INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

TO: Interested Parties / Applicant

DATE: June 28, 2011

RE: Kimball International, Inc. – 15th Street Contiguous Source / 037-29558-00100

FROM: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision: Approval – Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-6-1(b) or IC 13-15-6-1(a) require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204.

For an **initial Title V Operating Permit**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **thirty (30)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(b).

For a **Title V Operating Permit renewal**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **fifteen (15)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(a).

The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

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(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for considerations at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of an initial Title V operating permit, permit renewal, or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impractible to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency
401 M Street
Washington, D.C. 20406

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNTVOP.dot12/3/07

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Part 70 Operating Permit Renewal
OFFICE OF AIR QUALITY

Kimball International, Inc. - 15th Street Contiguous Source
1620 Cherry Street & 1650 Cherry Street; 1180 East 16th Street; 1037 East 15th Street & 1450 Cherry Street; 1038 East 15th Street & Northwest corner of East 16th Street & Cherry Street, Jasper, Indiana 47549

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T037-29558-00100	
Issued by:	Issuance Date: June 28, 2011
Chrystal A. Wagner, Section Chief Permits Branch Office of Air Quality	Expiration Date: June 28, 2016

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1, A.3, and A.4 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(15)][326 IAC 2-7-1(22)]

The Permittee owns and operates four (4) stationary manufacturing plants in a contiguous source relating to the operation of: (1) the laminating of hardwood veneers, softwood veneers and high pressure plastic laminates (HPL) onto particleboard and medium density fiberboard (MDF) products; (2) manufacturing medium and high end furniture, primarily for the lodging industry; (3) manufacturing high end wood office furniture and metal wall panels; and (4) assembly of printed circuits and electronic devices.

Source Address:	1620 Cherry Street & 1650 Cherry Street; 1180 East 16th Street; 1037 East 15th Street & 1450 Cherry Street; 1038 East 15th Street & Northwest corner of East 16th Street & Cherry Street, Jasper, Indiana 47549	
General Source Phone Number:	(812) 634-3234	
SIC Code:	Kimball Office (K.O.) - Jasper Cherry Street:	2435, 2436
	Kimball Hospitality (K.H) - Jasper 16th Street:	2517, 2511, 2531
	Kimball Office (K.O.) - Jasper 15th Street:	2541, 2542, 2521
	Kimball Electronics, Inc.:	3714, 3577, 3679
County Location:	Dubois	
Source Location Status:	Nonattainment for $PM_{2.5}$ standard Attainment for all other criteria pollutants	
Source Status:	Part 70 Operating Permit Program Major Source, under PSD Major Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories	

A.2 Part 70 Source Definition [326 IAC 2-7-1(22)]

The Kimball International, Inc. - 15th Street Contiguous Source consists of four (4) plants owned by Kimball International, Inc.:

(a) Kimball Office (K.O.) - Jasper Cherry Street is located at 1620 Cherry Street & 1650 Cherry Street, Jasper, IN 47549;

(b) Kimball Hospitality (K.H.) - Jasper 16th Street is located at 1180 East 16th Street, Jasper, IN 47549;

(c) Kimball Office (K.O.) - Jasper 15th Street is located at 1037 East 15th Street & 1450 Cherry Street, Jasper, IN 47549; and

(d) Kimball Electronics, Inc. is located at 1038 East 15th Street & Northwest corner of East 16th Street & Cherry Street, Jasper, IN 47549.

However, these plants are located on one (1) or more contiguous or adjacent properties, have the same two-digit SIC code or have a support relationship, and are under common ownership. Therefore, they are considered one (1) major source, as defined by 326 IAC 2-7-1(22).

A.3 Emission Units and Pollution Control Equipment Summary
[326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

Kimball Office (K.O.) - Jasper Cherry Street:

(a) Two (2) surface coating booths, identified as SB-2A and SB-3A, constructed in 1989 and 1987, respectively, each with maximum process capacities of 595 square feet of particleboard, plastic laminate or veneer per hour, using surface coating operations with particulate emissions controlled by dry filters, and exhausting at stacks SB-2 and SB-3, respectively.

