

ADEQ

ARKANSAS
Department of Environmental Quality

January 7, 2009

Suzanne Siebenmorgen
Correll, Incorporated
P.O. Box 417
Charleston, AR 72933

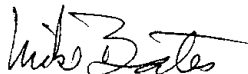
Dear Ms. Siebenmorgen:

The enclosed Permit No. 0814-AOP-R3 is issued pursuant to the Arkansas Operating Permit Program, Regulation # 26.

After considering the facts and requirements of A.C.A. §8-4-101 et seq., and implementing regulations, I have determined that Permit No. 0814-AOP-R3 for the construction, operation and maintenance of an air pollution control system for Correll, Incorporated to be issued and effective on the date specified in the permit, unless a Commission review has been properly requested under §2.1.14 of Regulation No. 8, Arkansas Department of Pollution Control & Ecology Commission's Administrative Procedures, within thirty (30) days after service of this decision.

All persons submitting written comments during this thirty (30) day period, and all other persons entitled to do so, may request an adjudicatory hearing and Commission review on whether the decision of the Director should be reversed or modified. Such a request shall be in the form and manner required by §2.1.14 of Regulation No. 8.

Sincerely,



Mike Bates
Chief, Air Division

ADEQ OPERATING AIR PERMIT

Pursuant to the Regulations of the Arkansas Operating Air Permit Program, Regulation 26:

Permit No.: 0814-AOP-R3

Renewal #2

IS ISSUED TO:

Correll, Incorporated
300 South Hancock
Charleston, AR 72933
Franklin County
AFIN: 24-00057

THIS PERMIT AUTHORIZES THE ABOVE REFERENCED PERMITTEE TO INSTALL, OPERATE, AND MAINTAIN THE EQUIPMENT AND EMISSION UNITS DESCRIBED IN THE PERMIT APPLICATION AND ON THE FOLLOWING PAGES. THIS PERMIT IS VALID BETWEEN:

MARCH 5, 2008 AND MARCH 4, 2013

THE PERMITTEE IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:



Mike Bates
Chief, Air Division

January 7, 2009

Date

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List of Acronyms and Abbreviations

A.C.A.	Arkansas Code Annotated
AFIN	ADEQ Facility Identification Number
CFR	Code of Federal Regulations
CO	Carbon Monoxide
HAP	Hazardous Air Pollutant
lb/hr	Pound Per Hour
MVAC	Motor Vehicle Air Conditioner
NESHAP	National Emission Standards for Hazardous Air Pollutants
No.	Number
NO _x	Nitrogen Oxide
PM	Particulate Matter
PM ₁₀	Particulate Matter Smaller Than Ten Microns in Diameter
SN	Source Number
SNAP	Significant New Alternatives Program (SNAP)
SO ₂	Sulfur Dioxide
SSM	Startup, Shutdown, and Malfunction Plan
tpy	Tons Per Year
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound

Correll, Incorporated
Permit #: 0814-AOP-R3
AFIN: 24-00057

SECTION I: FACILITY INFORMATION

PERMITTEE: Correll, Incorporated

AFIN: 24-00057

PERMIT NUMBER: 0814-AOP-R3

FACILITY ADDRESS: 300 South Hancock
Charleston, AR 72933

MAILING ADDRESS: P.O. Box 417
Charleston, AR 72933

COUNTY: Franklin County

CONTACT NAME: Suzanne McFarland

CONTACT POSITION: Human Resource Manager

TELEPHONE NUMBER: 479-965-2247

REVIEWING ENGINEER: Patty Campbell

UTM North South (Y): Zone 15: 3906201.88 m

UTM East West (X): Zone 15: 405811.68 m

SECTION II: INTRODUCTION

Summary of Permit Activity

Correll, Incorporated (Correll) owns and operates a metal, office furniture manufacturing facility (NAICS 337214) located at 300 South Hancock in Charleston, Franklin County, Arkansas 72933. This permitting action is necessary to:

1. Use a cleaning solvent in the Phosphate Washer (SN-01) that shall not exceed a VOC content limit of 0.70 pounds/gallon and shall not contain any HAP. Solvent usage shall not exceed 1,980 gallons per consecutive 12 months.
2. Use an aerosol spray adhesive in Packaging (SN-17) that shall not exceed a VOC content limit of 4.89 pounds/gallon and an acetone content limit of 2.22 pounds/gallon. Spray adhesive usage shall not exceed 432, 12-ounce cans per consecutive 12 months.

Potential annual emission changes are: 0.8 tpy VOC and 0.04 tpy acetone.

Process Description

Correll, Inc. is a manufacturer of metal folding tables, bookcases, and computer furniture that are sold through retail stores and direct to customers. In the manufacturing process, Correll fabricates metal parts, laminates and cuts particleboard, and assembles these parts into metal furniture.

Forming Metal Legs and Aprons – Painting Preparation and Painting

Tubular steel and strip steel are cut to correct lengths, bent to the desired shapes, and punched. These pieces are welded together to form table legs and aprons. The metal table legs and aprons are conveyed to a natural gas-fired, recirculation phosphatizer bath (SN-01) and dried in a natural gas-fired dryer (SN-02) in a pre-painting preparation process. The legs are conveyed to two electrostatic paint booths (SN-03 & 04) for painting. If necessary, the pieces are sprayed in the touch-up paint booth (SN-11A/B). MSDSs provided by the facility show that all paints are designated “low HAP” and the sole paint catalyst is designated “no HAP”. Correll is subject to 40 CFR 63 Subpart RRRR – National Emission Standards for Hazardous Air Pollutants (NESHAP): *Surface Coating of Metal Furniture*, even though its HAP emission levels are below major source thresholds because of the EPA “once-in-always-in” rule. After painting, the parts are dried in a natural gas-fired oven (SN-05) and are taken to assembly.

Assembly Table Tops and Shelves

Particleboard is processed by applying a paper laminate (which can be received with a layer of hot glue pre-attached to the backside) using heat and pressure to form the table tops. Tops may have Formica-type high pressure laminate sheets attached by gluing them with water based glue that contains no volatile organic compounds (VOCs) or hazardous air pollutants (HAPs). The lamination process (formerly SN-07) has changed the materials used and is listed as an Insignificant Activity.

After lamination, the particleboards are sawed to the correct size and the edges of the tabletops are routed so a plastic band may be placed around them. Sawdust from the sawing and routing

operations (SN-15) is controlled through a baghouse in conjunction with a cyclone. The former cyclone (SN-13), while still at the facility, has been disconnected from the process and is no longer operable. SN-13 has been removed from service. Emissions generated from the sawdust handling and loading process, where a cyclone drops the sawdust into the bin for off-site shipment, are designated SN-18. Any sanding required is completed with small hand-held sanders that are exempt from permitting (B-17). Some pieces for bookcases require holes and these are drilled on two boring machines.

Any final touch-up painting (SN-16) is completed with aerosol cans. Aerosol paint cans are exempt from 40 CFR Part 63 Subpart RRRR – National Emission Standards for Hazardous Air Pollutants (NESHAP): *Surface Coating of Metal Furniture*.

Once the tabletops are completed they are assembled with the lower apron and legs. This completes the manufacturing process and the metal furniture is packed for shipping. Packaging (SN-17) for shipping includes a manual step to reinforce the corners of the packing material through use of hot melt glue, tape, and occasionally a spray adhesive. The spray adhesive, which is used in the Packaging (SN-17), generates non-point VOC, HAP and acetone emissions. Correll uses stencil ink (an Insignificant Activities) to prepare the table's packaging for shipment.

Maintenance Shop

A small Parts Washer (SN-14) (dip tank) to clean equipment parts from the process is located in the Maintenance Shop. The cleaning solvents used in the Parts Washer are Mineral Spirits and/or straight methyl ethyl ketone (MEK), both of which are 100% VOC.

Regulations

The following table contains the regulations applicable to this permit.

Source Number	Regulations
Facility-wide	Arkansas Air Pollution Control Code, Regulation 18, effective February 15, 1999
Facility-wide	Regulations of the Arkansas Plan of Implementation for Air Pollution Control, Regulation 19, effective October 15, 2007
Facility-wide	Regulations of the Arkansas Operating Air Permit Program, Regulation 26, effective September 26, 2002
03, 04, 11 A/B	40 CFR Part 63, Subpart RRRR – National Emission Standards for Hazardous Air Pollutants (NESHAP): <i>Surface Coating of Metal Furniture</i> (Appendix A)

A full explanation can be found in a letter dated January 2, 2002 addressed to Ms. Anna Hubbard from GBM & Associates, which conducted the third party independent entity review on November 6, 2001. Correll was issued air permit #814-AR-1 on August 20, 1990 with this statement: "The painting booths were originally installed in the 1970's and operated essentially

unchanged until 1989. In 1989 a fire destroyed the two paint booths (SN-03 and 04). Further examination of this issue revealed that prior to the issuance of Correll's Title V air permit . . . (i.e. permits 814-AR-1 through 814AR-4) contained the following language. "Correll is not subject to the Standards of Performance for Surface Coating of Metal Furniture as found in NSPS 40 CFR Part 60, Subpart EE, since the fixed capital expense of the painting equipment which was replaced in 1989 is less than 50% of the fixed capital expense of an entirely new metal furniture coating line." ". . . The installation of the touch-up booth (SN-11) in 1992 consisted of relocating an existing spray gun . . . to the area outside the paint booth. It was determined that this action did not trigger NSPS Subpart EE." "The increase in maximum paint usage from 4.81 gallons/hr to 9.62 gallons/hr was achieved with no physical modification to the spray booths. After a physical measure of the spraying capacity during the preparation of the Title V permit, a slight increase of maximum hourly paint usage from 9.62 to 9.65 gallons/hr. The determination was made . . . NSPS Subpart EE did not become applicable."

Correll is a metal furniture manufacturer (NAICS 337214). Correll manufactures only final products: no intermediate components, which are then used in the manufacture of wood products elsewhere, are produced. Correll does not manufacture wood furniture or wood furniture components. Therefore, Correll is not subject to the NESHAP 40 CFR Part 63, Subpart JJ.

Emission Summary

The following table is a summary of emissions from the facility. This table, in itself, is not an enforceable condition of the permit.

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
Total Allowable Emissions		PM	2.7	1.6
		PM ₁₀	1.3	1.1
		SO ₂	0.3	0.3
		VOC	103.8	234.5
		CO	0.6	2.0
		NO _x	0.6	2.4
HAPs		Xylene*	0.95	2.19
		Ethyl benzene*	0.19	0.42
		Cumene*	0.59	1.35
Air Contaminants **		Acetone**	0.83	0.75

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
01	Phosphate Washer (Paint Preparation Bath) (natural gas, 2.86 MMBtu/hr and 1,980 gallons VOC-containing solvent)	PM	0.1	0.1
		PM ₁₀	0.1	0.1
		SO ₂	0.1	0.1
		VOC	0.9	0.8
		CO	0.3	1.1
		NO _x	0.3	1.3
02	Drying Oven (Paint Preparation Dryer) (natural gas, 0.82 MMBtu/hr)	PM	0.1	0.1
		PM ₁₀	0.1	0.1
		SO ₂	0.1	0.1
		VOC	0.1	0.1
		CO	0.1	0.3
		NO _x	0.1	0.4
05	Paint Bake Oven (natural gas, 1.53 MMBtu/hr)	PM	0.1	0.1
		PM ₁₀	0.1	0.1
		SO ₂	0.1	0.1
		VOC	0.1	0.1
		CO	0.2	0.6
		NO _x	0.2	0.7
03, 04, & 11 A/B	Electrostatic (SN-03 & 04) and Touch-up (SN-11A/B) Paint Booths	VOC	100.4	230.7
		Xylene*	0.93	2.14
		Ethyl benzene*	0.18	0.41
		Cumene*	0.59	1.35
07	Cement Lamination	See Insignificant Activities List		
08, 09, 10, 12, & 13	Removed from Service			
14	Parts Washer	VOC	0.3	0.5
		Xylene*	0.01	0.01
15	Sawing and Routing (w/baghouse & cyclone)	PM	0.1	0.4
		PM ₁₀	0.1	0.4

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
16	Touchup Painting	VOC	0.5	2.1
		Xylene*	0.01	0.04
		Ethyl benzene*	0.01	0.01
		Acetone**	0.16	0.70
17	Packaging	VOC	1.5	0.2
		Acetone**	0.67	0.05
18	Sawdust Handling	PM	2.3	0.9
		PM ₁₀	0.9	0.4

*HAPs included in the VOC totals. Other HAPs are not included in any other totals unless specifically stated.

**Air Contaminants such as ammonia, acetone, and certain halogenated solvents are not VOCs or HAPs.

SECTION III: PERMIT HISTORY

Air permit 814-A was issued to Correll, Inc. on June 5, 1987. This permit was the first air permit for this facility. The permit established VOC usage limits for the painting and laminating process. Allowable emission rates were also established for particulate matter and VOCs.

On August 20, 1990, Correll was issued air permit 814-AR-1. The modification included the installation of two new paint booths. The painting operation was originally installed in the 1970's and operated essentially unchanged until 1989. In 1989 a fire destroyed the two paint booths.

Air permit 814-AR-2 was issued to Correll, Inc. on April 7, 1992. This modification included the installation of a second cyclone in order to increase dust collection efficiency. No other changes were addressed in this permitting action.

On May 11, 1992, Correll, Inc. submitted an application proposing to modify air permit 814-AR-2. The facility proposed to install a touch-up spray paint booth to their existing operations. The hours of operation were also increased which caused an increase in paint and solvent usage. Air permit 814-AR-3 was issued to Correll, Inc. on July 13, 1992.

Air permit 814-AR-4 was issued to Correll, Inc. on June 21, 1993. The facility proposed to modify its existing permit to more accurately reflect actual operations at the facility and to allow for an expected increase in production over the next several years. Emissions from combustion sources were also added to the total allowable emissions.

Air permit 814-AOP-R0 was issued October 27, 1997 as the first Title V operating air permit. Four main changes have occurred at the facility. First, Correll no longer stains particle board, therefore, Roller Coater #1 (SN-08) was removed from service. VOC emissions from this source were allocated to the paint and touch-up booths. Second, the Process Equipment Coating process was eliminated. Next, a third cyclone was added to aid in sawdust collection. And finally, emissions from a small parts washer located in the maintenance shop were quantified.

Air Permit #0814-AOP-R1 was issued on February 7, 2003 as both renewal #1 and modification. Emissions from the small Parts Washer (SN-14) changed due to use of a different solvent. Touch-up painting (SN-16) with spray cans was added as a source. Two cyclones (SN-09 & SN-10) were removed and replaced with a bag filter (SN-15). New emission summary tables were submitted for SN-03, 04, and 11 due to updated paint MSDSs. Annual emissions were permitted at: 26.9 tpy PM/PM₁₀, 0.3 tpy SO₂, 244.9 tpy VOC, 0.6 tpy CO, 2.3 tpy NO_x, 05 tpy Phosphoric Acid, 0.1 tpy Molybdc Acid, 0.1 tpy Copper Sulfate, 54.0 tpy Xylene, 37.0 tpy Toluene, 11.0 tpy Ethyl benzene, 1.2 tpy Hexane, 12.78 tpy Napthalene, and 2.95 tpy Glycol Ether.

Air Permit #0814-AOP-R2 was issued on March 5, 2008 as both renewal #2 and a modification. This permit was modified to update emission rates due to changes in methodology and conversion to low VOC and low HAP raw material usage. Additionally, one cyclone (SN-13) was removed from service and sawdust handling (SN-18) was designated a new source. Annual emissions are permitted at: 1.6 tpy PM, 1.1 tpy PM₁₀, 0.3 tpy SO₂, 233.7 tpy VOC, 2.0 tpy CO, 2.4 tpy NO_x, 2.19 tpy Xylene, 0.42 tpy Ethyl benzene, 1.35 tpy Cumene, and 0.71 tpy acetone.

SECTION IV: SPECIFIC CONDITIONS

Phosphate Washer & Drying Oven (SN-01 & 02) and Paint Bake Oven (SN-05)

Source Description

In preparation for painting, metal tubing and strip steel pieces (furniture legs and aprons) are cleaned in a natural gas-fired, caustic recirculation bath, the Phosphate Washer (SN-01). The cleaning solvent contains some volatile organic compounds (VOCs) and no hazardous air pollutants (HAPs). The cleaned wet metal parts are then dried in a natural gas-fired Drying Oven (SN-02).

Later, after the painting process is complete, the painted metal parts are dried in a natural gas-fired Paint Bake Oven (SN-05).

Specific Conditions

1. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Condition #4 and Plantwide Conditions #7 and #9. [Regulation 19, §19.501 et seq., and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
01	Phosphate Washer (natural gas, 2.86 MMBtu/hr and 1,980 gallons VOC-containing solvent)	PM ₁₀	0.1	0.1
		SO ₂	0.1	0.1
		VOC	0.9	0.8
		CO	0.3	1.1
		NO _x	0.3	1.3
02	Drying Oven (natural gas, 0.82 MMBtu/hr)	PM ₁₀	0.1	0.1
		SO ₂	0.1	0.1
		VOC	0.1	0.1
		CO	0.1	0.3
		NO _x	0.1	0.4
05	Paint Bake Oven (natural gas, 1.53 MMBtu/hr)	PM ₁₀	0.1	0.1
		SO ₂	0.1	0.1
		VOC	0.1	0.1
		CO	0.2	0.6
		NO _x	0.2	0.7

2. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Condition #4. [Regulation 18, §18.801, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
01	Phosphate Washer (Paint Preparation Bath) (natural gas, 2.86 MMBtu/hr)	PM	0.1	0.1
02	Drying Oven (Paint Preparation Dryer) (natural gas, 0.82 MMBtu/hr)	PM	0.1	0.1
05	Paint Bake Oven (natural gas, 1.53 MMBtu/hr)	PM	0.1	0.1

3. Visible emissions may not exceed 5% opacity as measured by EPA Reference Method #9 for SN-01, 02, and 05. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
4. The permittee shall use only pipeline quality natural gas as fuel for the Phosphate Washer (SN-01), the Drying Oven (SN-02) and the Paint Bake Oven (SN-05). Emissions from SN-01, 02 and 05 have been calculated at full load for continuous operation and no recordkeeping of natural gas usage is required. [Regulation 19, §19.705 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Electrostatic (SN-03 & SN-04) and Touch-up (SN-11A/B) Paint Booths

Source Description

A variety of paint is used in the three (3) paint booths. All paint is low-HAP formulation in order to comply with 40 CFR Part 63, Subpart RRRR: *Surface Coating of Metal Furniture*. The painting takes place in two electrostatic paint booths (SN-03 & 04) and one (1) touch-up paint booth (SN-11A/B). MSDSs provided by the facility indicated that all paints used are designated "low HAP" and the sole paint catalyst is designated "no HAP". The catalyst is an additive that aids the paint in drying quickly, especially in winter. The catalyst usage (about 20 gallons per year) is included in the annual paint usage. The Electrostatic Paint Booths (SN-03 & 04) were originally installed in the 1970's but replaced after a fire in 1989. The Touch-up Paint Booth with two stacks (SN-11A/B) is used to recoat parts which did not receive sufficient paint in the initial paint process. Dry filters control particulate overspray, not VOC emissions. Solvent is used in the paint booths as a thinner and for clean-up of equipment within the booths.

Specific Conditions

- The permittee shall not exceed the emission rates set forth in the following table. Emissions for the paint booths are based on maximum hourly application rate of 9.65 gal/hr. The maximum rate was determined in a physical test prior to 1997, which measured the true maximum spraying capacity and established permitted throughput limits. The permittee will demonstrate compliance with annual emissions of this condition by compliance with Plantwide Conditions #7 and #9. [Regulation No. 19, §19.501 and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
03, 04 & 11A/B	Three Paint Booths	VOC (PM Filters, each booth)	100.4	230.7

- The permittee shall not exceed the emission rates set forth in the following table. Emissions for the paint booths are based on maximum hourly application rate of 9.65 gal/hr. The maximum rate was determined in a physical test prior to 1997, which measured the true maximum spraying capacity and established permitted throughput limits. The permittee shall demonstrate compliance with annual emissions of this condition by compliance with Plantwide Conditions #7, #8 and #9. [Regulation No. 18, §18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
03, 04 & 11A/B	Three Paint Booths	Xylene	0.93	2.14
		Ethyl benzene	0.18	0.41
		Cumene	0.59	1.35

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7. Visible emissions may not exceed 10% opacity limit as measured by EPA Reference Method 9 for SN-03, 04, and 11A/B. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311

Parts Washer (SN-14)

Source Description

A small Parts Washer (SN-14) (dip tank) to clean equipment parts from the process is located in the Maintenance Shop. The cleaning solvents used in the Parts Washer are Mineral Spirits and/or straight Methyl Ethyl Ketone (MEK), both 100% VOC.

Specific Conditions

8. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Plantwide Conditions #7 and #9. [Regulation No. 19, §19.501 and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
14	Parts Washer	VOC	0.3	0.5

9. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Plantwide Conditions #7, #8 and #9. [Regulation No. 18, §18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
14	Parts Washer	Xylene	0.01	0.01

10. Visible emissions may not exceed 5% opacity limit as measured by EPA Reference Method 9 for the Parts Washer (SN-14). [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Sawing and Routing (SN-15)

Source Description

Sawdust from sawing the particleboards and routing the edges (SN-15) for assembly of the banding edge is controlled through a baghouse in conjunction with a cyclone.

