

**SUPPORTING STATEMENT  
ENVIRONMENTAL PROTECTION AGENCY**

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

**Part A of the Supporting Statement**

**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 1854.07, OMB Control Number 2060-0443

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

This information collection request (ICR) is for the Consolidated Federal Air Rule (CAR) for the Synthetic Organic Chemical Industry (SOCMI) and its referencing subparts. The burden estimates in this ICR reflect the addition of the Direct Final Rule for Revisions to the CAR (72 FR 48938; August 27, 2007); other burden estimates are consistent with the most recently approved ICR for the CAR. The U.S. Environmental Protection Agency (EPA) will use this information to ensure compliance with the provisions in the CAR and its referencing subparts.

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. Compliance is assumed through initial performance testing or design analysis, as appropriate; and ongoing compliance is demonstrated through parametric monitoring. Types of parameters monitored are incinerator temperature, scrubber flow rate, carbon adsorber regeneration frequency, as well as others. The appropriate parameter to monitor depends on the type of control device with the owner or operator chooses to comply.

On December 14, 2000, the CAR was promulgated under 40 CFR part 65. The CAR is an optional alternative compliance approach for plant sites that must comply with existing subparts in the Code of Federal Regulations (CFR). The CAR is a consolidation of major portions of 14 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. 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.

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. When preparing renewals for the CAR, or the referencing subparts, estimates are made of the percentage of existing sources that will opt to comply with the CAR in lieu of the referencing subparts. Because the CAR is designed for, although not limited to, SOCFI facilities, the number of facilities opting to comply with the CAR is based on the estimated number of SOCFI facilities. It is estimated that 25 percent of non-Hazardous Organic NESHAP (HON) sources will opt to comply with the CAR if the per-source burden of complying with the CAR is less than the per-source burden of complying with the referencing subpart. For those referencing subparts for which the per-source burden of complying with the CAR is higher than the per-source burden of complying with the referencing subpart (subparts Ka, Kb, Y, VV, VVa, III, NNN, RRR, and DDD), it is estimated that 5 percent of sources will opt to comply with the CAR. It is also estimated that 25 percent of HON sources will opt to comply with the CAR. It is assumed that all new sources will initially comply with the appropriate referencing subpart.

The Office of Management and Budget (OMB) approved the currently active Information Collection Request (ICR) with the following “Terms of Clearance” (TOC):

Before this ICR is renewed, the burden hours should be adjusted to include those of ICR 2060-0599, and a nonsubstantive change filed to indicate that the two ICRs (2060-0599 and 2060-0443) are being consolidated into one ICR.

EPA has addressed each item of concern in the TOC by updating the burden estimates to include the burden hours and costs from ICR 2060-0599 which references the Direct Final Rule for Revisions to the CAR. It is estimated that the information collection for the Direct Final Rule for Revisions to the CAR will involve 6 respondents with 6 annual responses and respondent labor costs of \$653. The total Agency burden for the revisions is estimated to be 6 hours per year at a cost of \$311. There are no capital or operation and maintenance (O&M) costs associated with the Direct Final Rule for Revisions to the CAR. Additionally, information from ICR 2060-0599 was consolidated within the text of this ICR.

It is estimated that the consolidated collection will involve 3,311 respondents with 9,959 annual responses and respondent labor costs of \$188,133,406. The total Agency burden is estimated to be 24,543 hours per year at a cost of \$1,290,254. Other costs will be \$95,329,000 per year 1) total capital/setup costs will be \$3,373,000 per year; and 2) O&M costs will be \$91,956,000 per year.

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” burden is attributed entirely to work performed by Federal employees or government contractors and may also be found below in Table 8: Summary of Respondent and Agency Burden and Cost for Referencing Subparts and the CAR.

#### The CAR (Consolidated Air Rule)

In general, the NSPS, NESHAP, CAR, and maximum achievable control technology (MACT) regulations require initial notifications including one-time notifications of initial startup, applicability, and initial compliance status; performance tests, periodic monitoring, recordkeeping, and reporting. Periodic reports are required semiannually, and a startup, shutdown, and malfunction (SSM) plan must be submitted and updated as needed. In addition, respondents taking advantage of various provisions for waivers, approval of alternative methods, and changes in submittal schedules would be required to submit requests or applications. This information is being collected to assure compliance with 40 CFR part 65.

The 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 results 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. These standards apply to storage vessels of petroleum liquids that have a storage capacity greater than 151,416 (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. These standards apply to each storage vessel with a capacity greater than or equal to 40 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 SOCOMI Industry

The NSPS for Emissions of VOC from Equipment Leaks in the SOCOMI Industry were proposed on January 5, 1981, and promulgated on October 18, 1983. They 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 SOCOMI Industry

NSPS subpart VVa is a standard that applies to equipment contained within a SOCOMI 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. 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. 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 standard applies 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 SOCFI Distillation Operations

The NSPS for the SOCFI Distillation Operations were proposed on December 30, 1983, and promulgated on June 29, 1990. 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 standard applies 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 SOCFI Reactor Processes

The NSPS for the synthetic organic chemical manufacturing industry (SOCFI) Reactor Processes were proposed on June 29, 1990, and promulgated on August 31, 1993. 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. 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. 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 D 4734-98 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)

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 HON

The MACT standards for the HON were proposed on December 31, 1992, and promulgated on April 22, 1994. These standards apply to chemical manufacturing process units (CMPU's) in the SOCOMI industries, which 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 four 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) (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, pollutant 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.

The required recordkeeping and reporting are also used to: 1) certify compliance with the regulations; 2) determine the respondent's compliance with the designated emission limitation(s); 3) notify regulatory agencies when a standard is violated; 4) evaluate continuous compliance through the use of emission or operational parameter monitors; and 5) ensure that plant personnel are following the required procedures and are periodically trained, as indicated.

### **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 (75 FR 30812) on June 2, 2010. No comments were received on the burden published in the Federal Register.

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

Interested parties were provided an opportunity to comment on the burden associated with the CAR and other referencing subparts when the CAR was being developed. The first Federal Register Notice announcing renewal of this ICR also provided an opportunity to provide comments. In addition, the EPA provided a 90-day public comment period after proposal of the amendments to the standards of performance for equipment leaks of VOC in the SOCOMI. All affected parties were given the opportunity to comment on the proposed amendments during this period. During development of the amendments, EPA held meetings and conference calls with representatives of petroleum refining companies and their trade associations (the National Petroleum Refiners Association and the American Petroleum Institute); however, the recordkeeping and reporting requirements for the standards were not the specific items being discussed. Representatives of the American Chemistry Council declined invitations to participate in development of the proposed amendments.

For this renewal, representatives of the American Chemistry Council [Jim Griffin, Director, Regulatory and Technical Affairs, (703) 741-5242] and the Society of Chemical



Manufacturers and Affiliates [Dan Moss, Manager, Environmental Policy and Advocacy, (202) 721-4143] were contacted for consultation regarding EPA's burden estimates. 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. However, most NESHAP and a few NSPS require records to be kept more than three years. This is consistent with the General Provisions as applied to the standards. EPA believes that the five-year records retention requirement is consistent 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 (CBI) (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 source category description. The United States Standard Industrial Classification (SIC) codes and the corresponding North American Industry Classification System (NAICS) codes for the respondents are listed below.

Standard	SIC Code	NAICS Code
All referenced subparts	2821	325211
	2824	325222
	2851	32551
	2865	325111, 325132, 325192
	2869	32511, 325193, 325199
	2899	32511, 325199
	2911	32411
	2951	324121
	2952	324122
	2992	324191
	2999	324199
	4212	562111, 562112, 562119, 48411, 48421, 48422
	4213	484121, 484122, 48421, 48423
	4214	48411, 48421, 48422
	4215	49211, 49221
	4221	49313
	4222	49312
	4225	49311, 53113
	4226	49312, 49311, 49319
	4231	48849
	4412	483111
	4424	483113
	4432	483113
	4449	483211
	4481	483112, 483114
	4482	483114, 483212
	4489	483212, 48721
	4491	48831, 48832
	4492	48833
	4493	71393
	4499	532411, 48831, 48833, 48839
	4724	56151
	4725	56152
	4729	488999, 561599

<b>Standard</b>	<b>SIC Code</b>	<b>NAICS Code</b>
	4731	541614, 48851
	4741	532411, 48821
	4783	488991
	4785	48839, 48849
	4789	488999, 48711, 72231, 48821

This table is not meant to be exhaustive, but rather provides a guide for readers regarding the entities likely to be regulated by this standard. To determine whether the standard applies to a particular entity, please see the applicability provisions in the standard.

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

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

In this ICR, all the data that is recorded or reported is required by the CAR and its referencing subparts.

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

##### Electronic Reporting

At present, many respondents to CAA standards use monitoring equipment that automatically records parameter data. Although personnel at the affected facility must evaluate the data, this internal automation has significantly reduced the burden associated with monitoring and recordkeeping at the plant site.

Also, regulatory agencies, in cooperation with the respondents, continue to create reporting systems to transmit data electronically. However, electronic reporting systems are still not widely used. At this time, it is estimated that approximately 20 percent of the respondents use electronic reporting.

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

The respondent activities required by the CAR and its referencing subparts are identified in the following table.

<b>Respondent Activities</b>
Read instructions.
Install, calibrate, maintain, and operate CPMS for the appropriate control device
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.

<b>Respondent Activities</b>
Submit the required reports developing, acquiring, installing, and utilizing technology and systems for the purpose of collecting, validating, and verifying information.
Develop, acquire, install, and utilize technology and systems for the purpose of processing and maintaining information.
Develop, acquire, install, and utilize technology and systems for the purpose of disclosing and providing information.
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**

The Agency activities associated with the CAR are presented in Table 1; the Agency activities associated with the Direct Final Rule for Revisions to the CAR are shown below in Table 3; and the Agency activities associated with the referencing subparts are shown in Tables F-1 through F-12. 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 sources 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 semiannual reports are used for problem identification, as a check on source operation and maintenance, and for compliance determinations.

The results of these evaluations are entered into the Air Facility System (AFS), which is operated and maintained by the EPA Office of Compliance. AFS is the EPA database for the collection, maintenance, and retrieval of compliance data for approximately 125,000 industrial and government-owned facilities. EPA uses the AFS 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 this regulation must be retained by the owner/operator for five years.

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

A majority of the respondents are large entities (i.e., large businesses). The number of small businesses affected by this rule is not known. 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 below in Table 6: Basis for Annual Respondent Burden of Reporting and Recordkeeping for the CAR, and Tables G-1 through G-13: Annual Burden of Reporting and Recordkeeping Requirements for the referencing subparts, respectively.

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

Table 6 for the CAR, Table 7 for the Direct Final Standards, and Tables G-1 through G-13 for the referencing subparts document the computation of individual burdens for the recordkeeping and reporting requirements applicable to the industry. 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 1,988,952 hours. The recordkeeping hours shown in Table 8 are 410,576. The reporting requirement hours shown in Table 8 are 1,578,376. 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	\$114.49 (\$54.52 + 110%)
Technical	\$98.20 (\$46.76 + 110%)

Clerical            \$48.53 (\$23.11 + 110%)

These rates are from the United States Department of Labor, Bureau of Labor Statistics, September 2009, 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**

Because we assume that no new sources will opt to comply with the CAR at startup over the next 3 years, there are no capital costs 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 are no capital costs associated with the Direct Final Rule for Revisions to the CAR. Capital/startup and O&M costs for the referencing subparts are summarized in Table 8.