Under Subpart JJ, the surface coating operations identified as SB-2A and SB-3A are each considered an existing affected facility.

(b) Two (2) boilers, consisting of the following:

(1) One (1) wood-fired (firetube) boiler, identified as B-1A, constructed in 1995, with a maximum heat input capacity of 20.5 MMBtu per hour, with a centrifugal collector (cyclone) for particulate control, and exhausting at stack S1.

(2) One (1) natural gas-fired (firetube) boiler used as back-up and equipped to burn only natural gas, identified as B-2A, constructed in 1996, rated at 16.8 MMBtu per hour, and exhausting at stack S2.

Kimball Hospitality (K.H.) - Jasper 16th Street:

(a) Thirty (30) spray booths for wood furniture and panel coating, each equipped with HVLP or air assisted airless spray guns, as described below:

Spray Booth	Unit ID	Installation Date	Type of Control	# of Stacks	Stack/Vent IDs
WOOD FINISH SPRAY BOOTH	1AB	1988	Filter	2	1AB
WOOD FINISH SPRAY BOOTH	2A	1978	Filter	1	2A
WOOD FINISH SPRAY BOOTH	3AB	1978	Water Pan	2	3AB
WOOD FINISH SPRAY BOOTH	4AB	1978	Filter	2	4AB
WOOD FINISH SPRAY BOOTH	5AB	1978	Water Pan	2	5AB
WOOD FINISH SPRAY BOOTH	6A	1978	Water Pan	1	6A
WOOD FINISH SPRAY BOOTH	7AB	1978	Filter	2	7AB
WOOD FINISH SPRAY BOOTH	8AB	1988	Filter	2	8AB
WOOD FINISH SPRAY BOOTH	9AB	1988	Baffle	2	9AB
WOOD FINISH SPRAY BOOTH	10A	Mod. in 2003	Filter	1	10A
WOOD FINISH SPRAY BOOTH	11AB	1977	Water Pan	2	11AB
WOOD FINISH SPRAY BOOTH	12A	1977	Filter	1	12A
WOOD FINISH SPRAY BOOTH	13A	Mod. in 2003	Filter	2	13A
WOOD FINISH SPRAY BOOTH	14A	1977	Filter	1	14A
WOOD FINISH SPRAY BOOTH	15AB	1977	Water Pan	2	15AB
WOOD FINISH SPRAY BOOTH	16A	1977	Filter	1	16A
WOOD FINISH SPRAY BOOTH	17AB	1988	Filter	2	17AB
WOOD FINISH SPRAY BOOTH	18A	1977	Filter	1	18A
WOOD FINISH SPRAY BOOTH	19AB	1977	Filter	2	19AB
WOOD FINISH SPRAY BOOTH	20A	1977	Water Pan	1	20A
WOOD FINISH SPRAY BOOTH	21AB	1977	Water Pan	2	21AB
WOOD FINISH SPRAY BOOTH	22A	1977	Water Pan	1	22A
WOOD FINISH SPRAY BOOTH	23AB	1977	Water Pan	2	23AB
WOOD FINISH SPRAY BOOTH	24AB	1977	Filter	2	24AB
WOOD FINISH SPRAY BOOTH	25A	1977	Water Pan	1	25A
WOOD FINISH SPRAY BOOTH	26A	1977	Filter	1	26A
WOOD FINISH SPRAY BOOTH	28A	1987	Baffle (dip& drain)	1	28A
WOOD FINISH SPRAY BOOTH	29A	1988	Filter	1	29ABC
WOOD FINISH SPRAY BOOTH	29B	1988	Filter	1	
WOOD FINISH SPRAY BOOTH	29C	1988	Filter	1	

Under Subpart JJ, the surface coating operations identified as 1AB, 2A, 3AB, 4AB, 5AB, 6A, 7AB, 8AB, 9AB, 10A, 11AB, 12A, 13A, 14A, 15AB, 16A, 17AB, 18A, 19AB, 20A, 21AB, 22A, 23AB, 24AB, 25A, 26A, 28A, 29A, 29B, and 29C are each considered an existing affected facility.

