Surface Coating of Wood Building Products NESHAP (subpart QQQQ)

Rule Summary and Notifications

Table of Contents PDI		PDF Page
1.	Summary of Final Rule	2
2.	Equations	18
3.	Applicability Statement	25
4.	Example Initial Notification	28
5.	Example Notification of Compliance Statement (NOC	CS)31
6.	Example Notification of Performance Test	37
7.	Example Semiannual Compliance Report	41

Surface Coating of Wood Building Products NESHAP (subpart QQQQ) Summary of Final Rule

This document is intended to provide you a summary of requirements for the Surface Coating of Wood Building Products maximum achievable control technology (MACT), which is based on the final version of the rule (68 FR 31746; May 28, 2003). This summary is intended for informational purposes, does not constitute final agency action, and cannot be relied upon to create any rights enforceable by any party.

TABLE OF CONTENTS

Regulatory Overvie w
What is the background of this regulation?
Am I subject to subpart QQQQ?
What is the definition of a wood building product?
Figure 1—Typical process flow diagram
What is a major source of HAP emissions?
How do I determine my potential to emit?
Table 1— Methods to determine your HAP emissions
What is an affected source?
What are the subcategories?
What are the emission limits?
Table 2—Emission Limits
What are my options for meeting the emission limits?
For each option, what am I required to do?
How do I calculate my HAP content and emission rate?
What are operating limits and how do I meet them?
What work practice standards must I meet?
What monitoring is required for my capture equipment and add-on control devices?
Figure 2—Typical thermal oxidizer
Figure 3—Typical catalytic oxidizer
When is the compliance date for subpart QQQQ?
When is the initial compliance period?
How do I demonstrate Initial Compliance with the standard?
How do I demonstrate Continuous Compliance with the standard?
What are the notification, recordkeeping, and reporting requirements?
How many sources will be affected and what are the estimated emission reductions and costs?
Figure 4—Costs to Implement subpart QQQQ
What if I have questions?
Will implementation materials be available for this rule?
Table 3—Compliance Timeline for subpart QQQQ
Figure 5—Existing Source Compliance Timeline

REGULATORY OVERVIEW

[back to top]

CFR Location:	40 CFR 63 Subpart QQQQ		
Regulatory Activity:	Proposal Promulgation	June 21, 2002 May 28, 2003	[67 FR 42400] [68 FR 31746]
Docket Number:	OAR-2003-0002		
Compliance and Reporting:	See <u>Table 3</u> for i testing and report	nformation on compl	liance dates, performance

WHAT IS THE BACKGROUND OF THIS REGULATION?

Pursuant to section 112 of the Clean Air Act (CAA), subpart QQQQ was added to 40 CFR Part 63. Section 112 of the CAA requires the U. S. Environmental Protection Agency (EPA) to list categories of major and area sources of Hazardous Air Pollutants (HAP) and to establish National Emission Standards for Hazardous Air Pollutants (NESHAP) for the listed source categories. The Wood Building Products (WBP) source category was originally listed as the "flatwood paneling" source category, but the name of the source category was changed to "wood building products" to more accurately reflect the types of products and manufacturing sources in the source category.

APPLICABILITY: AM I SUBJECT TO SUBPART QQQQ? [§63.4681]

The final NESHAP applies to any new or existing affected source that performs surface coating operations involving wood building products; uses at least 4,170 liters (1,100 gallons) of coatings per year; and is a major source, is located at a major source, or is part of a major source of HAP emissions. The following wood building products surface coating operations are not subject to the NESHAP:

- Surface coating operations covered by the Plywood and Composite Wood Products NESHAP upon promulgation (subpart DDDD);
- Surface coating operations covered by the Wood Furniture Manufacturing NESHAP (subpart JJ);
- Surface coating operations occurring during the manufacture of prefabricated homes and mobile/modular homes;
- Surface coating operations occurring at research or laboratory facilities; janitorial, building, and facility construction or maintenance operations; hobby shops that are operated for personal rather than commercial purposes; non-commercial coating operations or coating applications using handheld nonrefillable aerosol containers; and
- Surface coating operations involving wood treatment or fire retardant operations located at wood building products sources that involve impregnating the wood product with the wood treatment chemicals or fire retardant by using a retort or other pressure vessel.

[back to top]

[back to top]

If an affected source's surface coating operations are subject to the requirements of a subpart other than QQQQ and those operations utilize at least 95% of the total annual coating usage, then the source may demonstrate compliance with all the requirements, including all applicable emission limits, for that subpart.

WHAT IS A WOOD BUILDING PRODUCT?

[back to top]

[§63.4681]

A wood building product is defined as any product that contains more than 50 percent by weight wood or wood fibers excluding the weight of any glass components, and is used in the construction, either interior or exterior, of a residential, commercial, or institutional building.

Figure 1 is a generalized process flow diagram for a wood building products surface coating operation. Since products have different surface coating requirements, not all operations will have all steps represented in Figure 1.



Figure 1. Typical Process Flow Diagram

WHAT IS A MAJOR SOURCE OF HAP EMISSIONS?

A major source of HAP emissions is any stationary source or group of stationary sources located within a contiguous area and under common control that has the potential to emit at least 9.07 Mg/yr (10 tons/yr) of any single HAP or 22.68 Mg/yr (25 tons/yr) of any combination of HAP as defined in the NESHAP General Provisions (40 CFR part 63, subpart A) pursuant to section 112 of the CAA.

HOW DO I DETERMINE MY POTENTIAL TO EMIT?

[Adapted from Potential to Emit: A Guide for Small Businesses, EPA-456/B-98-003, October 1998]

Potential to emit is determined by your maximum capacity. When calculating the potential to emit, include all HAP emission sources located within the contiguous area and under common control, even if the sources are unrelated to the surface coating of wood building products. To determine the potential to emit, follow these steps.

- 1. Identify all sources of emissions.
- 2. Identify all HAPs that your business emits.
- 3. Select a method to use to determine your HAP emissions. (See Table 1)

[back to top]

[back to top]

- 4. For each HAP, determine the maximum amount that each production process or piece of equipment in your business can emit in one year.
- 5. Add the maximum emissions from all production processes/equipment.

TABLE 1. METHODS TO DETERMINE YOUR HAP EMISSIONS

Method	Instructions
Test data	Conduct onsite measurements of HAP emissions.
Material-balance	Estimate HAP emissions by comparing types and quantities of inputs to
calculations	types and quantities of outputs.
Source-specific models	Formulas for HAP emissions using source-specific parameters such as types and quantities of inputs, operating hours, and physical characteristics of equipment.
Emission factors	Use average HAP emission rates (provided by EPA, other agencies, or equipment vendors), multiplied by time or frequency of operation, to obtain emissions. HAP emission factors specific to your business can be used but should be approved by the state air pollution control agency.

WHAT IS AN AFFECTED SOURCE?

[back to top]

[back to top]

```
[§63.4682]
```

The regulation applies to each new, reconstructed, and existing affected source(a new affected source is one on which construction commenced after June 21,2002). The affected source is the collection of all of the items listed below that are used for surface coating of wood building products:

- (1) All coating operations as defined in §63.4781;
- (2) All storage containers and mixing vessels in which coatings, thinners, and cleaning materials are stored or mixed;
- (3) All manual and automated equipment and containers used for conveying coatings, thinners, and cleaning materials; and
- (4) All storage containers and all manual and automated equipment and containers used for conveying waste materials generated by a coating operation.

WHAT ARE THE SUBCATEGORIES? [§63.4681]

- [back to top]
- (1) *Doors, windows and miscellaneous.* Any affected source that applies a coating to doors; finished doorskins; windows; door and window components, such as millwork, moulding, or trim; and other miscellaneous wood building products (including, but not limited to, moulding, trim, shingles and shutters).
- (2) *Flooring*. Any affected source that applies a coating to solid wood flooring, engineered wood flooring, or wood laminate flooring.
- (3) *Interior wall paneling and tileboard.* Any affected source that applies a coating to interior wall paneling products. Tileboard is a premium interior wall paneling product.

- (4) *Other interior panels.* Any affected source that applies a coating to panels that are sold for uses other than interior wall paneling, such as coated particleboard, hardboard and perforated panels.
- (5) *Exterior siding and primed doorskins*. Any affected source that applies a coating to panel siding, trimboard, lap siding, and primed doorskins. A doorskin coated with more than primer is included in the "doors, windows and miscellaneous" subcategory.

WHAT ARE THE EMISSION LIMITS?

[back to top]

[§63.4690 and Tables 1 and 2 to subpart QQQQ]

The emission limits for existing sources cannot be less stringent than the average emission limit achieved by the best-performing 12 percent of existing sources in the category or subcategory (or the best-performing five sources for categories or subcategories with fewer than 30 sources). Emission limits for new or reconstructed sources are established by the best-controlled existing similar source in each of the subcategories.

If the affected source applies coating to products in the following	Then, for existing sources, the organic HAP emission limit in grams HAP/L solids	Or, for new or reconstructed sources, the organic HAP emission limit in grams HAP/L
subcategory	(lb HAP/gal solids) is:	solids (lb HAP/gal solids) is:
Doors, windows and miscellaneous	231 (1.93)	57 (0.48)
Flooring	93 (0.78)	0 (0.00)
Interior wall paneling or tileboard	183 (1.53)	5 (0.04)
Other interior panels	20 (0.17)	0 (0.00)
Exterior siding and primed doorskins	7 (0.06)	0 (0.00)

TABLE 2. EMISSION LIMITS FOR AFFECTED SOURCES

WHAT ARE MY OPTIONS FOR MEETING THE EMISSION LIMITS?[back to top][§63.4691][back to top]

To meet the applicable emission limit(s), one of the three compliance options listed in paragraphs (1) through (3) below must be used for each coating operation (you can use different options on different coating operations and on the same coating operation at different times).