Specific Conditions

11. The permittee shall not exceed the emission rates set forth in the following table.
[Regulation No. 19, §19.501 and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
15	Sawing and Routing	PM ₁₀	0.1	0.4

12. The permittee shall not exceed the emission rates set forth in the following table.
[Regulation No. 18, §18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
15	Sawing and Routing	PM	0.1	0.4

13. Visible emissions may not exceed 5% opacity limit as measured by EPA Reference Method 9 for Sawdust and Routing (SN-15). [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Touchup Painting (SN-16)

Source Description

Touchup Painting (SN-16) is used to recoat parts that have a visible blemish prior to proceeding to assembly. All paint used is contained in aerosol cans, 12 ounce size. The facility has an adapter to drain any remaining material from the can into the waste paint can for appropriate disposal. All emissions are accounted for in Specific Conditions #14 and #15. After the cans are purged, the empties are thrown in the trash. Aerosol paint cans are exempt from 40 CFR Part 63, Subpart RRRR – National Emission Standards for Hazardous Air Pollutants (NESHAP): *Surface Coating of Metal Furniture.*

Specific Conditions

14. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Plantwide Conditions #7 and #9. [Regulation No. 19, §19.501 and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
16	Touchup Painting	VOC	0.5	2.1

15. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Plantwide Conditions #7, #8 and #9. [Regulation No. 18, §18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
16	Touchup Painting	Xylene	0.01	0.04
		Ethyl benzene	0.01	0.01
		Acetone	0.16	0.70

16. Visible emissions may not exceed 5% opacity limit as measured by EPA Reference Method 9 for touchup painting (SN-16). [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Packaging (SN-17)

Source Description

The Packaging (SN-17) process includes a manual step to reinforce the corners of the packaging through use of hot melt glue, tape, and a spray adhesive. The Aerosol Spray Adhesive generates non-point VOC and HAP emissions.

Specific Conditions

17. The permittee shall not exceed the emission rates set forth in the following table. The maximum hourly emission rate is based on three cans per hour. The permittee shall demonstrate compliance with this condition by compliance with Plantwide Conditions #7 and #9. [Regulation No. 19, §19.501 and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
17	Packaging	VOC	1.5	0.2

18. The permittee shall not exceed the emission rates set forth in the following table. The maximum hourly emission rate is based on three cans per hour. The permittee shall demonstrate compliance with this condition by compliance with Plantwide Conditions #7, #8 and #9. [Regulation No. 18, §18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
17	Packaging	Acetone	0.67	0.05

Sawdust Handling (SN-18)

Source Description

Sawdust Handling (SN-18) is non-point emissions of PM and PM₁₀ estimated for the sawdust handling and loading for shipment off-site.

Specific Conditions

19. The permittee shall not exceed the emission rates set forth in the following table.
[Regulation No. 19, §19.501 and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
18	Sawdust Handling	PM ₁₀	0.9	0.4

20. The permittee shall not exceed the emission rates set forth in the following table.
[Regulation No. 18, §18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
18	Sawdust Handling	PM	2.3	0.9

21. Visible emissions may not exceed 20% opacity limit as measured by EPA Reference Method 9 for Sawdust Handling (SN-18). [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Correll, Incorporated
Permit #: 0814-AOP-R3
AFIN: 24-00057

SECTION V: COMPLIANCE PLAN AND SCHEDULE

Correll, Incorporated will continue to operate in compliance with those identified regulatory provisions. The facility will examine and analyze future regulations that may apply and determine their applicability with any necessary action taken on a timely basis.

SECTION VI: PLANTWIDE CONDITIONS

1. The permittee shall notify the Director in writing within thirty (30) days after commencing construction, completing construction, first placing the equipment and/or facility in operation, and reaching the equipment and/or facility target production rate. [Regulation 19, §19.704, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
2. If the permittee fails to start construction within eighteen months or suspends construction for eighteen months or more, the Director may cancel all or part of this permit. [Regulation 19, §19.410(B) and 40 CFR Part 52, Subpart E]
3. The permittee must test any equipment scheduled for testing, unless otherwise stated in the Specific Conditions of this permit or by any federally regulated requirements, within the following time frames: (1) new equipment or newly modified equipment within sixty (60) days of achieving the maximum production rate, but no later than 180 days after initial start up of the permitted source or (2) operating equipment according to the time frames set forth by the Department or within 180 days of permit issuance if no date is specified. The permittee must notify the Department of the scheduled date of compliance testing at least fifteen (15) days in advance of such test. The permittee shall submit the compliance test results to the Department within thirty (30) days after completing the testing. [Regulation 19, §19.702 and/or Regulation 18 §18.1002 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
4. The permittee must provide:
 - a. Sampling ports adequate for applicable test methods;
 - b. Safe sampling platforms;
 - c. Safe access to sampling platforms; and
 - d. Utilities for sampling and testing equipment.[Regulation 19, §19.702 and/or Regulation 18, §18.1002 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
5. The permittee must operate the equipment, control apparatus and emission monitoring equipment within the design limitations. The permittee shall maintain the equipment in good condition at all times. [Regulation 19, §19.303 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
6. This permit subsumes and incorporates all previously issued air permits for this facility. [Regulation 26 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
7. The permittee shall not exceed the material throughput (in gallons) and VOC content limits (in pounds/gallon) at the facility per consecutive 12-month period set forth in the following table. [Regulation 19, §19.705 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN(s)	Materials	Annual Throughput Limit (gallons/consecutive 12 months)	Maximum Allowable VOC Content Limit (lb/gallon)
01	Cleaning Solvent	1,980 (36 drums* @55 gal/drum)	0.70
03, 04 & 11A/B	Enamel Paints (low HAPs) & Catalyst (no HAPs)	44,237	4.94
03, 04 & 11A/B	Solvent	33,126	7.33
14	Solvent	110	7.33
16	Aerosol Spray Paints	912.4	6.576
17	Aerosol Spray Adhesives (432, 12 oz cans @ 7.1 lb/gal)	432, 12 oz cans = 41 gal/yr	4.89

* Cleaning Solvent usage in SN-01 may be recorded in drums used.

8. The permittee shall not exceed the reportable HAP and acetone content limits (in pounds/gallon) at the facility. [Regulation 18, §18.1004 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN(s)	Material	Pollutant	HAP & Acetone Content Limits (lb/gal)
03, 04, 11A/B	Enamel Paints	Xylene	0.097
		Ethyl benzene	0.019
		Cumene	0.061
14	Solvents	Xylene	0.15
16	Aerosol Spray Paints	Xylene	0.077
		Ethyl benzene	0.016
		Acetone	1.528

SN(s)	Material	Pollutant	HAP & Acetone Content Limits (lb/gal)
17	Aerosol Spray Adhesives	Acetone	2.22

9. The permittee shall maintain monthly records which demonstrate compliance with Plantwide Conditions #7 and #8. These records shall list chemicals by name and product number. The permittee shall maintain the Material Safety Data Sheets (MSDS) or equivalent documentation on-site. These records shall indicate the usage quantity and content in gallons of each enamel paint, spray paint, catalyst, adhesive, cleaning solvent, and mineral spirits and their respective VOC, reportable HAPs and/or acetone content (lbs/gal) used at the facility. The permittee shall maintain a twelve month rolling total and each individual month's data on-site; maintained in a spreadsheet, database, or other well-organized format; made available to Department personnel upon request; and submitted to the Department in accordance with General Provision #7. The permittee shall update the records by the fifteenth day of the month following the month to which the records pertain. [Regulation 19, §19.705 and/or Regulation 18, §18.1004 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
10. The permittee shall allow no open burning of any material at this facility. There shall not be any disposal of VOC containing scrap and/or waste by evaporation or incineration. All scrap paints and solvents are classified as hazardous waste. [Regulation #23, effective March 21, 2005, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

NESHAP Requirements

11. The permittee is subject to and shall comply with 40 CFR Part 63, Subpart RRRR – National Emission Standards for Hazardous Air Pollution: Surface Coating of Metal Furniture. [Regulation 19, §19.304, 40 CFR §60.752 and 40 CFR §63.4881]
12. The permittee must limit organic HAP emissions to the atmosphere to no more than 0.10 kg organic HAP per liter (0.83 lb/gal) of coating solids used during each compliance period, determined according to the procedures in §63.4941, §63.4951, or §63.4961. [Regulation 19, §19.304 and §63.4890(c)]
13. The permittee must include all coatings, thinners, and cleaning materials used in SN-03, SN-04, and SN-11A/B when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit in §63.4890. To make this determination, the permittee must demonstrate that the organic HAP content of each coating used in the coating operation or group of coating operations is less than or equal to the applicable emission rate limit in §63.4890 and that each thinner and each cleaning material used contains no organic HAP. The permittee must meet all the requirements of §63.4940, §63.4941, and §63.4942 to demonstrate compliance with the emission limit using the compliant material option. [Regulation 19, §19.304 and §63.4890(c)]

14. The permittee must comply with the general requirements of §63.4900 for the affected sources, paint booths SN-03, 04, and 11A/B, as follows: [Regulation 19, §19.304 and §63.4900(a-b)]
 - a. Must be in compliance at all times with the emission limitations specified in §63.4890 and
 - b. Must always operate and be maintained according to the provisions in §63.6(e)(1)(i), including all air pollution control and monitoring equipment, if any, used for purposes of complying with §63.4900.
15. The permittee shall comply with all General Provisions as referenced in Table 2 of §63.1 through §63.15 which apply to SN-03, 04, and 11A/B. [Regulation 19, §19.304 and §63.4901]
16. The permittee must submit the following notifications in §63.7(b) and (c), §63.8(f)(4), and §63.9(b) through (e), (h), and (j) that apply by the dates specified in those sections, except as provided in §63.4910(b-c) below: [Subpart RRRR §63.7(b-c), §63.8(f)(4), §63.9(b-e),(h),(j) and §63.4910(b-c)]
 - a. The Initial Notification shall be submitted no later than 1 year after May 23, 2003.
 - b. The Notification of Compliance Status required by §63.9(h) shall be submitted no later than 30 calendar days following the end of the initial compliance period described in §63.4940, §63.4950, or §63.4960 that applies to SN-03, 04, and 11A/B.
 - c. The Notification of Compliance Status must contain the information specified in §63.4910 (c)(1) through (9) and the applicable information specified in §63.9(h).
17. The permittee must submit semiannual compliance reports for SN-03, SN-04, and SN-11A/B according to the requirements of §63.4920(a)(1) through (5) listed below. The semiannual compliance reporting requirements may be satisfied by reports required under other parts of the Clean Air Act (CAA), such as those detailed in §63.4920(a)(2) and must be submitted to the Department in accordance with General Provision #7: [Subpart RRRR §63.4920(a)(1-5)]
 - a. Unless the Director has approved a different schedule for submission of reports under §63.10(a), the permittee must prepare and submit each semiannual compliance report according to the dates specified in §63.4920(a)(1)(i) through (iv).
 - b. Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in §63.4920 in the 6-month monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a semiannual compliance report pursuant to §63.4920 along with, or as part of, the 6-month monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the semiannual compliance report includes all information required by the part 70 or part 71 6-month monitoring report concerning deviations from the requirements of §63.4920 as defined in §63.4981, the submission of the semiannual compliance report shall be deemed to satisfy any obligation to report the same deviation information in the part 70 or part 71 6-month monitoring report. However, in

- such situations, the 6-month monitoring report must cross-reference the semiannual compliance report, and submission of a semiannual compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permitting authority.
- c. The semiannual compliance report must contain the information specified in §63.4920(a)(3)(i) through (v), and the information specified in §63.4920(a)(4) through (7) and (c)(1) that is applicable to SN-03, SN-04, and SN-11A/B.
 - d. If there were no deviations from the emission limits, operating limits, and work practice standards in §63.4890, §63.4892, and §63.4893, respectively, that apply to the permittee, the semiannual compliance report must include an affirmative statement that there were no deviations from the emission limitations, operating limits, or work practice standards in §63.4890, §63.4892, and §63.4893 during the reporting period. If there were no deviations from the emission limitations in §63.4890, the semiannual compliance report must include the affirmative statement that is described in either §63.4942(c), §63.4952(c), or §63.4962(f), as applicable.
 - e. If the permittee used the compliant material option, and there was a deviation from the applicable emission limit in §63.4890, the semiannual compliance report must contain the information in paragraphs §63.4920(a)(5)(i) through (iv).
18. The permittee must collect and keep records of the data and information specified in §63.4930 as listed below. Failure to collect and keep these records is a deviation from the applicable standard. [Subpart RRRR §63.4930]
- a. A copy of each notification and report submitted to comply with §63.4930, and the documentation supporting each notification and report.
 - b. A current copy of information provided by materials suppliers or manufacturers. This would include information such as manufacturer's formulation data for the materials used, or test data used to determine the mass fraction of organic HAP and density for each coating, thinner, and cleaning material and the volume fraction of coating solids for each coating. If testing was conducted to determine mass fraction of organic HAP, density, or volume fraction of coating solids, the permittee must keep a copy of the complete test report. If information provided to the permittee by the manufacturer or supplier of the material that was based on testing was used, the permittee must keep the summary sheet of results provided by the manufacturer or supplier. The permittee is not required to obtain the test report or other supporting documentation from the manufacturer or supplier.
 - c. For each compliance period, the records specified in §63.4930(c)(1) through (4).
 - d. A record of the name and volume of each coating, thinner, and cleaning material used during each compliance period.
 - e. A record of the mass fraction of organic HAP for each coating, thinner, and cleaning material used during each compliance period.
 - f. A record of the volume fraction of coating solids for each coating used during each compliance period.
 - g. If a determination of density is required by the compliance option used to demonstrate compliance with the emission limit, a record of the density for each coating used during each compliance period; and, if either the emission rate

- without add-on controls or the emission rate with add-on controls compliance option was used, the density for each thinner and cleaning material used during each compliance period.
- h. If the permittee used an allowance in Equation 1 of §63.4951 for organic HAP contained in waste materials sent to or designated for shipment to a TSDF according to §63.4951(e)(4), the permittee must keep records of the information specified in §63.4930(h)(1) through (3).
 - i. The permittee must keep records of the date, time, and duration of each deviation.
19. The permittee shall meet the recordkeeping requirements of §63.4931(a) through (c) as specified below:
- a. The records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1). Where appropriate, the records may be maintained as electronic spreadsheets or as a database.
 - b. As specified in §63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
 - c. The permittee must keep each record on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You may keep these records off-site for the remaining 3 years. Records must be kept on-site pertaining to the design and manufacturer's specifications for operation of add-on control equipment for the life of the equipment. [§19.304 of Regulation 19 and §63.4931(a-c)]
20. The permittee shall meet the compliance requirements as specified in §63.4940 through §63.4942. [Regulation 19, §19.304 and §63.4940 through §63.4942]

Title VI Provisions

21. The permittee must comply with the standards for labeling of products using ozone-depleting substances. [40 CFR Part 82, Subpart E]
- a. All containers containing a class I or class II substance stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced to interstate commerce pursuant to §82.106.
 - b. The placement of the required warning statement must comply with the requirements pursuant to §82.108.
 - c. The form of the label bearing the required warning must comply with the requirements pursuant to §82.110.
 - d. No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
22. The permittee must comply with the standards for recycling and emissions reduction, except as provided for MVACs in Subpart B. [40 CFR Part 82, Subpart F]
- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.

- b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
 - c. Persons performing maintenance, service repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
 - d. Persons disposing of small appliances, MVACs, and MVAC like appliances must comply with record keeping requirements pursuant to §82.166. (“MVAC like appliance” as defined at §82.152)
 - e. Persons owning commercial or industrial process refrigeration equipment must comply with leak repair requirements pursuant to §82.156.
 - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
23. If the permittee manufactures, transforms, destroys, imports, or exports a class I or class II substance, the permittee is subject to all requirements as specified in 40 CFR Part 82, Subpart A, Production and Consumption Controls.
24. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.
- The term “motor vehicle” as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term “MVAC” as used in Subpart B does not include the air tight sealed refrigeration system used as refrigerated cargo, or the system used on passenger buses using HCFC 22 refrigerant.
25. The permittee can switch from any ozone depleting substance to any alternative listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G.

Permit Shield

26. Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements, as of the date of permit issuance, included in and specifically identified in the following table of this condition. The permit specifically identifies the following as applicable requirements based upon the information submitted by the permittee in an application dated August 7, 2007.

Applicable Regulations

Source No.	Regulation	Description
Facility	Regulation 19	Regulation of the Arkansas Plan of Implementation for Air Control, effective October 15, 2007

Source No.	Regulation	Description
Facility	Regulation 26	Regulations of the Arkansas Air Operating Air Permit Program, effective September 26, 2002
03, 04, & 11A/B	40 CFR Part 63, Subpart RRRR	NESHAP: Surface Coating of Metal Furniture

The permit specifically identifies the following as inapplicable based upon information submitted by the permittee in an application dated August 7, 2007.

Inapplicable Regulations

Source No.	Regulation	Description
Facility	40 CFR 52.21	Prevention of Significant Deterioration (PSD) of Air Quality
03 & 04, & 11A/B	40 CFR Part 60, Subpart EE	NSPS: Metal Furniture Surface Coating
Facility	40 CFR Part 63.80, Subpart JJ	NESHAP: National Emission Standards for Wood Furniture Manufacturing Operations

SECTION VII: INSIGNIFICANT ACTIVITIES

The following sources are insignificant activities. Any activity that has a state or federal applicable requirement shall be considered a significant activity even if this activity meets the criteria of §26.304 of Regulation 26 or listed in the table below. Insignificant activity determinations rely upon the information submitted by the permittee in an application dated July 24, 2008.

Description	Category
Welding Operations	A-7
Diesel Fire Water Pump	A-13
Heat & Pressure Lamination of Pre-Glued Laminates (formerly SN-07)	A-13
Stencil Ink (Labeling of Packaging Materials)	A-13

SECTION VIII: GENERAL PROVISIONS

1. Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.) as the sole origin of and authority for the terms or conditions are not required under the Clean Air Act or any of its applicable requirements, and are not federally enforceable under the Clean Air Act. Arkansas Pollution Control & Ecology Commission Regulation 18 was adopted pursuant to the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.). Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute. [40 CFR 70.6(b)(2)]
2. This permit shall be valid for a period of five (5) years beginning on the date this permit becomes effective and ending five (5) years later. [40 CFR 70.6(a)(2) and §26.701(B) of the Regulations of the Arkansas Operating Air Permit Program (Regulation 26)]
3. The permittee must submit a complete application for permit renewal at least six (6) months before permit expiration. Permit expiration terminates the permittee's right to operate unless the permittee submitted a complete renewal application at least six (6) months before permit expiration. If the permittee submits a complete application, the existing permit will remain in effect until the Department takes final action on the renewal application. The Department will not necessarily notify the permittee when the permit renewal application is due. [Regulation 26, §26.406]
4. Where an applicable requirement of the Clean Air Act, as amended, 42 U.S.C. 7401, et seq. (Act) is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, the permit incorporates both provisions into the permit, and the Director or the Administrator can enforce both provisions. [40 CFR 70.6(a)(1)(ii) and Regulation 26, §26.701(A)(2)]
5. The permittee must maintain the following records of monitoring information as required by this permit.
 - a. The date, place as defined in this permit, and time of sampling or measurements;
 - b. The date(s) analyses performed;
 - c. The company or entity performing the analyses;
 - d. The analytical techniques or methods used;
 - e. The results of such analyses; and
 - f. The operating conditions existing at the time of sampling or measurement.

[40 CFR 70.6(a)(3)(ii)(A) and Regulation 26, §26.701(C)(2)]

6. The permittee must retain the records of all required monitoring data and support information for at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. [40 CFR 70.6(a)(3)(ii)(B) and Regulation 26, §26.701(C)(2)(b)]
7. The permittee must submit reports of all required monitoring every six (6) months. If permit establishes no other reporting period, the reporting period shall end on the last day of the anniversary month of the initial Title V permit. The report is due within thirty (30) days of the end of the reporting period. Although the reports are due every six months, each report shall contain a full year of data. The report must clearly identify all instances of deviations from permit requirements. A responsible official as defined in Regulation No. 26, §26.2 must certify all required reports. The permittee will send the reports to the address below:

Arkansas Department of Environmental Quality
Air Division
ATTN: Compliance Inspector Supervisor
5301 Northshore Drive
North Little Rock, AR 72118-5317

[40 C.F.R. 70.6(a)(3)(iii)(A) and Regulation 26, §26.701(C)(3)(a)]

8. The permittee shall report to the Department all deviations from permit requirements, including those attributable to upset conditions as defined in the permit.
 - a. For all upset conditions (as defined in Regulation 19, § 19.601), the permittee will make an initial report to the Department by the next business day after the discovery of the occurrence. The initial report may be made by telephone and shall include:
 - i. The facility name and location;
 - ii. The process unit or emission source deviating from the permit limit;
 - iii. The permit limit, including the identification of pollutants, from which deviation occurs;
 - iv. The date and time the deviation started;
 - v. The duration of the deviation;
 - vi. The average emissions during the deviation;
 - vii. The probable cause of such deviations;
 - viii. Any corrective actions or preventive measures taken or being taken to prevent such deviations in the future; and
 - ix. The name of the person submitting the report.

The permittee shall make a full report in writing to the Department within five (5) business days of discovery of the occurrence. The report must include, in addition to

the information required by the initial report, a schedule of actions taken or planned to eliminate future occurrences and/or to minimize the amount the permit's limits were exceeded and to reduce the length of time the limits were exceeded. The permittee may submit a full report in writing (by facsimile, overnight courier, or other means) by the next business day after discovery of the occurrence, and the report will serve as both the initial report and full report.