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 Appendix J.

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

The total capital/startup costs for this ICR are \$3,373,000. This is the total of column J in Table 8. The total operation and maintenance (O&M) costs for this ICR are \$91,956,000. This is the total of column I. in Table 8. 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 \$95,329,000. These are recordkeeping costs.

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

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

The average annual Agency burden and cost during the three years of the ICR is 24,543 hours and \$1,290,254. This is calculated below in Table 2 for the CAR, Table 3 for the Direct Final Rule for Revisions to the CAR, and Attachments F-1 through F-12 for the referencing subparts, and is summarized in Table 8.

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

Managerial	\$62.27 (GS-13, Step 5, \$38.92 + 60%)
Technical	\$46.21 (GS-12, Step 1, \$28.88 + 60%)
Clerical	\$25.01 (GS-6, Step 3, \$15.63 + 60%)

These rates are from the Office of Personnel Management (OPM), 2010 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.

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

The total number of respondents is 3,311. The calculation of respondents is summarized below in Column (A) of Table 8 for the CAR the Direct Final Rule for Revisions to the CAR, and the referencing subparts.

The total number of responses is 9,959. The calculation of responses is summarized below in Column (B) of Table 8 for the CAR the Direct Final Rule for Revisions to the CAR, and the referencing subparts.

The total annual labor costs are \$188,133,406. A summary of the annual labor costs may be found below in Table 8. A detailed description of the annual labor costs may be found in Table 6 for the CAR, Table 7 for the Direct Final Rule for Revisions to the CAR, and Attachments G-1 through G-13 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 summarized below in Table 8 and detailed in Tables 2 and 6 for the CAR, Tables 3 and 7 for the Direct Final Rule for Revisions to the CAR, and Tables F-1 through F-12, and G-1 through G-13 for the referencing subparts, respectively.

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

The total annual labor hours are 1,988,952. Details regarding these estimates may be found below in Table 6 for the CAR, Table 7 for the Direct Final Rule for Revisions to the CAR, and Tables F-1 through F-12, and G-1 through G-13 for the referencing subparts, respectively. Furthermore, the overall annual public reporting and recordkeeping burden for this collection of information is estimated to average 200 hours per response.

The total annual capital/startup and O&M costs to the regulated entity are \$95,329,000. 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 24,543 labor hours at a cost of \$1,290,254. This is summarized below in Table 8 and detailed in Table 2 for the CAR, Table 3 for the Direct Final Rule for Revisions to the CAR, and Tables F-1 through F-12 for the referencing subparts.

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

There is an increase of 43 burden hours from the most recently approved ICR due to adjustments. These adjustments include revisions to the CAR in the Direct Final Rule, the retention of decimal places during intermediate calculations, and correction of a calculation error in the burden estimates for subpart VVa in the most recent approved ICR. Additionally, there is an increase in both respondent and Agency costs resulting from labor rate adjustments from the year 2006 to the most recently available rates. The increases in respondent and Agency labor costs are the result of labor rate increases in the managerial, technical, and clerical labor categories. Specific changes to tables are described below:

**Tables 2 and 6** - The tables were updated to calculate Agency and respondent costs based on updated labor rates which increased the overall cost for the CAR.

**Table 3** – The table was added to include the Agency cost and hourly burden associated with the Direct Final Rule for Revisions to the CAR. The estimates are based on the estimates made in the previous ICR renewal for the revisions.

**Table 7** – The table was added to include the respondent cost and hourly burden associated with the Direct Final Rule for Revisions to the CAR. The estimates are based on the estimates made in the previous ICR renewal for the revisions.

**Table 8** - Since this is a summary table, the appropriate entries were changed according to the changes made to Tables F-1 to F-12, and G-1 to G-13. Summary information was also added for the Direct Final Rule for Revisions to the CAR.

**Tables F-1 to F-12** - The tables were updated to calculate Agency costs based on updated labor rates which increased the overall cost for each subpart.

**Tables G-1 to G-13** - The tables were updated to calculate Respondent costs based on updated labor rates which increased the overall cost for each subpart.

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

The annual public reporting and recordkeeping burden for this collection of information is estimated to average 200 hours per response. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, disclose, or provide information to or for a Federal agency. This includes the time needed to review instructions; to 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; to adjust the existing ways to comply with any previously applicable instructions and requirements; to train personnel to be able to respond to a collection of information; to search data sources; to complete and review the collection of information; and to 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's 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-2010-0376. 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 Avenue 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) 566-1752. Also, you can send comments to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW, Washington, D.C. 20503, Attention: Desk Officer for EPA. Please include the EPA Docket ID Number EPA-HQ-OECA-2010-0376 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**

- 
- Performance Tests
    - Initial
    - Repeat
  - Review Reports
    - Notification of Initial Startup
    - Notification of Performance Test
    - Initial Compliance Status
    - Startup, Shutdown, Malfunction Plans
    - Periodic Reports
- 

**TABLE 2: ANNUAL BURDEN AND COST TO THE FEDERAL GOVERNMENT FOR THE CAR PROVISIONS**

Burden Item (Reports to Review)	Average Hours per Activity (a)	Number of Activities per Year (b)	Estimated Technical Hours per Year <sup>a</sup> (c)	Estimated Managerial Hours per Year <sup>b</sup> (d)	Estimated Clerical Hours per Year <sup>c</sup> (e)	Annual Cost <sup>d</sup> (f)
1. Initial Notification of Part 65 Applicability	2	27 <sup>e</sup>	54	3	5	\$2,799
2. Review Equipment Leak Monitoring	5	636 <sup>f</sup>	3,180	159	318	\$164,802
3. Review Periodic Reports	4	80 <sup>g</sup>	320	16	32	\$16,584
TOTAL ANNUAL COST			3,554	178	355	\$184,185
TOTAL ANNUAL BURDEN				4,087		\$368,369

**Assumptions:**

<sup>a</sup> c = a x b

<sup>b</sup> Estimate managerial hours are 5 percent of technical hours.

<sup>c</sup> Estimate clerical hours are 10 percent of technical hours.

<sup>d</sup> Annual cost is the sum of costs for technical, managerial, and clerical hours based on the Office of Personnel Management (OPM),

2010 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.

Managerial - \$62.27 (GS-13, Step 5, \$38.92 + 60%)

Technical - \$46.21 (GS-12, Step 1, \$28.88 + 60%)

Clerical - \$25.01 (GS-6, Step 3, \$15.63 + 60%)

<sup>e</sup> Estimate that all CAR sources must submit an Initial Notification of Part 65 Applicability. It is estimated that 1/3 of the sources will submit an 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>f</sup> Estimate that 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>g</sup> Estimate that 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.

**TABLE 3: ANNUAL BURDEN AND COST TO THE FEDERAL GOVERNMENT  
OF THE DIRECT FINAL STANDARDS**

Activity	(A) Hours per occurrence	(B) Hours per plant per year	(C) Plants per year	(D) Technical person- hours per year (D=BxC)	(E) Management person-hours per year (Dx0.05)	(F) Clerical person-hours per year (Dx0.1)	(G) Cost, \$ <sup>a</sup>
Report Review/Filing	1	1	6	6	0.3	0.6	\$310.95
TOTAL BURDEN AND COST (SALARY)				6	0.3	0.6	\$310.95
TOTAL ANNUAL COST							

**Assumptions:**

<sup>a</sup> Costs are based on the following hourly rates: technical at \$46.21, management at \$62.27, and clerical at \$25.01

**TABLE 4: ESTIMATED NUMBER OF SOURCES SUBJECT TO REFERENCING SUBPARTS THAT WILL OPT TO COMPLY WITH THE CAR**

Referencing Subpart	Estimated Number of Sources Complying with CAR <sup>a,b</sup>
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> Note that the estimate is on a per-source basis, rather than on a facility basis and therefore correlates to (as described in the footnote to the appropriate Table), but does not match the facility entries in the referencing subpart burden tables in Tables F1-F12, and G1-G13. For the purpose of this information collection request, 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 & 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 OF REPORTING AND RECORDKEEPING FOR THE CAR**

Burden Item	Annual Burden in Technical Hours												Total <sup>d</sup>
	Process Vents		Storage Vessels		Transfer Racks		Equipment Leaks				Inventory		
							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>	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>	
Read Rule and Instructions	2.9	2,103	1.1	1,804	1.1	352	2.5	600	1	78	1.8	144	5,081
Plan Activities	2.1	1,523	1.7	2,788	0.85	272	0.57	137	0.23	18	4.5	360	5,097
Training	1.3	943	0.5	820	0.5	160	0	0	0	0	0	0	1,923
Create, Test, Research and Development	28	20,300	16	26,240	16	5,120	380	91,200	155	12,090	0	0	154,950
Gather Information, Monitor and Inspect	14	10,150	17	27,880	17	5,440	263	63,120	108	8,424	54	4,320	119,334
Compile, Process and Review Data	0	0	0	0	0	0	0	0	0	0	18	1,440	1,440
Complete Forms	9	6,525	5.4	8,856	5.4	1,728	57	13,680	23	1,794	5.4	432	33,015
Record/ Disclose	28	20,300	2.8	4,592	2.8	896	4.7	1,128	1.9	148	9	720	27,784
File/Store	3	2,175	1.25	2,050	1.25	400	2.75	660	0.9	70	1.58	126	5,482
<b>TOTAL</b>	<b>88.3</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>354,106</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 if 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 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 number of sources estimated to comply with the CAR are 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.

**TABLE 6: ANNUAL RESPONDENT BURDEN AND COST OF REPORTING AND RECORDKEEPING REQUIREMENTS FOR THE CAR**

Burden Item	Average Hours per Activity (a)	Number of Activities per year per source (b)	Technical Hours per year per source (c)	Estimated Technical Hours per year (d)	Estimated Managerial Hours per year (e)	Estimated Clerical Hours per year (f)	Annual Cost (g)
Read Rule and Instructions	2.76	23	63.51	5,081	254	508	\$552,698
Plan Activities	4.90	13	63.71	5,097	255	510	\$554,439
Training	6.01	4	24.04	1,923	96	192	\$209,179
Create, Test, Research and Development	19.56	99	1936.88	154,950	7,748	15,495	\$16,855,074
Gather Information, Monitor and Inspect	2.20	677	1491.68	119,334	5,967	11,933	\$12,980,854
Compile, Process and Review Data	18.00	1	18.00	1,440	72	144	\$156,640
Complete Forms	82.54	5	412.69	33,015	1,651	3,302	\$3,591,289
Record/ Disclose	13.36	26	347.30	27,784	1,389	2,778	\$3,022,274
File/Store	1.96	35	68.53	5,482	274	548	\$596,318
<b>TOTAL COST</b>				<b>354,106</b>	<b>17,705</b>	<b>35,411</b>	<b>\$38,518,765</b>
<b>TOTAL BURDEN HOURS</b>					<b>407,222</b>		

**Assumptions:**

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 source 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 4.

(e) Estimated managerial hours per year are assumed to be 5 percent of technical hours.  $(e) = (d) \times 0.05$ .

(f) Estimated clerical hours per year are assumed to be 10 percent of technical hours.  $(f) = (d) \times 0.10$ .

(g) Annual Cost is the sum of costs for technical, managerial, and clerical hours based on the following rates from the United States Department of Labor, Bureau of Labor Statistics, September 2009, "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 -\$114.49 (\$54.52 + 110%), Technical - \$98.20 (\$46.76 + 110%), Clerical - \$48.53 (\$23.11 + 110%).