- (1) *Compliant material option*. Demonstrate that the organic HAP content of each coating used in the coating operation(s) is less than or equal to the applicable emission limit and that each thinner and each cleaning material used contains no organic HAP.
- (2) *Emission rate without add-on controls option*. Demonstrate that, based on the coatings, thinners, and cleaning materials used in the coating operation(s), the rolling 12-month average organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limits.

(3) *Emission rate with add-on controls option*. Demonstrate that, based on the emission capture and add-on control efficiencies achieved and the coatings, thinners, and cleaning materials used in the coating operation(s), the rolling 12-month average organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limits. You must also demonstrate that all capture equipment and control devices for the coating operation(s) meet specified operating limits. Affected sources utilizing add-on controls must also meet work practice standards.

FOR EACH OPTION, WHAT AM I REQUIRED TO DO?

[back to top]

If you **do not** use capture equipment and control devices, Subpart QQQQ requires you to do all of the following:

- ✤ Meet <u>emission limits</u>
- Submit notifications and reports and keep records
- Comply with 40 CFR 63, Subpart A (General Provisions)

If you use capture equipment and control devices, Subpart QQQQ requires you to do all of the following:

- ✤ Meet <u>emission limits</u>
- Meet operating limits
- ✤ Comply with <u>work practice standards</u>
- Conduct <u>monitoring</u>
- Submit notifications and reports and keep <u>records</u>
- Develop and implement a <u>Start-up</u>, <u>Shutdown and Malfunction Plan (SSMP)</u>
- Comply with 40 CFR 63, Subpart A (General Provisions)

HOW DO I CALCULATE MY HAP CONTENT AND HAP EMISSION RATE? [back to top] [§§63.4741, 63.4751, and 63.4761]

For the compliant material option, determine the mass of organic HAP and volume fraction of coating solids for each coating. Use these values to calculate the organic HAP content of each coating (mass of organic HAP divided by the volume fraction of the coating solids). The result must be equal to or less than the established emission limit listed in <u>Table 2</u> and each thinner and cleaning material used must contain no organic HAP.

The emission rate without add-on controls option and the emission rate with add-on controls option require you to use the collected coating, thinner, and cleaning material data to calculate a rolling 12-month average organic HAP emission rate (total mass of organic HAP emitted divided by total volume of coating solids used) on a monthly basis. Data collected from the current month is combined with the previous 11 months' data to calculate the rolling 12-month average emission rate. The rolling 12-month emission rate is then documented and used to demonstrate compliance with the applicable HAP emission limit. The emission rate must be equal to or less than the established emission limit listed in Table 2.

The rule contains detailed instructions for these calculations.

WHAT ARE OPERATING LIMITS AND HOW DO I MEET THEM? [§63.4692]

The operating limits are the site-specific parameter limits (e.g., temperature, flow rate) you determine for your capture equipment and control device(s) during the performance test. Your operating limits must be monitored by a continuous parameter monitoring system (CPMS).

WHAT WORK PRACTICE STANDARDS MUST I MEET?

[§63.4693]

If you use capture equipment and control device(s), you must develop, implement and maintain a work practice plan. The plan should include actions to:

- Store all organic -HAP coatings, thinners, cleaning materials and waste materials in closed containers
- Cover mixing vessels containing organic -HAP except when adding, mixing or removing contents
- Minimize emissions of organic -HAP during cleaning of storage, mixing and conveying equipment
- Minimize spills of organic -HAP coatings, thinners, cleaning materials and waste materials
- Minimize emissions through careful handling and transfer (conveyed from one location to another in closed containers or pipes) of organic -HAP-containing coatings, thinners, cleaning materials, and wastes

WHAT MONITORING IS REQUIRED FOR MY CAPTURE EQUIPMENT AND ADD-ON CONTROL DEVICES? [back to top]

[§63.4768]

Continuous parameter monitoring is required for all capture equipment and add-on control devices.

<u>Capture system bypass lines</u>: Install one of the following devices to ensure the capture equipment is not being bypassed:

- Flow control position indicator
- Car-seal or lock-and-key valve closures
- ✤ Valve closure monitoring
- ✤ Automatic shutdown system

Carbon adsorbers: Monitor total regeneration desorbing gas mass flow and carbon bed temperature.

<u>Catalytic and thermal oxidizers</u>: For a thermal oxidizer, monitor gas temperature in the firebox or in the duct immediately downstream of the firebox. For a catalytic oxidizer, monitor gas temperature immediately before the catalyst bed. A typical thermal oxidizer and catalytic oxidizer are shown in Figure 2 and Figure 3, respectively.

Condensers: Monitor outlet gas temperature.

Concentrators: Monitor temperature in the desorption gas stream and pressure drop.

Emission capture systems: Monitor air flow and pressure drop.

[back to top]

[back to top]





WHEN IS THE COMPLIANCE DATE FOR SUBPART QQQQ? [§63.4683]

For an *existing affected source*, the compliance date is May 28, 2006. For a *new or reconstructed affected source*, the compliance date is the date of initial startup of your affected source or May 28, 2003, whichever is later.

The *effective date* (May 28, 2003) is the date on which the final rule was published in the Federal Register.

The compliance requirements for new, reconstructed, and existing sources are summarized in Table 3.

The reporting timeline for existing sources, shown relative to the effective date, is shown in Figure 5.

WHEN IS THE INITIAL COMPLIANCE PERIOD?

[back to top]

[§§63.4740, 63.4750, and 63.4760]

The initial compliance period is the 12-month period beginning on the compliance date. Since the standard (e.g., emission limits) is based on a rolling 12-month average emission rate, sources are given a 12-month period to change their surface coating operations and monitor their monthly HAP emission rates to ensure that their initial rolling 12-month emission rate complies with the applicable emission limit(s).

If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months.

HOW DO I DEMONSTRATE INITIAL COMPLIANCE WITH THE STANDARD? [back to top]

For the Compliant Material Option (Option 1): [§63.4741]

Determine the mass of organic HAP in all coatings, thinners, and cleaning materials used and the volume fraction of coating solids in all coatings used. Demonstrate that the organic HAP content of each coating used is less than or equal to the applicable emission limit and that each thinner and cleaning material used contains no organic HAP.

For the Emission Rate Without Add-On Controls Option (Option 2): [§63.4751]

Determine the mass of organic HAP in all coatings, thinners, and cleaning materials used and the volume fraction of coating solids in all coatings used. Demonstrate that the rolling 12-month average organic HAP emission rate from the combination of all materials used is less than or equal to the applicable emission limit.

For the Emission Rate With Add-On Controls Option (Option 3): [§63.4761]

Determine the mass of organic HAP in all coatings, thinners, and cleaning materials used and the volume fraction of coating solids in all coatings used. Using your performance test, determine the operating limits that will result in capture and control efficiencies that will reduce your organic HAP rate so that it is less than or equal to the applicable emission limit. Operating limits must be continuously monitored by a continuous parameter monitoring system. You must also develop and implement a Work Practice Plan and a Startup, Shutdown, and Malfunction Plan (SSMP). Demonstrate that the rolling 12-month average organic HAP emission rate from the combination of all materials used is less than or equal to the applicable emission limit.

[back to top]

HOW DO I DEMONSTRATE CONTINOUS COMPLIANCE WITH THE STANDARD?

[back to top]

For the Compliant Material Option (Option 1): [§63.4742]

To demonstrate continuous compliance, the organic HAP content in each coating you use during the compliance period must be less than or equal to the applicable emission limit and all thinners and cleaning materials you use during the compliance period must contain no organic HAP.

For the Emission Rate Without Add-On Controls Option (Option 2): [§63.4752]

To demonstrate continuous compliance, the rolling 12-month average organic HAP emission rate determined from all coatings, thinners, and cleaning materials you use during the compliance period must be less than or equal to the applicable emission limit.

For the Emission Rate With Add-On Controls Option (Option 3): [§63.4763]

To demonstrate continuous compliance, the rolling 12-month average organic HAP emission rate determined from all coatings, thinners, and cleaning materials you use during the compliance period, along with the capture and control device efficiencies, must be less than or equal to the applicable emission limit. You must also maintain continuous achievement of operating limits, and operate according to your work practice plan and startup, shutdown, and malfunction plan.

WHAT ARE THE NOTIFICATION, REPORTING, AND RECORDKEEPING REQUIREMENTS?[§§63.4710, 63.4720, and 63.4730][back to top]

These requirements are also summarized in Table 3.

<u>Initial Notification</u>: The initial notification states that your affected source is subject to the Wood Building Products standards. You must submit this within 120 days after the effective date (i.e., the date of startup or May 28, 2003, whichever is later).

<u>Notification of Intent to Conduct a Performance Test</u>: If your affected source is required to conduct a performance test (e.g., because it uses add-on control equipment), you must submit a notification of intent to conduct a performance test at least 60 days prior to the test.