- b. For all deviations, the permittee shall report such events in semi-annual reporting and annual certifications required in this permit. This includes all upset conditions reported in 8a above. The semi-annual report must include all the information as required by the initial and full reports required in 8a.

[Regulation 19, §19.601 and §19.602, Regulation 26, §26.701(C)(3)(b), and 40 CFR 70.6(a)(3)(iii)(B)]

9. If any provision of the permit or the application thereof to any person or circumstance is held invalid, such invalidity will not affect other provisions or applications hereof which can be given effect without the invalid provision or application, and to this end, provisions of this Regulation are declared to be separable and severable. [40 CFR 70.6(a)(5), Regulation 26, §26.701(E), and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
10. The permittee must comply with all conditions of this Part 70 permit. Any permit noncompliance with applicable requirements as defined in Regulation 26 constitutes a violation of the Clean Air Act, as amended, 42 U.S.C. §7401, et seq. and is grounds for enforcement action; for permit termination, revocation and reissuance, for permit modification; or for denial of a permit renewal application. [40 CFR 70.6(a)(6)(i) and Regulation 26, §26.701(F)(1)]
11. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the conditions of this permit. [40 CFR 70.6(a)(6)(ii) and Regulation 26, §26.701(F)(2)]
12. The Department may modify, revoke, reopen and reissue the permit or terminate the permit for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [40 CFR 70.6(a)(6)(iii) and Regulation 26, §26.701(F)(3)]
13. This permit does not convey any property rights of any sort, or any exclusive privilege. [40 CFR 70.6(a)(6)(iv) and Regulation 26, §26.701(F)(4)]
14. The permittee must furnish to the Director, within the time specified by the Director, any information that the Director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee must also furnish to the Director copies of

- records required by the permit. For information the permittee claims confidentiality, the Department may require the permittee to furnish such records directly to the Director along with a claim of confidentiality. [40 CFR 70.6(a)(6)(v) and Regulation 26, §26.701(F)(5)]
15. The permittee must pay all permit fees in accordance with the procedures established in Regulation 9. [40 CFR 70.6(a)(7) and Regulation 26, §26.701(G)]
 16. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes provided for elsewhere in this permit. [40 CFR 70.6(a)(8) and Regulation 26, §26.701(H)]
 17. If the permit allows different operating scenarios, the permittee shall, contemporaneously with making a change from one operating scenario to another, record in a log at the permitted facility a record of the operational scenario. [40 CFR 70.6(a)(9)(i) and Regulation 26, §26.701(I)(1)]
 18. The Administrator and citizens may enforce under the Act all terms and conditions in this permit, including any provisions designed to limit a source's potential to emit, unless the Department specifically designates terms and conditions of the permit as being federally unenforceable under the Act or under any of its applicable requirements. [40 CFR 70.6(b) and Regulation 26, §26.702(A) and (B)]
 19. Any document (including reports) required by this permit must contain a certification by a responsible official as defined in Regulation 26, §26.2. [40 CFR 70.6(c)(1) and Regulation 26, §26.703(A)]
 20. The permittee must allow an authorized representative of the Department, upon presentation of credentials, to perform the following: [40 CFR 70.6(c)(2) and Regulation 26, §26.703(B)]
 - a. Enter upon the permittee's premises where the permitted source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
 - b. Have access to and copy, at reasonable times, any records required under the conditions of this permit;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - d. As authorized by the Act, sample or monitor at reasonable times substances or parameters for assuring compliance with this permit or applicable requirements.
 21. The permittee shall submit a compliance certification with the terms and conditions contained in the permit, including emission limitations, standards, or work practices. The permittee must submit the compliance certification annually within 30 days following the

last day of the anniversary month of the initial Title V permit. The permittee must also submit the compliance certification to the Administrator as well as to the Department. All compliance certifications required by this permit must include the following: [40 CFR 70.6(c)(5) and Regulation 26, §26.703(E)(3)]

- a. The identification of each term or condition of the permit that is the basis of the certification;
 - b. The compliance status;
 - c. Whether compliance was continuous or intermittent;
 - d. The method(s) used for determining the compliance status of the source, currently and over the reporting period established by the monitoring requirements of this permit; and
 - e. Such other facts as the Department may require elsewhere in this permit or by §114(a)(3) and §504(b) of the Act.
22. Nothing in this permit will alter or affect the following: [Regulation 26, §26.704(C)]
- a. The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section;
 - b. The liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance;
 - c. The applicable requirements of the acid rain program, consistent with §408(a) of the Act; or
 - d. The ability of EPA to obtain information from a source pursuant to §114 of the Act.
23. This permit authorizes only those pollutant emitting activities addressed in this permit. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
24. The permittee may request in writing and at least 15 days in advance of the deadline, an extension to any testing, compliance or other dates in this permit. No such extensions are authorized until the permittee receives written Department approval. The Department may grant such a request, at its discretion in the following circumstances:
- a. Such an extension does not violate a federal requirement;
 - b. The permittee demonstrates the need for the extension; and
 - c. The permittee documents that all reasonable measures have been taken to meet the current deadline and documents reasons it cannot be met.
- [Regulation 18, §18.102(C-D), Regulation 19, §19.103(D), A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and CFR Part 52, Subpart E]
25. The permittee may request in writing and at least 30 days in advance, temporary emissions and/or testing that would otherwise exceed an emission rate, throughput requirement, or other limit in this permit. No such activities are authorized until the permittee receives written Department approval. Any such emissions shall be included in

the facility's total emissions and reported as such. The Department may grant such a request, at its discretion under the following conditions:

- a. Such a request does not violate a federal requirement;
- b. Such a request is temporary in nature;
- c. Such a request will not result in a condition of air pollution;
- d. The request contains such information necessary for the Department to evaluate the request, including but not limited to, quantification of such emissions and the date/time such emission will occur;
- e. Such a request will result in increased emissions less than five tons of any individual criteria pollutant, one ton of any single HAP and 2.5 tons of total HAPs; and
- f. The permittee maintains records of the dates and results of such temporary emissions/testing.

[Regulation 18, §18.102(C-D), Regulation 19, §19.103(D), A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and CFR Part 52, Subpart E]

26. The permittee may request in writing and at least 30 days in advance, an alternative to the specified monitoring in this permit. No such alternatives are authorized until the permittee receives written Department approval. The Department may grant such a request, at its discretion under the following conditions:

- a. The request does not violate a federal requirement;
- b. The request provides an equivalent or greater degree of actual monitoring to the current requirements; and
- c. Any such request, if approved, is incorporated in the next permit modification application by the permittee.

[Regulation 18, §18.102(C-D), Regulation 19, §19.103(D), A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and CFR Part 52, Subpart E]

APPENDIX A

40 CFR Part 63, Subpart RRRR – NESHAP: *Surface Coating of Metal Furniture*

e-CFR Data is current as of September 26, 2008

Title 40: Protection of Environment

~~PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES~~

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Subpart RRRR—National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Furniture

Source: 68 FR 28619, May 23, 2003, unless otherwise noted.

What This Subpart Covers

§ 63.4880 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for metal furniture surface coating facilities. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations.

§ 63.4881 Am I subject to this subpart?

(a) Except as provided in paragraph (c) of this section, the source category to which this subpart applies is surface coating of metal furniture.

(1) Surface coating is the application of coatings to a substrate using, for example, spray guns or dip tanks

(2) Metal furniture means furniture or components of furniture constructed either entirely or partially from metal. Metal furniture includes, but is not limited to, components of the following types of products as well as the products themselves: household, office, institutional, laboratory, hospital, public building, restaurant, barber and beauty shop, and dental furniture; office and store fixtures; partitions; shelving; lockers; lamps and lighting fixtures; and wastebaskets.

(b) You are subject to this subpart if you own or operate a new, reconstructed, or existing affected source as defined in §63.4882, in the source category defined in paragraph (a) of this section, and that is a major source, is located at a major source, or is part of a major source of emissions of hazardous air pollutants (HAP). 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 9.07 megagrams (Mg) (10 tons) or more per year or any combination of HAP at a rate of 22.68 Mg (25 tons) or more per year.

(c) This subpart does not apply to surface coating that meets any of the criteria of paragraphs (c)(1) through (6) of this section.

(1) Surface coating conducted at an affected source that uses only coatings, thinners, and cleaning materials that contain no organic HAP.

(2) Surface coating of metal components of wood furniture conducted in an operation that is subject to the wood furniture manufacturing NESHAP in subpart JJ of this part.

(3) Surface coating that occurs at research or laboratory facilities or that is part of janitorial, building, and facility maintenance operations.

(4) Surface coating of only small items such as knobs, hinges, or screws that have a wider use beyond metal furniture are not subject to this subpart unless the surface coating occurs at an affected metal furniture source.

(5) Surface coating of metal furniture conducted for the purpose of repairing or maintaining metal furniture used by a major source and not for commerce is not subject to this subpart, unless organic HAP emissions from the surface coating itself are as high as the rates specified in paragraph (b) of this section.

(6) Surface coating of metal furniture performed on-site at installations owned or operated by the Armed Forces of the United States (including the Coast Guard and the National Guard of any State).

§ 63.4882 What parts of my plant does this subpart cover?

(a) This subpart applies to each new, reconstructed, and existing affected source.

(b) The affected source is the collection of all of the items listed in paragraphs (b)(1) through (4) of this section that are used for surface coating of metal furniture:

(1) All coating operations as defined in §63.4981;

(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 and all pumps and piping within the affected source used for conveying coatings, thinners, and cleaning materials; and

(4) All storage containers, all pumps and piping, and all manual and automated equipment and containers within the affected source used for conveying waste materials generated by a coating operation.

(c) An affected source is a new affected source if you commenced its construction after April 24, 2002, and the construction is of a completely new metal furniture surface coating facility where previously no metal furniture surface coating facility had existed.

(d) An affected source is reconstructed if you meet the criteria as defined in §63.2.

(e) An affected source is existing if it is not new or reconstructed.

§ 63.4883 When do I have to comply with this subpart?

The date by which you must comply with this subpart is called the compliance date. The compliance date for each type of affected source is specified in paragraphs (a) through (c) of this section. The compliance date begins the initial compliance period during which you conduct the initial compliance demonstration described in §§63.4940, 63.4950, and 63.4960.

(a) For a new or reconstructed affected source, the compliance date is the applicable date in paragraph (a)(1) or (2) of this section:

(1) If the initial startup of your new or reconstructed affected source is before May 23, 2003, the compliance date is May 23, 2003.

(2) If the initial startup of your new or reconstructed affected source occurs after May 23, 2003, the compliance date is the date of initial startup of your affected source.

(b) For an existing affected source, the compliance date is the date 3 years after May 23, 2003.

(c) For an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP emissions, the compliance date is specified in paragraphs (c)(1) and (2) of this section.

(1) For any portion of the source that becomes a new or reconstructed affected source subject to this subpart, the compliance date is the date of initial startup of the affected source or May 23, 2003, whichever is later.

(2) For any portion of the source that becomes an existing affected source subject to this subpart, the compliance date is the date 1 year after the area source becomes a major source or 3 years after May 23, 2003, whichever is later.

(d) You must meet the notification requirements in §63.4910 according to the dates specified in that section and in subpart A of this part. Some of the notifications must be submitted before the compliance dates described in paragraphs (a) through (c) of this section.

Emission Limitations

§ 63.4890 What emission limits must I meet?

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(a) For a new or reconstructed affected source, you must emit no organic HAP during each compliance period, determined according to the procedures in §63.4941.

(b) *Alternative emission limit.* You may request approval from the Administrator to use an alternative new source emission limit for specific metal furniture components or type of components for which you believe the emission limit in paragraph (a) of this section cannot be achieved.

(1) Any request to use an alternative emission limit under paragraph (b) of this section must contain specific information demonstrating why no organic HAP-free coating technology can be used on the metal furniture components. The request must be based on objective criteria related to the performance or appearance requirements of the finished coating, which may include but is not limited to the criteria listed in paragraphs (b)(1)(i) through (viii) of this section.

(i) Low dried film thickness requirements (e.g., less than 0.0254 millimeters (0.001 inch)).

(ii) Flexibility requirements for parts subject to repeated bending.

(iii) Chemical resistance to withstand chemical exposure in environments such as laboratories.

(iv) Resistance to the effects of exposure to ultraviolet light.

(v) Adhesion characteristics related to the condition of the substrate.

(vi) High gloss requirements.

(vii) Custom colors such as matching the color of a corporate logo.

(viii) Non-uniform surface finishes such as an antique appearance that requires visible cracking of the dried film.

(2) If the request to use an alternative emission limit under paragraph (b) of this section is approved, the new source must meet an emission limit of 0.094 kilogram (kg) organic HAP per liter (kg/liter) (0.78 pounds per gallon (lb/gal)) coating solids used for only those components subject to the approval. All other metal furniture surface coating operations at the new source must meet the emission limit specified in paragraph (a) of this section. Until approval to use the alternative emission limit has been granted by the Administrator under this paragraph (b)(2), you must meet the emission limit specified in paragraph (a) of this section and all other applicable requirements in this subpart.

(c) For an existing affected source, you must limit organic HAP emissions to the atmosphere to no more than 0.10 kg organic HAP per liter (0.83 lb/gal) of coating solids used during each compliance period, determined according to the procedures in §63.4941, §63.4951, or §63.4961.

§ 63.4891 What are my options for demonstrating compliance with the emission limits?

You must include all coatings, thinners, and cleaning materials used in the affected source when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit in §63.4890. To make this determination, you must use at least one of the three compliance options listed in paragraphs (a) through (c) of this section. You may apply any of the compliance options to an individual coating operation or to multiple coating operations as a group or to the entire affected source. You may use different compliance options for different coating operations or at different times on the same coating operation. However, you may not use different compliance options at the same time on the same coating operation. If you switch between compliance options for any coating operation or group of coating operations, you must document this switch as required by §63.4930(c), and you must report it in the next semiannual (6-month period) compliance report required in §63.4920.

(a) *Compliant material option.* Demonstrate that the organic HAP content of each coating used in the coating operation or group of coating operations is less than or equal to the applicable emission rate limit in §63.4890 and that each thinner and each cleaning material used contains no organic HAP. You must meet all the requirements of §§63.4940, 63.4941, and 63.4942 to demonstrate compliance with the emission limit using this option.

(b) *Emission rate without add-on controls option.* Demonstrate that, based on the coatings, thinners, and cleaning materials used in the coating operation or group of coating operations, the organic HAP emission rate for the coating operation or group of coating operations is less than or equal to the applicable emission rate limit in §63.4890, calculated as a monthly emission rate. You must meet all the requirements of §§63.4950, 63.4951, and 63.4952 to demonstrate compliance with the emission rate limit using this option.

(c) *Emission rate with add-on controls option.* Demonstrate that, based on the coatings, thinners, and cleaning materials used in the coating operation or group of coating operations, and the emission reductions achieved by emission capture and add-on control systems, the organic HAP emission rate is less than or equal to the applicable emission rate limit in §63.4890, calculated as a monthly emission rate. If you use this compliance option, you must also demonstrate that all capture systems and add-on control devices for the coating operation or group of coating operations meet the operating limits required in §63.4892, except for solvent recovery systems for which you conduct liquid-liquid material balances according to §63.4961(j); and that you meet the work practice standards required in §63.4893. You must meet all the requirements of §§63.4960 through 63.4967 to demonstrate compliance with the emission limits, operating limits, and work practice standards using this option.

(d) If you choose to use the emission rate with add-on controls compliance option in paragraph (c) of this section and operate the coating operation, its emission capture system, or its add-on control device at multiple sets of representative operating conditions that result in different capture system or add-on control device efficiencies during a compliance period, you must follow one of the procedures in paragraph (d)(1) or (2) of this section.

(1) Determine the operating conditions that result in the lowest emission capture system and add-on control device efficiencies through performance testing conducted according to §§63.4963, 63.4964, and 63.4965. Use these emission capture system and add-on control device efficiencies for all representative operating conditions during the compliance period.

(2) Develop a compliance calculation procedure for determining the organic HAP emission rate for the compliance period that takes into account all of the representative operating conditions the source was operated under during the compliance period and submit the procedure to the Administrator for approval. Until you receive approval from the Administrator, you must determine compliance according to paragraph (c) of this section.

§ 63.4892 What operating limits must I meet?

(a) For any coating operation or group of coating operations for which you use the compliant material option or the emission rate without add-on controls option to demonstrate compliance, you are not required to meet any operating limits.

(b) For any coating operation or group of coating operations for which you use the emission rate with add-on controls option to demonstrate compliance, except those for which you use a solvent recovery system and conduct a liquid-liquid material balance according to §63.4961(j), you must meet the operating limits specified in Table 1 to this subpart. These operating limits apply to the emission capture and control systems on the coating operation or group of coating operations for which you use emission capture and add-on controls to demonstrate compliance. You must establish the operating limits during the performance test according to the requirements in §63.4966. You must meet the operating limits at all times after you establish them.

(c) If you use an add-on control device other than those listed in Table 1 to this subpart, or wish to monitor an alternative parameter and comply with a different operating limit, you must apply to the Administrator for approval of alternative monitoring under §63.8(f).

§ 63.4893 What work practice standards must I meet?

(a) For any coating operation or group of coating operations for which you use the compliant material option or the emission rate without add-on controls option to demonstrate compliance, you are not required to meet any work practice standards.

(b) For any coating operation or group of coating operations for which you use the emission rate with add-on controls option to demonstrate compliance, you must develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of coatings, thinners, and cleaning materials used in, and waste materials generated by, the coating operation or group of coating operations for which you use this option; or you must meet an alternative standard as provided in paragraph (c) of this section. The plan must specify practices and procedures to ensure that, at a minimum, the elements specified in paragraphs (b)(1) through (5) of this section are implemented.

(1) All organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be stored in closed containers. You must ensure that these containers are kept closed at all times except when depositing or removing these materials from the container.

(2) Spills of organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be minimized.

(3) Organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be conveyed from one location to another in closed containers or pipes.

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(4) Mixing vessels which contain organic-HAP-containing coatings and other materials must be closed except when adding to, removing, or mixing the contents.

(5) Emissions of organic HAP must be minimized during cleaning of storage, mixing, and conveying equipment.

(c) As provided in §63.6(g), the Administrator may choose to grant you permission to use an alternative to the work practice standards in this section.

General Compliance Requirements

§ 63.4900 What are my general requirements for complying with this subpart?

(a) The affected source must be in compliance at all times with the emission limitations specified in §63.4890.

(b) You must always operate and maintain your affected source, including all air pollution control and monitoring equipment you use for purposes of complying with this subpart, according to the provisions in §63.6(e)(1)(i).

(c) If your affected source uses an emission capture system and add-on control device to comply with the emission limitations in §63.4890, you must develop a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in §63.6(e)(3). The SSMP must address the startup, shutdown, and corrective actions in the event of a malfunction of the emission capture system or the add-on control device. The SSMP must also address any coating operation equipment that may cause increased emissions or that would affect capture efficiency if the process equipment malfunctions, such as conveyors that move parts among enclosures.

[68 FR 28619, May 23, 2003, as amended at 71 FR 20466, Apr. 20, 2006]

§ 63.4901 What parts of the General Provisions apply to me?

Table 2 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

Notifications, Reports, and Records

§ 63.4910 What notifications must I submit?

(a) *General.* You must submit the notifications in §§63.7(b) and (c), 63.8(f)(4), and 63.9(b) through (e), (h), and (j) that apply to you by the dates specified in those sections, except as provided in paragraphs (b) and (c) of this section.

(b) *Initial Notification.* You must submit the Initial Notification required by §63.9(b) for a new or reconstructed affected source no later than 120 days after initial startup or 120 days after May 23, 2003, whichever is later. For an existing affected source, you must submit the Initial Notification no later than 1 year after May 23, 2003.

(c) *Notification of Compliance Status.* You must submit the Notification of Compliance Status required by §63.9(h) no later than 30 calendar days following the end of the initial compliance period described in §63.4940, §63.4950, or §63.4960 that applies to your affected source. The Notification of Compliance Status must contain the information specified in paragraphs (c)(1) through (9) of this section and the applicable information specified in §63.9(h).

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the report. Such certifications must also comply with the requirements of 40 CFR 70.5(d) or 40 CFR 71.5(d).

(3) Date of the report and beginning and ending dates of the reporting period. The reporting period is the initial compliance period described in §63.4940, §63.4950, or §63.4960 that applies to your affected source.

(4) Identification of the compliance option or options specified in §63.4891 that you used on each

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coating operation in the affected source during the initial compliance period and that you will use for demonstrating continuous compliance.

(5) Statement of whether or not the affected source achieved the emission limitations for the initial compliance period.

(6) If you had a deviation, include the information in paragraphs (c)(6)(i) and (ii) of this section.

(i) A description and statement of the cause of the deviation.

(ii) If you failed to meet the applicable emission limit in §63.4890, include all the calculations you used to determine compliance. You do not need to submit information provided by material suppliers or manufacturers or test reports.

(7) For each of the data items listed in paragraphs (c)(7)(i) through (iv) of this section that is required by the compliance option(s) you used to demonstrate compliance with the emission limit, include an example of how you determined the value, including calculations and supporting data. Supporting data can include a copy of the information provided by the supplier or manufacturer of the example coating or material or a summary of the results of testing conducted according to §63.4941(a), (b), or (c). You do not need to submit copies of any test reports.