**TABLE 7: ANNUAL RESPONDENT BURDEN AND COST OF REPORTING REQUIREMENTS OF THE DIRECT FINAL STANDARDS**

Burden item	(A) Person- hours per occurrence	(B) No. of occurrences per respondent per year	(C) Person- hours per respondent per year (C=AxB)	(D) Number of respondents per year	(E) Technica l person- hours per year (E=CxD)	(F) Management person-hours per year (Ex0.05)	(G) Clerical person- hours per year (Ex0.1)	(H) Cost,\$ <sup>a</sup>
1. Applications	N/A							
2. Survey and Studies	N/A							
3. Acquisition, Installation, and Utilization of Technology and Systems	N/A							
4. Reporting Requirements								
A. Read instructions	0.5	1	0.5	6 <sup>b</sup>	3	0.15	0.3	\$326.33
B. Required activities	N/A							
C. Create information	N/A							
D. Gather existing information	N/A							
E. Write report	0.5	1	0.5	6 <sup>b</sup>	3	0.15	0.3	\$326.33
5. Recordkeeping Requirements	N/A							
A. Read instructions	N/A							
<b>TOTAL LABOR BURDEN AND COST</b>					6	0.3	0.6	\$652.67
Annualized cost of capital								0
Operation and maintenance (O&M)								0
Total (capital recovery plus O&M)								0

**Assumptions:**

<sup>a</sup> Costs are based on the following hourly rates: technical at \$98.20, management at \$114.49, and clerical at \$48.53.

<sup>b</sup> One-time event for 6 respondents per year.



**TABLE 8: SUMMARY OF RESPONDENT AND AGENCY BURDEN AND COST FOR REFERENCING SUBPARTS AND THE CAR**

Subpart	(A) Number of Respondents	(B) Total Annual Responses <sup>a</sup>	(C) Respondent Reporting Burden Hours	(D) Respondent Recordkeeping Burden Hours	(E) Respondent Burden Hours <sup>a</sup>	(F) Respondent Burden Costs <sup>a</sup>	(G) Agency Burden Hours <sup>b</sup>	(H) Agency Burden Costs <sup>b</sup>	(I) O&M Costs in 000's <sup>c</sup>	(J) Capital/Startup Costs in 000's <sup>c</sup>
NSPS Ka	174	194	522	45,931	46,453	\$4,393,958	115	\$5,182	0	0
NSPS Kb	580	1,976	21,607	63,879	85,486	\$8,086,084	976	\$43,999	42	27
NSPS VV	436	872	4,011	40,112	44,123	\$4,173,575	2,006	\$90,382	0	0
NSPS VVa	76	244	3,257	3,938	7,194	\$680,512	614	\$27,674	0	4.2
NSPS DDD	90	222	5,658	1,096	6,754	\$638,850	570	\$25,705	630	300
NSPS III	11	26	166	131	297	\$28,065	69	\$3,089	15	14
NSPS NNN	1,345	3,433	25,130	16,750	41,880	\$3,961,350	8,955	\$403,557	1,816	2,390
NSPS RRR	155	394	2,864	1,925	4,789	\$452,950	1,026	\$46,227	78	500
NESHAP BB	54	216	7,600	4,844	12,444	\$1,177,081	497	\$22,388	0	0
NESHAP Y	4	8	55	9	64	\$6,092	9	\$415	0	0
NESHAP V	55	123	3,904	3,628	7,533	\$712,493	289	\$13,008	0	0
NESHAP F, G, H, and I	245	1,845	1,134,630	190,078	1,324,708	\$125,302,978	5,325	\$239,947	67,375	138
CAR	80	400	368,966	38,256	407,222	\$38,518,765	4,087	\$368,369	22,000	0
CAR Revisions <sup>d</sup>	6	6	6	0	6	\$653	6	\$311	0	0
Totals	3,311	9,959	1,578,376	410,576	1,988,952	\$188,133,406	24,543	\$1,290,254	91,956	3,373

**Assumptions:**

<sup>a</sup> From Tables G1- G13

<sup>b</sup> From Tables F-1 through F-12

<sup>c</sup> From Appendix J

<sup>d</sup> From Tables 3 and 7

## Attachment A

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

#### 1. General Records

#### 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

- General contents as specified in §§65.5 and 65.48.
- Initial Notification of Part 65 Applicability as specified in §65.5.

## 7. Initial Compliance Status Report

- General contents as specified in §65.5.
- 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.

## 8. Periodic Reports

- General contents as specified in §65.6.
- 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 postmark as specified in §65.5.
- Startup, shutdown, and malfunction periodic report as specified in §65.6 (can be included with a periodic report).
- Written application for waiver of recordkeeping and reporting requirements as specified in §65.7.
- Written request for approval to use alternatives to the 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 anticipated startup as specified in §60.7(a)(2).
- 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**

- 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).
- Notice 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 equipment and certifying control for IFR as specified in §60.115b(a)(1).
- Record of each inspection required at §§60.113b(a) and 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 equipment and certifying control for EFR as specified in §60.115b(b)(1).
- Report results of seal gap measurement 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) and 60.115b(b)(3).

- Report gaps exceeding limits within 30 days of inspection required by §§60.113b(b)(4) - 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 requirements 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, removal or addition of product recovery equipment or an air oxidation reactor 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 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 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 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 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(j)(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 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 or has no flowrate 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).
  - 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 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).
  - Each owner or operator of an affected facility that seeks to comply with the requirements of this subpart by complying with the design production capacity provision, shall keep up-to-date, readily accessible records of any change in equipment or process operation that increases the design production capacity of the process unit in which the affected facility is located as specified in §60.705(i).
  - Each owner or operator of an affected facility that seeks to complying with the low concentration exemption, shall keep up-to-date, readily accessible records of any change in equipment or process operation that increases the concentration of the vent stream of the affected facility as specified in §60.705(j).



**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 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.

**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).
- 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).
- 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 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 as specified in §61.302, and controls 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).
- Record of closed-vent system annual leak inspection required at §§61.242-ll(f)(2) through 61.302(k), and 61.246(d).

**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.

## **Attachment B**

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## Attachment C

### Assumptions and Item Descriptions for Table 4

#### 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 must submit an Initial Notification of Part 65 Applicability or submit the corresponding information in a modification to their Title V permits. This equates to 80 EPA activities, or 27 per year (80/3) during each of the three years following promulgation.

#### 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).

(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) Estimated Annual Cost in \$ Thousands per Year is the total cost of technical, managerial, and clerical hours and overhead using this formula:

$$\frac{(H_t * \$46.21/\text{hour}) + (H_m * \$62.27.20/\text{hour}) + (H_c * \$25.01/\text{hour})}{1,000} = (h)$$

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.

Source:

These rates are from the Office of Personnel Management (OPM), 2010 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.

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 BURDEN AND COST is the total for each of the columns (c), (d), (e), and (f).

## **Attachment D**

Purposely left blank.

## Attachment E

### Assumptions and Item Descriptions for Table 6

#### Assumptions are:

(A) That there are 320 existing facilities, of which 25 percent (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 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 Source is the total technical hours for a burden item, as estimated in Table 7 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 7.

(e) Estimated Managerial Hours per Year is 5 percent of (d).

(f) Estimated Clerical Hours per Year is 10 percent of (d).

(g) Estimated Annual Cost in Thousands of Dollars per Year is the total cost of technical, managerial, and clerical hours and overhead using this formula:

$$(H_t * \$98.20/\text{hour}) + (H_m * \$114.49/\text{hour}) + (H_c * \$48.53/\text{hour}) = (g)$$

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.

Source:

These rates are from the United States Department of Labor, Bureau of Labor Statistics, September 2009, 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.

1) Read Rule and Instructions 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) Read Rule and Instructions for which an average facility would elect to provide class room instruction. The standard does not require specific training itself.

4) Create, Test, 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 are also included under this heading.

5) Gather Information, Monitor, and 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 and compliance as well as appropriate records and reports 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.

8) Record/Disclose are solely recordkeeping activities which occur once the appropriate report information has been extracted; see assumption (D). 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). 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 BURDEN AND COST is the total for each of the columns (d), (e), (f), and (g)

## ATTACHMENT F: EPA BURDEN AND COST FOR REFERENCING SUBPARTS

**TABLE F-1: AVERAGE ANNUAL EPA RESOURCE REQUIREMENT FOR SUBPART Ka<sup>a</sup>**

Activity	(A) EPA/hr Occurrence	(B) Occurrences/ plant/yr	(C =AxB) EPA hr/plant/yr	(D) Plants/year	(E=CxD) Technical hr/yr	(F=Ex0.05) Managerial Hr/yr	(G=Ex0.10) Clerical Hr/Yr	(H) Total Cost per year <sup>e</sup>
Report Review: New Plant								
Vapor recovery <sup>b</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>c</sup>	0.5	1	0.5	188	94	5	9	\$4,872
Report of gap excesses <sup>c,d</sup>	1	1	1	6	6	0	1	\$311
TOTAL ANNUAL HOURS					100	5	10	
TOTAL ANNUAL BURDEN						115		\$5,182

**Assumptions”**

<sup>a</sup> Assume no new sources subject to this regulation. All similar new sources will be subject to subpart Kb.

<sup>b</sup> Required only at start of construction. Any new storage vessel being constructed would be subject to the NSPS subpart Kb.

<sup>c</sup> Assume that 90 percent of the storage vessels will use a floating roof and be subject to seal gap measurement. The remaining 10 percent will use a closed vent system.

<sup>d</sup> Assume 25 percent of respondents using a floating roof will have excessive seal gaps requiring that a single report be filed once per year.

Technical - \$46.21 (GS-12, Step 1, \$28.88 + 60%)

Managerial -\$62.27 (GS-13, Step 5, \$38.92 + 60%)

Clerical - \$25.01 (GS-6, Step 3, \$15.63 + 60%)

**TABLE F-2: AVERAGE ANNUAL EPA RESOURCE REQUIREMENT FOR SUBPART Kb**

Reporting and Recordkeeping Requirements Assumptions <sup>a</sup>	(A) Technical Hours	(B=A*.05) Managerial Hours	(C=A*.10) Clerical Hours	Cost/year \$ <sup>a</sup>
1) Review notification of construction. 37 <sup>b</sup> new notifications at 2 hours each	74	4	7	\$3,835
2) Review notice of anticipated startup. 37 new notifications at 1 hour each	37	2	4	\$1,918
3) Review notice of actual startup. 37 new notifications at 1 hour each	37	2	4	\$1,918
4) Review notification of initial inspection @1 hr. each	37	2	4	\$1,918
5) Review of IFR Failure Report <sup>c</sup> ; 55 sources @ 1 hr/ea	55	3	6	\$2,850
6) Review Notification of Delay for Repair/Emptying IFR <sup>d</sup> ; 6 sources@ 1.2 hr/ea	7	0	1	\$363
7) Review Notification to Re-Fill <sup>d</sup> ; 602 sources@ 1 hr/ea	602	30	60	\$31,198
TOTAL ANNUAL HOURS	849	42	85	
TOTAL ANNUAL BURDEN			976	\$43,999

**Assumptions:**

<sup>a</sup> Annual cost is the sum of costs for technical, managerial, and clerical hours based on rates from the Office of Personnel Management (OPM) “2010 General Schedule” which excludes locality rates of pay.