<u>Performance Test Report</u>: If your affected source is required to conduct a performance test (e.g., because it uses add-on control equipment), you must submit a performance test report within 60 days after completing the performance test. The performance test is required to be conducted no later than 180 days after the applicable compliance date for new or reconstructed sources, and no later than May 28, 2006 for existing affected sources.

<u>Notification of Compliance Status</u>: If you own or operate an affected source, you must submit a Notification of Compliance Status (NOCS) within 30 days after the initial compliance period (the first 12 months after the compliance date). The NCS certifies that your affected source has complied with the standards, identifies the option(s) you used to demonstrate initial compliance, summarizes the data and calculations supporting the compliance demonstration, and describes how you will determine continuous compliance.

<u>Semiannual Compliance Reports</u>: After the initial compliance period, each affected source must submit semiannual compliance reports due on July 31 and January 31.

<u>Startup, Shutdown, and Malfunction Reports:</u> For sources using add-on controls, a startup, shutdown, and malfunction report must be submitted immediately when there is a startup, shutdown, or malfunction of the control device that is not consistent with the startup, shutdown, and malfunction plan.

<u>Records:</u> Affected sources are required to keep records of reported information and all other information necessary to document compliance with the final rule for 5 years. As required under the General Provisions, records for the 2 most recent years must be kept on-site; the other 3 years may be kept offsite. Records pertaining to the design and operation of the control and monitoring equipment must be kept for the life of the equipment. Depending on the compliance option that you choose, there may be additional recordkeeping requirements, as described in the final rule.

HOW MANY SOURCES WILL BE AFFECTED, AND WHAT ARE THE ESTIMATED EMISSION REDUCTIONS AND COSTS? [back to top]

The EPA has estimated that there are approximately 215 major sources in the wood building products (surface coating) source category and has identified these sources as major sources of HAP emissions such as xylene, toluene, ethyl benzene, ethylene glycol monobutyl ether (EGBE), glycol ethers (not including EGBE), methyl isobutyl ketone (MIBK), methanol, styrene, and formaldehyde.

This standard is estimated to reduce HAP emissions by 4,900 tons per year (tpy) (4,400 megagrams per year (Mg/yr)) or by 63 percent.

The total annualized costs for the approximate 215 existing major sources are estimated at \$22.5 million. According to estimates, recordkeeping and reporting costs will contribute \$5.6 million to the annualized cost of this NESHAP, material costs will contribute \$16.5 million, and performance testing will contribute \$308,300 (See Figure 4).

The economic impacts of the final rule are expected to be minimal, with price increases for affected wood building products surface coating facilities expected to be only 0.04 percent.





[back to top]

WHAT IF I HAVE QUESTIONS?

Mr. H. Lynn Dail is the EPA project leader and is part of the Coatings and Consumer Products Group of EPA's Office of Air Quality Planning and Standards, Emission Standards Division. His office is located in Research Triangle Park, North Carolina. He can be contacted via e-mail at <u>dail.lynn@epa.gov</u>.

WILL IMPLEMENTATION MATERIALS BE AVAILABLE FOR THIS RULE? [back to top]

Implementation materials (i.e. brochures, Q&A, example report forms, etc.) have been developed for this rule. You can keep informed of the implementation activities planned by EPA's Office of Air Quality Planning and Standards (OAQPS) by periodically checking the rule's implementation Plan. For Wood Building Products, that address is www.epa.gov/ttn/atw/wbldg/wbldgplan.html

For additional information on implementation tool development activities for this rule or other surface coating rules, you may contact Ingrid Ward of the Program Implementation and Review Group (PIRG). Her office is also located in Research Triangle Park, North Carolina. She can be contacted via e-mail at ward.ingrid@epa.gov.

TABLE 3—COMPLIANCE TIMELINE FOR SUBPART QQQQ Note: Timeline is organized by "due" date.

[back to top] If you are a **new or**

Requirement	If you are an existing source , then requirement is due on	If you are a new or reconstructed source , then requirement is due on	
Effective Date of subpart QQQQ	May 28, 2003	May 28, 2003	
Initial Notification [§63.4710(b), 63.9(b)]	September 25, 2003 - Submit 120 days after effective date	If initial startup is before the effective date, submit by September 25, 2003, 120 days after effective date; if initial startup is after effective date, submit within 120 days after startup	
Notification of Special Compliance Requirements [§63.9(d), §63.6(b)]	NA Applies only to new sources subject to §63.6(b)(3)-(b)(4)	Submit with Initial Notification required under §63.9(b)	
Compliance Extension Request	May 28, 2005	NA	
[§63.9(c), §63.6(i)]	Submit in accordance with §63.9(c) – submit 12 months prior to compliance date	Applicable only to existing sources	
Notification of Intent to Conduct A Performance Test [§63.9(e)]	Submit in accordance with 63.7 and $63.9(e) - 60$ days prior to beginning the test	Submit in accordance with 63.7 and $63.9(e) - 60$ days prior to beginning the test	
Performance Test [§63.7(a)(2), §63.4760] Applies only if you use a control	Complete by compliance date	Complete as required in §63.7(a)(2) – within 180 days after compliance date	
device			
Compliance Date [§63.4683]	May 28, 2006 - 3 years after effective date	Effective date (May 28, 2003) or upon startup, whichever is later	
Performance Test Reports [§63.4720(b)]	Submit in accordance with §63.10(d)(2)- within 60 days after the performance test is completed	Submit in accordance with §63.10(d)(2)- within 60 days after the performance test is completed	
Applies only if you use a control device			
Notification of Compliance Status (NOCS) [§63.4710(c)]	June 30, 2007 Submit 1 year and 30 days after the Compliance Date (30 days after Initial Compliance Period ends)	Submit 1 year and 30 days after your Compliance date (30 days after Initial Compliance Period ends)	

Requirement	If you are an existing source , then requirement is due on	If you are a new or reconstructed source , then requirement is due on
First Semi-annual Compliance Report [§63.4720(a)]	July 31, 2007 The initial semi-annual report covers the period between 6/01/07 to 6/30/07	Submit by July 31 or January 31, whichever date is after the end of the calendar half (e.g., Jan-June and July-Dec) that immediately follows your initia l compliance period.
Subsequent Semi-annual Compliance Reports [§63.4720(a)]	Submit by July 31 (covering January 1 through June 30) and January 31 (covering July 1 through December 31) of every year.	Submit by July 31 (covering January 1 through June 30) and January 31 (covering July 1 through December 31) of every year.
Periodic Start-up, Shutdown, and Malfunction (SSM) Reports [§63.4720(c), 63.10(d)(5)(i)] Applies only if you use a control device	Submit in accordance with §63.10(d)(5), and include in your semi-annual compliance report.	Submit in accordance with §63.10(d)(5), and include in your semi-annual compliance report.
Immediate SSM Reports [§63.4720(c), 63.10(d)(5)(ii)] Applies only if you use a control device	Submit within 2 working days by phone or fax and within 7 working days by letter.	Submit within 2 working days by phone or fax and within 7 working days by letter.

[back to top]

Reporting Timeline

Existing Sources





[back to top]

Surface Coating of Wood Building Products NESHAP (subpart QQQQ) Equations

This document is intended to assist you in calculating your emission rate. These equations are numbered to correspond to the equation numbers in the compliance options diagrams in a separate document entitled "Surface Coating of Wood Building Products NESHAP: Compliance Options.".

$$H_{\rm C} = \frac{(D_{\rm C}) (W_{\rm C})}{V_{\rm S}}$$
 (Equation 1)

Where:

Н _с	=	organic HAP content of the coating, grams organic HAP per liter coating solids.
D _c	=	density of coating, grams coating per liter coating.
W _c	=	mass fraction of organic HAP in the coating, grams organic HAP per gram coating.
Vs	=	volume fraction of coating solids, liter coating solids per liter coating.

$$H_{e} = A + B + C - R_{W}$$
 (Equation 2)

Where:

Н _е	=	the total mass of organic HAP emissions during the month, grams.
A	=	the total mass of organic HAP in the coatings used during the month, grams, as calculated in Equation 3.
В	=	the total mass of organic HAP in the thinners used during the month, grams, as calculated in Equation 4.
C	=	the total mass of organic HAP in the cleaning materials used during the month, grams, as calculated in Equation 5.
R _w	=	the total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste
		TSDF for treatment or disposal during the month, grams. (You may assign a value of zero to R_W if

you do not wish to use this allowance.)

$$A = \sum_{i=1}^{m} (Vol_{c,i})(D_{c,i})(W_{c,i})$$
 (Equation 3)

Where:

A	=	total mass of organic HAP in the coatings used during the month, grams.
Vol _{c,i}	=	total volume of coating, i, used during the month, liters.
D _{c,i}	=	density of coating, i, grams coating per liter coating.
W _{c,i}	=	mass fraction of organic HAP in coating, i, grams organic HAP per gram coating.
m	=	number of different coatings used during the month.
w c,i m	=	number of different coatings used during the month.

$$B = \sum_{j=1}^{n} (\text{Vol}_{t,j}) (D_{t,j}) (W_{t,j})$$
 (Equation 4)

В	=	total mass of organic HAP in the thinners used during the month, grams.
Vol _{t.i}	=	total volume of thinner, j, used during the month, liters.
D _{t,i}	=	density of thinner, j, grams per liter.
W _{t,i}	=	mass fraction of organic HAP in thinner, j, grams organic HAP per gram thinner.
n	=	number of different thinners used during the month.

$$C = \sum_{k=1}^{p} (Vol_{s,k})(D_{s,k})(W_{s,k})$$
 (Equation 5)

С
Vol _{s,k}
D _{s,k}
W _{s,k}
р

= total mass of organic HAP in the cleaning materials used during the month, grams.