(i) Mass fraction of organic HAP for one coating, for one thinner, and for one cleaning material.

(ii) Volume fraction of coating solids for one coating.

(iii) Density for one coating, one thinner, and one cleaning material, except that if you use the compliant material option, only the example coating density is required.

(iv) The amount of waste materials and the mass of organic HAP contained in the waste materials for which you are claiming an allowance in Equation 1 of §63.4951.

(8) The calculation of the organic HAP emission rate for the compliance option(s) you used, as specified in paragraphs (c)(8)(i) through (iii) of this section.

(i) For the compliant materials option, provide an example calculation of the organic HAP content for one coating, using Equation 2 of §63.4941.

(ii) For the emission rate without add-on controls option, provide the information specified in paragraphs (c)(8)(ii)(A) through (C) of this section.

(A) The calculation of the total mass of organic HAP emissions during the initial compliance period, using Equation 1 of §63.4951.

(B) The calculation of the total volume of coating solids used during the initial compliance period, using Equation 2 of §63.4951.

(C) The calculation of the organic HAP emission rate for the initial compliance period, using Equation 3 of §63.4951.

(iii) For the emission rate with add-on controls option, provide the information specified in paragraphs (c)(8)(iii)(A) through (D) of this section.

(A) The calculation of the total mass of organic HAP emissions for the coatings, thinners, and cleaning materials used during the initial compliance period, using Equation 1 of §63.4951.

(B) The calculation of the total volume of coating solids used during the initial compliance period, using Equation 2 of §63.4951.

(C) The calculation of the mass of organic HAP emission reduction during the initial compliance period by emission capture systems and add-on control devices, using Equation 1 of §63.4961, and the calculation of the mass of organic HAP emission reduction for the coating operations controlled by solvent recovery systems during each compliance period, using Equation 3 of §63.4961 as applicable.

(D) The calculation of the organic HAP emission rate for the initial compliance period, using Equation 4 of §63.4961.

(9) For the emission rate with add-on controls option, you must include the information specified in paragraphs (c)(9)(i) through (v) of this section. However, the requirements in paragraphs (c)(9)(i)

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through (iii) of this section do not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to §63.4961(j).

(i) For each emission capture system, a summary of the data and copies of the calculations supporting the determination that the emission capture system is a permanent total enclosure (PTE) 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, and any calculations supporting the capture efficiency determination. If you use the data quality objective (DQO) or lower confidence limit (LCL) approach, you must also include the statistical calculations to show you meet the DQO or LCL criteria in appendix A to subpart KK of this part. You do not need to submit complete test reports.

(ii) A summary of the results of each add-on control device performance test. You do not need to submit complete test reports.

(iii) A list of each emission capture system's and add-on control device's operating limits and a summary of the data used to calculate those limits.

(iv) A statement of whether or not you developed and implemented the work practice plan required by §63.4893.

(v) A statement of whether or not you developed and implemented the SSMP required by §63.4900.

§ 63.4920 What reports must I submit?

(a) *Semiannual compliance reports.* You must submit semiannual compliance reports for each affected source according to the requirements of paragraphs (a)(1) through (7) of this section. The semiannual compliance reporting requirements may be satisfied by reports required under other parts of the Clean Air Act (CAA), such as those detailed in paragraph (a)(2) of this section.

(1) *Dates.* Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must prepare and submit each semiannual compliance report according to the dates specified in paragraphs (a)(1)(i) through (iv) of this section.

(i) The first semiannual compliance report must cover the first semiannual reporting period which begins the day after the end of the initial compliance period described in §63.4940, §63.4950, or §63.4960 that applies to your affected source and ends on June 30 or December 31, whichever occurs first following the end of the initial compliance period.

(ii) Each subsequent semiannual compliance report must cover the subsequent semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(iii) 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.

(iv) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting 6-month monitoring reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent semiannual compliance reports according to the dates the permitting authority has established for the 40 CFR part 70 or 40 CFR part 71 6-month monitoring reports instead of according to the dates specified in paragraph (a)(1)(iii) of this section. However, under no circumstances shall the semiannual compliance report be submitted more than 30 days after the end of the semiannual reporting period established in paragraphs (a)(1)(i) and (ii) of this section.

(2) *Inclusion with title V report.* Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in this subpart in the 6-month monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a semiannual compliance report pursuant to this section along with, or as part of, the 6-month monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the semiannual compliance report includes all information required by the part 70 or part 71 6-month monitoring report concerning deviations from the requirements of this subpart as defined in §63.4981, the submission of the semiannual compliance report shall be deemed to satisfy any obligation to report the same deviation information in the part 70 or part 71 6-month monitoring report. However, in such situations, the 6-month monitoring report must cross-reference the semiannual compliance report, and submission of a semiannual compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permitting authority.

(3) *General requirements.* The semiannual compliance report must contain the information specified in paragraphs (a)(3)(i) through (v) of this section, and the information specified in paragraphs (a)(4)

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through (7) and (c)(1) of this section that is applicable to your affected source.

(i) Company name and address.

(ii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the report. Such certifications must also comply with the requirements of 40 CFR 70.5(d) or 40 CFR 71.5(d).

(iii) Date of report and beginning and ending dates of the reporting period. The reporting period is the 6-month period ending on June 30 or December 31.

(iv) Identification of the compliance option or options specified in §63.4891 that you used on each coating operation during the reporting period. If you switched between compliance options during the reporting period, you must report the beginning and ending dates you used each option.

(v) If you used the emission rate without add-on controls or the emission rate with add-on controls compliance option (§63.4891(b) or (c)), the calculation results for each organic HAP emission rate for each compliance period ending in the 6-month reporting period.

(4) *No deviations.* If there were no deviations from the emission limits, operating limits, and work practice standards in §§63.4890, 63.4892, and 63.4893, respectively, that apply to you, the semiannual compliance report must include an affirmative statement that there were no deviations from the emission limitations, operating limits, or work practice standards in §§63.4890, 63.4892, and 63.4893 during the reporting period. If there were no deviations from the emission limitations in §63.4890, the semiannual compliance report must include the affirmative statement that is described in either §63.4942(c), §63.4952(c), or §63.4962(f), as applicable. If you used the emission rate with add-on controls option and there were no periods during which the continuous parameter monitoring systems (CPMS) were out-of-control as specified in §63.8(c)(7), the semiannual compliance report must include a statement that there were no periods during which the CPMS were out-of-control during the reporting period as specified in §63.8(c)(7).

(5) *Deviations: compliant material option.* If you used the compliant material option, and there was a deviation from the applicable emission limit in §63.4890, the semiannual compliance report must contain the information in paragraphs (a)(5)(i) through (iv) of this section.

(i) Identification of each coating used that deviated from the emission limit, and of each thinner and cleaning material used that contained organic HAP, and the dates and time periods each was used.

(ii) The calculation of the organic HAP content for each coating identified in paragraph (a)(5)(i) of this section, using Equation 2 of §63.4941. You do not need to submit background data supporting this calculation, for example, information provided by materials suppliers or manufacturers, or test reports.

(iii) The determination of mass fraction of organic HAP for each coating, thinner, and cleaning material identified in paragraph (a)(5)(i) of this section. You do not need to submit background data supporting this calculation, for example, information provided by materials suppliers or manufacturers, or test reports.

(iv) A statement of the cause of each deviation.

(6) *Deviations: emission rate without add-on controls option.* If you used the emission rate without add-on controls option, and there was a deviation from any applicable emission limit in §63.4890, the semiannual compliance report must contain the information in paragraphs (a)(6)(i) through (v) of this section. You do not need to submit background data supporting these calculations, for example, information provided by materials suppliers or manufacturers, or test reports.

(i) The beginning and ending dates of each compliance period during which the organic HAP emission rate exceeded the applicable emission limit in §63.4890.

(ii) The calculation of the total mass of organic HAP emissions for each month, using Equations 1 of §63.4951.

(iii) The calculation of the total volume of coating solids used each month, using Equation 2 of §63.4951.

(iv) The calculation of the organic HAP emission rate for each month, using Equation 3 of §63.4951.

(v) A statement of the cause of each deviation.

(7) *Deviations: emission rate with add-on controls option.* If you used the emission rate with add-on controls option, and there was a deviation from any applicable emission limitation (including any periods

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when emissions bypassed the add-on control device and were diverted to the atmosphere), the semiannual compliance report must contain the information in paragraphs (a)(7)(i) through (xvii) of this section. This includes periods of startup, shutdown, and malfunction during which deviations occurred. You do not need to submit background data supporting these calculations, for example, information provided by materials suppliers or manufacturers, or test reports.

(i) The beginning and ending dates of each compliance period during which the organic HAP emission rate exceeded the applicable emission limit in §63.4890.

(ii) The calculation of the total mass of organic HAP emissions for the coatings, thinners, and cleaning materials used during each month, using Equation 1 of §63.4951 and, if applicable, the calculation used to determine the total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste treatment, storage, and disposal facility (TSDF) for treatment or disposal during each compliance period, according to §63.4951(e)(4).

(iii) The calculation of the total volume of coating solids used, using Equation 2 of §63.4951.

(iv) The calculation of the mass of organic HAP emission reduction each month by emission capture systems and add-on control devices, using Equation 1 of §63.4961, and Equation 3 of §63.4961 for the calculation of the mass of organic HAP emission reduction for the coating operation controlled by solvent recovery systems each compliance period, as applicable.

(v) The calculation of the organic HAP emission rate for each compliance period, using Equation 4 of §63.4961.

(vi) The date and time that each malfunction started and stopped.

(vii) A brief description of the CPMS.

(viii) The date of the latest CPMS certification or audit.

(ix) The date and time that each CPMS was inoperative, except for zero (low-level) and high-level checks.

(x) The date, time, and duration that each CPMS was out-of-control, including the information in §63.8(c)(8).

(xi) The date and time period of each deviation from an operating limit in Table 1 to this subpart; date and time period of any bypass of the add-on control device; and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(xii) A summary of the total duration of each deviation from an operating limit in Table 1 to this subpart and each bypass of the add-on control device during the semiannual reporting period and the total duration as a percent of the total affected source operating time during that semiannual reporting period.

(xiii) A breakdown of the total duration of the deviations from the operating limits in Table 1 to this subpart and bypasses of the add-on control device during the semiannual reporting period into those that were due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(xiv) A summary of the total duration of CPMS downtime during the semiannual reporting period and the total duration of CPMS downtime as a percent of the total affected source operating time during that semiannual reporting period.

(xv) A description of any changes in the CPMS, coating operation, emission capture system, or add-on control device since the last semiannual reporting period.

(xvi) For each deviation from the work practice standards, a description of the deviation; the date and time period of the deviation; and the actions you took to correct the deviation.

(xvii) A statement of the cause of each deviation.

(b) *Performance test reports.* If you use the emission rate with add-on controls option, you must submit reports of performance test results for emission capture systems and add-on control devices no later than 60 days after completing the tests as specified in §63.10(d)(2).

(c) *Startup, shutdown, and malfunction reports.* If you used the emission rate with add-on controls option and you had a startup, shutdown, or malfunction during the semiannual reporting period, you must

submit the reports specified in paragraphs (c)(1) and (2) of this section.

(1) If your actions were consistent with your SSMP, you must include the information specified in §63.10(d)(5) in the semiannual compliance report required by paragraph (a) of this section.

(2) If your actions were not consistent with your SSMP, you must submit an immediate startup, shutdown, and malfunction report as described in paragraphs (c)(2)(i) and (ii) of this section.

(i) You must describe the actions taken during the event in a report delivered by facsimile, telephone, or other means to the Administrator within 2 working days after starting actions that are inconsistent with the plan.

(ii) You must submit a letter to the Administrator within 7 working days after the end of the event, unless you have made alternative arrangements with the Administrator as specified in §63.10(d)(5)(ii). The letter must contain the information specified in §63.10(d)(5)(ii).

§ 63.4930 What records must I keep?

You must collect and keep records of the data and information specified in this section. Failure to collect and keep these records is a deviation from the applicable standard.

(a) A copy of each notification and report that you submitted to comply with this subpart, and the documentation supporting each notification and report.

(b) A current copy of information provided by materials suppliers or manufacturers. This would include records pertaining to the design and manufacturer's specifications for the life of the add-on control equipment. It would also include information such as manufacturer's formulation data for the materials used, or test data used to determine the mass fraction of organic HAP and density for each coating, thinner, and cleaning material and the volume fraction of coating solids for each coating. If you conducted testing to determine mass fraction of organic HAP, density, or volume fraction of coating solids, you must keep a copy of the complete test report. If you use information provided to you by the manufacturer or supplier of the material that was based on testing, you must keep the summary sheet of results provided to you by the manufacturer or supplier. You are not required to obtain the test report or other supporting documentation from the manufacturer or supplier.

(c) For each compliance period, the records specified in paragraphs (c)(1) through (4) of this section.

(1) A record of the coating operations at which you used each compliance option and the time periods (beginning and ending dates and times) you used each option.

(2) For the compliant material option, a record of the calculation of the organic HAP content for each coating, using Equation 2 of §63.4941.

(3) For the emission rate without add-on controls option, a record of the calculation of the total mass of organic HAP emissions for the coatings, thinners, and cleaning materials used during each compliance period, using Equation 1 of §63.4951 and, if applicable, the calculation used to determine the total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during each compliance period, according to §63.4951(e)(4); the calculation of the total volume of coating solids used during each compliance period, using Equation 2 of §63.4951; and the calculation of the organic HAP emission rate for each compliance period, using Equation 3 of §63.4951.

(4) For the emission rate with add-on controls option, records of the calculations specified in paragraphs (c)(4)(i) through (iv) of this section.

(i) The calculation of the total mass of organic HAP emissions for the coatings, thinners, and cleaning materials used during each compliance period, using Equation 1 of §63.4951 and, if applicable, the calculation used to determine the total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during each compliance period, according to §63.4951(e)(4);

(ii) The calculation of the total volume of coating solids used during each compliance period, using Equation 2 of §63.4951;

(iii) The calculation of the mass of organic HAP emission reduction by emission capture systems and add-on control devices, using Equation 1 of §63.4961, and the calculation of the mass of organic HAP emission reduction for the coating operation controlled by a solvent recovery system during the compliance period, using Equation 3 of §63.4961, as applicable;

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- (iv) The calculation of the organic HAP emission rate for each compliance period, using Equation 4 of §63.4961.
- (d) A record of the name and volume of each coating, thinner, and cleaning material used during each compliance period.
- (e) A record of the mass fraction of organic HAP for each coating, thinner, and cleaning material used during each compliance period.
- (f) A record of the volume fraction of coating solids for each coating used during each compliance period.
- (g) If a determination of density is required by the compliance option(s) you used to demonstrate compliance with the emission limit, a record of the density for each coating used during each compliance period; and, if you use either the emission rate without add-on controls or the emission rate with add-on controls compliance option, the density for each thinner and cleaning material used during each compliance period.
- (h) If you use an allowance in Equation 1 of §63.4951 for organic HAP contained in waste materials sent to or designated for shipment to a TSDF according to §63.4951(e)(4), you must keep records of the information specified in paragraphs (h)(1) through (3) of this section.
- (1) The name and address of each TSDF to which you sent waste materials for which you use an allowance in Equation 1 of §63.4951, a statement of which subparts under 40 CFR parts 262, 264, 265, and 266 apply to the facility, and the date of each shipment.
- (2) Identification of the coating operations producing waste materials included in each shipment and the month or months in which you used the allowance for these materials in Equation 1 of §63.4951.
- (3) The methodology used in accordance with §63.4951(e)(4) to determine the total amount of waste materials sent to or the amount collected, stored, and designated for transport to a TSDF each month; and the methodology to determine the mass of organic HAP contained in these waste materials. This must include the sources for all data used in the determination, methods used to generate the data, frequency of testing or monitoring, and supporting calculations and documentation, including the waste manifest for each shipment.
- (i) [Reserved]
- (j) You must keep records of the date, time, and duration of each deviation.
- (k) If you use the emission rate with add-on controls option, you must keep the records specified in paragraphs (k)(1) through (8) of this section.
- (1) For each deviation, a record of whether the deviation occurred during a period of startup, shutdown, or malfunction.
- (2) The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.
- (3) The records required to show continuous compliance with each operating limit specified in Table 1 to this subpart that applies to you.
- (4) For each capture system that is a PTE, the data and documentation you used to support a determination that the capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and has a capture efficiency of 100 percent, as specified in §63.4964(a).
- (5) For each capture system that is not a PTE, the data and documentation you used to determine capture efficiency according to the requirements specified in §§63.4963 and 63.4964(b) through (e), including the records specified in paragraphs (k)(5)(i) through (iii) of this section that apply to you.
- (i) *Records for a liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure.* Records of the mass of total volatile hydrocarbon (TVH) as measured by Method 204A or F of appendix M to 40 CFR part 51 for each material used in the coating operation, and the total TVH for all materials used, during each capture efficiency test run, including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run, as measured by Method 204D or E of appendix M to 40 CFR part 51, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a temporary total enclosure or a building enclosure.

(ii) *Records for a gas-to-gas protocol using a temporary total enclosure or a building enclosure.* Records of the mass of TVH emissions captured by the emission capture system as measured by Method 204B or C of appendix M to 40 CFR part 51 at the inlet to the add-on control device, including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run, as measured by Method 204D or E of appendix M to 40 CFR part 51, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a temporary total enclosure or a building enclosure.

(iii) *Records for an alternative protocol.* Records needed to document a capture efficiency determination using an alternative method or protocol as specified in §63.4964(e), if applicable.

(6) The records specified in paragraphs (k)(6)(i) and (ii) of this section for each add-on control device organic HAP destruction or removal efficiency determination as specified in §63.4965.

(i) Records of each add-on control device performance test conducted according to §§63.4963 and 63.4965.

(ii) Records of the coating operation conditions during the add-on control device performance test showing that the performance test was conducted under representative operating conditions.

(7) Records of the data and calculations you used to establish the emission capture and add-on control device operating limits as specified in §63.4966 and to document compliance with the operating limits as specified in Table 1 to this subpart.

(8) A record of the work practice plan required by §63.4893 and documentation that you are implementing the plan on a continuous basis.

§ 63.4931 In what form and for how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1). Where appropriate, the records may be maintained as electronic spreadsheets or as a database.

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You may keep these records off-site for the remaining 3 years. You must keep records on-site pertaining to the design and manufacturer's specifications for operation of add-on control equipment for the life of the equipment.

Compliance Requirements for the Compliant Material Option

§ 63.4940 By what date must I conduct the initial compliance demonstration?

You must complete the initial compliance demonstration for the initial compliance period according to the requirements in §63.4941. The initial compliance period begins on the applicable compliance date specified in §63.4883 and ends on the last day of the first full month following the compliance date. The initial compliance demonstration includes the calculations according to §63.4941 and supporting documentation showing that, during the initial compliance period, you used no coating with an organic HAP content that exceeded the applicable emission limit in §63.4890, and you used no thinners or cleaning materials that contained organic HAP.

§ 63.4941 How do I demonstrate initial compliance with the emission limitations?

You may use the compliant material option for any individual coating operation, for any group of coating operations in the affected source, or for all the coating operations in the affected source to demonstrate compliance with an organic HAP emission limit. You must use either the emission rate without add-on controls option or the emission rate with add-on controls option for any coating operation in the affected source for which you do not use this option. To demonstrate initial compliance using the compliant material option, during the compliance period the coating operation or group of coating operations must use no coating with an organic HAP content that exceeds the applicable emission limit in §63.4890 and must use no thinner or cleaning material that contains organic HAP as determined according to this section. Any coating operation for which you use the compliant material option is not required to comply

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with the operating limits or work practice standards required in §§63.4892 and 63.4893, respectively. To demonstrate initial compliance with the emission limitations using the compliant material option, you must meet all the requirements of this section for the coating operation or group of coating operations using this option. Use the procedures in this section for each coating, thinner, and cleaning material in the condition it is in when it is received from its manufacturer or supplier and prior to any alteration. You do not need to redetermine the organic HAP content of cleaning materials that are reclaimed and reused onsite provided these materials in their condition as received were demonstrated to comply with the compliant material option.

(a) *Determine the mass fraction of organic HAP for each material used.* You must determine the mass fraction of organic HAP for each coating, thinner, and cleaning material used during the compliance period by using one of the options in paragraphs (a)(1) through (5) of this section.

(1) *Method 311 (appendix A to 40 CFR part 63).* You may use Method 311 for determining the mass fraction of organic HAP. Use the procedures specified in paragraphs (a)(1)(i) and (ii) of this section when performing a Method 311 test.

(i) Count each organic HAP that is measured to be present at 0.1 percent by mass or more for Occupational Safety and Health Administration (OSHA)-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other organic HAP compounds. For example, if toluene (not an OSHA carcinogen) is measured to be 0.5 percent of the material by mass, you do not have to count it. Express the mass fraction of each organic HAP you count as a value truncated to four places after the decimal point (for example, 0.3791).

(ii) Calculate the total mass fraction of organic HAP in the test material by adding up the individual organic HAP mass fractions and truncating the result to three places after the decimal point (for example, 0.763).

(2) *Method 24 (appendix A to 40 CFR part 60).* For coatings, you may use Method 24 to determine the mass fraction of nonaqueous volatile matter and use that value as a substitute for mass fraction of organic HAP.

(3) *Alternative method.* You may use an alternative test method for determining the mass fraction of organic HAP once the Administrator has approved it. You must follow the procedure in §63.7(f) to submit an alternative test method for approval.