Technical - \$46.21 (GS-12, Step 1, \$28.88 + 60%)

Managerial - \$62.27 (GS-13, Step 5, \$38.92 + 60%)

Clerical - \$25.01 (GS-6, Step 3, \$15.63 + 60%)

<sup>b</sup> Assume 111 new storage tanks will be constructed during each of the next three years, or 37 tanks per year (28 IFR’s, 7 EFR’s, 2 CVS).

<sup>c</sup> One percent failure rate for the 5468 IFRs choosing annual visual inspections equals approximately 55.

<sup>d</sup> From Table G.2

**TABLE F-3: AVERAGE ANNUAL EPA RESOURCE REQUIREMENT FOR SUBPART VV**

Activity	(A) EPA hr/Occurrence	(B) Occurrences plant/yr	(C) plants/yr	(D) <sup>a</sup> Technical hrs/yr	(E=D*.05) Managerial hrs/hr	(F=E*.10) Clerical hrs/yr	Cost/yr <sup>d</sup>
<u>Report Review: New Plant</u>							
Notification of Construction	8	1	0 <sup>b</sup>	0	0	0	\$0
Notification of Reconstruction/ Modification	2	1	0	0	0	0	\$0
Notification of Actual Startup	0.5	1	0	0	0	0	\$0
Notification of Initial/Repeat Test	0.5	1	0 <sup>c</sup>	0	0	0	\$0
Review Test Results	2	1	0 <sup>c</sup>	0	0	0	\$0
<u>Report Review: Existing Plant</u>							
Semiannual Emission Reports	2	2	436 <sup>c</sup>	1,744	87	174	\$90,382
TOTAL ANNUAL HOURS				1,744	87	174	
TOTAL ANNUAL BURDEN				2,006			\$90,382

**Assumptions:**

<sup>a</sup> D=AxBxC

<sup>b</sup> All new sources will be subject to subpart VVa.

Technical - \$46.21 (GS-12, Step 1, \$28.88 + 60%)

Managerial -\$62.27 (GS-13, Step 5, \$38.92 + 60%)

Clerical - \$25.01 (GS-6, Step 3, \$15.63 + 60%)

**TABLE F-4: ANNUAL AVERAGE EPA RESOURCE REQUIREMENT FOR SUBPART DDD**

Activity	(A) EPA hr/Occurrence	(B) Occurrences plant/yr	(C) plants/yr	(D) <sup>a</sup> Technical hrs/yr	(E=D*.05) Managerial hrs/hr	(F=E*.10 ) Clerical hrs/yr	(G) <sup>b</sup> Cost/yr (\$)
<u>Report Review</u> Notification of Construction/ Reconstruction/ Modification	2	1	10	20	1	2	\$1,036
Notification of Actual Startup	2	1	10	20	1	2	\$1,036
Initial Performance Test	8	1	10	80	4	8	\$4,146
Repeat Performance Test <sup>d</sup>	8	0.2	10	16	1	2	\$829
Semiannual Reports	2	2	90 <sup>c</sup>	360	18	36	\$18,657
TOTAL ANNUAL HOURS				496	25	50	
TOTAL ANNUAL BURDEN						570	\$25,705

**Assumptions:**

<sup>a</sup> D=AxBxC

<sup>b</sup> Annual cost is the sum of costs for technical, managerial, and clerical hours based on rates from the Office of Personnel Management (OPM) “2010 General Schedule” which excludes locality rates of pay.

Technical - \$46.21 (GS-12, Step 1, \$28.88 + 60%)

Managerial - \$62.27 (GS-13, Step 5, \$38.92 + 60%)

Clerical - \$25.01 (GS-6, Step 3, \$15.63 + 60%)

<sup>c</sup> Average number of affected sources over next three years.

<sup>d</sup> Assume 20 percent of performance tests repeated due to failure

**TABLE F-5: AVERAGE ANNUAL EPA RESOURCE REQUIREMENT FOR SUBPART III**

Activity	(A) EPA hr/Occurrence	(B) Occurrences plant/yr	(C) plants/yr	(D) <sup>a</sup> Technical hrs/yr	(E=D*.05) Managerial hrs/hr	(F=E*.10) Clerical hrs/yr	(G) <sup>b</sup> Cost/yr (\$)
Report Review							
New Plant - Notification of Construction/Reconstruction/Modification	2	1	1	2	0.1	0.2	\$104
Notification of Anticipated Startup	2	1	1	2	0.1	0.2	\$104
Notification of Actual Startup	2	1	1	2	0.1	0.2	\$104
Initial Test	8	1	1	8	0.4	0.8	\$415
Repeat Performance Test <sup>c</sup>	8	0.2	1	1.6	0.08	0.16	\$83
Semiannual Reports	2	2	11 <sup>d</sup>	44	2.2	4.4	\$2,280
TOTAL ANNUAL HOURS				59.6	2.98	5.96	
TOTAL ANNUAL BURDEN						69	\$3,089

**Assumptions:**

<sup>a</sup> D=AxBxC

<sup>b</sup> Annual cost is the sum of costs for technical, managerial, and clerical hours based on rates from the Office of Personnel Management (OPM) “2010 General Schedule” which excludes locality rates of pay.

Technical - \$46.21 (GS-12, Step 1, \$28.88 + 60%)

Managerial - \$62.27 (GS-13, Step 5, \$38.92 + 60%)

Clerical - \$25.01 (GS-6, Step 3, \$15.63 + 60%)

<sup>c</sup> Assume 20 percent of performance tests are repeated due to failure

<sup>d</sup> Average number of affected sources over next three years. Does not include sources subject to both Subpart III and the HON, which are assumed to be complying with the HON.

**TABLE F-6: AVERAGE ANNUAL EPA RESOURCE REQUIREMENT FOR SUBPART NNN**

Activity	(A) EPA hr/Occurrence	(B) Occurrences plant/yr	(C) plants/yr	(D) <sup>a</sup> Technical hrs/yr	(E=D*.05) Managerial hrs/hr	(F=E*.10) Clerical hrs/yr	(G) <sup>b</sup> Cost/yr (\$)
<u>Report Review</u>							
New Plant - Notification of Construction/Reconstruction/Modification	2	1	177	354	18	35	\$18,346
Notification of Actual Startup	2	1	177	354	18	35	\$18,346
Initial Test	8	1	177	1,416	71	142	\$73,383
Repeat Performance Test <sup>c</sup>	8	0	177	283	14	28	\$14,666
Semiannual Reports	2	2	1,345 <sup>d</sup>	5,380	269	538	\$278,816
TOTAL ANNUAL HOURS				7,787	389	779	
TOTAL ANNUAL BURDEN						8,955	\$403,557

**Assumptions:**

<sup>a</sup> D=AxBxC

<sup>b</sup> Annual cost is the sum of costs for technical, managerial, and clerical hours based on rates from the Office of Personnel Management (OPM) “2010 General Schedule” which excludes locality rates of pay.

Technical - \$46.21 (GS-12, Step 1, \$28.88 + 60%)

Managerial -\$62.27 (GS-13, Step 5, \$38.92 + 60%)

Clerical - \$25.01 (GS-6, Step 3, \$15.63 + 60%)

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

<sup>d</sup> Average number of affected sources over next three years. Does not include sources subject to both Subpart NNN and the HON, which are assumed to be complying with the HON.



**TABLE F-7: AVERAGE ANNUAL EPA RESOURCE REQUIREMENT FOR SUBPART RRR**

Activity	(A) EPA hr/Occurrence	(B) Occurrences plant/yr	(C) plants/yr	(D) <sup>a</sup> Technical hrs/yr	(E=D*.05) Managerial hrs/hr	(F=E*.10) Clerical hrs/yr	(G) <sup>b</sup> Cost/yr (\$)
<u>Report Review</u> New Plant - Notification of Construction/Reconstruction/Modification	2	1	20	40	2	4	\$2,073
Notification of Actual Startup	2	1	20	40	2	4	\$2,073
Initial Test	8	1	20	160	8	16	\$8,292
Repeat Performance Test <sup>c</sup>	8	0.2	20	32	2	3	\$1,658
Semiannual Reports	2	2	155 <sup>d</sup>	620	31	62	\$32,131
TOTAL ANNUAL HOURS				892	45	89	
TOTAL ANNUAL BURDEN						1,026	\$46,227

**Assumptions:**

<sup>a</sup> D=AxBXC

<sup>b</sup> Annual cost is the sum of costs for technical, managerial, and clerical hours based on rates from the Office of Personnel Management (OPM) “2010 General Schedule” which excludes locality rates of pay.

Technical - \$46.21 (GS-12, Step 1, \$28.88 + 60%)

Managerial - \$62.27 (GS-13, Step 5, \$38.92 + 60%)

Clerical - \$25.01 (GS-6, Step 3, \$15.63 + 60%)

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

<sup>d</sup> Average number of affected sources over next three years. Does not include sources subject to both Subpart NNN and the HON, which are assumed to be complying with the HON.

**TABLE F-8: AVERAGE ANNUAL EPA RESOURCE REQUIREMENT FOR SUBPART BB**

Activity	(A) EPA/hr Occurrence	(B) Occurrences/plant/ yr	(C) <sup>b</sup> Plants/year	(D) Technical hrs/yr <sup>a</sup>	(E=D*.05) <sup>c</sup> Managerial hr/yr	(F=D*.1) Clerical hr/yr	(G) Cost/yr \$ <sup>d</sup>
Report Review							
New Plant <sup>f</sup>							
Notification of construction	0.5	0	0	0	0	0	\$0
Notification of anticipated startup	0.5	0	0	0	0	0	\$0
Notification of actual startup	0.5		0	0	0	0	\$0
Initial report	8	0	0	0	0	0	\$0
Notification of emission test	0.5	0	0	0	0	0	\$0
Result of emission test	4	0	0	0	0	0	\$0
Notification of performance test	0.5	0	0	0	0	0	\$0
Result of performance test	8	0	0	0	0	0	\$0
Review test results	8	0	0	0	0	0	\$0
Report Review							
Existing Plant							
Quarterly reports	2	4	54	432	22	43	\$22,388
TOTAL ANNUAL HOURS				432	22	43	
TOTAL ANNUAL BURDEN						497	\$22,388

**Assumptions:**

<sup>a</sup> AxBxC=D

<sup>b</sup> Assume an estimated total of 81 facilities. Assume 2/3 (54) facilities are marine vessel loading facilities and must continue to comply with this subpart; assume 2 of these 54 marine vessel loading facilities also load tank trucks and railcars that are not subject to the HON.

<sup>c</sup> Assume no new sources.

<sup>d</sup> Annual cost is the sum of costs for technical, managerial, and clerical hours based on rates from the Office of Personnel Management (OPM) “2010 General Schedule” which excludes locality rates of pay.