= total volume of cleaning material, k, used during the month, liters.

= density of cleaning material, k, grams per liter.

= mass fraction of organic HAP in cleaning material, k, grams organic HAP per gram material.

= number of different cleaning materials used during the month.

$$V_{st} = \sum_{i=1}^{m} (Vol_{c,i})(V_{s,i})$$
 (Equation 6)

Where:

V _{st}	=	total volume of coating solids used during the month, liters.
Vol _{c,i}	=	total volume of coating, i, used during the month, liters.
V _{s,i}	=	volume fraction of coating solids for coating, i, liter solids per liter coating.
m	=	number of coatings used during the month.

$$H_{yr} = \frac{\sum_{y=1}^{12} H_e}{\sum_{y=1}^{12} V_{st}}$$
(Equation 7)

Where:

H _{yr}	=	the organic HAP emission rate for the 12-month compliance period, grams organic HAP per liter coating solids.
H _e	=	total mass of organic HAP emissions, grams, from all materials used during month, y, as calculated by Equation 2.
V _{st}	=	total volume of coating solids used during month, y, liters, as calculated by Equation 6.
у	=	identifier for months.

$$\mathbf{H}_{c} = \left(\mathbf{A}_{c} + \mathbf{B}_{c} + \mathbf{C}_{c} - \mathbf{H}_{unc}\right) \left(\frac{CE}{100} \times \frac{DRE}{100}\right)$$
 (Equation 8)

Н _с	=	mass of organic HAP emission reduction for a controlled coating operation (not using a liquid-liquid material balance) during the month, grams.
A _c	=	the total mass of organic HAP in the coatings used in the controlled coating operation during the month, grams, as calculated in Equation 9.
B _c	=	the total mass of organic HAP in the thinners used in the controlled coating operation during the month, grams, as calculated in Equation 10.
C _c	=	the total mass of organic HAP in the cleaning materials used in the controlled coating operation during the month, grams, as calculated in Equation 11.
H _{unc}	=	the total mass of organic HAP in the coatings, thinners, and cleaning materials used during all deviations specified in §63.4763(c) and (d) that occurred during the month in the controlled coating operation, grams, as calculated in Equation 12.
CE	=	the capture efficiency of the emission capture system vented to the add-on control device, percent, as calculated in Equation 13 (if using a liquid-to-uncaptured-gas protocol) or 13b (if using a gas-to-gas protocol).
DRE	=	organic HAP destruction or removal efficiency of the add-on control device, percent, as calculated in Equation 15.

$$A_{\rm c} = \sum_{i=1}^{m} \left(Vol_{\rm c,i} \right) \left(D_{\rm c,i} \right) \left(W_{\rm c,i} \right)$$
 (Equation 9)

Ac	=	the total mass of organic HAP in the coatings used in the controlled coating operation, grams.
Vol _{c.i}	=	total volume of coating, i, used during the month, liters.
D _{c,i}	=	density of coating, i, grams per liter.
W _{c,i}	=	mass fraction of organic HAP in coating, i, grams per gram.
m	=	number of different coatings used.

$$B_{c} = \sum_{j=1}^{n} (Vol_{t,j})(D_{t,j})(W_{t,j})$$
 (Equation 10)

Where:

B _c	=	the total mass of organic HAP in the thinners used in the controlled coating operation during the month, grams.
Vol _{t,j}	=	total volume of thinner, j, used during the month, liters.
D _{t,j}	=	density of thinner, j, grams per liter.
W _{t,j}	=	mass fraction of organic HAP in thinner, j, grams per gram.
n	=	number of different thinners used.

$$C_{c} = \sum_{k=1}^{p} (Vol_{s,k})(D_{s,k})(W_{s,k})$$
 (Equation 11)

Where:

C _c	=	the total mass of organic HAP in the cleaning materials used in the controlled coating operation during the month, grams.
Vol _{s,k}	=	total volume of cleaning material, k, used during the month, liters.
D _{s,k}	=	density of cleaning material, k, grams per liter.
W _{s,k}	=	mass fraction of organic HAP in cleaning material, k, grams per gram.
р	=	number of different cleaning materials used.

$$H_{unc} = \sum_{h=1}^{q} (Vol_h)(D_h)(W_h)$$
 (Equation 12)

H _{unc}	=	the total mass of organic HAP in the coatings, thinners, and cleaning materials used during all deviations specified in §63.4763(c) and (d) that occurred during the month in the controlled coating operation, grams.
Volh	=	total volume of coating, thinner, or cleaning material, h, used in the controlled coating operation during deviations, liters.
D _h	=	density of coating, thinner, or cleaning material, h, grams per liter.
w _h	=	mass fraction of organic HAP in coating, thinner, or cleaning material, h, grams organic HAP per gram coating.
q	=	number of different coatings, thinners, or cleaning materials.

$$CE = \frac{\left(TVH_{used} - TVH_{uncaptured}\right)}{TVH_{used}} \times 100$$
 (Equation 13)

= the capture efficiency of the emission capture system vented to the add-on control device, Percent, measured using the liquid-to-uncaptured-gas protocol.

 $TVH_{uncaptured} =$ the total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, grams.

$$CE = \frac{TVH_{captured}}{\left(TVH_{captured} + TVH_{uncaptured}\right)} \times 100$$
 (Equation 13b)

Where:

CE	=	the capture efficiency of the emission capture system vented to the add-on control device, percent, measured using the gas-to-gas protocol.
TVH _{captured}	=	the total mass of TVH captured by the emission capture system as measured at the inlet to the add-on control device during the emission capture efficiency test run, grams, determined according to \$63.4765(d)(2).
TVH _{uncaptured}	=	the total mass of TVH that is not captured by the emission capture system and that exits from the total

 $H_{uncaptured}$ = the total mass of 1 VH that is not captured by the emission capture system and that exits from the total temporary enclosure or building enclosure during the capture efficiency test run, grams, determined according to (3.4765)(d)(3).

$$TVH_{used} = \sum_{i=1}^{n} (TVH_i) (Vol_i) (D_i)$$
 (Equation 14)

Where:

TVH _{used}	=	Mass of liquid TVH in materials used in the coating operation during the capture efficiency test run, grams.
TVH _i	=	mass fraction of TVH in coating, thinner, or cleaning material, i, that is used in the coating operation during the capture efficiency test run, grams TVH per gram material.
Voli	=	total volume of coating, thinner, or cleaning material, i, used in the coating operation during the capture efficiency test run, liters.
D _i	=	density of coating, thinner, or cleaning material, i, grams material per liter material.
n	=	number of different coatings, thinners, and cleaning materials used in the coating operation during the capture efficiency test run.

$$DRE = 100 \times \frac{M_{fi} - M_{fo}}{M_{fi}}$$
 (Equation 15)

DRE	=	organic emissions destruction or removal efficiency of the add-on control device, percent.
M _{fi}	=	the total gaseous organic emissions mass flow rate at the inlet(s) to the add-on control device, grams/hr, using Equation 16.
M _{fo}	=	the total gaseous organic emissions mass flow rate at the outlet(s) of the add-on control device, grams/hr, using Equation 16.

$$M_f = Q_{sd} C_c(12)(41.6)(10^{-6})$$
 (Equation

16)

Where:

M _f	=	the total gaseous organic emissions mass flow rate, grams per hour (h).
C _c	=	the concentration of organic compounds as carbon in the vent gas, as determined by Method 25 or Method 25A, parts per million by volume (ppmv), dry basis.
Q _{sd}	=	the volumetric flow rate of gases entering or exiting the add-on control device, as determined by Method 2, 2A, 2C, 2D, 2F, or 2G, dry standard cubic meters/hour (dscm/h).
41.6	=	conversion factor for molar volume, gram-moles per cubic meter (mol/m ³) (@ 293 Kelvin (K) and 760 millimeters of mercury (mmHg)).

$$H_{\rm CSR} = \left(A_{\rm CSR} + B_{\rm CSR} + C_{\rm CSR}\right) \left(\frac{R_{\rm V}}{100}\right)$$
 (Equation 17)

H _{CSR}	=	mass of organic HAP emission reduction for the coating operation controlled by the solvent recovery system during the month, grams.
A _{CSR}	=	the total mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system, grams, calculated using Equation 19.
B _{CSR}	=	the total mass of organic HAP in the thinners used in the coating operation controlled by the solvent recovery system, grams, calculated using Equation 20.
C _{CSR}	=	the total mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system, grams, calculated using Equation 21.
R _V	=	volatile organic matter collection and recovery efficiency of the solvent recovery system, percent, calculated using Equation 22.

$$H_{HAP} = H_{e} - \sum_{i=1}^{q} (H_{c,i}) - \sum_{j=1}^{r} (H_{CSR,j})$$
 (Equation 18)

Where:		
H _{HAP}	=	total mass of organic HAP emissions for the month, grams.
H _e	=	total mass of organic HAP emissions before add-on controls from all the coatings, thinners, and cleaning materials used during the month, grams, determined by Equation 2.
H _{c,i}	=	total mass of organic HAP emission reduction for controlled coating operation, i, not using a liquid- liquid material balance, during the month, grams, using Equation 8.
H _{CSR,j}	=	total mass of organic HAP emission reduction for coating operation, j, controlled by a solvent recovery system using a liquid-liquid material balance, during the month, grams, using Equation 17.
q	=	number of controlled coating operations not using a liquid-liquid material balance.
r	=	number of coating operations controlled by a solvent recovery system using a liquid-liquid material balance.