(4) *Information from the supplier or manufacturer of the material.* You may rely on information other than that generated by the test methods specified in paragraphs (a)(1) through (3) of this section, such as manufacturer's formulation data, if it represents each organic HAP that is present at 0.1 percent by mass or more for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other organic HAP compounds. For example, if toluene (not an OSHA carcinogen) is 0.5 percent of the material by mass, you do not have to count it. If there is a disagreement between such information and results of a test conducted according to paragraphs (a)(1) through (3) of this section, then the test method results will take precedence.

(5) *Solvent blends.* Solvent blends may be listed as single components for some materials in data provided by manufacturers or suppliers. Solvent blends may contain organic HAP which must be counted toward the total organic HAP mass fraction of the materials. When test data and manufacturer's data for solvent blends are not available, you may use the default values for the mass fraction of organic HAP in these solvent blends listed in Table 3 or 4 to this subpart. If you use the tables, you must use the values in Table 3 for all solvent blends that match Table 3 entries, and you may only use Table 4 if the solvent blends in the materials you use do not match any of the solvent blends in Table 3, and you only know whether the blend is aliphatic or aromatic. However, if the results of a Method 311 test indicate higher values than those listed on Table 3 or 4 of this subpart, the Method 311 results will take precedence.

(b) *Determine the volume fraction of coating solids for each coating.* You must determine the volume fraction of coating solids (liters of coating solids per liter of coating) for each coating used during the compliance period by a test or by information provided by the supplier or the manufacturer of the material, as specified in paragraphs (b)(1), (2), and (3) of this section. If test results obtained according to paragraph (b)(1) of this section do not agree with the information obtained under paragraph (b)(2) or (3) of this section, the test results will take precedence.

(1) *Test results.* You may use ASTM Method D2697-86 (Reapproved 1998), "Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings" (incorporated by reference, see §63.14), or D6093-97, "Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer" (incorporated by reference, see §63.14), to determine the volume fraction of coating solids for each coating. Divide the nonvolatile volume percent obtained with the methods by 100 to calculate volume fraction of coating solids. Alternatively, you may use another test method once you obtain approval from the Administrator according to the requirements of §63.7(f).

(2) *Information from the supplier or manufacturer of the material.* You may obtain the volume fraction of

coating solids for each coating from the supplier or manufacturer.

(3) *Calculation of volume fraction of coating solids.* If the volume fraction of coating solids cannot be determined using the options in paragraphs (b)(1) and (2) of this section, you must determine it using Equation 1 of this section:

$$V_s = 1 - \frac{M_{\text{volatiles}}}{D_{\text{avg}}} \quad (\text{Eq. 1})$$

Where:

V_s = Volume fraction of coating solids, liters coating solids per liter coating.

$M_{\text{volatiles}}$ = Total volatile matter content of the coating, including HAP, volatile organic compounds (VOC), water, and exempt compounds, determined according to Method 24 in appendix A of 40 CFR part 60, grams volatile matter per liter coating.

D_{avg} = Average density of volatile matter in the coating, grams volatile matter per liter volatile matter, determined from test results using ASTM Method D1475–90, information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If there is disagreement between ASTM Method D1475–90 test results and other information sources, the test results will take precedence.

(c) *Determine the density of each coating.* You must determine the density of each coating used during the compliance period from test results using ASTM Method D1475–90 or information from the supplier or manufacturer of the material. If there is disagreement between ASTM Method D1475–90 test results and the supplier's or manufacturer's information, the test results will take precedence.

(d) *Calculate the organic HAP content of each coating.* Calculate the organic HAP content, kg organic HAP per liter coating solids, of each coating used during the compliance period, using Equation 2 of this section, except that if the mass fraction of organic HAP in the coating equals zero, then the organic HAP content also equals zero and you are not required to use Equation 2 to calculate the organic HAP content.

$$H_c = \frac{(D_c)(W_c)}{V_s} \quad (\text{Eq. 2})$$

Where:

H_c = Organic HAP content of the coating, kg organic HAP per liter coating solids.

D_c = Density of coating, kg coating per liter coating, determined according to paragraph (c) of this section.

W_c = Mass fraction of organic HAP in the coating, kg organic HAP per kg coating, determined according to paragraph (a) of this section.

V_s = Volume fraction of coating solids, liter coating solids per liter coating, determined according to paragraph (b) of this section.

(e) *Compliance demonstration.* The calculated organic HAP content for each coating used during the initial compliance period must be less than or equal to the applicable emission limit in §63.4890 and each thinner and cleaning material used during the initial compliance period must contain no organic HAP, determined according to paragraph (a) of this section. You must keep all records required by

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§§63.4930 and 63.4931. As part of the Notification of Compliance Status required in §63.4910(c) and the semiannual compliance reports required in §63.4920, you must identify each coating operation and group of coating operations for which you used the compliant material option. If there were no deviations from the emission limit, include a statement that each was in compliance with the emission limitations during the initial compliance period because it used no coatings for which the organic HAP content exceeded the applicable emission limit in §63.4890, and it used no thinners or cleaning materials that contained organic HAP.

§ 63.4942 How do I demonstrate continuous compliance with the emission limitations?

(a) Following the initial compliance period, you must complete a compliance demonstration according to the requirements in §63.4941(e) for each subsequent compliance period. Each month following the initial compliance period described in §63.4940 is a compliance period.

(b) If you choose to comply with the emission limitations by using the compliant material option, the use of any coating, thinner, or cleaning material that does not meet the criteria specified in paragraph (a) of this section is a deviation from the emission limitations that must be reported as specified in §§63.4910 (c)(6) and 63.4920(a)(5).

(c) As part of each semiannual compliance report required by §63.4920, you must identify the coating operation or group of coating operations for which you used the compliant material option. If there were no deviations from the emission limits in §63.4890, submit an affirmative statement that the coating operation or group of coating operations was in compliance with the emission limitations during the reporting period because you used no coating for which the organic HAP content exceeded the applicable emission limit in §63.4890, and you used no thinner or cleaning material that contained organic HAP.

(d) You must maintain records as specified in §§63.4930 and 63.4931.

Compliance Requirements for the Emission Rate Without Add-On Controls Option

§ 63.4950 By what date must I conduct the initial compliance demonstration?

You must complete the initial compliance demonstration for the initial compliance period according to the requirements of §63.4951. The initial compliance period begins on the applicable compliance date specified in §63.4883 and ends on the last day of the first full month following the compliance date. The initial compliance demonstration includes the calculations showing that the organic HAP emission rate for the initial compliance period was equal to or less than the applicable emission limit in §63.4890.

§ 63.4951 How do I demonstrate initial compliance with the emission limitations?

You may use the emission rate without add-on controls option for any individual coating operation, for any group of coating operations in the affected source, or for all the coating operations in the affected source to demonstrate compliance with an organic HAP emission limit. You must use either the compliant material option or the emission rate with add-on controls option for any coating operation in the affected source for which you do not use this option. To demonstrate initial compliance using the emission rate without add-on controls option, the coating operation or group of coating operations must comply with the applicable emission limit in §63.4890, but is not required to meet the operating limits or work practice standards in §§63.4892 and 63.4893, respectively. You must meet all the requirements of this section to demonstrate initial compliance with the applicable emission limit in §63.4890 for the coating operation or group of coating operations. When calculating the organic HAP emission rate according to this section, do not include any coatings, thinners, or cleaning materials used on coating operations for which you use the compliant material option or the emission rate with add-on controls option. You do not need to include organic HAP in coatings, thinners, or cleaning materials that have been reclaimed onsite and reused in the coating operation for which you use the emission rate without add-on controls option.

(a) *Determine the mass fraction of organic HAP for each material.* You must determine the mass fraction of organic HAP for each coating, thinner, and cleaning material used during the compliance period according to the requirements in §63.4941(a).

(b) *Determine the volume fraction of coating solids for each coating.* You must determine the volume fraction of coating solids for each coating used during the compliance period according to the requirements in §63.4941(b).

(c) *Determine the density of each material.* You must determine the density of each coating, thinner, and cleaning material used during the compliance period according to the requirements in §63.4941(c) from test results using ASTM Method D1475-90, information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If there is disagreement between ASTM Method D1475-90 test results and such other information sources, the test results will take precedence.

(d) *Determine the volume of each material used.* You must determine the volume (liters) of each coating, thinner, and cleaning material used during the compliance period by measurement or usage records.

(e) *Calculate the mass of organic HAP emissions.* The mass of organic HAP emissions is the combined mass of organic HAP contained in all coatings, thinners, and cleaning materials used during the compliance period minus the organic HAP in certain waste materials. Use Equation 1 of this section to calculate the mass of organic HAP emissions:

$$H_e = A + B + C - R_w \quad (\text{Eq. 1})$$

Where:

H_e = Total mass of organic HAP emissions during the compliance period, kg.

A = Total mass of organic HAP in the coatings used during the compliance period, kg, as calculated in Equation 1A of this section.

B = Total mass of organic HAP in the thinners used during the compliance period, kg, as calculated in Equation 1B of this section.

C = Total mass of organic HAP in the cleaning materials used during the compliance period, kg, as calculated in Equation 1C of this section.

R_w = Total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSD for treatment or disposal during the compliance period, kg, determined according to paragraph (e)(4) of this section. The mass of any waste material reused during the same compliance period may not be included in R_w . (You may assign a value of zero to R_w if you do not wish to use this allowance.)

(1) Calculate the mass of organic HAP in the coatings used during the compliance period, using Equation 1A of this section:

$$A = \sum_{i=1}^m (\text{Vol}_{c,i}) (D_{c,i}) (W_{c,i}) \quad (\text{Eq. 1A})$$

Where:

A = Total mass of organic HAP in the coatings used during the compliance period, kg.

$\text{Vol}_{c,i}$ = Total volume of coating, i , used during the compliance period, liters.

$D_{c,i}$ = Density of coating, i , kg coating per liter coating.

$W_{c,i}$ = Mass fraction of organic HAP in coating, i , kg organic HAP per kg coating.

m = Number of different coatings used during the compliance period.

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(2) Calculate the mass of organic HAP in the thinners used during the compliance period, using Equation 1B of this section:

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

Where:

B = Total mass of organic HAP in the thinners used during the compliance period, kg.

$\text{Vol}_{t,j}$ = Total volume of thinner, j, used during the compliance period, liters.

$D_{t,j}$ = Density of thinner, j, kg per liter.

$W_{t,j}$ = Mass fraction of organic HAP in thinner, j, kg organic HAP per kg thinner.

n = Number of different thinners used during the compliance period.

(3) Calculate the mass of organic HAP in the cleaning materials used during the compliance period using Equation 1C of this section:

$$C = \sum_{k=1}^p (\text{Vol}_{s,k}) (D_{s,k}) (W_{s,k}) \quad (\text{Eq. 1C})$$

Where:

C = Total mass of organic HAP in the cleaning materials used during the compliance period, kg.

$\text{Vol}_{s,k}$ = Total volume of cleaning material, k, used during the compliance period, liters.

$D_{s,k}$ = Density of cleaning material, k, kg per liter.

$W_{s,k}$ = Mass fraction of organic HAP in cleaning material, k, kg organic HAP per kg material.

p = Number of different cleaning materials used during the compliance period.

(4) If you choose to account for the mass of organic HAP contained in waste materials sent or designated for shipment to a hazardous waste TSDF in the calculation of the total mass of organic HAP emissions during the compliance period in Equation 1 of this section, then you must determine the total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during each compliance period, according to paragraphs (e)(4)(i) through (iv) of this section.

(i) You may include in the determination of the total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during each compliance period only waste materials that are generated by coating operations for which you use Equation 1 of this section and that will be treated or disposed of by a facility regulated as a TSDF under 40 CFR part 262, 264, 265, or 266. The TSDF may be either off-site or on-site. You may not include in the determination of the total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during each compliance period only waste materials that are generated by coating operations the organic HAP contained in wastewater, nor the organic HAP contained in any waste material reused during the same compliance period.

(ii) You must determine either the amount of the waste materials sent to a TSDF during the compliance period or the amount collected and stored during the compliance period and designated for future transport to a TSDF. Do not include in your determination of the total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during each compliance period only waste materials that are generated by coating operations any waste materials sent to a TSDF during a compliance period if you have already included them in the amount collected and stored during that or a previous compliance period.

(iii) Determine the total mass of organic HAP contained in the waste materials specified in paragraph (e)(4)(ii) of this section.

(iv) You must document your methodology to determine the amount of waste materials and the total mass of organic HAP they contain, as required in §63.4930(h). To the extent that waste manifests include this information, they may be used as part of the documentation of the amount of waste materials and mass of organic HAP contained in them.

(f) *Calculate the total volume of coating solids used.* Calculate the total volume of coating solids used, which is the combined volume of coating solids for all the coatings used during the compliance period, using Equation 2 of this section:

$$V_{st} = \sum_{i=1}^m (Vol_{c,i})(V_{s,i}) \quad (\text{Eq. 2})$$

Where:

V_{st} = Total volume of coating solids used during the compliance period, liters.

$Vol_{c,i}$ = Total volume of coating, i, used during the compliance period, liters.

$V_{s,i}$ = Volume fraction of coating solids for coating, i, liter solids per liter coating, determined according to §63.4941(b).

m = Number of coatings used during the compliance period.

(g) *Calculate the organic HAP emission rate.* Calculate the organic HAP emission rate for the compliance period, kg organic HAP per liter coating solids used, using Equation 3 of this section:

$$H_{avg} = \frac{H_e}{V_{st}} \quad (\text{Eq. 3})$$

Where:

H_{avg} = Organic HAP emission rate for the compliance period, kg organic HAP per liter coating solids.

H_e = Total mass of organic HAP emissions from all materials used during the compliance period, kg, as calculated by Equation 1 of this section.

V_{st} = Total volume of coating solids used during the compliance period, liters, as calculated by Equation 2 of this section.

(h) *Compliance demonstration.* The calculated organic HAP emission rate for the initial compliance period must be less than or equal to the applicable emission limit in §63.4890. You must keep all records as required by §§63.4930 and 63.4931. As part of the Notification of Compliance Status required by §63.4910 and the semiannual compliance reports required in §63.4920, you must identify the coating operation or group of coating operations for which you used the emission rate without add-on controls option. If there were no deviations from the emission limit, include a statement that the coating operation or group of coating operations was in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in §63.4890, determined according to this section.

§ 63.4952 How do I demonstrate continuous compliance with the emission limitations?

(a) Following the initial compliance period, you must complete a compliance demonstration according to the requirements in §63.4951(h) for each subsequent compliance period. Each month following the initial compliance period described in §63.4950 is a compliance period.

(b) If the organic HAP emission rate for any compliance period exceeded the applicable emission limit in §63.4890, this is a deviation from the emission limitations for that compliance period and must be reported as specified in §§63.4910(c)(6) and 63.4920(a)(6).

(c) As part of each semiannual compliance report required by §63.4920, you must identify the coating operation or group of coating operations for which you used the emission rate without add-on controls option. If there were no deviations from the emission limitations, you must submit an affirmative statement that the coating operation or group of coating operations was in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in §63.4890.

(d) You must maintain records as specified in §§63.4930 and 63.4931.

Compliance Requirements for the Emission Rate With Add-On Controls Option

§ 63.4960 By what date must I conduct performance tests and other initial compliance demonstrations?

(a) *New and reconstructed affected sources.* For a new or reconstructed affected source, you must meet the requirements of paragraphs (a)(1) through (4) of this section.

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in §63.4883. Except for solvent recovery systems for which you conduct liquid-liquid material balances according to §63.4961(j), you must conduct a performance test of each capture system and add-on control device according to §§63.4963, 63.4964, and 63.4965, and establish the operating limits required by §63.4892, no later than 180 days after the applicable compliance date specified in §63.4883. For a solvent recovery system for which you conduct liquid-liquid material balances according to §63.4961(j), you must initiate the first material balance no later than 180 days after the applicable compliance date specified in §63.4883.

(2) You must develop and begin implementing the work practice plan required by §63.4893 no later than the compliance date specified in §63.4883.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of §63.4961. The initial compliance period begins on the applicable compliance date specified in §63.4883 and ends on the last day of the first full month following the compliance date. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§63.4963, 63.4964, and 63.4965; results of liquid-liquid material balances conducted according to §63.4961(j); calculations showing whether the organic HAP emission rate for the initial compliance period was equal to or less than the emission limit in §63.4890, the operating limits established during the performance tests and the results of the continuous parameter monitoring required by §63.4967; and documentation of whether you developed and implemented the work practice plan required by §63.4893.

(4) You do not need to comply with the operating limits for the emission capture system and add-on control device required by §63.4892 until after you have completed the performance tests specified in paragraph (a)(1) of this section. Instead, you must maintain a log detailing the operation and maintenance of the emission capture system, add-on control device, and continuous parameter monitors during the period between the compliance date and the performance test. You must begin complying with the operating limits for your affected source on the date you complete the performance tests specified in paragraph (a)(1) of this section. The requirements in this paragraph (a)(4) do not apply to solvent recovery systems for which you conduct liquid-liquid material balances.

(b) *Existing affected sources.* For an existing affected source, you must meet the requirements of paragraphs (b)(1) through (3) of this section.

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in §63.4883. Except for solvent recovery systems for which you conduct liquid-liquid material balances according to §63.4961(j), you must conduct a performance test of each capture system and add-on control device according to the procedures in §§63.4963, 63.4964, and 63.4965, and establish the operating limits required by §63.4892, no later than

the compliance date specified in §63.4883. For a solvent recovery system for which you conduct liquid-liquid material balances according to §63.4961(j), you must initiate the first material balance no later than the compliance date specified in §63.4883.

(2) You must develop and begin implementing the work practice plan required by §63.4893 no later than the compliance date specified in §63.4883.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of §63.4961. The initial compliance period begins on the applicable compliance date specified in §63.4883 and ends on the last day of the first full month following the compliance date. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§63.4963, 63.4964, and 63.4965; results of liquid-liquid material balances conducted according to §63.4961(j); calculations showing whether the organic HAP emission rate for the initial compliance period was equal to or less than the emission limit in §63.4890(c); the operating limits established during the performance tests and the results of the continuous parameter monitoring required by §63.4967; and documentation of whether you developed and implemented the work practice plan required by §63.4893.

§ 63.4961 How do I demonstrate initial compliance?

(a) *When add-on controls are used.* You may use the emission rate with add-on controls option for any coating operation, for any group of coating operations in the affected source, or for all of the coating operations in the affected source. You may include both controlled and uncontrolled coating operations in a group for which you use this option. You must use either the compliant material option or the emission rate without add-on controls option for any coating operation in the affected source for which you do not use the emission rate with add-on controls option. To demonstrate initial compliance, the coating operation or group of coating operations for which you use the emission rate with add-on controls option must meet the applicable emission limit in §63.4890, and each controlled coating operation must meet the operating limits and work practice standards required in §§63.4892 and 63.4893, respectively. You must meet all the requirements of this section to demonstrate initial compliance with the emission limitations. When calculating the organic HAP emission rate according to this section, do not include any coatings, thinners, or cleaning materials used on coating operations for which you use the compliant material option or the emission rate without add-on controls option.

(b) *Compliance with operating limits.* Except as provided in §63.4960(a)(4), you must establish and demonstrate continuous compliance during the initial compliance period with the operating limits required by §63.4892, using the procedures specified in §§63.4966 and 63.4967.

(c) *Compliance with work practice requirements.* You must develop, implement, and document your implementation of the work practice plan required by §63.4893 during the initial compliance period, as specified in §63.4930.

(d) *Compliance with emission limits.* You must follow the procedures in paragraphs (e) through (m) of this section to demonstrate compliance with the applicable emission limit in §63.4890.

(e) *Determine the mass fraction of organic HAP, density, volume used, and volume fraction of coating solids.* Follow the procedures specified in §63.4951(a) through (d) to determine the mass fraction of organic HAP, density, and volume of each coating, thinner, and cleaning material used during each compliance period and the volume fraction of coating solids for each coating used during each compliance period.

(f) *Calculate the total mass of organic HAP emissions before add-on controls.* Using Equation 1 of §63.4951, calculate the total mass of organic HAP emissions before add-on controls from all coatings, thinners, and cleaning materials used during the compliance period.

(g) *Calculate the organic HAP emission reduction for each controlled coating operation.* Determine the mass of organic HAP emissions reduced for each controlled coating operation during each compliance period. The emission reduction determination quantifies the total organic HAP emissions that pass through the emission capture system and are destroyed or removed by the add-on control device. Use the procedures in paragraph (h) of this section to calculate the mass of organic HAP emission reduction for each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances. For each controlled coating operation using a solvent recovery system for which you conduct a liquid-liquid material balance, use the procedures in paragraph (j) of this section to calculate the organic HAP emission reduction.

(h) *Calculate the organic HAP emission reduction for controlled coating operations not using liquid-liquid material balance.* For each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances, calculate the organic HAP emission reduction, using Equation 1 of this section. The calculation applies the emission capture system efficiency and add-on control device efficiency to the mass of organic HAP contained in the coatings, thinners, and cleaning materials that are used in the

coating operation served by the emission capture system and add-on control device during the compliance period. For any period of time a deviation specified in §63.4962(c) or (d) occurs in the controlled coating operation, including a deviation during a period of startup, shutdown, or malfunction, you must assume zero efficiency for the emission capture system and add-on control device. Equation 1 of this section treats the materials used during such a deviation as if they were used on an uncontrolled coating operation for the time period of the deviation:

$$H_R = (A_1 + B_1 + C_1 - R_w) \left(\frac{CE}{100} \times \frac{DRE}{100} \right) + H_{unc} \quad (\text{Eq. 1})$$

Where:

H_R = Mass of organic HAP emission reduction for the controlled coating operation during the compliance period, kg.