(b) Two (2) boilers, consisting of the following:

(1) One (1) wood waste-fired (firetube) boiler, identified as B-1B, constructed in 1977, with a maximum heat input capacity of 25.1 MMBtu per hour, with a fly ash collector for particulate control, and exhausting to stack S1.

(2) One (1) natural gas-fired (firetube) boiler equipped to burn only natural gas, identified as B-2B, constructed in 1977, with a maximum heat input capacity of 16.7 MMBtu per hour, and exhausting at stack S2.

Kimball Office (K.O.) - Jasper 15th Street:

(a) Thirty-four (34) surface coating booths for wood furniture and metal panel coating, as described in the following table:

Spray Booth	Unit IDs	Installation Date	Type of Control	Application Method	Stack/Vent IDs
WOOD SPRAY BOOTH	SB-1	1970	Water Pan	WOOD FURNITURE NESHAP COMPLIANT	1
WOOD SPRAY BOOTH	SB-2	1998	Filter		2
WOOD SPRAY BOOTH	SB-3	1970	Water Pan		3AB
WOOD SPRAY BOOTH	SB-4	1970	Filter		4AB
WOOD SPRAY BOOTH	SB-5	2004	Filter		5ABC
WOOD SPRAY BOOTH	SB-6	1970	Filter		6
WOOD SPRAY BOOTH	SB-7	1983	Filter		7AB
WOOD SPRAY BOOTH	SB-8	1970	Filter		8
WOOD SPRAY BOOTH	SB-9	2004	Filter		9AB
WOOD SPRAY BOOTH	SB-10AB	1970	Filter		10AB
WOOD SPRAY BOOTH	SB-11	1970	Filter		11
WOOD SPRAY BOOTH	SB-12	Modified in 2002	Water Pan /filter		12
WOOD SPRAY BOOTH	SB-13	1970	Filter		13
WOOD SPRAY BOOTH	SB-14	Modified in 2002	Water Pan		14
WOOD SPRAY BOOTH	SB-15	2004	Filter		15
WOOD SPRAY BOOTH	SB-16	1998	Filter		16AB
WOOD SPRAY BOOTH	SB-17	Modified in 2002	Water Pan		17AB
WOOD SPRAY BOOTH	SB-18	2004	Filter		18AB
WOOD SPRAY BOOTH	SB-19	1998	Filter		19A
WOOD SPRAY BOOTH	SB-20	Modified in 2002	Filter		20AB
WOOD SPRAY BOOTH	SB-21	Modified in 2002	Filter		21AB
WOOD SPRAY BOOTH	SB-23	1979	Filter		23
WOOD SPRAY BOOTH	SB-24	1979	Filter		24
WOOD SPRAY BOOTH	SB-26	1979	Filter		26
METAL PAINT BOOTH H.S. Paints	SB-27	1979	Filter	Electrostatic Airless	27
METAL PAINT BOOTH H.S. Paints	SB-28	1987	Filter		28
METAL PAINT BOOTH H.S. Paints	SB-29	1987	Filter		29AB
METAL PAINT BOOTH H.S. Paints	SB-30	1978	Filter	Electrostatic Disc	30
WOOD SPRAY BOOTH	SB-32	1989	Filter	WOOD FURNITURE	32AB
WOOD SPRAY BOOTH	SB-33	1989	Filter		33

Spray Booth	Unit IDs	Installation Date	Type of Control	Application Method	Stack/Vent IDs
WOOD SPRAY BOOTH	SB-37	1992	Filter	NESHAP COMPLIANT	37
Dip Tank	DT-22	1990	Water pan	n/a	22
Dip Tank	DT-25	1979	Filter	n/a	25
Dip Tank	DT-38	1992	Filter	n/a	38

NOTE: One (1) additional non-spraying sidedraft flash tunnel, identified as SB-9SDFT, constructed in 2004, installed adjacent to and working in tandem with SB-9 above, using no controls and exhausting to stack 9AB.