    Technical - \$46.21 (GS-12, Step 1, \$28.88 + 60%)

    Managerial -\$62.27 (GS-13, Step 5, \$38.92 +

60%)

    Clerical - \$25.01 (GS-6, Step 3, \$15.63 + 60%)

**TABLE F-9: AVERAGE ANNUAL EPA RESOURCE REQUIREMENT FOR SUBPART Y**

Activity	(A) EPA/hr Occurrence	(B) Occurrences/ plant/yr	(C) <sup>a</sup> Plants/year	(D) Technical hrs/yr <sup>b</sup>	(E=D*.05) <sup>c</sup> Managerial hr/yr	(F=D*.1) Clerical hr/yr	(G) Cost/yr \$ <sup>c</sup>
Report Review							
New Sources	Included in NSPS Kb						
Notification of construction							
Notification of anticipated startup	Included in NSPS Kb						
Notification of actual startup	Included in NSPS Kb						
Notification of performance test	N/A	N/A	N/A	N/A	N/A	N/A	
Report of performance test	N/A	N/A	N/A	N/A	N/A	N/A	
Notification of control installation and refill at 1st degassing <sup>d</sup>	1	1	0	0	0	0	\$0
Existing Plant	2	1	4	8	0	1	\$415
Annual IFR internal inspections and EFR seal gap measurements							
Supplemental delay report <sup>e</sup>	1	1	0	0	0	0	\$0
Quarterly emission reports <sup>f</sup>	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>TOTAL ANNUAL HOURS</b>				8	0.4	0.8	
<b>TOTAL ANNUAL BURDEN</b>						9	\$415

**Assumptions:**

<sup>a</sup> Estimate that there are 4 existing sources not covered by the HON. All new source burden is included in the NSPS subpart Kb regulation for storage vessels at 40 CFR Part 60.

<sup>b</sup> D=AxBxC

<sup>c</sup> Annual cost is the sum of costs for technical, managerial, and clerical hours based on rates from the Office of Personnel Management (OPM) “2010 General Schedule” which excludes locality rates of pay: Technical - \$46.21 (GS-12, Step 1, \$28.88 + 60%); Managerial -\$62.27 (GS-13, Step 5, \$38.92 + 60%); Clerical - \$25.01 (GS-6, Step 3, \$15.63 + 60%).

<sup>d</sup> It is believed that all vessels have been degassed and all controls have been installed as they were to have been installed within 10 years of promulgation..

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

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

**TABLE F-10: AVERAGE ANNUAL EPA RESOURCE REQUIREMENT FOR SUBPART V**

Activity	(A) EPA/hr Occurrence	(B) Occurrences/ plant/yr	(C) Plants/year <sup>b</sup>	(D) <sup>a</sup> Technical hrs/yr	(E=D*.05) <sup>c</sup> Managerial hr/yr	(F=D*.1) Clerical hr/yr	(G) Cost/yr \$ <sup>d</sup>
<u>Report Review</u>							
New Plant - Notification of Construction/Reconstruction/Modification	2	1	2	4	0.2	0.4	\$207
Notification of Anticipated Startup	2	1	2	4	0.2	0.4	\$207
Notification of Actual Startup	2	1	2	4	0.2	0.4	\$207
Initial Test	8	1	2	16	0.8	1.6	\$829
Repeat Performance Test <sup>c</sup>	8	0.2	2	3	0.15	0.3	\$155
Semiannual Reports	2	2	55	220	11	22	\$11,401
TOTAL ANNUAL HOURS				251	13	25	
TOTAL ANNUAL BURDEN						289	\$13,008

**Assumptions:**

<sup>a</sup> AxBxC=D

<sup>b</sup> Assume 2 new sources per year at one new facility and 55 existing process units subject to NESHAP subpart V, but not the HON.

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

<sup>d</sup> Annual cost is the sum of costs for technical, managerial, and clerical hours based on rates from the Office of Personnel Management (OPM) "2010 General Schedule" which excludes locality rates of pay.

Technical - \$46.21 (GS-12, Step 1, \$28.88 + 60%)

Managerial -\$62.27 (GS-13, Step 5, \$38.92 + 60%)

Clerical - \$25.01 (GS-6, Step 3, \$15.63 + 60%)

**TABLE F-11: AVERAGE ANNUAL EPA RESOURCE REQUIREMENT FOR SUBPARTS F, G, H, and I**

Burden Item	Average Hours per Activity (a)	Number of Activities per Year (b)	Estimated Technical Hours per year (c)	Estimated Managerial Hours per year (d)	Estimated Clerical Hours per year (e)	Annual Cost \$ (f)
REPORTS REVIEW:						
1) Initial	2	5	10	1	1	\$518
2) Implementation Plan or Permit	20	5	100	5	10	\$5,182
3) Compliance status	40	5	200	10	20	\$10,365
4) Review equipment leak monitoring	7	240	1,680	84	168	\$87,065
5) Notification of Construction/Reconstruction.	2	5	10	1	1	\$518
6) Notification of anticipated startup	2	5	10	1	1	\$518
7) Notification of actual startup	2	5	10	1	1	\$518
8) Notification of Performance Test	2	5	10	1	1	\$518
9) Review of test results	8	5	40	2	4	\$2,073
10) Review periodic reports	4	640	2,560	128	256	\$132,671
TOTAL ANNUAL HOURS			4,630	232	463	
TOTAL ANNUAL BURDEN					5,325	\$239,947

See Attachment H for assumptions and further description of activities.

**TABLE F-12: AVERAGE ANNUAL EPA RESOURCE REQUIREMENT FOR SUBPART VVa**

Activity	(A) EPA hr/Occurrence	(B) Occurrences plant/yr	(C) plants/yr	(D) <sup>a</sup> Technical hrs/yr	(E=D*.05) Managerial hrs/hr	(F=E*.10) Clerical hrs/yr	Cost/yr <sup>e</sup>
<u>Report Review: New Plant</u>							
Notification of Construction	8	1	23 <sup>b</sup>	184	9	18	\$9,536
Notification of Reconstruction/Modification	2	1	15	30	2	3	\$1,555
Notification of Actual Startup	0.5	1	38	19	1	2	\$985
Notification of Initial/Repeat Test	0.5	1	46 <sup>c</sup>	23	1	2	\$1,192
Review Test Results	2	1	46 <sup>c</sup>	92	5	9	\$4,768
<u>Report Review: Existing Plant</u>							
Semiannual Emission Reports <sup>e</sup>	2.45	2	38 <sup>d</sup>	186	9	19	\$9,639
TOTAL ANNUAL HOURS				534	27	53	
TOTAL ANNUAL BURDEN					614		\$27,674

**Assumptions:**

<sup>a</sup> D=AxBxC

<sup>b</sup> Estimate that there are 38 new affected sources each year over the next three years (23 will be due to construction, and 15 will be reconstructed or modified). The estimate of 38 sources is based on annual growth and reconstruction/modification being equal to 3% of the estimated 1,272 existing sources.

<sup>c</sup> Assume 20 percent of performance tests are repeated due to failure (7.6)

<sup>d</sup> There are an average of 38 new affected sources each year after promulgation of VVa. Assume that costs are being calculated for the 2<sup>nd</sup> year in the three years after promulgation of VVa so that the 38 new sources in the first year are existing sources in the second year.

<sup>e</sup> Annual cost is the sum of costs for technical, managerial, and clerical hours based on rates from the Office of Personnel Management (OPM) “2010 General Schedule” which excludes locality rates of pay.

Technical - \$46.21 (GS-12, Step 1, \$28.88 + 60%)

Managerial - \$62.27 (GS-13, Step 5, \$38.92 + 60%)

Clerical - \$25.01 (GS-6, Step 3, \$15.63 + 60%)

**ATTACHMENT G: RESPONDENT BURDEN AND COST FOR REFERENCING SUBPARTS**

**TABLE G-1: ANNUAL BURDEN OF REPORTING AND RECORDKEEPING REQUIREMENTS FOR SUBPART Ka**

Activity	(A) hr/ Occurrence	(B) Occurrences/ plant/yr	(C) <sup>a</sup> Plants/year	(D) Technical hr/yr	(E=D*.05) Managerial hr/yr	(F=D*.10) Clerical hr/yr	(G) Cost/yr <sup>b</sup>
1. Applications	N/A						
2. Surveys and Studies	N/A						
3. Reporting Requirements							
A. Read Instruction	Included in 3B						
B. Required Activities							
Vapor recovery information	20	1	0	0	0	0	\$0
Measure seal gap	Included in 4E						
C. Create Information	Included in 3B						
D. Gather Existing Information	1	1	157 <sup>c</sup>	157	8	16	\$17,078
E. Write Report							
Notification of construction	2	1	0	0	0	0	\$0
Notification of actual startup	2	1	0	0	0	0	\$0
Notification of gap measurement	1.5	1	188 <sup>c</sup>	282	14	28	\$30,675
Report of seal gap excess	2.5	1	6 <sup>d</sup>	15	1	2	\$1,632
Information on vapor recovery	Included in 3B.						
Total Annual Responses	194						
4. Recordkeeping Requirements							
A. Read Instructions	Included in 3B.						
B. Plan Activities	Included in 3B						
C. Implement Activities	Included in 3B						
D. Develop Record	N/A						
E. Time to Enter							
New tank seal gap measurements	250	1	0	0	0	0	\$0
Secondary seal gap	250 <sup>d,e</sup>	1	157 <sup>c</sup>	39,250	1,963	3,925	\$4,269,517
Primary seal gap measurements	100 <sup>d</sup>	0.2 <sup>f</sup>	31 <sup>c</sup>	620	31	62	\$67,442
Fill/refill record	2 <sup>h</sup>	1	35 <sup>g</sup>	70	4	7	\$7,614
TOTAL ANNUAL HOURS				40,394	2,020	4,039	
TOTAL ANNUAL BURDEN					46,453		\$4,393,958

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**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> United States Department of Labor, Bureau of Labor Statistics, September 2009, "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. Technical - \$98.20/hr; Managerial - \$114.49/hr; Clerical - \$48.53/hr

<sup>c</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 of the tanks using floating roof (157) will perform a secondary seal gap measurement. 20 percent (31) will conduct a primary seal gap measurement.  $157 + 31 = 188$  respondents submitting a notification of either primary or secondary gap measurement.

<sup>d</sup> Assume that 3 percent of respondents using a floating roof will have excessive seal gaps (primary or secondary) requiring that a single report be filed once a year.

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

<sup>f</sup> Estimate two hours to conduct primary seal measurements every five years for the average 50 tanks per respondent.

<sup>g</sup> During any one year, a respondent would change liquid in approximately 20 percent of the facilities (35).