A_1 = Total mass of organic HAP in the coatings used in the controlled coating operation during the compliance period, excluding coatings used during deviations, kg, as calculated in Equation 1A of this section.

B_1 = Total mass of organic HAP in the thinners used in the controlled coating operation during the compliance period, excluding thinners used during deviations, kg, as calculated in Equation 1B of this section.

C_1 = Total mass of organic HAP in the cleaning materials used in the controlled coating operation during the compliance period, excluding cleaning materials used during deviations, kg, as calculated in Equation 1C of this section.

R_w = Total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during the compliance period, kg, determined according to §63.4951(e)(4). The mass of any waste material reused during the same compliance period may not be included in R_w . (You may assign a value of zero to R_w if you do not wish to use this allowance.)

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent. Use the test methods and procedures specified in §§63.4963 and 63.4964 to measure and record capture efficiency.

DRE = Organic HAP destruction or removal efficiency of the add-on control device, percent. Use the test methods and procedures in §§63.4963 and 63.4965 to measure and record the organic HAP destruction or removal efficiency.

H_{unc} = Total mass of organic HAP in the coatings, thinners, and cleaning materials used during all deviations specified in §63.4962(c) and (d) that occurred during the compliance period in the controlled coating operation, kg, as calculated in Equation 1D of this section.

(1) Calculate the mass of organic HAP in the coatings used in the controlled coating operation, using Equation 1A of this section. Do not include in the calculation the coatings used during any deviation specified in §63.4962(c) or (d) that occurred during the month. Include such coatings in the calculation of the total mass of organic HAP in the coatings, thinners, and cleaning materials used during all deviations that occurred during the compliance period in the controlled coating operation in Equation 1D of this section.

$$A_I = \sum_{i=1}^m (\text{Vol}_{c,i}) (D_{c,i}) (W_{c,i}) \quad (\text{Eq. 1A})$$

Where:

A_I = Total mass of organic HAP in the coatings used in the controlled coating operation during the compliance period, excluding coatings used during deviations, kg.

$\text{Vol}_{c,i}$ = Total volume of coating, i, used during the compliance period except during deviations, liters.

$D_{c,i}$ = Density of coating, i, kg per liter.

$W_{c,i}$ = Mass fraction of organic HAP in coating, i, kg per kg.

m = Number of different coatings used.

(2) Calculate the mass of organic HAP in the thinners used in the controlled coating operation, using Equation 1B of this section. Do not include in the calculation the thinners used during any deviation specified in §63.4962(c) or (d) that occurred during the month. Include such coatings in the calculation of the total mass of organic HAP in the coatings, thinners, and cleaning materials used during all deviations that occurred during the compliance period in the controlled coating operation in Equation 1D of this section.

$$B_I = \sum_{j=1}^n (\text{Vol}_{t,j}) (D_{t,j}) (W_{t,j}) \quad (\text{Eq. 1B})$$

Where:

B_I = Total mass of organic HAP in the thinners used in the controlled coating operation during the compliance period, excluding thinners used during deviations, kg.

$\text{Vol}_{t,j}$ = Total volume of thinner, j, used during the compliance period except during deviations, liters.

$D_{t,j}$ = Density of thinner, j, kg per liter.

$W_{t,j}$ = Mass fraction of organic HAP in thinner, j, kg per kg.

n = Number of different thinners used.

(3) Calculate the mass of organic HAP in the cleaning materials used in the controlled coating operation, using Equation 1C of this section. Do not include in the calculation the cleaning materials used during any deviation specified in §63.4962(c) or (d) that occurred during the compliance period. Include such cleaning materials in the calculation of the total mass of organic HAP in the coatings, thinners, and cleaning materials used during all deviations that occurred during the compliance period in the controlled coating operation in Equation 1D of this section.

$$C_I = \sum_{k=1}^p (\text{Vol}_{c,k}) (D_{c,k}) (W_{c,k}) \quad (\text{Eq. 1C})$$

Where:

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C_j = Total mass of organic HAP in the cleaning materials used in the controlled coating operation during the compliance period, excluding cleaning materials used during deviations, kg.

$Vol_{s,k}$ = Total volume of cleaning material, k, used during the compliance period except during deviations, liters.

$D_{s,k}$ = Density of cleaning material, k, kg per liter.

$W_{s,k}$ = Mass fraction of organic HAP in cleaning material, k, kg per kg.

p = Number of different cleaning materials used.

(4) Calculate the mass of organic HAP in the coatings, thinners, and cleaning materials used in the controlled coating operation during deviations specified in §63.4962(c) and (d), using Equation 1D of this section:

$$H_{unc} = \sum_{h=1}^q (Vol_h) (D_h) (W_h) \quad (\text{Eq. 1D})$$

Where:

H_{unc} = Total mass of organic HAP in the coatings, thinners, and cleaning materials used during all deviations specified in §63.4962(c) and (d) that occurred during the compliance period in the controlled coating operation, kg.

Vol_h = 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, kg per liter.

W_h = Mass fraction of organic HAP in coating, thinner, or cleaning material, h, kg organic HAP per kg coating.

q = Number of different coatings, thinning solvents, or cleaning materials.

(i) [Reserved]

(j) *Calculate the organic HAP emission reduction for controlled coating operations using liquid-liquid material balance.* For each controlled coating operation using a solvent recovery system for which you conduct liquid-liquid material balances, calculate the organic HAP emission reduction by applying the volatile organic matter collection and recovery efficiency to the mass of organic HAP contained in the coatings, thinners, and cleaning materials that are used in the coating operation controlled by the solvent recovery system during the compliance period. Perform a liquid-liquid material balance for each compliance period as specified in paragraphs (j)(1) through (6) of this section. Calculate the mass of organic HAP emission reduction by the solvent recovery system as specified in paragraph (j)(7) of this section.

(1) For each solvent recovery system, you must install, calibrate, maintain, and operate according to the manufacturer's specifications, a device that indicates the cumulative amount of volatile organic matter recovered by the solvent recovery system each compliance period. The device must be initially certified by the manufacturer to be accurate to within ±2.0 percent of the mass of volatile organic matter recovered.

(2) For each solvent recovery system, determine the mass of volatile organic matter recovered for the compliance period, based on measurement with the device required in paragraph (j)(1) of this section.

(3) Determine the mass fraction of volatile organic matter for each coating, thinner, and cleaning material

used in the coating operation controlled by the solvent recovery system during the compliance period. You may determine the volatile organic matter mass fraction using Method 24 of 40 CFR part 60, appendix A, or an EPA-approved alternative method, or you may use information provided by the manufacturer or supplier of the coating. In the event of any inconsistency between information provided by the manufacturer or supplier and the results of Method 24 of 40 CFR part 60, appendix A, or an approved alternative method, the test method results will govern.

(4) Determine the density of each coating, thinner, and cleaning material used in the coating operation controlled by the solvent recovery system during the compliance period according to §63.4951(c).

(5) Measure the volume of each coating, thinner, and cleaning material used in the coating operation controlled by the solvent recovery system during the compliance period.

(6) For each compliance period, calculate the solvent recovery system's volatile organic matter collection and recovery efficiency, using Equation 2 of this section:

$$R_v = 100 \frac{M_{VR}}{\sum_{i=1}^m Vol_i D_i WV_{c,i} + \sum_{j=1}^n Vol_j D_j WV_{t,j} + \sum_{k=1}^p Vol_k D_k WV_{s,k}} \quad (\text{Eq. 2})$$

Where:

R_v = Volatile organic matter collection and recovery efficiency of the solvent recovery system during the compliance period, percent.

M_{VR} = Mass of volatile organic matter recovered by the solvent recovery system during the compliance period, kg.

Vol_i = Volume of coating, i, used in the coating operation controlled by the solvent recovery system during the compliance period, liters.

D_i = Density of coating, i, kg per liter.

$WV_{c,i}$ = Mass fraction of volatile organic matter for coating, i, kg volatile organic matter per kg coating.

Vol_j = Volume of thinner, j, used in the coating operation controlled by the solvent recovery system during the compliance period, liters.

D_j = Density of thinner, j, kg per liter.

$WV_{t,j}$ = Mass fraction of volatile organic matter for thinner, j, kg volatile organic matter per kg thinner.

Vol_k = Volume of cleaning material, k, used in the coating operation controlled by the solvent recovery system during the compliance period, liters.

D_k = Density of cleaning material, k, kg per liter.

$WV_{s,k}$ = Mass fraction of volatile organic matter for cleaning material, k, kg volatile organic matter per kg cleaning material.

m = Number of different coatings used in the coating operation controlled by the solvent recovery system during the compliance period.

n = Number of different thinners used in the coating operation controlled by the solvent recovery system during the compliance period.

p = Number of different cleaning materials used in the coating operation controlled by the solvent recovery system during the compliance period.

(7) Calculate the mass of organic HAP emission reduction for the coating operation controlled by the solvent recovery system during the compliance period, using Equation 3 of this section:

$$H_{\text{CSR}} = (A_{\text{CSR}} + B_{\text{CSR}} + C_{\text{CSR}}) \left(\frac{R_v}{100} \right) \quad (\text{Eq. 3})$$

Where:

H_{CSR} = Mass of organic HAP emission reduction for the coating operation controlled by the solvent recovery system during the compliance period, kg.

A_{CSR} = Total mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 3A of this section.

B_{CSR} = Total mass of organic HAP in the thinners used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 3B of this section.

C_{CSR} = Total mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 3C of this section.

R_v = Volatile organic matter collection and recovery efficiency of the solvent recovery system, percent, from Equation 2 of this section.

(i) Calculate the mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system, kg, using Equation 3A of this section.

$$A_{\text{CSR}} = \sum_{i=1}^m (\text{Vol}_{c,i}) (D_{c,i}) (W_{c,i}) \quad (\text{Eq. 3A})$$

Where:

A_{CSR} = Total mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system during the month, kg.

$\text{Vol}_{c,i}$ = 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 , kg coating per liter coating.

$W_{c,i}$ = Mass fraction of organic HAP in coating, i , kg organic HAP per kg coating.

m = Number of different coatings used.

(ii) Calculate the mass of organic HAP in the thinners used in the coating operation controlled by the solvent recovery system, using Equation 3B of this section:

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

(Eq. 3B)

Where:

B_{CSR} = Total mass of organic HAP in the thinners used in the coating operation controlled by the solvent recovery system during the month, kg.

$Vol_{t,j}$ = 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 , kg thinner per liter thinner.

$W_{t,j}$ = Mass fraction of organic HAP in thinner, j , kg organic HAP per kg thinner.

n = Number of different thinners used.

(iii) Calculate the mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system during the month, using Equation 3C of this section:

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

(Eq. 3C)

Where:

C_{CSR} = Total mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system during the month, kg.

$Vol_{s,k}$ = 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 , kg cleaning material per liter cleaning material.

$W_{s,k}$ = Mass fraction of organic HAP in cleaning material, k , kg organic HAP per kg cleaning material.

p = Number of different cleaning materials used.

(k) Calculate the total volume of coating solids used. Calculate the total volume of coating solids used, which is the combined volume of coating solids for all the coatings used during the compliance period, using Equation 2 of §63.4951.

(l) Calculate the organic HAP emissions rate. Calculate the organic HAP emission rate to the

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atmosphere, using Equation 4 of this section:

$$H_{hap} = \frac{H_e - \sum_{i=1}^q (H_{R,i}) - \sum_{j=1}^r (H_{CSR,j})}{V_{st}} \quad (\text{Eq. 4})$$

Where:

H_{hap} = Organic HAP emission rate for the compliance period, kg organic HAP per liter coating solids.

H_e = Total mass of organic HAP emissions before add-on controls from all the coatings, thinners, and cleaning materials used during the compliance period, kg, determined according to paragraph (f) of this section.

$H_{R,i}$ = Total mass of organic HAP emission reduction for controlled coating operation, i , not using liquid-liquid material balances, during the compliance period, kg, from Equation 1 of this section.

$H_{CSR,j}$ = Total mass of organic HAP emission reduction for controlled coating operation, j , using a liquid-liquid material balance, during the compliance period, kg, from Equation 3 of this section.

V_{st} = Total volume of coating solids used during the compliance period, liters, from Equation 2 of §63.4951.

q = Number of controlled coating operations except those controlled with a solvent recovery system.

r = Number of coating operations controlled with a solvent recovery system.

(m) *Compliance demonstration.* To demonstrate initial compliance with the emission limit during the compliance period as calculated using Equation 4 of this section, the HAP emission rate for the compliance period must be less than or equal to the applicable emission limit in §63.4890. You must keep all records as required by §§63.4930 and 63.4931. As part of the Notification of Compliance Status required by §63.4910 and the semiannual compliance reports required in §63.4920, you must identify the coating operation or group of coating operations for which you used the emission rate with add-on controls option. If there were no deviations from the emission limit, include a statement that the coating operation or group of coating operations was in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in §63.4890, and you achieved the operating limits required by §63.4892 and the work practice standards required by §63.4893.

§ 63.4962 How do I demonstrate continuous compliance with the emission limitations?

(a) Following the initial compliance period, you must complete a compliance demonstration according to the requirements in §63.4961(m) for each subsequent compliance period. Each month following the initial compliance period described in §63.4960 is a compliance period.

(b) If the organic HAP emission rate for any compliance period exceeded the applicable emission limit in §63.4890, this is a deviation from the emission limitation for that compliance period and must be reported as specified in §§63.4910(c)(6) and 63.4920(a)(7).

(c) You must demonstrate continuous compliance with each operating limit required by §63.4892 that applies to you, as specified in Table 1 to this subpart.

(1) If an operating parameter is out of the allowed range specified in Table 1 to this subpart, this is a deviation from the operating limit that must be reported as specified in §§63.4910(c)(6) and 63.4920(a)(7).

(2) If an operating parameter deviates from the operating limit specified in Table 1 to this subpart, then you must assume that the emission capture system and add-on control device were achieving zero efficiency during the time period of the deviation. For the purposes of completing the compliance calculations specified in §63.4961, you must treat the materials used during a deviation on a controlled coating operation as if they were used on an uncontrolled coating operation for the time period of the deviation, as indicated in Equation 1 of §63.4961.

(d) You must meet the requirements for bypass lines in §63.4967(b) for controlled coating operations for which you do not conduct liquid-liquid material balances. If any bypass line is opened and emissions are diverted to the atmosphere when the coating operation is running, this is a deviation that must be reported as specified in §§63.4910(c)(6) and 63.4920(a)(7). For the purposes of completing the compliance calculations in §63.4961, you must treat the materials used during a deviation on a controlled coating operation as if they were used on an uncontrolled coating operation for the time period of the deviation, as indicated in Equation 1 of §63.4961.

(e) You must demonstrate continuous compliance with the work practice standards in §63.4893. If you did not develop a work practice plan, or you did not implement the plan, or you did not keep the records required by §63.4930(k)(8), this is a deviation from the work practice standards that must be reported as specified in §§63.4910(c)(6) and 63.4920(a)(7).

(f) As part of each semiannual compliance report required in §63.4920, you must identify the coating operation or group of coating operations for which you used the emission rate with add-on controls option. If there were no deviations from the emission limitations, submit an affirmative statement that you were in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in §63.4890, and you achieved the operating limits required by §63.4892 and the work practice standards required by §63.4893 during each compliance period.

(g)–(h) [Reserved]

(i) You must maintain records as specified in §§63.4930 and 63.4931.

[68 FR 28619, May 23, 2003, as amended at 71 FR 20466, Apr. 20, 2006]

§ 63.4963 What are the general requirements for performance tests?

(a) You must conduct each performance test required by §63.4960 according to the requirements in §63.7(e)(1) and under the conditions in this section unless you obtain a waiver of the performance test according to the provisions in §63.7(h).

(1) *Representative coating operation operating conditions.* You must conduct the performance test under representative operating conditions for the coating operation. Operations during periods of startup, shutdown, or malfunction, and during periods of nonoperation do not constitute representative conditions. You must record the process information that is necessary to document operating conditions during the test and explain why the conditions represent normal operation.

(2) *Representative emission capture system and add-on control device operating conditions.* You must conduct the performance test when the emission capture system and add-on control device are operating at a representative flow rate, and the add-on control device is operating at a representative inlet concentration. You must record information that is necessary to document emission capture system and add-on control device operating conditions during the test and explain why the conditions represent normal operation.

(b) You must conduct each performance test of an emission capture system according to the requirements in §63.4964. You must conduct each performance test of an add-on control device according to the requirements in §63.4965.

(c) The performance test to determine add-on control device organic HAP destruction or removal efficiency must consist of three runs as specified in §63.7(e)(3) and each run must last at least 1 hour.

§ 63.4964 How do I determine the emission capture system efficiency?

You must use the procedures and test methods in this section to determine capture efficiency as part of the performance test required by §63.4960.

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(a) *Assuming 100 percent capture efficiency.* You may assume the capture system efficiency is 100 percent if both of the conditions in paragraphs (a)(1) and (2) of this section are met:

(1) The capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and directs all the exhaust gases from the enclosure to an add-on control device.

(2) All coatings, thinners, and cleaning materials used in the coating operation are applied within the capture system; coating solvent flash-off and coating, curing, and drying occurs within the capture system; and the removal of or evaporation of cleaning materials from the surfaces they are applied to occurs within the capture system. For example, this criterion is not met if parts enter the open shop environment when being moved between a spray booth and a curing oven.

(b) *Measuring capture efficiency.* If the capture system does not meet both of the criteria in paragraphs (a)(1) and (2) of this section, then you must use one of the three protocols described in paragraphs (c), (d), and (e) of this section to measure capture efficiency. The capture efficiency measurements use TVH capture efficiency as a surrogate for organic HAP capture efficiency. For the protocols in paragraphs (c) and (d) of this section, the capture efficiency measurement must consist of three test runs. Each test run must be at least 3 hours duration or the length of a production run, whichever is longer, up to 8 hours. For the purposes of this test, a production run means the time required for a single part to go from the beginning to the end of production, which includes surface preparation activities and drying or curing time.

(c) *Liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure.* The liquid-to-uncaptured-gas protocol compares the mass of liquid TVH in materials used in the coating operation to the mass of TVH emissions not captured by the emission capture system. Use a temporary total enclosure or a building enclosure and the procedures in paragraphs (c)(1) through (6) of this section to measure emission capture system efficiency using the liquid-to-uncaptured-gas protocol.

(1) Either use a building enclosure or construct an enclosure around the coating operation where coatings, thinners, and cleaning materials are applied, and all areas where emissions from these applied coatings and materials subsequently occur, such as flash-off, curing, and drying areas. The areas of the coating operation where capture devices collect emissions for routing to an add-on control device, such as the entrance and exit areas of an oven or spray booth, must also be inside the enclosure. The enclosure must meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 of appendix M to 40 CFR part 51.

(2) Use Method 204A or 204F of appendix M to 40 CFR part 51 to determine the mass fraction, kg TVH per kg material, of TVH liquid input from each coating, thinner, and cleaning material used in the coating operation during each capture efficiency test run. To make the determination, substitute TVH for each occurrence of the term VOC in the methods.

(3) Use Equation 1 of this section to calculate the mass of TVH liquid input from all the coatings, thinners, and cleaning materials used in the coating operation during each capture efficiency test run:

$$TVH_{\text{used}} = \sum_{i=1}^n (TVH_i) (Vol_i) (D_i) \quad (\text{Eq. 1})$$

Where:

TVH_{used} = Mass of liquid total volatile hydrocarbons in materials used in the coating operation during the capture efficiency test run, lb.

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, kg TVH per kg material.

Vol_i = 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 , kg material per liter material.

n = Number of different coatings, thinners, and cleaning materials used in the coating operation during the capture efficiency test run.

(4) Use Method 204D or E of appendix M to 40 CFR part 51 to measure the total mass of TVH emissions that are not captured by the emission capture system; they are measured as they exit the temporary total enclosure or building enclosure during each capture efficiency test run. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) Use Method 204D if the enclosure is a temporary total enclosure.

(ii) Use Method 204E if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the coating operation for which capture efficiency is being determined, must be shut down, but all fans and blowers must be operating normally.

(5) For each capture efficiency test run, determine the percent capture efficiency of the emission capture system, using Equation 2 of this section:

$$CE = \frac{(TVH_{used} - TVH_{uncaptured})}{TVH_{used}} \times 100 \quad (\text{Eq. 2})$$

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

TVH_{used} = Total mass of TVH liquid input used in the coating operation during the capture efficiency test run, kg.

$TVH_{uncaptured}$ = 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, kg.

(6) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.

(d) *Gas-to-gas protocol using a temporary total enclosure or a building enclosure.* The gas-to-gas protocol compares the mass of TVH emissions captured by the emission capture system to the mass of TVH emissions not captured. Use a temporary total enclosure or a building enclosure and the procedures in paragraphs (d)(1) through (5) of this section to measure emission capture system efficiency using the gas-to-gas protocol.

(1) Either use a building enclosure or construct an enclosure around the coating operation where coatings, thinners, and cleaning materials are applied, and all areas where emissions from these applied coatings and materials subsequently occur, such as flash-off, curing, and drying areas. The areas of the coating operation where capture devices collect emissions generated by the coating operation for routing to an add-on control device, such as the entrance and exit areas of an oven or a spray booth, must also be inside the enclosure. The enclosure must meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 of appendix M to 40 CFR part 51.