$$A_{CSR} = \sum_{i=1}^{m} (Vol_{c,i})(D_{c,i})(W_{c,i})$$
 (Equation 19)

A _{CSR}	=	the total mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system during the month, grams.
Vol _{c,i}	=	total volume of coating, i, used during the month in the coating operation controlled by the solvent recovery system, liters.
D _{c,i}	=	density of coating, i, grams per liter.
W _{c,i}	=	mass fraction of organic HAP in coating, i, grams per gram.
m	=	number of different coatings used.

$$B_{CSR} = \sum_{j=1}^{n} (Vol_{t,j}) (D_{t,j}) (W_{t,j})$$
 (Equation 20)

Where:

B _{CSR}	=	the total mass of organic HAP in the thinners used in the coating operation controlled by the solvent recovery system during the month, grams.
Vol _{t,j}	=	total volume of thinner, j, used during the month in the coating operation controlled by the solvent recovery system, liters.
D _{t,j}	=	density of thinner, j, grams per liter.
W _{t,j}	=	mass fraction of organic HAP in thinner, j, grams per gram.
n	=	number of different thinners used.

$$C_{CSR} = \sum_{k=1}^{p} (Vol_{s,k}) (D_{s,k}) (W_{s,k})$$
(Equation 21)

C _{CSR}	=	the total mass of organic HAP in the cleaning materials used in the coating operation controlled
		by the solvent recovery system during the month, grams.
$\operatorname{Vol}_{s,k}$	=	total volume of cleaning material, k, used during the month in the coating operation controlled by the solvent recovery system, liters.
D _{s.k}	=	density of cleaning material, k, grams per liter.
W _{s,k}	=	mass fraction of organic HAP in cleaning material, k, grams per gram.
р	=	number of different cleaning materials used.

$$R_{v} = 100 \times \frac{M_{vr}}{\sum_{i=1}^{m} (vol_{i})(D_{i})(WV_{c,i}) + \sum_{j=1}^{n} (vol_{j})(D_{j})(WV_{t,j}) + \sum_{k=1}^{p} (vol_{k})(D_{k})(WV_{s,k})}$$
(Equation 22)

R _V	=	volatile organic matter collection and recovery efficiency of the solvent recovery system during the month, percent.
M _{VR}	=	mass of volatile organic matter recovered by the solvent recovery system during the month, grams.
Voli	=	volume of coating, i, used in the coating operation controlled by the solvent recovery system during the month, liters.
Di	=	density of coating, i, grams per liter.
wv _{c,i}	=	mass fraction of volatile organic matter for coating, i, grams volatile organic matter per gram coating.
Volj	=	volume of thinner, j, used in the coating operation controlled by the solvent recovery system during the month, liters.
Di	=	density of thinner, j, grams per liter.
wv _{t,j}	=	mass fraction of volatile organic matter for thinner, j, grams volatile organic matter per gram thinner.
Volk	=	volume of cleaning material, k, used in the coating operation controlled by the solvent recovery system during the month, liters.
D _k	=	density of cleaning material, k, grams per liter.
wv _{s,k}	=	mass fraction of volatile organic matter for cleaning material, k, grams volatile organic matter per gram cleaning material.
m	=	number of different coatings used in the coating operation controlled by the solvent recovery system during the month.
n	=	number of different thinners used in the coating operation controlled by the solvent recovery system during the month.
p	=	number of different cleaning materials used in the coating operation controlled by the solvent recovery system during the month.

$$H_{annual} = \frac{\sum_{y=1}^{12} H_{HAP,y}}{\sum_{y=1}^{12} V_{st,y}}$$

(Equation 23)

H _{annual}	=	the organic HAP emission rate for the 12-month compliance period, grams organic HAP per liter coating solids.
H _{HAP,V}	=	the organic HAP emission rate for month, y, determined according to Equation 18.
V _{st,y}	=	the total volume of coating solids, liters, used during month, y, from Equation 6.
у	=	identifier for months.

Surface Coating of Wood Building Products NESHAP (subpart QQQQ) Applicability Statement

<u>Affected Source</u>: An *affected source* is the collection of items used for surface coating of wood building products, including but not limited to: storage containers, mixing vessels, coating application equipment, cleaning equipment, conveying equipment and containers, and coating curing/drying equipment [' 63.4682(b)].

<u>Regulated Entities</u>: The source category, which is divided into the five subcategories listed in Table 1, includes sources that apply coatings to wood building products. In general, sources that coat wood building products are covered under the Standard Industrial Classification (SIC) and North American Industrial Classification System (NAICS) codes listed in Table 1. However, sources classified under other SIC or NAICS codes may be subject to the final standards. Not all sources classified under the SIC and NAICS codes in Table 1 will be subject to the final standards. Not all sources classified under the SIC and NAICS codes in Table 1 will be subject to the final standards. Not all sources classified under the SIC and NAICS codes in Table 1 will be subject to the final standards. Not all sources classified under the SIC and NAICS codes in Table 1 will be subject to the final standards. Not all sources classified under the SIC and NAICS codes in Table 1 will be subject to the final standards because some of the classifications cover products outside the scope of the NESHAP for wood building products. This table is not intended to be exhaustive, but rather provides guidance regarding subcategories and entities likely to be regulated by the Surface Coating of Wood Building Products NESHAP [68 FR 31746].

Subcategory	SIC	NAICS	Examples of regulated entities include those sources that apply a surface coating to
Doors, Windows and Miscellaneous	2431, 2499ª	321911, 321918, 321999ª	doors, finished doorskins, finished exterior siding, windows, door and window components such as millwork, moulding, or trim, and other miscellaneous wood building products (including, but not limited to, moulding, trim, shingles, and shutters).
Flooring	2426, 2421, 2499ª	321918, 321999ª	solid wood flooring, engineered wood flooring and wood laminated flooring.
Interior Wall Paneling and Tileboard	2435, 2499 ^ª	321211, 321999ª	interior wall paneling and tileboard.
Other Interior Panels	2435, 2436, 2493, 2499ª	321211, 321212, 321219, 321999ª	panels that are sold for uses other than interior wall paneling, such as coated particleboard, hardboard, and perforated panels.
Exterior Siding and Primed Doorskins ^b	2435, 2493, 2499ª	321211, 321219, 321999ª	panel siding, trimboard, lap siding, trim associated with siding, and primed doorskins.

Table 1.	Subcategories and Entities Potentially Regulated by the Wood Building
	Products NESHAP [' 63.4681(a)]

^a The subcategory of the SIC code and NAICS code depends on the final end use of the product.

^b A doorskin coated with more than primer is included in the doors, windows and

miscellaneous subcategory.

Surface Coating of Wood Building Products NESHAP - subpart QQQQ Applicability Statement (continued)

Your wood building products surface coating operations are <u>NOT</u> subject to subpart QQQQ if [' 63.4681(b) and (c)]:

1) your affected source is not located at a major source of HAP emissions;

2) your affected source uses less than 4,170 liters (1,100 gallons) of total coatings per year;

3) your surface coating operations are covered by the Plywood and Composite Wood Products NESHAP (subpart DDDD) upon promulgation [edge seals, anti-skid coatings, primers applied to waferboard or oriented strand board (OSB), logos, trademarks, grade stamps, nail lines, synthetic patches, wood patches, wood putty, concrete forming oil and other drying or tempering oils, veneer composing, shelving edge fillers and surface coating that occurs during the manufacture of fiberboard];

4) your surface coating operations are covered by the Wood Furniture Manufacturing Operations NESHAP (subpart JJ) [surface coating of wood furniture including: finishing, gluing, cleaning, and washoff operations associated with the production of wood furniture or wood furniture components and surface coating of millwork and trim associated with cabinet manufacturing];

5) your surface coating operations occur during the manufacture of prefabricated homes or mobile/modular homes;

6) your surface coating operations occur at research or laboratory facilities; janitorial, building, and facility construction or maintenance operations; hobby shops that are operated for personal rather than for commercial purposes; non-commercial coating operations or coating applications using handheld nonrefillable aerosol containers; or

7) your surface coating operations involve wood treatment or fire retardant operations located at wood building products sources that involve impregnating the wood product with the wood treatment chemicals or fire retardant by using a retort or other pressure vessel.

In addition, if your affected source uses at least 95 percent of its total annual coating usage for surface coating operations that are subject to the requirements of a NESHAP other than QQQQ, you may demonstrate compliance with all the requirements, including all applicable emission limits, for that subpart [' 63.4681(d)].

Surface Coating of Wood Building Products NESHAP (subpart QQQQ) Initial Notification

THIS IS A SAMPLE NOTIFICATION FORM, WHICH CAN BE USED BY AFFECTED SOURCES AT THEIR DISCRETION TO COMPLY WITH 40 CFR Part 63 Subpart QQQQ, §63.4710(b)

Applicable Rule: 40 CFR Part 63, subpart QQQQ — National Emission Standards for Hazardous Air Pollutants: Surface Coating of Wood Building Products. Initial notification is being made in accordance with §63.4710(b).