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



**TABLE G-2: ANNUAL BURDEN OF REPORTING AND RECORDKEEPING REQUIREMENTS FOR SUBPART Kb**

Activity	(A) hr/ Occurrence	(B) Occurrences/plant/y r	(C) <sup>a</sup> Plants/year	(D) Technical hr/yr	(E=D*.05) Managerial hr/yr	(F=D*.10) Clerical hr/yr	(G) Cost/yr <sup>b</sup>
1. Applications	N/A						
2. Surveys and Studies	N/A						
3. Reporting Requirements							
A. Read Instruction	1	1	37 <sup>d</sup>	37	2	4	\$4,025
B. Required Activities							
<u>One-Time Only Requirements</u>	2	1	37	74	4	7	\$8,050
Notification of Start of Construction							
Notification of Actual Startup	2	1	37	74	4	7	\$8,050
Notification of Physical or Operational Changes <sup>c</sup>	N/A						
Notification of Malfunction <sup>c</sup>	N/A						
Notification of Initial Inspection							
IFR Internal Inspection	2	1	28 <sup>d</sup>	56	3	6	\$6,092
EFR Gap Measurement	2	1	7 <sup>d</sup>	14	1	1	\$1,523
Initial Inspection Report							
IFR Internal Inspection Report	12	1	28 <sup>d</sup>	336	17	34	\$36,549
EFR 2nd Seal Gap Measurement	8	1	7	56	3	6	\$6,092
EFR 1st Seal Gap Measurement	12	1	7	84	4	8	\$9,137
CVS Operating Plan Report	8	1	2	16	1	2	\$1,740
<u>Repeat Requirements</u>							
Internal IFR Inspection <sup>e</sup>	12	1	116	1,392	70	139	\$151,418
Visual IFR Inspection <sup>e</sup>	8	1	464	3,712	186	371	\$403,782
Report of IFR Failure <sup>f</sup>	2	1	55	110	6	11	\$11,966
Notification of Delay of Repair or Emptying for IFR <sup>g</sup>	4	1	6	24	1	2	\$2,611
EFR 2nd Seal Gap Measure Report	8	1	580	4,640	232	464	\$504,728
EFR 1st Seal Gap Measure Report	12	1	580	6,960	348	696	\$757,091
Notification of Refill <sup>h</sup>	2	1	602	1,204	60	120	\$130,968
Number of Responses			1976				
4.RECORDKEEPING REQUIREMENTS	1	1	37	37	2	4	\$4,025

Activity	(A) hr/ Occurrence	(B) Occurrences/plant/ yr	(C) <sup>a</sup> Plants/year	(D) Technical hr/yr	(E=D*.05) Managerial hr/yr	(F=D*.10) Clerical hr/yr	(G) Cost/yr <sup>b</sup>
A.. Read Instructions							
B. Gather and Record Information	8	1	580	4,640	232	464	\$504,728
i. Vessel Volumes, Liquid Vapor Pressure, flares							
ii. 113b(a) inspection	12	1	580	6,960	348	696	\$757,091
iii. 113b(b) gap measurement	12	1	580	6,960	348	696	\$757,091
C. Develop Record System	10	1	3	30	2	3	\$3,263
D. Time to Enter Information - CVS Parameter Records	2	52	355	36,920	1,846	3,692	\$4,016,065
F. Train Personnel	N/A						
G. Audits	N/A						
TOTAL ANNUAL HOURS				74,336	3,717	7,434	
TOTAL ANNUAL BURDEN					85,486		\$8,086,084

**Assumptions:**

<sup>a</sup> Estimate that there are 580 existing respondents with an average of 7,254 regulated vessels in service over the next three years. Estimate that 75 percent (5468) of vessels have IFR and 20 percent (1458) have EFR and 5 percent (355) have closed-vent control systems. This does not include sources subject to both subpart Kb and the HON, which are assumed to be complying with the HON.

<sup>b</sup> United States Department of Labor, Bureau of Labor Statistics, September 2009, "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. Technical - \$98.20/hr; Managerial - \$114.49/hr; Clerical - \$48.53/hr

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

<sup>d</sup> Assume that there will be 37 new respondents each of the next three years, which includes 28 IFR and 7 EFR and 2 CVS.

<sup>e</sup> For each of the 5,468 IFRs at 580 respondents, eighty (80) percent (464) will conduct an annual visual inspection, and 20 percent (116) will conduct an internal inspection. These activities are required to generate the information for the IFR failure report and the EFR primary and secondary seal gap reports, but do not generate a response.

<sup>f</sup> One percent failure rate for the 5468 IFRs choosing annual visual inspections equals approximately 55.

<sup>g</sup> Ten percent of 55 failed IFRs are delayed in repair or emptying equals approximately 6.

<sup>h</sup> Assume that all 5,468 IFR tanks will be routinely serviced through a shutdown and degassed once every ten years. One tenth the 5468 IFR will be degassed each year for an annual average of 547 per year. This number was added to the estimated 55 visual inspection failures that would lead to internal inspections for a total estimate of 602 notices of refill.

**TABLE G-3: ANNUAL BURDEN OF REPORTING AND RECORDKEEPING REQUIREMENTS FOR SUBPART VV**

Activity	(A) hr/ Occurrence	(B) Occurrences/ plant/yr	(C) <sup>a</sup> Plants/ year	(D) Technical hr/yr	(E=D*.05) Manageria l hr/yr	(F=D*.10) Clerical hr/yr	(G) Cost/yr <sup>b</sup>
1. Applications	N/A						
2. Survey and Studies	N/A						
3. Reporting Requirements							
A. <u>Read Instructions</u>	1	1	0	0	0	0	\$0
B. <u>Required Activities</u>	48	1	0	0	0	0	\$0
Initial Performance Test Report							
Repeat Performance Test Report	48	1	0 <sup>c</sup>	0	0	0	\$0
C. <u>Create Information</u>	Included in 3B						
D. <u>Gather Existing Information</u>	Included in 3E						
E. <u>Write Report</u>	2	1	0	0	0	0	\$0
New Sources							
Notification of Construction							
Notification of Reconstruction/ Modification	2	1	0	0	0	0	\$0
Notification of Actual Startup	2	1	0	0	0	0	\$0
Notification of Initial/Repeat Performance Test	2	1	0	0	0	0	\$0
Existing Sources Semiannual Report	4	2	436	3,488	174	349	\$379,416
Total Annual Responses			872				
4. Recordkeeping Requirements							
A. <u>Read Instructions</u>	Included in 3A						
B. <u>Plan Activities</u>	Included in 4C						
C. <u>Implement Activities</u>	Included in 3B						
D. <u>Develop Record System</u>	N/A						
E. <u>Time to Enter Information</u>							
Records of Operating Parameters	80	1	436	34,880	1,744	3,488	\$3,794,159
F. <u>Train personnel</u>	N/A						
G. <u>Audits</u>	N/A						
TOTAL ANNUAL HOURS				38,368	1,918	3,837	
TOTAL ANNUAL BURDEN					44,123		\$4,173,575

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**Assumptions:**

<sup>a</sup> All new sources will be subject to subpart VVa. There are an average of 436 existing sources per year for the next three years, based on the assumption of 525 sources in the first and second year, and 258 in the third year (when sources will become subject to the MON). These sources do not include those subject to both Subpart VV and the HON, which are assumed to be complying with the HON. See the footnote in Table F-3 for the derivation of the estimated number of sources.

<sup>b</sup> United States Department of Labor, Bureau of Labor Statistics, September 2009, "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. Technical - \$98.20/hr; Managerial - \$114.49/hr; Clerical - \$48.53/hr

<sup>c</sup> Assume that 20 percent of the performance tests must be repeated.

**TABLE G-4: ANNUAL BURDEN OF REPORTING AND RECORDKEEPING REQUIREMENTS FOR SUBPART DDD**

Activity	(A) hr/ Occurrence	(B) Occurrences/plant /yr	(C) Plants/year	(D) Technical hr/yr <sup>a</sup>	(E=D*.05) Managerial hr/yr	(F=D*.10 ) Clerical hr/yr	(G) Cost/yr <sup>b</sup>
1. Applications	N/A						
2. Survey and Studies	N/A						
3. Reporting Requirements							
A. <u>Read Instructions</u>	1	1	10 <sup>c</sup>	10	1	1	\$1,088
B. <u>Required Activities</u>	360	1	10	3600	180	360	\$391,599
Initial Performance Test Report							
Repeat Performance Test Report	360	1	2 <sup>d</sup>	720	36	72	\$78,320
C. <u>Write Report</u>	2	1	10	20	1	2	\$2,176
Notification of Construction/Modification							
Notification of Actual Startup	1	1	10	10	1	1	\$1,088
Notification of Initial Performance Test	2	1	10	20	1	2	\$2,176
Semiannual Report	3	2	90 <sup>e</sup>	540	27	54	\$58,740
Total Annual Responses			222				
4. Recordkeeping Requirements							
Record of Operating Parameters for Control Devices	1	12	10	120	6	12	\$13,053
Records of Operating Conditions Exceeding Last Performance Test	1	8	90	720	36	72	\$78,320
Records of Startup, Shutdown, Malfunction, etc.	0.25	5	90	113	6	11	\$12,292
TOTAL ANNUAL HOURS				5873	294	587	
TOTAL ANNUAL BURDEN					6754		\$638,850

**Assumptions:**

<sup>a</sup> AxBxC=D

<sup>b</sup> United States Department of Labor, Bureau of Labor Statistics, September 2009, "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. Technical - \$98.20/hr; Managerial - \$114.49/hr; Clerical - \$48.53/hr

<sup>c</sup> Assume 10 new affected sources per year.

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

<sup>e</sup> Average number of affected sources over next three years.

**TABLE G-5: ANNUAL BURDEN OF REPORTING AND RECORDKEEPING REQUIREMENTS FOR SUBPART III**

Activity	(A) hr/ Occurrence	(B) Occurrences/ plant/yr	(C) Plants/year	(D) Technical hr/yr <sup>a</sup>	(E=D*.05) Managerial hr/yr	(F=D*.10) Clerical hr/yr	(G) Cost/yr <sup>b</sup>
1. Applications	N/A						
2. Survey and Studies	N/A						
3. Reporting Requirements						0	
A. <u>Read Instructions</u>	1	1	1 <sup>c</sup>	1	0	0	\$109
B. <u>Required Activities</u>	60	1	1	60	3	6	\$6,527
Initial Performance Test Report					0		
Repeat Performance Test Report	60	1	0.2 <sup>d</sup>	12	1	1	\$1,305
C. <u>Write Report</u>	2	1	1	2	0	0	\$218
Notification of Construction/Modification					0		
Notification of Actual Startup	1	1	1	1	0	0	\$109
Notification of Initial Performance Test	2	1	1	2	0	0	\$218
Semiannual Report	3	2	11 <sup>e</sup>	66	3	7	\$7,179
Total Annual Responses ()			26				
4. Recordkeeping Requirements							
Record of Operating Parameters for Control Devices	1	12	1	12	1	1	\$1,305
Records of Operating Conditions Exceeding Last Performance Test	1	8	11	88	4	9	\$9,572
Records of Startup, Shutdown, Malfunction, etc.	0.25	5	11	14	1	1	\$1,523
TOTAL ANNUAL HOURS				258	13	26	
TOTAL ANNUAL BURDEN					297		\$28,065

**Assumptions:**

<sup>a</sup> AxBxC=D

<sup>b</sup> United States Department of Labor, Bureau of Labor Statistics, September 2009, "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. Technical - \$98.20/hr; Managerial - \$114.49/hr; Clerical - \$48.53/hr

<sup>c</sup> Assume 1 new affected source per year subject to subpart III and not the HON.

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

<sup>e</sup> Average number of affected sources over 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.

**TABLE G-6: ANNUAL BURDEN OF REPORTING AND RECORDKEEPING REQUIREMENTS FOR SUBPART NNN**

Activity	(A) hr/ Occurrence	(B) Occurrences/plant/yr	(C) Plants/year	(D) Technical hr/yr <sup>a</sup>	(E=D*.05) Managerial hr/yr	(F=D*.10) Clerical hr/yr	(G) Cost/yr <sup>b</sup>
1. Applications	N/A						
2. Survey and Studies	N/A						
3. Reporting Requirements							
A. <u>Read Instructions</u>	1	1	177 <sup>c</sup>	177	9	18	\$19,254
B. <u>Required Activities</u>	60	1	177	10,620	531	1,062	\$1,155,217
Initial Performance Test Report							
Repeat Performance Test Report	60	1	35 <sup>d</sup>	2,100	105	210	\$228,433
C. <u>Write Report</u>	2	1	177	354	18	35	\$38,507
Notification of Construction/Modification							
Notification of Actual Startup	1	1	177	177	9	18	\$19,254
Notification of Initial Performance Test	2	1	177	354	18	35	\$38,507
Semiannual Report	3	2	1345 <sup>e</sup>	8,070	404	807	\$877,834
Total Annual Responses ()			3,433				
4. Recordkeeping Requirements							
Record of Operating Parameters for Control Devices	1	12	177	2,124	106	212	\$231,043
Records of Operating Conditions Exceeding Last Performance Test	1	8	1345	10,760	538	1,076	\$1,170,446
Records of Startup, Shutdown, Malfunction, etc.	0.25	5	1345	1,681	84	168	\$182,855
TOTAL ANNUAL HOURS				36,417	1,821	3,642	
TOTAL ANNUAL BURDEN					41,880		\$3,961,350

**Assumptions:**

<sup>a</sup> AxBxC=D

<sup>b</sup> United States Department of Labor, Bureau of Labor Statistics, September 2009, “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. Technical - \$98.20/hr; Managerial - \$114.49/hr; Clerical - \$48.53/hr

<sup>c</sup> Assume 177 new affected sources per year subject to subpart NNN and not the HON.