(2) Use Method 204B or 204C of appendix M to 40 CFR part 51 to measure the total mass of TVH emissions captured by the emission capture system during each capture efficiency test run as measured at the inlet to the add-on control device. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) The sampling points for the Method 204B or 204C measurement must be upstream from the add-on control device and must represent total emissions routed from the capture system and entering the add-on control device.

(ii) If multiple emission streams from the capture system enter the add-on control device without a single common duct, then the emissions entering the add-on control device must be simultaneously measured in each duct and the total emissions entering the add-on control device must be determined.

(3) Use Method 204D or 204E of appendix M to 40 CFR part 51 to measure the total mass of TVH emissions that are not captured by the emission capture system; they are measured as they exit the temporary total enclosure or building enclosure during each capture efficiency test run. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) Use Method 204D if the enclosure is a temporary total enclosure.

(ii) Use Method 204E if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the coating operation for which capture efficiency is being determined, must be shut down, but all fans and blowers must be operating normally.

(4) For each capture efficiency test run, determine the percent capture efficiency of the emission capture system, using Equation 3 of this section:

$$CE = \frac{TVH_{\text{captured}}}{(TVH_{\text{captured}} + TVH_{\text{uncaptured}})} \times 100 \quad (\text{Eq. 3})$$

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

TVH_{captured} = 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, kg.

$TVH_{\text{uncaptured}}$ = 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, kg.

(5) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.

(e) *Alternative capture efficiency protocol.* As an alternative to the procedures specified in paragraphs (c) and (d) of this section, you may determine capture efficiency using any other capture efficiency protocol and test methods that satisfy the criteria of either the DQO or LCL approach as described in appendix A to subpart KK of this part.

§ 63.4965 How do I determine the add-on control device emission destruction or removal efficiency?

You must use the procedures and test methods in this section to determine the add-on control device emission destruction or removal efficiency as part of the performance test required by §63.4960. You must conduct three test runs as specified in §63.7(e)(3), and each test run must last at least 1 hour.

(a) For all types of add-on control devices, use the test methods specified in paragraphs (a)(1) through (5) of this section.

(1) Use Method 1 or 1A of appendix A to 40 CFR part 60, as appropriate, to select sampling sites and velocity traverse points.

(2) Use Method 2, 2A, 2C, 2D, 2F, or 2G of appendix A to 40 CFR part 60, as appropriate, to measure gas volumetric flow rate.

(3) Use Method 3, 3A, or 3B of appendix A to 40 CFR part 60, as appropriate, for gas analysis to determine dry molecular weight. You may also use as an alternative to Method 3B, the manual method for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas in ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus]" (incorporated by reference, see §63.14).

(4) Use Method 4 of appendix A to 40 CFR part 60 to determine stack gas moisture.

(5) Methods for determining gas volumetric flow rate, dry molecular weight, and stack gas moisture must be performed, as applicable, during each test run.

(b) Measure total gaseous organic mass emissions as carbon at the inlet and outlet of the add-on control device simultaneously, using either Method 25 or 25A of appendix A to 40 CFR part 60, as specified in paragraphs (b)(1) through (3) of this section. You must use the same method for both the inlet and outlet measurements.

(1) Use Method 25 if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be more than 50 parts per million (ppm) at the control device outlet.

(2) Use Method 25A if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be 50 ppm or less at the control device outlet.

(3) Use Method 25A if the add-on control device is not an oxidizer.

(c) If two or more add-on control devices are used for the same emission stream, then you must measure emissions at the outlet of each device. For example, if one add-on control device is a concentrator with an outlet for the high-volume, dilute stream that has been treated by the concentrator, and a second add-on control device is an oxidizer with an outlet for the low-volume, concentrated stream that is treated with the oxidizer, you must measure emissions at the outlet of the oxidizer and the high volume dilute stream outlet of the concentrator.

(d) For each test run, determine the total gaseous organic emissions mass flow rates for the inlet and the outlet of the add-on control device, using Equation 1 of this section. If there is more than one inlet or outlet to the add-on control device, you must calculate the total gaseous organic mass flow rate using Equation 1 of this section for each inlet and each outlet and then total all of the inlet emissions and total all of the outlet emissions.

$$M_f = Q_{sd} C_c (12) (0.0416) (10^{-6}) \quad (\text{Eq 1})$$

Where:

M_f = Total gaseous organic emissions mass flow rate, kg/per hour (h).

Q_{sd} = 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).

C_c = 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.

0.0416 = Conversion factor for molar volume, kg-moles per cubic meter (mol/m^3) (@ 293 Kelvin (K) and 760 millimeters of mercury (mmHg)).

(e) For each test run, determine the add-on control device organic emissions destruction or removal efficiency, using Equation 2 of this section:

$$\text{DRE} = \frac{M_{fi} - M_{fo}}{M_{fi}} \quad (\text{Eq 2})$$

Where:

DRE = Organic emissions destruction or removal efficiency of the add-on control device, percent.

M_{fi} = Total gaseous organic emissions mass flow rate at the inlet(s) to the add-

on control device, using Equation 1 of this section, kg/h.

M_{fo} = Total gaseous organic emissions mass flow rate at the outlet(s) of the add-on control device, using Equation 1 of this section, kg/h.

(f) Determine the emission destruction or removal efficiency of the add-on control device as the average of the efficiencies determined in the three test runs and calculated in Equation 2 of this section.

§ 63.4966 How do I establish the emission capture system and add-on control device operating limits during the performance test?

During the performance test required by §63.4960 and described in §§63.4963, 63.4964, and 63.4965, you must establish the operating limits required by §63.4892 according to this section, unless you have received approval for alternative monitoring and operating limits under §63.8(f) as specified in §63.4892.

(a) *Thermal oxidizers.* If your add-on control device is a thermal oxidizer, establish the operating limits according to paragraphs (a)(1) and (2) of this section.

(1) During the performance test, you must monitor and record the combustion temperature at least once every 15 minutes during each of the three test runs. You must monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs.

(2) Use the data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test. This average combustion temperature is the minimum operating limit for your thermal oxidizer.

(b) *Catalytic oxidizers.* If your add-on control device is a catalytic oxidizer, establish the operating limits according to either paragraphs (b)(1) and (2) or paragraphs (b)(3) and (4) of this section.

(1) During the performance test, you must monitor and record the temperature just before the catalyst bed and the temperature difference across the catalyst bed at least once every 15 minutes during each of the three test runs.

(2) Use the data collected during the performance test to calculate and record the average temperature just before the catalyst bed and the average temperature difference across the catalyst bed maintained during the performance test. These are the minimum operating limits for your catalytic oxidizer.

(3) As an alternative to monitoring the temperature difference across the catalyst bed, you may monitor the temperature at the inlet to the catalyst bed and implement a site-specific inspection and maintenance plan for your catalytic oxidizer as specified in paragraph (b)(4) of this section. During the performance test, you must monitor and record the temperature just before the catalyst bed at least once every 15 minutes during each of the three test runs. Use the data collected during the performance test to calculate and record the average temperature just before the catalyst bed during the performance test. This is the minimum operating limit for your catalytic oxidizer.

(4) You must develop and implement an inspection and maintenance plan for your catalytic oxidizer(s) for which you elect to monitor according to paragraph (b)(3) of this section. The plan must address, at a minimum, the elements specified in paragraphs (b)(4)(i) through (iii) of this section.

(i) Annual sampling and analysis of the catalyst activity (*i.e.*, conversion efficiency) following the manufacturer's or catalyst supplier's recommended procedures.

(ii) Monthly inspection of the oxidizer system, including the burner assembly and fuel supply lines for problems and, as necessary, adjust the equipment to assure proper air-to-fuel mixtures.

(iii) Annual internal and monthly external visual inspection of the catalyst bed to check for channeling, abrasion, and settling. If problems are found, you must replace the catalyst bed or take corrective action consistent with the manufacturer's recommendations and conduct a new performance test to determine destruction efficiency according to §63.4965.

(c) *Carbon adsorbers.* If your add-on control device is a carbon adsorber, establish the operating limits according to paragraphs (c)(1) and (2) of this section.

(1) You must monitor and record the total regeneration desorbing gas (*e.g.*, steam or nitrogen) mass flow for each regeneration cycle, and the carbon bed temperature after each carbon bed regeneration and cooling cycle, for the regeneration cycle either immediately preceding or immediately following the

performance test.

(2) The operating limits for your carbon adsorber are the minimum total desorbing gas mass flow recorded during the regeneration cycle and the maximum carbon bed temperature recorded after the cooling cycle.

(d) *Condensers.* If your add-on control device is a condenser, establish the operating limits according to paragraphs (d)(1) and (2) of this section.

(1) During the performance test, you must monitor and record the condenser outlet (product side) gas temperature at least once every 15 minutes during each of the three test runs.

(2) Use the data collected during the performance test to calculate and record the average condenser outlet (product side) gas temperature maintained during the performance test. This average condenser outlet gas temperature is the maximum operating limit for your condenser.

(e) *Emission capture system.* For each capture device that is not part of a PTE that meets the criteria of §63.4964(a), establish an operating limit for either the gas volumetric flow rate or duct static pressure, as specified in paragraphs (e)(1) and (2) of this section. The operating limit for a PTE is specified in Table 1 to this subpart.

(1) During the capture efficiency determination required by §63.4960 and described in §§63.4963 and 63.4964, you must monitor and record either the gas volumetric flow rate or the duct static pressure for each separate capture device in your emission capture system at least once every 15 minutes during each of the three test runs at a point in the duct between the capture device and the add-on control device inlet.

(2) Calculate and record the average gas volumetric flow rate or duct static pressure for the three test runs for each capture device. This average gas volumetric flow rate or duct static pressure is the minimum operating limit for that specific capture device.

(f) *Concentrators.* If your add-on control device includes a concentrator, you must establish operating limits for the concentrator according to paragraphs (f)(1) through (4) of this section.

(1) During the performance test, you must monitor and record the desorption concentrate stream gas temperature at least once every 15 minutes during each of the three runs of the performance test.

(2) Use the data collected during the performance test to calculate and record the average temperature. This is the minimum operating limit for the desorption concentrate gas stream temperature.

(3) During the performance test, you must monitor and record the pressure drop of the dilute stream across the concentrator at least once every 15 minutes during each of the three runs of the performance test.

(4) Use the data collected during the performance test to calculate and record the average pressure drop. This is the maximum operating limit for the dilute stream across the concentrator.

(g) *Bioreactors.* If you are using a bioreactor, you must comply with the provisions for the use of an alternative monitoring method as set forth in 40 CFR 63.8(f).

§ 63.4967 What are the requirements for continuous parameter monitoring system installation, operation, and maintenance?

(a) *General.* You must install, operate, and maintain each CPMS specified in paragraphs (c), (e), and (f) of this section according to paragraphs (a)(1) through (6) of this section. You must install, operate, and maintain each CPMS specified in paragraphs (b) and (d) of this section according to paragraphs (a)(3) through (5) of this section.

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four equally spaced successive cycles of CPMS operation in 1 hour.

(2) You must determine the average of all recorded readings for each 3-hour period of the emission capture system and add-on control device operation.

(3) You must record the results of each inspection, calibration, and validation check of the CPMS.

(4) You must maintain the CPMS at all times and have available necessary parts for routine repairs of

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the monitoring equipment.

(5) You must operate the CPMS and collect emission capture system and add-on control device parameter data at all times that a controlled coating operation is operating, except during monitoring malfunctions, repairs to correct the monitor malfunctions, and required quality assurance or control activities (including, if applicable, calibration checks and required zero and span adjustments).

(6) You must not use emission capture system or add-on control device parameter data recorded during monitoring malfunctions, repairs to correct the monitor malfunctions, out-of-control periods, or required quality assurance or control activities when calculating data averages. You must use all the data collected during all other periods in calculating the data averages for determining compliance with the emission capture system and add-on control device operating limits.

(7) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the CPMS to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. Any period for which the monitoring system is out-of-control and data are not available for required calculations is a deviation from the monitoring requirements.

(b) *Capture system bypass line.* You must meet the requirements of paragraphs (b)(1) and (2) of this section for each emission capture system that contains bypass lines that could divert emissions away from the add-on control device to the atmosphere.

(1) You must monitor or secure the valve or closure mechanism controlling the bypass line in a nondiverting position in such a way that the valve or closure mechanism cannot be opened without creating a record that the valve was opened. The method used to monitor or secure the valve or closure mechanism must meet one of the requirements specified in paragraphs (b)(1)(i) through (iv) of this section.

(i) *Flow control position indicator.* Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow control position indicator that takes a reading at least once every 15 minutes and provides a record indicating whether the emissions are directed to the add-on control device or diverted from the add-on control device. The time of occurrence and flow control position must be recorded, as well as every time the flow direction is changed. The flow control position indicator must be installed at the entrance to any bypass line that could divert the emissions away from the add-on control device to the atmosphere.

(ii) *Car-seal or lock-and-key valve closures.* Secure any bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. You must visually inspect the seal or closure mechanism at least once every month to ensure that the valve is maintained in the closed position, and the emissions are not diverted away from the add-on control device to the atmosphere.

(iii) *Valve closure monitoring.* Ensure that any bypass line valve is in the closed (nondiverting) position through monitoring of valve position at least once every 15 minutes. You must inspect the monitoring system at least once every month to verify that the monitor will indicate valve position.

(iv) *Automatic shutdown system.* Use an automatic shutdown system in which the coating operation is stopped when flow is diverted by the bypass line away from the add-on control device to the atmosphere when the coating operation is running. You must inspect the automatic shutdown system at least once every month to verify that it will detect diversions of flow and shut down the coating operation.

(2) If any bypass line is opened, you must include a description of why the bypass line was opened and the length of time it remained open in the semiannual compliance reports required in §63.4920.

(c) *Thermal oxidizers and catalytic oxidizers.* If you are using a thermal oxidizer or catalytic oxidizer as an add-on control device (including those used with concentrators or with carbon adsorbers to treat desorbed concentrate streams), you must comply with the requirements in paragraphs (c)(1) through (3) of this section:

(1) For a thermal oxidizer, install a gas temperature monitor in the firebox of the thermal oxidizer or in the duct immediately downstream of the firebox before any substantial heat exchange occurs.

(2) For a catalytic oxidizer, install a gas temperature monitor in the gas stream immediately before the catalyst bed, and if you are establishing operating limits according to §63.4966(b)(1) and (2), also install a gas temperature monitor in the gas stream immediately after the catalyst bed.

(3) For each gas temperature monitoring device, you must meet the requirements in paragraphs (a) and (c)(3)(i) through (vi) of this section for each gas temperature monitoring device.

(i) Locate the temperature sensor in a position that provides a representative temperature.

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- (ii) Use a temperature sensor with an accuracy of at least 5 degrees Fahrenheit or 1.0 percent of the temperature value, whichever is larger.
 - (iii) Perform an initial calibration according to the manufacturer's requirements.
 - (iv) Before using the sensor for the first time or upon relocation or replacement of the sensor, perform a validation check by comparing the sensor output to a calibrated temperature measurement device or by comparing the sensor output to a simulated temperature.
 - (v) Conduct an accuracy audit every quarter and after every 24 hour excursion. Accuracy audit methods include comparisons of sensor output to redundant temperature sensors, to calibrated temperature measurement devices, or to temperature simulation devices.
 - (vi) Conduct a visual inspection of each sensor every quarter if redundant temperature sensors are not used.
- (d) *Carbon adsorbers.* If you are using a carbon adsorber as an add-on control device, you must monitor the total regeneration desorbing gas (e.g., steam or nitrogen) mass flow for each regeneration cycle, the carbon bed temperature after each regeneration and cooling cycle, and comply with paragraphs (a)(3) through (5) and (d)(1) through (3) of this section.
- (1) The regeneration desorbing gas mass flow monitor must be an integrating device having a measurement sensitivity of plus or minus 10 percent, capable of recording the total regeneration desorbing gas mass flow for each regeneration cycle.
 - (2) The carbon bed temperature monitor must be capable of recording the temperature within 15 minutes of completing any carbon bed cooling cycle.
 - (3) For all carbon adsorbers, you must meet the requirements in paragraphs (c)(3)(i) through (vi) of this section for each gas temperature monitoring device.
- (e) *Condensers.* If you are using a condenser, you must monitor the condenser outlet (product side) gas temperature and comply with paragraphs (a) and (e)(1) and (2) of this section
- (1) The temperature monitor must provide a gas temperature record at least once every 15 minutes.
 - (2) For all condensers, you must meet the requirements in paragraphs (c)(3)(i) through (vi) of this section for each gas temperature monitoring device.
- (f) *Emission capture systems.* The capture system monitoring system must comply with the applicable requirements in paragraphs (f)(1) and (2) of this section.
- (1) For each flow measurement device, you must meet the requirements in paragraphs (a) and (f)(1)(i) through (vii) of this section.
 - (i) Locate a flow sensor in a position that provides a representative flow measurement in the duct from each capture device in the emission capture system to the add-on control device.
 - (ii) Use a flow sensor with an accuracy of at least 10 percent of the flow.
 - (iii) Perform an initial sensor calibration in accordance with the manufacturer's requirements.
 - (iv) Perform a validation check before initial use or upon relocation or replacement of a sensor. Validation checks include comparison of sensor values with electronic signal simulations or via relative accuracy testing.
 - (v) Perform accuracy audits every quarter and after every 24 hour excursion. Accuracy audits include comparison of sensor values with electronic signal simulations or with values obtained via relative accuracy testing.
 - (vi) Perform leak checks monthly.
 - (vii) Perform visual inspections of the sensor system quarterly if there is no redundant sensor.
 - (2) For each pressure drop measurement device, you must comply with the requirements in paragraphs (a) and (f)(2)(i) through (vii) of this section.

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(i) Locate the pressure sensor(s) in or as close to a position that provides a representative measurement of the pressure drop across each opening you are monitoring.

(ii) Use a pressure sensor with an accuracy of at least 0.5 inches of water column or 5 percent of the measured value, whichever is larger.

(iii) Perform an initial calibration of the sensor according to the manufacturer's requirements.

(iv) Conduct a validation check before initial operation or upon relocation or replacement of the sensor. Validation checks include comparison of the sensor values to calibrated pressure measurement devices or to pressure simulation using calibrated pressure sources.

(v) Conduct accuracy audits every quarter and after every 24 hour excursion. Accuracy audits include comparison of sensor values to calibrated pressure measurement devices or to pressure simulation using calibrated pressure sources.

(vi) Perform monthly leak checks on pressure connections. A pressure of at least 1.0 inches of water column to the connection must yield a stable sensor result for at least 15 seconds.

(vii) Perform a visual inspection of the sensor at least monthly if there is no redundant sensor.

(g) *Concentrators.* If you are using a concentrator, such as a zeolite wheel or rotary carbon bed concentrator, you must comply with the requirements in paragraphs (a) and (g)(1) and (2) of this section.

(1) You must install a temperature monitor in the desorption gas stream. The temperature monitor must meet the requirements in paragraphs (a) and (c)(3) of this section.

(2) You must install a device to monitor pressure drop across the zeolite wheel or rotary carbon bed. The pressure monitoring device must meet the requirements in paragraphs (a) and (f)(2) of this section.

Other Requirements and Information

§ 63.4980 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the U.S. Environmental Protection Agency (EPA), or a delegated authority such as your State, local, or tribal agency. If the Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are listed in paragraphs (c) (1) through (4) of this section:

(1) Approval of alternatives to the work practice standards in §63.4893 under §63.6(g).

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), and as defined in §63.90.

(3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

§ 63.4981 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in 40 CFR 63.2, and in this section as follows:

Add-on control means an air pollution control device such as a thermal oxidizer or carbon adsorber that reduces pollution in an air stream by destruction or removal before discharge to the atmosphere.

Adhesive means any chemical substance that is applied for the purpose of bonding two surfaces together.

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Capture device means a hood, enclosure, room, floor sweep, or other means of containing or collecting emissions and directing those emissions into an add-on air pollution control device.

Capture efficiency or *capture system efficiency* means the portion (expressed as a percentage) of the pollutants from an emission source that is delivered to an add-on control device.

Capture system means one or more capture devices intended to collect emissions generated by a coating operation in the use of coatings or cleaning materials, both at the point of application and at subsequent points where emissions from the coatings and cleaning materials occur, such as flashoff, drying, or curing. As used in this subpart, multiple capture devices that collect emissions generated by a coating operation are considered a single capture system.

Cleaning material means a solvent used to remove contaminants and other materials, such as dirt, grease, oil, and dried or wet coating (e.g., depainting), from a substrate before or after coating application or from equipment associated with a coating operation, such as spray booths, spray guns, racks, tanks, and hangers. Thus, it includes any cleaning material used on substrates or equipment or both.

Coating means a material applied to a substrate for decorative, protective, or functional purposes. Such materials include, but are not limited to, paints, sealants, caulks, inks, adhesives, and maskants. Decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances are not considered coatings for the purposes of this subpart.

Coating operation means equipment used to apply cleaning materials to a substrate to prepare it for coating application or to remove dried or wet coating (surface preparation), to apply coating to a substrate (coating application) and to dry or cure the coating after application; and to clean coating operation equipment (equipment cleaning). A single coating operation may include any combination of these types of equipment, but always includes at least the point at which a coating or cleaning material is applied and all subsequent points in the affected source where organic HAP emissions from that coating or cleaning material occur. There may be multiple coating operations in an affected source. Coating application with hand-held nonrefillable aerosol containers, touchup markers, or marking pens is not a coating operation for the purposes of this subpart.