> Note: Initial notifications for new or reconstructed affected sources are due no later than 120 days after initial startup or September 25, 2003, whichever is later. Initial notifications for existing affected sources are due September 25, 2003. Sources may also use the application for approval of construction or reconstruction under §63.5(d) to fulfill the initial notification requirement.

SECTION I GENERAL INFORMATION

A. Print or type the following information for each affected source for which you are making initial notification: (§63.9(b)(2)(i)-(ii))

Operating Permit Number (OPTION	IAL)	Facility I.D. Nur	imber (OPTIONAL)	
Responsible Official's Name/Title		1		
Street Address				
City	State		ZIP Code	
Facility Name			1	
Facility Street Address (If different t	han Responsible Of	ficial's Street Add	dress)	
Facility Local Contact Name	Title		Phone (OPTIONA	L)
City	State		ZIP Code	

B. Indicate the relevant standard or other requirement that is the basis for this notification and the source's compliance date: (§63.9(b)(2)(iii))

Basis for this notification (relevant standard or other requirement)	Anticipated Compliance Date (mm/dd/yyyy)

SECTION II SOURCE DESCRIPTION

A. Briefly describe the nature, size, design, and method of operation of the source. (§63.9(b)(2)(iv))

Sample Response:

(Example is a plant that coats hardboard siding with a primer)

The affected source is located in SC. Hardboard siding is produced by the facility. A primer coat is applied to the hardboard siding and then it is packaged for shipment. Approximately 85% of HAP emissions from this affected source come from the manufacturing operations; 10% from the application of primer; and 5% from cleaning operations. The affected source is capable of operating 24 hours per day; 365 days per year but currently operates 16 hours per day (two eight hour shifts). The size of the plant is [add a typical size].

B. Briefly describe the types of emission points within the affected source and the types of hazardous air pollutants emitted. (§63.9(b)(2)(iv))

Types of Emission Points

Sample Response:

Emission points at the affected source include the primer application area where where the primer is applied using a roll coater, the drying/curing area where the board is then sent through a natural gas oven to dry, and areas used for waste handling and storage.

Types of HAPs Emitted

Sample Response:

HAPs emitted from the affected source include formaldehyde, xylene (isomers and mixture), ethylene glycol, triethylamine, and ethyl acrylate. Source of information: coating supplier.

- C. Check the box that applies: (§63.9(b)(2)(v))
 - My affected source is a major source of Hazardous Air Pollutants (HAPs)
 - □ My affected source is an area source of HAPs

NOTE: A major source of HAP emissions is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit any single HAP at a rate of 10 tons/yr or more or any combination of HAP at a rate of 25 tons/yr or more.

SECTION III CERTIFICATION (Note: you may edit the text in this section as deemed appropriate)

Based upon information and belief formed after a reasonable inquiry, I, as a responsible official of the affected source at the above-mentioned facility, certify the information contained in this report is accurate and true to the best of my knowledge.

Name of Responsible Official (Print or Type)	Title	Date (mm/dd/yyyy)
Signature of Responsible Official		

Note 1: Initial notification forms should be sent to the EPA Regional Office servicing your area <u>and</u> to your State or local Air Pollution Control Agency (see §63.13 for addresses). Part 70 permit applications can be used in lieu of an initial notification provided: (1) the same information is contained in the permit application as required by this rule; (2) the State has an approved Title V program under Part 70; (3) the State has received delegation of authority by the EPA; and (4) the Title V permit application has been submitted to the permitting authority. (§63.9(a))

Note 2: Responsible official is defined under §63.2 as any of the following: the president, vice-president, secretary, or treasurer of the company that is in charge of a principal business function; the owner of the plant; a principal executive officer or ranking elected official for a municipality, State, Federal or other public agency.

Surface Coating of Wood Building Products NESHAP (subpart QQQQ) Notification of Compliance Status (NOCS)

THIS IS A SAMPLE NOTIFICATION FORM, WHICH CAN BE USED BY AFFECTED SOURCES AT THEIR DISCRETION TO COMPLY WITH 40 CFR Part 63 Subpart QQQQ, §63.4710(c)

Applicable Rule: 40 CFR Part 63, Subpart QQQQ — National Emission Standards for Hazardous Air Pollutants: Surface Coating of Wood Building Products. This NOCS is being made in accordance with §63.9(h).

Note: Notification of Compliance Status (NOCS) reports for existing, new, and reconstructed sources must be postmarked before close of business on the 30th calendar day after the last day of the initial compliance period.

SECTION I - GENERAL INFORMATION

- A. If you have been issued a Title V permit, submit your NOCS in accordance with your Title V permit, which may include additional or different requirements than those included in this example form. [§63.9(h)(3)]
- B. If you have not been issued a Title V permit, complete the remaining portions of this section and also complete Sections II-X. [§63.9(h)(2)(i)]
- C. Print or type the following information for each affected source for which you are making notification of compliance status [§63.4710(c)(1) and (c)(3)]:

Operating Permit Number (OPTIO	NAL)	Facility I.D. Number (OPTIONAL)			
Reporting Period – Begin Date (Co	ompliance Date)	Reporting Period – E	nd Date (1 year after Begin Date)		
Responsible Official's Name/Title					
Street Address					
City	State	ZIP	Code		
Facility Name					
Facility Street Address (If different than Responsible Official's Street Address)					
Facility Local Contact Name	Title		Phone (OPTIONAL)		
City	State		ZIP Code		
City Facility Name Facility Street Address (If different Facility Local Contact Name City	State than Responsible Off Title State	ZIP	Code Phone (OPTIONAL) ZIP Code		

D. Indicate the designated subcategory (or subcategories) for your affected source and the applicable organic HAP emission limit:

Subcategory		Emission limit (lbs HAP/gal solids)		
Sample Response.	Flooring	Sample Response.	0.78 lbs HAP/ga1 solids	

SECTION II - CERTIFICATION

(Note: you may edit the text in this section as deemed appropriate) [§63.4710(c)(2)]

Based upon information and belief formed after a reasonable inquiry, I, as a responsible official of the affected source at the above-mentioned facility, certify the information contained in this report is accurate, complete, and true to the best of my knowledge. The affected source at the above-mentioned facility ______ (has/has not) achieved the emission limits for the initial compliance period and complied with the relevant standard. [§63.9(h)(2)(i)(G); §63.4710(c)(5)]

Name of Responsible Official (Print or Type)	Title	Date (mm/dd/yy)
Signature of Responsible Official		

Note: Responsible official is defined under §63.2 as any of the following: the president, vicepresident, secretary, or treasurer of the company that is in charge of a principal business function; the owner of the plant; a principal executive officer or ranking elected official for a municipality, State, Federal or other public agency.

SECTION III - COMPLIANCE OPTIONS

Describe the compliance option(s) and methods you used to determine compliance for each coating operation. [§63.9(h)(2)(i)(A); §63.4710(c)(4)]

Sample Response.

 $\label{eq:entropy} \mbox{Emission Limit} - \mbox{The affected source used the compliant material option as allowed under §63.4691. This included using ultraviolet (UV) cured topcoats and sealers.$

SECTION IV - TEST RESULTS

Describe the results of any performance tests, continuous monitoring system (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted. [§63.9(h)(2)(i)(B)]

Sample Response.								
The affected source does not conduct any surface coating operations that are subject to performance testing or continuous monitoring system (CMS) performance evaluations under 40 CFR 63.751. The following sample response involving CMS for a thermal oxidizer is being provided for EXAMPLE purposes only : During the reporting period, the affected source followed monitoring procedures under §§63.4768(c) and (g). We obtained the following results for monitoring conducted between 7/1/04 – 12/31/04:								
Source ID	Source IDSource LocationResult (July 04)Result (Aug 04)Result (Sep 04)Result (Oct 04)Result 							
Capture Device (PTE)	Paint Lines #1 and #2	7/1 – Pressure drop OK	8/1 – Pressure drop OK	9/1 – Pressure drop OK	10/1– Pressure drop OK	11/1 – Pressure drop OK	12/1 – Pressure drop OK	
Control Device (TO)	Paint Lines #1 and #2	7/1 – OK, no temp deviations	8/1 – OK, no temp deviations	9/1 – OK, no temp deviations	10/1 – OK, no temp deviations	11/1 – OK, no temp deviations	12/1 – OK, no temp deviations	

SECTION V - CONTINUOUS COMPLIANCE

Describe the methods you will use to determine continuous compliance, including a description of monitoring and reporting requirements and test methods. [$\S63.9(h)(2)(i)(C)$]

Sample Response.

The affected source will determine continuous compliance with applicable requirements by continuing to use monitoring methods as identified in Section III and Section IV. In addition, the affected source plans to do the following: (1) perform periodic unannounced inspections in areas where work practice measures were implemented; (2) submit periodic compliance reports signed by a responsible official in accordance with all applicable requirements in §63.4690.

SECTION VI - EMISSIONS

Describe the type and quantity of hazardous air pollutants (HAP) emitted by the source, reported in units and averaging times and in accordance with the test methods specified in the relevant standard. [§63.9(h)(2)(i)(D)].