Under Subpart JJ, the surface coating operations identified as SB-1, SB-2, SB-2A, SB-3, SB-2A, SB-4, SB-5, SB-6, SB-7, SB-8, SB-9, SB-10AB, SB-11, SB-12, SB-13, SB-14, SB-15, SB-16, SB-17, SB-18, SB-19, SB-20, SB-21, SB-23, SB-24, SB-26, SB-32, SB-33, SB-37, DT-22, DT-25, and DT-38 are each considered an existing affected facility.

Under Subpart RRRR, the surface coating operations identified as SB-27, SB-28, SB-29, and SB-30 are each considered an existing affected facility.

(b) Two (2) boilers, consisting of the following:

(1) One (1) wood waste-fired boiler (Brownnell HRT, firetube), identified as B-1C, constructed in 1961, with a maximum heat input capacity of 14.3 MMBtu per hour, with an 80% efficient fly ash collector for particulate control, and exhausting at stack BS-1.

(2) One (1) natural gas-fired boiler (North American Atlas, firetube) using No.2 fuel oil as emergency back-up fuel, identified as B-2C, constructed in 1971, with a maximum heat input capacity of 16.8 MMBtu per hour, and exhausting at stack BS-2.

(c) One (1) UV water-based wood coating process, approved for construction in 2008, consisting of two (2) coating lines and one (1) sanding/scuffing operation, identified as follows:

(1) One (1) enclosed flat spray coating line, identified as UV-1, with a maximum process capacity of 1,000 pounds per hour of existing wood parts, with particulate controlled by a water filtration system, exhausting to stacks UV1A-A1, UV1B-A2, UV1C-A3, UV1D-A4, UV1E-A5, UV1F-A6a, UV1F-A6b, and UV1F-A6c.

This emissions unit is subject to the provisions of 40 CFR 63, Subpart JJ, the Wood Furniture Manufacturing Operations National Emission Standards for Hazardous Air Pollutants (NESHAP);

(2) One (1) roll coating line with two (2) machines, identified as UV-2, with a maximum process capacity of 1,000 pounds per hour of existing wood parts, exhausting to stacks UV2B-A7, UV2B-A8, UV2E-A9a, and UV2E-A9b.

This emissions unit is subject to the provisions of 40 CFR 63, Subpart JJ, the Wood Furniture Manufacturing Operations National Emission Standards for Hazardous Air Pollutants (NESHAP); and

(3) One (1) sanding/scuffing operation, identified as UV-D1, with particulate emissions controlled by a cartridge filter with a maximum process capacity of 40 pounds per hour, identified as UV-DC1.

Kimball Electronics, Inc.

(a) Eight (8) circuit assembly stations as described in the table below:

Emission Unit	Unit ID New (Old)	Installation Date	Stack New (Old)
Wave Solder	A1 (WSU1)	3/1/1994	AS-1 (304)
Fluxer	A2 (WSU1)	8/1/1996	AS-1 (303)
Wave Solder	A3 (WSU2)	1/1/1998	AS-2 (202)
Fluxer	A4 (WSU2)	1/1/2001	AS-2 (201)
Wave Solder	A5 (WSU3)	2/1/1998	AS-3 (506)
Fluxer	A6 (WSU3)	10/18/2004	AS-3 (507)
Wave Solder	A7 (WSU4)	10/21/2000	AS-4 (711)
Fluxer	A8 (WSU4)	10/21/2000	AS-4 (711)
Wave Solder	J1 (WSU5)	1/1/1998	JS-1 (2001)
Fluxer	J2 (WSU5)	12/1/2002	JS-1 (2001)
Wave Solder	F3 (WSU6)	8/1/1994	FS-3 (2003)
Fluxer	F4 (WSU6)	12/1/2002	FS-3 (2003)
Repair Wave Solder	A9 (WSU7)	10/1/2000	AS-5 (206)
Piller House Solder	E1 (WSU8)	7/1/2001	ES-1 (505)

(b) Three (3) Selective Solder Systems, as described in the following table:

Emission Unit	Unit ID New (Old)	Installation Date	Stack New (Old)
Selective Solder/Fluxer	F1 (SSU1)	12/31/2004	FS-1 (710)
Selective Solder/Fluxer	F2 (SSU2)	12/31/2004	FS-2 (709)
Selective Solder/Fluxer	G3 (SSU3)	12/14/2005	Gs-3 (305)