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

<sup>e</sup> Average number of affected sources over next three years. This does not include sources subject to both Subpart NNN and the HON, which are assumed to be complying with the HON.

**TABLE G-7: ANNUAL BURDEN OF REPORTING AND RECORDKEEPING REQUIREMENTS FOR SUBPART RRR**

Activity	(A) hr/ Occurrence	(B) Occurrences/plant/yr	(C) Plants/year	(D) Technical hr/yr <sup>a</sup>	(E=D*.05) Managerial hr/yr	(F=D*.10) Clerical hr/yr	(G) Cost/yr <sup>b</sup>
1. Applications	N/A						
2. Survey and Studies	N/A						
3. Reporting Requirements							
A. <u>Read Instructions</u>	1	1	20 <sup>c</sup>	20	1	2	\$2,176
B. <u>Required Activities</u>	60	1	20	1,200	60	120	\$130,533
Initial Performance Test Report							
Repeat Performance Test Report	60	1	4 <sup>d</sup>	240	12	24	\$26,107
C. <u>Write Report</u>	2	1	20	40	2	4	\$4,351
Notification of Construction/ Modification							
Notification of Actual Startup	1	1	20	20	1	2	\$2,176
Notification of Initial Performance Test	2	1	20	40	2	4	\$4,351
Semiannual Report	3	2	155 <sup>e</sup>	930	47	93	\$101,163
Total Annual Responses ()			394				
4. Recordkeeping Requirements							
Record of Operating Parameters for Control Devices	1	12	20	240	12	24	\$26,107
Records of Operating Conditions Exceeding Last Performance Test	1	8	155	1,240	62	124	\$134,884
Records of Startup, Shutdown, Malfunction, etc.	0.25	5	155	194	10	19	\$21,103
TOTAL ANNUAL HOURS				4,164	208	416	
TOTAL ANNUAL BURDEN					4,789		\$452,950

**Assumptions:**

<sup>a</sup> AxBxC=D

<sup>b</sup> United States Department of Labor, Bureau of Labor Statistics, September 2009, “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. Technical - \$98.20/hr; Managerial - \$114.49/hr; Clerical - \$48.53/hr.

<sup>c</sup> Assume 20 new affected sources per year subject to subpart RRR and not the HON.

<sup>d</sup> Assume 20 percent of performance tests are repeated due to failure. (.2 x 20 = 4).

<sup>e</sup> Average number of affected sources over next three years. This does not include sources subject to both subpart RRR and the HON which are assumed to be complying with the HON.



**TABLE G-8: ANNUAL BURDEN OF REPORTING AND RECORDKEEPING REQUIREMENTS FOR SUBPART BB**

Activity	(A) hr/ Occurrence	(B) Occurrences/plant/yr	(C) <sup>a</sup> Plants/year	(D) Technical hr/yr <sup>a</sup>	(E=D*.05) Managerial hr/yr	(F=D*.10) Clerical hr/yr	(G) Cost/yr <sup>b</sup>
1. Applications							
Application for approval of Construction/Modification	N/A						
2. Surveys and Studies	N/A						
3. Reporting Requirements							
A. Read Instruction	1	1	0	0	0	0	\$0
B. Required Activities							
Initial emission test	20	0	0	0	0	0	\$0
Monitoring performance test	280	1	0	0	0	0	\$0
Vapor-tightness test tank truck and railcars	11	1	3 <sup>c</sup>	33	2	3	\$3,590
Marine vessels	80	1	66 <sup>c</sup>	5,280	264	528	\$574,345
Closed vent leak inspection	8	1	54 <sup>c</sup>	432	22	43	\$46,992
C. Create Information	Included in 3B						
D. Gather Existing Information	Included in 3E						
E. Write Report							
Notification of anticipated startup	2	0	0	0	0	0	\$0
Notification of actual startup	2	0	0	0	0	0	\$0
Notification of emission test	2	0	0	0	0	0	\$0
Report of emission test	8	0	0	0	0	0	\$0
Notification of performance test	2	0	0	0	0	0	\$0
Report of performance test	8	0	0	0	0	0	\$0
Report facilities below cut-off <sup>d</sup>	8	0	0	0	0	0	\$0
Quarterly parameter excesses	4	4	54	864	43	86	\$93,984
Total Annual Responses ()	216						
SUBTOTAL							
4. Recordkeeping Requirements							
A. Read Instructions	Included in 3A						
B. Plan Activities	Included in 4C						
C. Implement Activities	Included in 3B						

Activity	(A) hr/ Occurrence	(B) Occurrences/plant/yr	(C) <sup>a</sup> Plants/year	(D) Technical hr/yr <sup>a</sup>	(E=D*.05) Managerial hr/yr	(F=D*.10) Clerical hr/yr	(G) Cost/yr <sup>b</sup>
D. Develop Record System	N/A						
E. Time to Enter Information							
i. Facilities above cut-off	1.5	52	54	4,212	211	421	\$458,171
ii. Facilities below cut-off <sup>d</sup>	0.5	52	0	0	0	0	\$0
F. Train Personnel	N/A						
G. Audits	N/A						
TOTAL ANNUAL HOURS				10,821	541	1,082	
TOTAL ANNUAL BURDEN					12,444		\$1,177,081

**Assumptions:**

<sup>a</sup> Expect that there will be no new sources covered by these standards over the next three years.

<sup>b</sup> United States Department of Labor, Bureau of Labor Statistics, September 2009, "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.

Technical - \$98.20/hr; Managerial - \$114.49/hr; Clerical - \$48.53/hr

<sup>c</sup> Estimate that there are 54 facilities subject to this standard. Estimate there are 3 tank truck and railcars and 131 marine vessels subject to the standards. All other transfer racks subject to subpart BB are assumed to be complying with the HON. Assume 50 percent of the marine vessels (66) operate at negative pressure and do not conduct annual vapor-tightness tests.

<sup>d</sup> For sources below the low quantity applicability for control requirements, a report is only required the first year of operation. It is assumed that this report has been submitted.

**TABLE G-9: ANNUAL BURDEN OF REPORTING AND RECORDKEEPING REQUIREMENTS FOR SUBPART Y**

Activity	(A) hr/ Occurrence	(B) Occurrences/ plant/yr	(C) <sup>a</sup> Plants/year	(D) Technical hr/yr <sup>a</sup>	(E=D*.05) Managerial hr/yr	(F=D*.10) Clerical hr/yr	(G) Cost/yr <sup>b</sup>
1. Applications							
Application for approval of Construction/Modification	N/A						
2. Surveys and Studies	N/A						
3. Reporting Requirements							
A. Read Instructions	Included in 3C						
B. Required Activities							
Initial performance test	N/A						
C. Create Information							
Annual IFR Internal Inspections and EFR Seal Gap measurements (existing sources)	8	1	4	32	2	3	\$3,481
D. Gather Existing Information	Included in 3C						
E. Write Report							
New Sources							
Notification of Construction/ Reconstruction	Included in NSPS Kb						
Notification of anticipated startup	Included in NSPS Kb						
Notification of actual startup	Included in 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>c</sup>	2	1	0	0	0	0	\$0
Existing Sources							
Annual Inspection Reports	2	2	4	16	1	2	\$1,740
Supplemental Delay Report <sup>d</sup>	2	1	0	0	0	0	\$0
Quarterly Emission Report	None Expected <sup>e</sup>						
Total Annual Responses ()	8						
4. Recordkeeping Requirements							
A. Read Instructions	Included in 3A						
B. Plan Activities	Included in 4C						
C. Implement Activities - Filing and Maintaining Records	2	1	4	8	0	1	\$870
D. Develop Record System	Included in 4C						
E. Time to Enter Information	Included in 4C						

Activity	(A) hr/ Occurrence	(B) Occurrences/ plant/yr	(C) <sup>a</sup> Plants/year	(D) Technical hr/yr <sup>a</sup>	(E=D*.05) Managerial hr/yr	(F=D*.10) Clerical hr/yr	(G) Cost/yr <sup>b</sup>
F. Train Personnel	N/A						
G. Audits	N/A						
TOTAL ANNUAL HOURS				56	3	6	
TOTAL ANNUAL BURDEN					64		\$6,092

**Assumptions:**

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

<sup>b</sup> United States Department of Labor, Bureau of Labor Statistics, September 2009, "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. Technical - \$98.20/hr; Managerial - \$114.49/hr; Clerical - \$48.53/hr

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

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

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

**TABLE G-10: ANNUAL BURDEN OF REPORTING AND RECORDKEEPING REQUIREMENTS FOR SUBPART V**

Activity	(A) hr/ Occurrence	(B) Occurrences/ plant/yr	(C) Plants/year	(D) Technical hr/yr <sup>a</sup>	(E=D*.05) Managerial hr/yr	(F=D*.10 ) Clerical hr/yr	(G) Cost/yr <sup>a</sup>
1. Applications	N/A						
2. Survey and Studies	N/A						
3. Reporting Requirements							
A. <u>Read Instructions</u>	1	1	2 <sup>b</sup>	2	0	0	\$218
B. <u>Required Activities</u>	20	1	2	40	2	4	\$4,351
Initial Performance Test							
Reference Method 21/22 Tests	4	1	2	8	0	1	\$870
Repeat Performance Test	20	0.2	2	8	0	1	\$870
C. <u>Create Information</u>	See 3B						
D. <u>Gather Existing Information</u>	See 3B						
E. <u>Write Report</u>	2	1	2	4	0	0	\$435
Notification of Construction/ Reconstruction							
Notification of Anticipated Startup	2	1	2	4	0	0	\$435
Notification of Actual Startup	2	1	2	4	0	0	\$435
Notification of Initial Performance Test	2	1	2	4	0	0	\$435
Report of Performance Test	See 3B						
Application for Alternative	10	1	0.5	5	0	1	\$544
Initial Report	8	1	2	16	1	2	\$1,740
Semiannual Report	30	2	55 <sup>c</sup>	3,300	165	330	\$358,966
Total Annual Responses			123				
4. Recordkeeping Requirements							
A. <u>Read Instructions</u>	See 3A						
B. <u>Plan Activities</u>	See 4C						
C. <u>Implement Activities</u>	See 3B						
D. <u>Develop Record System</u>	N/A						
E. <u>Time to Enter Information</u>	1.5	1	2	3	0	0	\$326
Records of startups, shutdown, malfunction, etc.							
Records of operating, parameters and emissions	0.1	365 <sup>d</sup>	55 <sup>c</sup>	2,008	100	201	\$218,425

Activity	(A) hr/ Occurrence	(B) Occurrences/ plant/yr	(C) Plants/year	(D) Technical hr/yr <sup>a</sup>	(E=D*.05) Managerial hr/yr	(F=D*.10 ) Clerical hr/yr	(G) Cost/yr <sup>a</sup>
Records of leak detected	0.4	52	55	1,144	57	114	\$124,441
F. Train personnel	N/A						
G. Audits	N/A						
TOTAL ANNUAL HOURS				6,550	328	655	
TOTAL ANNUAL BURDEN					7,533		\$712,493

**Assumptions:**

<sup>a</sup> United States Department of Labor, Bureau of Labor Statistics, September 2009, “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. Technical - \$98.20/hr; Managerial - \$114.49/hr; Clerical - \$48.53/hr.