Sample Response. The following hazardous air pollutants (HAPs) were emitted by surface coating operations from the affected source during the period 01/01/04 - 12/31/04. Monthly Rolling 12-Month Avg **Emission Rate** Volume of Solids **Emission Rate HAPs Emitted** (Ib HAP/gal solids) Applied (gal) (Ib HAP/gal solids) Month (tons) Jan 04 8,120 1.39 N/A 5.63 Feb 04 5.342 1.25 N/A 3.34 Mar 04 6,550 0.91 N/A 2.98 Apr 04 8,445 1.05 N/A 4.43 May 04 7,758 88.0 N/A 3.41 Jun 04 8,230 0.85 N/A 3.50 Jul 04 7,447 0.85 N/A 3.16 Aug 04 8,813 0.88 N/A 3.88 Sep 04 8,242 0.81 N/A 3.34 Oct 04 8,550 0.87 N/A 3.72 Nov 04 9,124 0.85 N/A 3.88 Dec 04 7,329 0.84 0.96 3.08 TOTAL 93.950 0.96 (avg) 0.96 45.10

SECTION VII - DEVIATIONS

If you had a deviation, include a description and statement of the cause of the deviation and, if you failed to meet the applicable emission limit, all the calculations used to determine the emission rate (mass of organic HAP emitted per gallon of coating solids used) [§63.4710(c)(6)].

Sample Response.

There were no deviations.

SECTION VIII - CONTROL EQUIPMENT

Describe the air pollution control equipment (or method) for each emission point, including each control device (or method) for each hazardous air pollutant and the control efficiency (percent) for each control device (or method). [§63.9(h)(2)(i)(F)]

Sample Response. The affected source does not use any add-on pollution control equipment and has opted to use the compliant material option to comply with the applicable emission rate (limit). The following sample pollution control equipment is being provided for EXAMPLE purposes only						
Source ID	Source Location	Equipment Type	Control Device	Control Efficiency	HAPs Controlled	
Topcoat Applicator # 1	Line #1	Curtain coater	Enclosed system (PTE/incinerator)	97%	Toluene; xylene; ethylbenzene	
Stain Applicator	Line #2	Roll coater	Enclosed system (PTE/incinerator)	95%	Toluene; xylene; ethylbenzene	

SECTION IX - EXAMPLE CALCULATIONS

If required by your compliance option, include an example of how you determined the following values (include calculations and supporting data): [§63.4710(c)(7) and (c)(8)]:

- Mass fraction of organic HAP for one coating, one thinner and one cleaning material
- □ Volume fraction of coating solids for one coating
- Density for one coating, one thinner (not required for Option 1) and one cleaning material (not required for Option 1)
- Amount of waste materials and the mass of organic HAP contained in the waste materials for which you are claiming an allowance
- Organic HAP content for one coating (Option 1).
- Total mass of organic HAP emissions for each month (Options 2 and 3).
- Total volume of coating solids used each month (Options 2 and 3).
- □ 12-month organic HAP emission rate (Options 2 and 3).
- Mass of organic HAP emission reduction each month by emission capture systems and add-on control devices (Option 3).
- □ Total mass of organic HAP emissions for the coatings, thinners, and cleaning materials used each month (Option 3).

Note: Supporting data can include a copy of the information provided by the supplier or manufacturer of the example material or a summary of the results of testing conducted according to §63.4741(a), (b) or (c). You do not need to send copies of any test reports.

SECTION X - ADDITIONAL INFORMATION FOR OPTION 3

Include the following information for each coating operation for which you are using Option 3 (emission rate with add-on controls) to comply [§63.4710(c)(9)]:

- □ Summary of data and copies of calculations supporting the determination that the emission capture system is a permanent total enclosure or a measurement of the emission capture system efficiency. Include a description of the protocol followed for measuring capture efficiency, summaries of any capture efficiency tests conducted, any calculations supporting the capture efficiency determination, and any applicable statistical calculations (e.g., for DQO or LCL approaches).
- Summary of the results of each add-on control device performance test.
- List of emission capture system and add-on control device operating limits and a summary of the data used to calculate these limits.
- Statement of whether or not you developed and implemented a work practice plan.

SECTION XI - CORRECTING PRELIMINARY/ESTIMATED DATA

A. Did you submit an application for construction or reconstruction under §63.5(d) that contained preliminary or estimated data? [§63.9(h)(5)]

- □ Yes
- □ No
- □ Not applicable (did not submit an application for construction or reconstruction).
- B. If you answered yes, provide actual emission data or other corrected information below.

END OF FORM. <u>A Responsible Official must sign this form</u> – See Section II.

Surface Coating of Wood Building Products NESHAP (subpart QQQQ) Notification of Performance Test

THIS IS A SAMPLE NOTIFICATION FORM, WHICH CAN BE USED BY AFFECTED SOURCES AT THEIR DISCRETION TO COMPLY WITH 40 CFR 63 Subpart QQQQ

Applicable Rule: 40 CFR Part 63, Subpart QQQQ — National Emission Standards for Hazardous Air Pollutants: Surface Coating of Wood Building Products. Notification is being made in accordance with §63.9(e).

Notifications of performance test are due at least 60 calendar days before the performance test is scheduled to begin to allow the Administrator, upon request, to review and approve the site-specific test plan required under §63.7(c) and to have an observer present during the test. You must submit a notification of performance test if a performance test is required under the relevant subpart unless you've been granted a waiver under §63.7(h).

SECTION I GENERAL INFORMATION

A. Print or type the following information for each affected source: §63.9(b)(2)

Operating Permit Number (OPTION	AL)	Facility I.D. Nur	mber (OPTION	IAL)
Responsible Official's Name/Title		4		
Street Address				
City	State		ZIP Code	
Facility Name				
Facility Street Address (If different t	han Responsible Of	ficial's Street Add	ress)	
Facility Local Contact Name	Title			Phone (OPTIONAL)
City	State		ZIP C	ode

C. Indicate the relevant standard or other requirement that is the basis for this notification: (§63.9(b)(2)(iii))

Basis for this notification (relevant standard or other requirement)

D. Briefly describe the nature, size, design, and method of operation of the affected source. (OPTIONAL)

Sample Response:

The affected source applies primers, adhesives, and topcoats to windows, doors, and window and door components. The affected source utilizes approximately 200 coating operation employees. All painting operations, except for minor touch-up operations, are performed in enclosed areas where dry particulate filters are utilized. The emissions from these painting operations are captured by an enclosure and controlled with carbon adsorption units.

SECTION II

CERTIFICATION (Note: you may edit the text in this section as deemed appropriate)

Based upon information and belief formed after a reasonable inquiry, I, as a responsible official of the affected source at the above-mentioned facility, certify the information contained in this notification is accurate and true to the best of my knowledge.

Name of Responsible Official (Print or Type)	Title	Date (mm/dd/yy)
Signature of Responsible Official		

Note: Responsible official is defined under §63.2 as any of the following: the president, vice-president, secretary, or treasurer of the company that is in charge of a principal business function; the owner of the plant; a principal executive officer or ranking elected official for a municipality, State, Federal or other public agency.

SECTION III NOTIFICATION OF PERFORMANCE TEST

Note: For new or reconstructed affected sources, conduct your performance by November 24, 2003 or within 180 days after startup, whichever is later. (§63.4760(a)) For existing affected sources, conduct your performance test by May 29, 2006 (§63.4760(b)).

- A. Check the box that applies: (§63.7(b)(2))
 - This is my first notification of this performance test.
 - My facility previously submitted a notification for this performance test; however, my facility isn't able to conduct the performance test at the previously scheduled time. The performance test has been rescheduled for the following date: ______

Circumstances that require you to change your scheduled performance test (optional): Sample Response:

One carbon adsorber unit failed unexpectedly. Replacement of unit will take approximately 14 days.

Note: In the event you are unable to conduct a performance test on the date specified due to unforeseeable circumstances beyond your control, you must notify the Administrator as soon as practicable and without delay prior to the scheduled performance test date and specify the date when the performance test is rescheduled. A notification of delay in conducting the performance test shall not relieve you of your legal responsibility to comply with any other applicable provisions of the relevant standard or with any other applicable Federal, State, or local requirement, nor will it prevent the Administrator from implementing or enforcing the relevant standard or taking any other action under the CAA. (§63.7(b)(2))

B. Complete the following table for each affected source and type of control system that will undergo performance testing: (§63.7(b)(1); §63.9(e))

Sample Table:

Source ID	Emission	Type of Control	Control System	Type of Test	Date
(Optional)	Point ID	System	ID	(Initial or	Scheduled
	<i>(if applicable)</i> (Optional)	(Optional)	<i>(if applicable)</i> (Optional)	periodic)	(mm/dd/yyyy)
Coating Line 1	PAINT-1	Carbon adsorber	CA 2-1	Initial	8/15/2003
Coating Line 2	PAINT-2	Carbon absorber	CA 2-2	Initial	8/15/2003

Note: You must notify the Administrator of the date of the CMS performance evaluation simultaneously with the notification of the performance test date required under §63.7(b), or at least 60 days prior to the date the performance evaluation is scheduled to begin if no performance test is required..(§63.8(e)(2); §63.9(g)(1)).

C. Have you prepared (a) site-specific test plan(s) for conducting the scheduled test(s) that include(s) a test program summary, the test schedule, data quality objectives, and both an internal and external quality assurance (QA) program? (§63.7(c)(2)(i))

Note: Do not submit the site-specific test plan with this notification unless the Administrator has requested that you do so.

