The operation of the monitors is included in the monitoring costs. Maintenance costs on these units is incidental; therefore, no maintenance or operation costs incur.
- c. Total Capital/Startup and O&M Cost:  
The total capital and O&M Costs are \$4,200.

### **NSPS Subpart DDD**

- a. Total Capital/Startup Cost of Monitoring Equipment:  
The capital/startup costs for this regulation are \$300,000. This is based on 10 new sources per year multiplied by \$30,000 per source for monitoring equipment.
- b. Total Cost of Operation and Maintenance of Monitoring Equipment:  
The annual operation and maintenance costs are \$1,050,000. This is based on 140 existing sources plus 10 new sources per year over the life of the ICR multiplied by \$7,000 for upkeep of the monitoring devices.
- c. Total Capital/Startup and O&M Cost:  
The total capital and O&M Costs are \$1,350,000.

**NSPS Subpart III**

- a. Total Capital/Startup Cost of Monitoring Equipment:  
The startup cost of monitoring equipment is approximately \$13,500 per new affected facility or a total of \$13,500 (based on 1 new source x \$13,500/source).
- b. Total Cost of Operation and Maintenance of Monitoring Equipment:  
The average annualized burden is estimated to be \$1,350 per year per affected facility (\$13,500 discounted over 10 years by straight line depreciation method) for Subpart III for a total of \$22,950 (\$1,350 x 17) total number of new and existing affected sources under Subpart III].
- c. Total Capital/Startup and O&M Cost:  
The total capital and O&M Costs are \$36,500.

**NSPS Subpart NNN**

- a. Total Capital/Startup Cost of Monitoring Equipment:  
The startup cost of monitoring equipment is approximately \$13,500 per new affected facility or a total of \$2,389,500 (total of 177 new sources x \$13,500/source).
- b. Total Cost of Operation and Maintenance of Monitoring Equipment:  
The average annualized burden is estimated to be \$1,350 per year per affected facility (\$13,500 discounted over 10 years by straight line depreciation method) for Subpart NNN for a total of \$3,249,450 [(\$1,350 x 2,407) total number of new and existing affected sources under Subpart NNN].
- c. Total Capital/Startup and O&M Cost:  
The total capital and O&M Costs are \$5,640,000.

**NSPS Subpart RRR**

- a. Total Capital/Startup cost of Monitoring Equipment:  
The capital/startup costs for this regulation are \$500,000 per year. This is based on 20 new sources per year multiplied by \$25,000 for monitoring equipment discounted over 10 years at 7 percent.
- b. Total Cost of Operation and Maintenance of Monitoring Equipment:  
The annual operation and maintenance costs are \$137,500. This is based on 255 existing sources plus 20 new sources multiplied by \$500 for upkeep of the monitoring device.
- c. Total Capital/Startup and O&M Cost:

The total capital/startup and O&M Costs are \$638,000.

**NESHAP Subpart BB**

- a. Total Capital/Startup cost of Monitoring Equipment:  
Startup costs were identified in previous ICR.
- b. Total Cost of Operation and Maintenance of Monitoring Equipment:  
There are no O&M costs associated because no CEMs are employed.
- c. Total Capital/Startup and O&M Cost:  
The total capital and O&M costs are \$0.

**NESHAP Subpart Y**

- a. Total Capital/Startup Cost of Monitoring Equipment:  
The only type of industry costs associated with the information collection activity in the standards is labor cost. There are no capital/startup costs.
- b. Total Cost of Operation and Maintenance of Monitoring Equipment:  
There are no operation and maintenance costs.
- c. Total Capital/Startup and O&M Cost:  
The total capital and O&M costs are \$0.

**NESHAP Subpart V**

- a. Total Capital/Startup Cost of Monitoring Equipment:  
Startup cost were identified in previous ICR.
- b. Total Cost of Operation and Maintenance of Monitoring Equipment:  
There are no O&M costs associated because no CEMs are employed.
- c. Total Capital and O&M Cost  
The total capital and O&M costs are \$0.

**NESHAP HON:**

**Subpart G**

- a. Total Capital/Startup Cost of Monitoring Equipment:  
Estimate the cost to purchase monitoring equipment is approximately \$20-30K for process vents and wastewater operations, or an average of \$25K with a 10-year life expectancy and a 7 percent depreciation rate, or \$2,225 per year. There are no

associated costs for transfer racks and storage tanks. Only new sources need to buy monitoring equipment; therefore, the total capital/startup cost is \$25,000 x 5, or \$125,000.

- b. Total Cost of Operation and Maintenance of Monitoring Equipment:  
The cost to industry associated with the operation and maintenance (O&M) is approximately \$100-500K per year (capital/startup depreciation not included) for reactor process vents and wastewater operations. The cost associated with the operation and maintenance is \$50-100K per year (capital/startup depreciation not included) for distillation unit process vents. There are no associated costs for transfer racks and storage tanks. The average O&M cost is assumed to be the average of the two ranges, or \$275,000 per year. Operation and maintenance incur for both new and existing sources. The total O&M is, therefore, \$275,000 x 270, or \$74,400,000.
- c. Total Capital/Startup and O&M Cost:  
The total capital and O&M costs are \$74,400,000.

### **Subpart H**

- a. Total Capital/Startup Cost of Monitoring Equipment:  
Only new sources will buy an organic volatile analyzer. Estimate the average cost of a monitor is \$7,000 with a 5-year expected life. The equipment is not capitalized, so no discount rate applies. The average annual cost is, therefore, \$7,000/5, or \$1,400/yr. Estimate that 80 percent of facilities contract out LDAR services, and 20 percent perform in-house. Those facilities which contract out (4 facilities) will purchase one unit as backup; the remaining facilities performing LDAR in-house (1 facility) will purchase 5 units to support the program. The total annual capital/startup cost is, therefore, 9 units x \$1,400/unit, or \$12,600/yr.
- b. Total Cost of Operation and Maintenance of Monitoring Equipment:  
The operation of the monitors is included in the monitoring costs. Maintenance costs on these units is incidental; therefore, no maintenance or operation costs are incurred.
- c. Total Capital and O&M Cost for Subparts H:  
The total capital and O&M costs are \$12,600.

### **Part 65 CAR**

- a. Total Capital/Startup Cost of Monitoring Equipment:  
Under the CAR, it is assumed all new sources start out under the referencing subpart. Therefore, there is no capital/startup cost associated with this subpart.
- b. Total Cost of Operation and Maintenance of Monitoring Equipment:



The HON is the basis for determining O&M costs for the CAR. The average cost per source, based on the HON is \$275,000 per year, for a total of \$22,000,000.

- c. Total Capital/Startup and O&M Cost:  
The total capital and O&M costs are \$22,000,000.