<sup>b</sup> Assume one new facility per year comprising two new sources.

<sup>c</sup> Estimate 21 existing facilities comprising 55 sources.

**TABLE G-11: NEW SOURCE ANNUAL RESPONDENT BURDEN AND COST OF REPORTING AND RECORDKEEPING REQUIREMENTS OF THE HON**

Activity	Average Hours per Activity (a)	Number of Activities per year per respondent (b)	Technical Hours per year per respondent (c)	Estimated Number New respondents (d)	Estimated Technical Hours per year (e)	Estimated Managerial Hours per year (f)	Estimated Clerical Hours per year (g)	Annual Cost per year (h)
1) Read Rule and Instructions	2.7	93	250	5	1,250	63	125	\$135,972
2) Plan Activities	3.8	93	355	5	1,775	89	178	\$193,080
3) Training	3.5	38	132	5	660	33	66	\$71,793
4) Create, Test, Research and Development	2.4	1,778	4,266	5	21,330	1,067	2,133	\$2,320,224
5) Gather Information, Monitor/Inspect	1.4	2,102	2,943	5	14,715	736	1,472	\$1,600,661
6) Process/ Compile and Review	0.8	50	40	5	200	10	20	\$21,756
7) Complete Reports	11.4	49	557	5	2,785	139	279	\$302,945
Total Annual Responses				245				
8) Record/Disclose	10.0	49	489	5	2,445	122	245	\$265,961
9) Store/File	5.2	51	264	5	1,320	66	132	\$143,586
<b>TOTAL ANNUAL HOURS</b>					<b>46,480</b>	<b>2,324</b>	<b>4,648</b>	
<b>TOTAL ANNUAL BURDEN</b>						<b>53,452</b>		<b>\$5,055,978</b>

**Assumptions:**

(a) = (c)/(b)

(d) - From previously approved ICR.

See Attachment I for assumptions and further description of activities.

**TABLE G-12: EXISTING SOURCE ANNUAL RESPONDENT BURDEN AND COST OF REPORTING AND RECORDKEEPING REQUIREMENTS OF THE HON PROVISIONS**

Activity	Average Hours per Activity (a)	Number of Activities per year per respondent (b)	Total Technical Hours per year per respondent (c)	Technical Hours per year per respondent for wastewater (d)	Estimated Technical Hours per year (e)	Estimated Managerial Hours per year (f)	Estimated Clerical Hours per year (g)	Annual Cost per year
1) Read Rule and Instructions	3.6	23	69	14	17,680	884	1,768	\$1,923,186
2) Plan Activities	6.1	13	61	18	16,080	804	1,608	\$1,749,142
3) Training	5.3	4	17	4	4,400	220	440	\$478,621
4) Create, Test, Research and Development	17.8	99	1617	150	400,080	20,004	40,008	\$43,519,702
5) Gather Information, Monitor/Inspect	2.5	677	1693	0	406,320	20,316	40,632	\$44,198,474
6) Process/Compile and Review	20.0	1	20	0	4,800	240	480	\$522,132
7) Complete Reports	81.2	5	388	18	94,560	4,728	9,456	\$10,286,000
Total Annual Responses <sup>a</sup>				1,600				
8) Record/Disclose	17.5	26	442	12	107,040	5,352	10,704	\$11,643,544
9) Store/File	6.8	35	222	15	54,480	2,724	5,448	\$5,926,198
<b>TOTAL ANNUAL HOURS</b>					<b>1,105,440</b>	<b>55,272</b>	<b>110,544</b>	
<b>TOTAL ANNUAL BURDEN</b>						<b>1,271,256</b>		<b>\$120,247,000</b>

**Assumptions:**

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

(c) - there are 240 existing sources out of the 320 total that will continue to comply with the HON.

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

<sup>a</sup>Total number of respondents is 320 ( 240 for HON + 80 CAR still complying with HON Wastewater). See Attachment I for assumptions and further description of activities.



**TABLE G-13: ANNUAL BURDEN OF REPORTING AND RECORDKEEPING REQUIREMENTS FOR SUBPART VVa**

Activity	(A) hr/Occurrence	(B) Occurrences/ plant/yr	(C) <sup>a</sup> Plants/yea r	(D) Technical hr/yr	(E=D*.05) Managerial hr/yr	(F=D*.10) Clerical hr/yr	(G) Cost/yr <sup>b</sup>
1. Applications	N/A						
2. Survey and Studies	N/A						
3. Reporting Requirements							
A. <u>Read Instructions</u>	1	1	38	38	2	4	\$4,134
B. <u>Required Activities</u>	48	1	38	1,824	91	182	\$198,410
Initial Performance Test Report							
Repeat Performance Test Report	48	1	8c	384	19	38	\$41,771
C. <u>Create Information</u>	Included in 3B						
D. <u>Gather Existing Information</u>	Included in 3E						
E. <u>Write Report</u>	2	1	23	46	2	5	\$5,004
New Sources							
Notification of Construction							
Notification of Reconstruction/ Modification	2	1	15	30	2	3	\$3,263
Notification of Actual Startup	2	1	38	76	4	8	\$8,267
Notification of Initial/Repeat Performance Test	2	1	46	92	5	9	\$10,008
Existing Sources Semiannual Report	4.5	2	38	342	17	34	\$37,202
Total Annual Responses			244				
4. Recordkeeping Requirements	Included in 3A						
A. <u>Read Instructions</u>							
B. <u>Plan Activities</u>	Included in 4C						
C. <u>Implement Activities</u>	Included in 3B						
D. <u>Develop Record System</u>	N/A						
E. <u>Time to Enter Information<sup>d</sup></u>							
Average Facilities - Records of Operating Parameters	89.5	1	34	3,043	152	304	\$331,010
Small Facilities - Records of Operating Parameters	95.2	1	4	381	19	38	\$41,444
F. <u>Train personnel</u>	N/A						
G. <u>Audits</u>	N/A						
TOTAL ANNUAL HOURS				6,256	313	626	
TOTAL ANNUAL BURDEN					7,194		\$680,512

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**Assumptions:**

<sup>a</sup> Assume that there will be an average 38 new, modified, or reconstructed facilities each year over the next 3 years. Estimate that 23 of new affected sources will be due to construction, and 15 will be reconstructed or modified. There are an average of 38 new affected sources each year after promulgation of VVa. Assume 10 percent are small facilities that will record instrument readings manually, and 90 percent of facilities use automated equipment to capture instrument readings electronically. Assume that costs are being calculated for the second of the three years after promulgation of VVa, so that the 38 new sources in the first year are existing sources in the second year. 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> United States Department of Labor, Bureau of Labor Statistics, September 2009, "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. Technical - \$98.20/hr; Managerial - \$114.49/hr; Clerical - \$48.53/hr

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

<sup>d</sup> Details of the additional hours relative to the hours for a source subject to subpart VV are provided in section 6(f) of Part A of the Supporting Statement.

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## Attachment H

### Assumptions and Item Descriptions for Attachment F: Table F-11

(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 320 facilities will submit reports semiannually ( $320 \times 2 = 640$ ) (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 (C), 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) Estimated 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), 2010 General Schedule which excludes locality rates of pay.

Managerial	\$62.27 (GS-13, Step 5, \$38.92 + 60%)
Technical	\$46.21 (GS-12, Step 1, \$28.88 + 60%)
Clerical	\$25.01 (GS-6, Step 3, \$15.63 + 60%)

$$(H^t \times \$46.21/\text{hour}) + (H^m \times \$62.27/\text{hour}) + (H^c \times \$25.01/\text{hour}) = (G)$$

#### 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 Applications 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 (D) 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 BURDEN AND COST is the sum of each of the columns (d), (e), (f), and (g).

## Attachment I

### Assumptions and Item Descriptions for Attachment G: Tables G-11 and G-12

Assumptions are:

(A) That there are 240 existing facilities out of 320 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) 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, collocated 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).

(c) Technical Hours per year per source 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 sources is higher because some periodic compliance reports and records are required at startup. Existing sources do not encounter these reports and record burdens for three years after promulgation.

(d) (Table G-11) Estimated Number of New Sources reflect the number given in assumption (A), above. (Table G-12) Technical Hours Per Year Per Source 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 the HON wastewater requirements. Burden hours per source, per emission type are shown in Table B-1.

(e) Estimated Technical Hours per year is the product of (c) and (d) for new facilities (Table G-11). For Table G-12, estimated technical hours are the product of (c) and the number of existing facilities complying with all of the HON (240) 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) Estimated Annual Cost per year is from the United States Department of Labor, Bureau of Labor Statistics, September 2009, 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.

$$(H^t \times \$98.20/\text{hour}) + (H^m \times \$114.49/\text{hour}) + (H^c \times \$48.53/\text{hour}) = (G)$$

Where:

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

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

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

1) Read Rule and Instructions 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.

2) Plan Activities represents 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) Read Rule and Instruction for which an average facility would elect to provide class room instruction. The standard does not require specific training itself.

4) Create, Test, 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 and 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 are again 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 BURDEN AND COST is the sum of each of the columns (e), (f), (g), and (h).

## Attachment J

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

#### 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 and existing affected sources using CVS to a control device (31), for a total of \$41,850.
- c. Total Capital/Startup and O&M Cost:  
The total capital and O&M Costs are \$68,850.

#### NSPS Subpart VV

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



- 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 \$0.

### **NSPS Subpart VVa**

- a. Total Capital/Startup Cost of Monitoring Equipment:  
The capital/startup costs of this regulation are \$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. Assuming that 38 process units are subject to NSPS subpart VVa each year, 60 percent of new sources are newly constructed sources, and that 15 percent of all new sources are area sources, an estimated 3 facilities with a new process unit will buy a monitoring instrument to comply with NSPS subpart VVa.
- 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 \$630,000 dollars. This is based on 80 existing sources plus 10 new sources 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 \$930,000.

### **NSPS Subpart NNN/III**

- a. **Total Capital/Startup Cost of Monitoring Equipment:**  
The startup cost of monitoring equipment is approximately \$13,500 per new affected facility for both subpart III, Air Oxidation Operations and subpart NNN, Distillation Operations, or a total of \$2,403,000 (total of 178 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 III and for subpart NNN for a total of \$1,830,600 [(\$1,350 x 1,356) total number of new and existing affected sources under NNN and III].
- c. **Total Capital/Startup and O&M Cost:**  
The total capital and O&M Costs are \$4,233,600.

### **NSPS Subpart RRR**

- a. **Total Capital/Startup cost of Monitoring Equipment:**  
The capital/startup costs for this regulation are \$500,000 dollars 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 \$77,500 dollars. This is based on 155 existing 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 \$577,500.

### **NESHAP Subpart BB**

- 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 cost 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 \$2225 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 units 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 245, or \$67,375,000.
- c. Total Capital/Startup and O&M Cost:  
The total capital and O&M costs are \$67,500,000.

## **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 1400/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 incur.
- c. **Total Capital and O&M Cost for Subparts H, and I:**  
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.