Coating solids means the nonvolatile portion of the coating that makes up the dry film.

Continuous parameter monitoring system (CPMS) means the total equipment that may be required to meet the data acquisition and availability requirements of this subpart, used to sample, condition (if applicable), analyze, and provide a record of coating operation, or capture system, or add-on control device parameters.

Controlled coating operation means a coating operation from which some or all of the organic HAP emissions are routed through an emission capture system and add-on control device.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

- (1) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limit, or operating limit, or work practice standard;
- (2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or
- (3) Fails to meet any emission limit, or operating limit, or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is allowed by this subpart.

Emission limitation means an emission limit, operating limit, or work practice standard.

Enclosure means a structure that surrounds a source of emissions and captures and directs the emissions to an add-on control device.

Exempt compound means a specific compound that is not considered a VOC due to negligible photochemical reactivity. The exempt compounds are listed in 40 CFR 51.100(s).

Facility maintenance means the routine repair or renovation (including surface coating) of the tools, equipment, machinery, and structures that comprise the infrastructure of the affected facility and that are necessary for the facility to function in its intended capacity.

Manufacturer's formulation data means data on a material (such as a coating) that are supplied by the

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material manufacturer based on knowledge of the ingredients used to manufacture that material, rather than based on testing of the material with the test methods specified in §63.4941(a)(1) through (3). Manufacturer's formulation data may include, but are not limited to, information on density, organic HAP content, volatile organic matter content, and coating solids content.

Mass fraction of coating solids means the ratio of the mass of coating solids to the mass of a coating in which it is contained, expressed as kg of coating solids per kg of coating.

Mass fraction of organic HAP means the ratio of the mass of organic HAP to the mass of a material in which it is contained, expressed as kg of organic HAP per kg of material.

Month means a calendar month or a pre-specified period of 28 days to 35 days to allow for flexibility in recordkeeping when data are based on a business accounting period.

Organic HAP content means the mass of organic HAP per volume of coating solids for a coating, calculated using Equation 2 of §63.4941. The organic HAP content is determined for the coating in the condition it is in when received from its manufacturer or supplier and does not account for any alteration after receipt.

Permanent total enclosure (PTE) means a permanently installed enclosure that meets the criteria of Method 204 of appendix M, 40 CFR part 51, for a PTE and that directs all the exhaust gases from the enclosure to an add-on control device.

Protective oil means an organic material that is applied to metal for the purpose of providing lubrication or protection from corrosion without forming a solid film. This definition of protective oil includes, but is not limited to, lubricating oils, evaporative oils (including those that evaporate completely), and extrusion oils.

Research or laboratory facility means a facility whose primary purpose is for research and development of new processes and products, that is conducted under the close supervision of technically trained personnel, and is not engaged in the manufacture of final or intermediate products for commercial purposes, except in a *de minimis* manner.

Responsible official means responsible official as defined in 40 CFR 70.2.

Startup, initial means the first time equipment is brought online in a facility.

Surface preparation means use of a cleaning material on a portion of or all of a substrate. This includes use of a cleaning material to remove dried coating, which is sometimes called "depainting" or "paint stripping," for the purpose of preparing a substrate for coating application.

Temporary total enclosure means an enclosure constructed for the purpose of measuring the capture efficiency of pollutants emitted from a given source as defined in Method 204 of appendix M, 40 CFR part 51.

Thinner means an organic solvent that is added to a coating after the coating is received from the supplier.

Total volatile hydrocarbon (TVH) means the total amount of nonaqueous volatile organic matter determined according to Methods 204 and 204A through 204F of appendix M to 40 CFR part 51 and substituting the term TVH each place in the methods where the term VOC is used. The TVH includes both VOC and non-VOC.

Uncontrolled coating operation means a coating operation from which none of the organic HAP emissions are routed through an emission capture system and add-on control device.

Volatile organic compound (VOC) means any compound defined as VOC in 40 CFR 51.100(s).

Volume fraction of coating solids means the ratio of the volume of coating solids (also known as volume of nonvolatiles) to the volume of coating, expressed as liters of coating solids per liter of coating.

Wastewater means water that is generated in a coating operation and is collected, stored, or treated prior to being discarded or discharged.

Table 1 to Subpart RRRR of Part 63—Operating Limits if Using the Emission Rate With Add-on Controls Option

If you are required to comply with operating limits by §63.4892, you must comply with the applicable

operating limits in the following table:

For the following device . . .	you must meet the following operating limit . . .	and you must demonstrate continuous compliance with the operating limit by . . .
1. thermal oxidizer	a. the average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to §63.4966(a)	i. collecting the combustion temperature data according to §63.4967(c); ii. reducing the data to 3-hour block averages; and iii. maintaining the 3-hour average combustion temperature at or above the temperature limit.
2. catalytic oxidizer	a. the average temperature measured just before the catalyst bed in any 3-hour period must not fall below the limit established according to §63.4966(b); and either	i. collecting the temperature data according to §63.4967 (c); ii. reducing the data to 3-hour block averages; and iii. maintaining the 3-hour average temperature before the catalyst bed at or above the temperature limit.
	b. ensure that the average temperature difference across the catalyst bed in any 3-hour period does not fall below the temperature difference limit established according to §63.4966(b), or	i. collecting the temperature data according to §63.4967 (c); ii. reducing the data to 3-hour block averages; and iii. maintaining the 3-hour average temperature difference at or above the temperature difference limit.
	c. develop and implement an inspection and maintenance plan according to §63.4966(b)(3) and (4).	i. maintaining an up-to-date inspection and maintenance plan, records of annual catalyst activity checks, records of monthly inspections of the oxidizer system, and records of the annual internal inspections of the catalyst bed. If a problem

		is discovered during a monthly or annual inspection required by §63.4966(b)(4), you must take corrective action as soon as practicable consistent with the manufacturer's recommendations.
3. carbon adsorber	a. the total regeneration desorbing gas (e.g., steam or nitrogen) mass flow for each carbon bed regeneration cycle must not fall below the total regeneration desorbing gas mass flow limit established according to §63.4966(c)	i. measuring the total regeneration desorbing gas (e.g., steam or nitrogen) mass flow for each regeneration cycle according §63.4967(d); and ii. maintaining the total regeneration desorbing gas mass flow at or above the mass flow limit.
	b. the temperature of the carbon bed after completing each regeneration and any cooling cycle must not exceed the carbon bed temperature limit established according to §63.4966(c)	i. measuring the temperature of the carbon bed after completing each regeneration and any cooling cycle according to §63.4967(d); and ii. operating the carbon beds such that each carbon bed is not returned to service until completing each regeneration and any cooling cycle until the recorded temperature of the carbon bed is at or below the temperature limit.
4. condenser	a. the average condenser outlet (product side) gas temperature in any 3-hour period must not exceed the temperature limit established according to §63.4966(d)	i. collecting the condenser outlet (product side) gas temperature according to §63.4967(e); ii. reducing the data to 3-hour block averages; and iii. maintaining the 3-hour average gas temperature at the outlet at or below the temperature limit.

<p>5. emission capture system that is a PTE according to §63.4964(a)</p>	<p>a. the direction of the air flow at all times must be into the enclosure; and either</p>	<p>i. collecting the direction of air flow, and either the facial velocity of air through all natural draft openings according to §63.4967(f)(1) or the pressure drop across the enclosure according to §63.4967(f)(2); and ii. maintaining the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining the direction of air flow into the enclosure at all times.</p>
	<p>b. the average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or</p>	<p>i. collecting the direction of air flow, and either the facial velocity of air through all natural draft openings according to §63.4967(f)(1) or the pressure drop across the enclosure according to §63.4967(f)(2); and ii. maintaining the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining the direction of air flow into the enclosure at all times.</p>
	<p>c. the pressure drop across the enclosure must be at least 0.007 inch H₂O, as established in Method 204 of appendix M to 40 CFR part 51</p>	<p>i. collecting the direction of air flow, and either the facial velocity of air through all natural draft openings according to §63.4967(f)(1) or the pressure drop across the enclosure according to §63.4967(f)(2); and ii. maintaining the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and</p>

		maintaining the direction of air flow into the enclosure at all times.
6. emission capture system that is not a PTE according to §63.4964(a)	a. the average gas volumetric flow rate or duct static pressure in each duct between a capture device and add-on control device inlet in any 3-hour period must not fall below the average volumetric flow rate or duct static pressure limit established for that capture device according to §63.4966(e)	i. collecting the gas volumetric flow rate or duct static pressure for each capture device according to §63.4967(f); ii. reducing the data to 3-hour block averages; and iii. maintaining the 3-hour average gas volumetric flow rate or duct static pressure for each capture device at or above the gas volumetric flow rate or duct static pressure limit.
7. concentrators, including zeolite wheels and rotary carbon adsorbers	a. the average gas temperature of the desorption concentrate stream in any 3-hour period must not fall below the limit established according to §63.4966(f)	i. collecting the temperature data according to §63.4967(g); ii. reducing the data to 3-hour block averages; and iii. maintaining the 3-hour average temperature at or above the temperature limit.
	b. the average pressure drop of the dilute stream across the concentrator in any 3-hour period must not fall below the limit established according to §63.4966(f)	i. collecting the pressure drop data according to §63.4967(g); ii. reducing the pressure drop data to 3-hour block averages; and iii. maintaining the 3-hour average pressure drop at or above the pressure drop
8. bioreactor systems	a. the use of an alternative monitoring method as set forth in §63.8(f)	

Table 2 to Subpart RRRR of Part 63—Applicability of General Provisions to Subpart RRRR

You must comply with the applicable General Provisions requirements according to the following table:

Citation	Subject	Applicable to subpart	Explanation
§63.1(a)(1)–(14)	General Applicability	Yes.	
§63.1(b)(1)–(3)	Initial Applicability Determination	Yes	Applicability to subpart RRRR is also specified in §63.4881.
§63.1(c)(1)	Applicability After Standard Established	Yes.	
§63.1(c)(2)–(3)	Applicability of Permit Program for Area Sources	No	Area sources are not subject to subpart RRRR.
§63.1(c)(4)–(5)	Extensions and Notifications	Yes.	
§63.1(e)	Applicability of Permit Program Before Relevant Standard is Set	Yes.	
§63.2	Definitions	Yes	Additional definitions are specified in §63.4981.
§63.3(a)–(c)	Units and Abbreviations	Yes.	
§63.4(a)(1)–(5)	Prohibited Activities	Yes.	
§63.4(b)–(c)	Circumvention/Severability	Yes.	
§63.5(a)	Construction/Reconstruction	Yes.	
§63.5(b)(1)–(6)	Requirements for Existing, Newly Constructed, and Reconstructed Sources	Yes.	
§63.5(d)	Application for Approval of Construction/Reconstruction	Yes.	
§63.5(e)	Approval of Construction/Reconstruction	Yes.	
§63.5(f)	Approval of Construction/Reconstruction Based on Prior State Review	Yes.	
§63.6(a)	Compliance With Standards and Maintenance Requirements—Applicability	Yes.	
§63.6(b)	Compliance Dates for New	Yes	Section

(1)–(7)	and Reconstructed Sources		63.4883 specifies the compliance dates.
§63.6(c) (1)–(5)	Compliance Dates for Existing Sources	Yes	Section 63.4883 specifies the compliance dates.
§63.6(e) (1)–(2)	Operation and Maintenance	Yes.	
§63.6(e) (3)	SSMP	Yes	Only sources using an add-on control device to comply with the standard must complete SSMP.
§63.6(f) (1)	Compliance Except During Startup, Shutdown, and Malfunction	Yes	Applies only to sources using an add-on control device to comply with the standards.
§63.6(f) (2)–(3)	Methods for Determining Compliance	Yes.	
§63.6(g) (1)–(3)	Use of Alternative Standards	Yes.	
§63.6(h)	Compliance With Opacity/Visible Emission Standards	No	Subpart RRRR does not establish opacity standards and does not require continuous opacity monitoring systems (COMS).
§63.6(i) (1)–(16)	Extension of Compliance	Yes.	
§63.6(j)	Presidential Compliance Exemption	Yes.	
§63.7(a) (1)	Performance Test Requirements—Applicability	Yes	Applies to all affected

			sources using an add-on control device to comply with the standards. Additional requirements for performance testing are specified in §§63.4963, 63.4964, and 63.4965.
§63.7(a)(2)	Performance Test Requirements—Dates	Yes	Applies only to performance tests for capture system and control device efficiency at sources using these to comply with the standards. Section 63.4960 specifies the schedule for performance test requirements that are earlier than those specified in §63.7(a)(2).
§63.7(a)(3)	Performance Tests Required by the Administrator	Yes.	
§63.7(b)–(e)	Performance Test Requirements—Notification, Quality Assurance, Facilities Necessary Safe Testing, Conditions During Test	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the

			standards.
§63.7(f)	Performance Test Requirements—Use of Alternative Test Method	Yes	Applies to all test methods except those used to determine capture system efficiency.
§63.7(g)–(h)	Performance Test Requirements—Data Analysis, Recordkeeping, Reporting, Waiver of Test	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standards.
§63.8(a)(1)–(3)	Monitoring Requirements—Applicability	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standards. Additional requirements for monitoring are specified in §63.4967.
§63.8(a)(4)	Additional Monitoring Requirements	No	Subpart RRRR does not have monitoring requirements for flares.
§63.8(b)	Conduct of Monitoring	Yes.	
§63.8(c)(1)–(3)	Continuous Monitoring System (CMS) Operation and Maintenance	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply

			with the standards. Additional requirements for CMS operations and maintenance are specified in §63.4967.
§63.8(c) (4)	CMS	No	Section 63.4967 specifies the requirements for the operation of CMS for capture systems and add-on control devices at sources using these to comply.
§63.8(c) (5)	COMS	No	Subpart RRRR does not have opacity or visible emissions standards.
§63.8(c) (6)	CMS Requirements	No	Section 63.4967 specifies the requirements for monitoring systems for capture systems and add-on control devices at sources using these to comply.
§63.8(c) (7)	COS Out-of-Control Periods	Yes.	
§63.8(c) (8)	CMS Out-of-Control Periods Reporting	No	Section 63.4920 requires reporting of

			CMS out-of-control periods.
§63.8(d)–(e)	Quality Control Program and CMS Performance Evaluation	No	Subpart RRRR does not require the use of continuous emissions monitoring systems.
§63.8(f)(1)–(5)	Use of an Alternative Monitoring Method	Yes.	
§63.8(f)(6)	Alternative to Relative Accuracy Test	No	Subpart RRRR does not require the use of continuous emissions monitoring systems.
§63.8(g)(1)–(5)	Data Reduction	No	Sections 63.4966 and 63.4967 specify monitoring data reduction.
§63.9(a)–(d)	Notification Requirements	Yes.	
§63.9(e)	Notification of Performance Test	Yes	Applies only to capture system and add-on control device performance tests at sources using these to comply with the standards.
§63.9(f)	Notification of Visible Emissions/Opacity Test	No	Subpart RRRR does not have opacity or visible emission standards.
§63.9(g)(1)–(3)	Additional Notifications When Using CMS	No	Subpart RRRR does not require the use of continuous emissions monitoring systems.
63.9(h)	Notification of Compliance	Yes	Section

	Status		63.4910 specifies the dates for submitting the notification of compliance status.
§63.9(i)	Adjustment of Submittal Deadlines	Yes.	
§63.9(j)	Change in Previous Information	Yes.	
§63.10 (a)	Recordkeeping/Reporting—Applicability and General Information	Yes.	
§63.10 (b)(1)	General Recordkeeping Requirements	Yes	Additional requirements are specified in §§63.4930 and 63.4931.
§63.10 (b)(2) (i)–(v)	Recordkeeping Relevant to Startup, Shutdown, and Malfunction Periods and CMS	Yes	Requirements for Startup, Shutdown, and Malfunction records only apply to add-on control devices used to comply with the standards.
§63.10 (b)(2) (vi)–(xi)		Yes.	
§63.10 (b)(2) (xii)	Records	Yes.	
§63.10 (b)(2) (xiii)		No	Subpart RRRR does not require the use of continuous emissions monitoring systems.
§63.10 (b)(2) (xiv)		Yes.	
§63.10 (b)(3)	Recordkeeping Requirements for	Yes.	

	Applicability Determinations		
§63.10 (c)(1)– (6)	Additional Recordkeeping Requirements for Sources with CMS	Yes.	
§63.10 (c)(7)– (8)		No	The same records are required in §63.4920(a)(7).
§63.10 (c)(9)– (15)		Yes.	
§63.10 (d)(1)	General Reporting Requirements	Yes	Additional requirements are specified in §63.4920.
§63.10 (d)(2)	Report of Performance Test Results	Yes	Additional requirements are specified in §63.4920(b).
§63.10 (d)(3)	Reporting Opacity or Visible Emissions Observations	No	Subpart RRRR does not require opacity or visible emissions observations.
§63.10 (d)(4)	Progress Reports for Sources With Compliance Extensions	Yes.	
§63.10 (d)(5)	Startup, Shutdown, and Malfunction Reports	Yes	Applies only to add-on control devices at sources using these to comply with the standards.
§63.10 (e)(1)– (2)	Additional CMS Reports	No	Subpart RRRR does not require the use of continuous emissions monitoring systems.
§63.10 (e)(3)	Excess Emissions/CMS Performance Reports	No	Section 63.4920(b) specifies the contents of periodic

			compliance reports.
§63.10 (e)(4)	COMS Data Reports	No	Subpart RRRR does not specify requirements for opacity or COMS.
§63.10 (f)	Recordkeeping/Reporting Waiver	Yes.	
§63.11	Control Device Requirements/Flares	No	Subpart RRRR does not specify use of flares for compliance.
§63.12	State Authority and Delegations	Yes	
§63.13	Addresses	Yes.	
§63.14	Incorporation by Reference	Yes.	
§63.15	Availability of Information/Confidentiality	Yes.	

Table 3 to Subpart RRRR of Part 63—Default Organic HAP Mass Fraction for Solvents and Solvent Blends

You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data.

Solvent/Solvent blend	CAS. No.	Average organic HAP mass fraction	Typical organic HAP, percent by mass
1. Toluene	108–88–3	1.0	Toluene.
2. Xylene(s)	1330–20–7	1.0	Xylenes, ethylbenzene.
3. Hexane	110–54–3	0.5	n-hexane.
4. n-Hexane	110–54–3	1.0	n-hexane.
5. Ethylbenzene	100–41–4	1.0	Ethylbenzene.
6. Aliphatic 140		0	None.
7. Aromatic 100		0.02	1% xylene, 1% cumene.
8. Aromatic 150		0.09	Naphthalene.
9. Aromatic	64742–	0.02	1% xylene, 1%

naphtha	95-6		cumene.
10. Aromatic solvent	64742-94-5	0.1	Naphthalene.
11. Exempt mineral spirits	8032-32-4	0	None.
12. Ligroines (VM & P)	8032-32-4	0	None.
13. Lactol spirits	64742-89-6	0.15	Toluene.
14. Low aromatic white spirit	64742-82-1	0	None.
15. Mineral spirits	64742-88-7	0.01	Xylenes.
16. Hydrotreated naphtha	64742-48-9	0	None.
17. Hydrotreated light distillate	64742-47-8	0.001	Toluene.
18. Stoddard solvent	8052-41-3	0.01	Xylenes.
19. Super high-flash naphtha	64742-95-6	0.05	Xylenes.
20. Varsol [®] solvent	8052-49-3	0.01	0.5% xylenes, 0.5% ethyl benzene.
21. VM & P naphtha	64742-89-8	0.06	3% toluene, 3% xylene.
22. Petroleum distillate mixture	68477-31-6	0.08	4% naphthalene, 4% biphenyl.

Table 4 to Subpart RRRR of Part 63—Default Organic HAP Mass Fraction for Petroleum Solvent Groups¹

You May Use the Mass Fraction Values in the Following Table for Solvent Blends for Which You Do Not Have Test Data or Manufacturer's Formulation Data:

Solvent type	Average organic HAP mass fraction	Typical organic percent HAP, by mass
Aliphatic ²	0.03	1% Xylene, 1% Toluene, and 1% Ethylbenzene.
Aromatic ³	0.06	4% Xylene, 1% Toluene, and 1% Ethylbenzene.

¹Use this table only if the solvent blend does not match any of the solvent blends in Table 3 to this subpart and you only know whether the blend is aliphatic or aromatic.

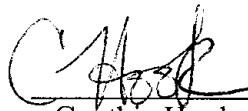
²E.g., Mineral Spirits 135, Mineral Spirits 150 EC, Naphtha, Mixed Hydrocarbon, Aliphatic Hydrocarbon, Aliphatic Naphtha, Naphthol Spirits, Petroleum Spirits, Petroleum Oil, Petroleum Naphtha, Solvent Naphtha, Solvent Blend.

³E.g., Medium-flash Naphtha, High-flash Naphtha, Aromatic Naphtha, Light Aromatic Naphtha, Light Aromatic Hydrocarbons, Aromatic Hydrocarbons, Light Aromatic Solvent.

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CERTIFICATE OF SERVICE

I, Cynthia Hook, hereby certify that a copy of this permit has been mailed by first class mail to Correll, Incorporated, P.O. Box 417, Charleston, AR, 72933, on this 7th day of January, 2009.



Cynthia Hook, AAIL, Air Division