□ Yes

□ No

Note: Before conducting a required performance test, the owner or operator of an affected source shall develop and, if requested by the Administrator, shall submit a site-specific test plan to the Administrator for approval. If requested to do so, submit the site-specific test plan at least 60 calendar days before the performance test is scheduled to take place (i.e., submit simultaneously with the notification of intent to conduct a performance test), or on a mutually agreed upon date. (§63.7(c)(2)(i), (iv))

- D. If you've prepared a site-specific test plan, do your **data quality objectives** include your pretest expectations of the precision, accuracy, and completeness of data? (§63.7(c)(2)(i))
 - □ Yes

□ No

- E. If you've prepared a site-specific test plan, does your **internal QA program** include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of test data precision (such as sampling and analysis of replicate samples)? (§63.7(c)(2)(ii))
 - □ Yes
 - □ No
- F. If you've prepared a site-specific test plan, does your **external QA program** include, at a minimum, plans for test method performance audits (PA) during the performance test? Audit activities include an opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities. (§63.7(c)(2)(iii))
 - □ Yes
 - □ No

END OF FORM. <u>A Responsible Official must sign this form</u> – See Section II.

Surface Coating of Wood Building Products NESHAP (subpart QQQQ) Semiannual Compliance Report

THIS IS A SAMPLE COMPLIANCE REPORT, WHICH CAN BE USED BY AFFECTED SOURCES AT THEIR DISCRETION TO COMPLY WITH 40 CFR Part 63 Subpart QQQQ, §63.4720(a).

Applicable Rule: 40 CFR Part 63, Subpart QQQQ – National Emission Standards for Hazardous Air Pollutants: Surface Coating of Wood Building Products.

Note: Each semiannual compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

SECTION 1 GENERAL INFORMATION

A. Print or type the following information for each affected source at which surface coating operations are performed on wood building product(s) [§63.4720(a)(3)(i)]:

Operating Permit Number (OPTIONAL)		Facility I.D. Num	ber (OPTIO	NAL)
Responsible Official's Name/Title				
Street Address				
City	State		ZIP Code	
Facility Name				
Facility Street Address (If different t	than Responsible Of	ficial's Street Addro	ess)	
Facility Local Contact Name	Title			Phone (OPTIONAL)
City	State		ZIP	Code

B. Indicate the beginning and ending dates of the reporting period and the date of this report [§63.4720(a)(3)(iii)]:

Beginning: / / Ending: / / . Date of this report: / / .

SECTION II

CERTIFICATION (Note: you may edit the text in this section as deemed appropriate)

Based upon information and belief formed after a reasonable inquiry, I, as a responsible official of the affected source at the above-mentioned facility, certify the information contained in this report is accurate, true and complete. The affected source has complied with applicable requirements in 40 CFR 63, Subpart QQQQ during the semiannual reporting period. [§63.4720(a)(3)(ii)]

Signature, Responsible Official	Title	Date (mm/dd/yyyy)

SECTION III COMPLIANCE

A. Use the table below to indicate which compliance option(s) you used for each of your coating operations during the reporting period. If you used more than one option during the reporting period, indicate in the table the beginning and ending dates that you used each option and fill out all of the appropriate sections (B - D) below [\$63,4720(a)(3)(iv)]

Coating Operation	Compliant	Emission Rate without	Emission Rate with			
	Materials Option	Add-On Controls Option	Add-On Controls Option			

- B. For affected sources using the compliant materials option:
 - 1) Each day in this reporting period, did you use only compliant coatings (e.g., those that did not exceed the applicable emission limit)?
 - □ Yes [§63.4720(a)(4)]
 - □ No. Indicate below all coatings used that deviated from the emission limit and the dates and time periods the coatings were used. Explain why. Also include the calculation of the organic HAP content for each coating and the determination of mass fraction of organic HAP for each coating. [§63.4720(a)(5)]
 - 2) Each day in this reporting period, did you use only thinners and cleaning materials with no organic HAP content?
 - □ Yes [§63.4720(a)(4)]
 - □ No. Indicate below all thinners and cleaning materials used that contained organic HAP and the dates and time periods of use. Explain why. Also include the determination of mass fraction of organic HAP for each thinner and cleaning material. [§63.4720(a)(5)]
- C. For affected sources using the emission rate without add-on controls option:
 - 1) Did the 12-month rolling average for each month in the reporting period exceed the applicable emission limit?
 - □ No [§63.4720(a)(4)]
 - Yes. Indicate below the beginning and ending dates of each compliance period during which the 12-month rolling average organic HAP emission rate exceeded the applicable emission limit. Explain why. Also include the calculations used to determine the 12-month organic HAP emission rate for each compliance period¹ in which a deviation occurred. [§63.4720(a)(6)]

¹ A compliance period consists of 12 months. Each month is the end of a compliance period consisting of that month and the preceding 11 months. [§63.4742(a)]

- D. For affected sources using the emission rate with add-on controls option:
 - 1) Did the 12-month rolling average for each month in the reporting period exceed the applicable emission limit?
 - □ No [§63.4720(a)(4)]
 - ☐ Yes. Indicate below the beginning and ending dates of each compliance period in which the 12-month rolling average organic HAP emission rate exceeded the applicable emission limit. Explain why. Also include the calculations used to determine the 12-month organic HAP emission rate for each compliance period¹ in which a deviation occurred. [§63.4720(a)(7)(i)-(ii)]
 - 2) Briefly describe your continuous parameter monitoring systems (CPMS), and indicate the date and time of the latest CPMS certification or audit. If applicable, indicate the date and times each CPMS was inoperative (except for low-level and high-level checks). [§63.4720(a)(7)(iv)-(vi)]
 - 3) During the reporting period, were there any periods during which the CPMS was out-of-control (e.g., failed an audit or exceeded the allowable calibration drift)?
 - □ No [§63.4720(a)(4)]
 - □ Yes. Indicate the starting and ending dates and times, duration, and corrective actions taken when the CPMS was out-of-control. [§63.4720(a)(7)(vii)]
 - 4) During the reporting period, have any of your capture or control devices been operated at daily average values greater than or less than (as appropriate) the operating parameter values established in the initial performance test?
 - □ No
 - ☐ Yes. Indicate the dates and times when capture or control devices were operated at daily average values greater than or less than (as appropriate) the operating parameters and why. Also indicate whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period. [§63.4720(a)(7)(viii), (xiv)]
 - 5) Have any of your control devices been bypassed during the reporting period?
 - □ No
 - □ Yes. Indicate the dates and times when control devices were bypassed and why. Also indicate whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period. [§63.4720(a)(7)(viii), (xiv)]

- 6) Include the following information for the reporting period: (a) the total duration of each deviation from an operating limit and each bypass of a control device, (b) the total duration of deviations as a percentage of the total operating time of your affected source, (c) a breakdown of the total duration of deviations (deviations from operating limits and bypasses of control devices) by cause (startup, shutdown, control equipment problems, process problems, other known causes, and unknown causes), (d) the total duration of CMPS downtime, and (e) the total duration of CPMS downtime as a percentage of the total operating time of your affected source. [§63.4720(a)(7)(ix)-(xi)]
- 7) Have you made any changes to your CMPS, coating operations, or capture or control devices during the reporting period?

□ No □ Yes. Describe the changes. [§63.4720(a)(7)(xii)]

- 8) During this reporting period, did you follow the required work practices (§63.4693) in accordance with your work practice plan?
 - □ Yes
 - □ No. Provide a description of each deviation and an explanation of the cause of each deviation. Also include the dates and time periods of the deviation and the actions you took to correct the deviations. [§63.4720(a)(7)(xiii)]

SECTION IV

STARTUP, SHUTDOWN, AND MALFUNCTION (Only to be completed by affected sources using the emission rate with add-on controls option)

Check **one** of the following three statements and include the information listed:

- During this reporting period, no startups, shutdowns or malfunctions took place.
- During this reporting period, all actions taken during startups, shutdowns and malfunctions were consistent with my SSMP. Indicate the starting and ending times of each malfunction.
 [§63.4720(c)(1); §63.4720(a)(7)(iii)]

During this reporting period, some actions that were taken during startups, shutdowns, and malfunctions were not consistent with my SSMP. Indicate the starting and ending times of each malfunction. Identify those events during which you took actions inconsistent with your SSMP but your affected source did not exceed the applicable emission limit. Include the number, duration, and a brief description for each type of malfunction that caused (or may have caused) the applicable emission limit to be exceeded. [§63.4720(a)(7)(iii); §63.10(d)(5)(i)]

SECTION V

EMISSION RATE CALCULATIONS (Not required for affected sources using the compliant materials option)

Please include the calculation results for each 12-month rolling average emission rate during the 6-month reporting period from the affected source. [\S 63.4720(a)(3)(v)]:

Sample Response.

The following data show the calculation results for the emission rates from surface coating operations at the affected source during the period 01/01/04 - 6/30/04.

Month	Volume of Solids Applied (gal)	Monthly Emission Rate (Ib HAP/gal solids)	Rolling 12-Month Avg Emission Rate (Ib HAP/gal solids)	HAPs Emitted (tons)
Jan 04	8,120	1.39	1.02	4.14
Feb 04	5,342	1.25	1.56	4.17
Mar 04	6,550	0.91	2.45	8.02
Apr 04	8,445	1.05	1.75	7.39
May 04	7,758	0.88	2.25	8.73
Jun 04	8,230	0.85	2.92	12.02
TOTAL	93,950	1.06 (avg)	1.99 (avg)	44.5

END OF FORM — Please make sure that a Responsible Official signs prior to submitting the form to your EPA Regional Office and your State Air Permitting Agency, as applicable.