(c) Four (4) Conformal Coater Systems, as described in the following table:

Emission Unit	Unit ID New (Old)	Installation Date	Stack New (Old)
Coater	C1 (CCU1)	12/30/1997	CS-1 (2012)
Coater	E12 (CCU2)	2/1/2000	ES-9 (508)
Coater	E6 (CCU3)	12/30/2003	ES-3 (712)
Coater	E7 (CCU4)	12/30/2003	ES-3 (713)

(d) One (1) surface coating line of printed circuit boards, approved for construction in 2006, with a maximum coating capacity of 60 units per hour, identified as CCU5, consists of the following:

(1) two (2) coaters; and

Emission Unit	Unit ID New (Old)	Installation Date	Stack New (Old)
Coater	E2 (CCU5 #1)	2005	ES-2 (EF-14)
Coater	E3 (CCU5 #2)	2005	ES-2 (EF-14)

(2) two (2) electric cure ovens.

Emission Unit	Unit ID New (Old)	Installation Date	Stack New (Old)
Cure Oven	E10 (CCU5 #1)	12/30/1997	ES-5 (EF-14)
Cure Oven	E11 (CCU5 #2)	2/1/2000	ES-5 (EF-14)

A.4 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)][326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities as defined in 326 IAC 2-7-1(21), which are specifically regulated:

Kimball Office (K.O.) – Jasper Cherry Street

(a) Insignificant woodworking operations, meeting the definition of "insignificant woodworking operation" specified in 326 IAC 2-7-1(21)(G)(xxix), with a maximum process capacity of 2.54 tons per hour of wood, laminate and veneer, controlled by five (5) baghouses, as follows:

Baghouse / Stack ID	Max. Flow Rate (scfm)	Outlet Grain Loading (gr/scf)
TD1 (formerly MR1A)	70,000	Less than 0.001
TD2	50,000	Less than 0.001
TD3 (formerly MR1B)	14,500	Less than 0.001
TD4	63,000	Less than 0.001
TD5	62,970	Less than 0.001

Each baghouse exhausts either through a stack or into the building and then to general ventilation, depending upon seasonal heating requirements. [326 IAC 2-7-1(21)(G)(xxix)] [326 IAC 6.5-4]

Under 40 CFR 63, Subpart JJ, the woodworking operations, identified as TD1, TD2, TD3, TD4, and TD5, are each considered an existing affected facility.

Kimball Hospitality (K.H.) – Jasper 16th Street

(a) One (1) insignificant woodworking operation, identified as MV, meeting the definition of "insignificant woodworking operation" specified in 326 IAC 2-7-1(21)(G)(xxix), controlled by one (1) baghouse, identified as MV having an exhaust rate of 78,385 scfm and an outlet grain loading of less than 0.001 grain per dry standard cubic foot or TD6 having exhaust rate of 70,000 scfm and an outlet grain loading of less than 0.001 grain per dry standard cubic foot , and exhausting at stack MV. [326 IAC 2-7-1(21)(G)(xxix)] [326 IAC 6.5-1-2]

Under 40 CFR 63, Subpart JJ, the woodworking operations, identified as MV, is considered an existing affected facility.

(b) One (1) research and development booth, identified as RD1, equipped with HVLP and air assisted airless spray guns, using dry filters to control particulate emissions, and exhausting to RD1. [326 IAC 6.5-1-2]

Kimball Office (K.O.) - Jasper 15th Street:

(a) Three (3) insignificant woodworking operations, meeting the definition of "insignificant woodworking operation" specified in 326 IAC 2-7-1(21)(G)(xxix), as follows:

(1) One (1) insignificant woodworking operation, identified as MD, constructed prior to 1980, with a maximum process weight rate of 993 pounds of wood per hour, controlled by a baghouse (MD) with a maximum air flow rate of 76,800 scfm and a outlet grain loading of less than 0.001 grain per dry standard cubic foot, and exhausting to stack MD. [326 IAC 2-7-1(21)(G)(xxix)] [326 IAC 6.5-1-2]

(2) One (1) insignificant woodworking operation, identified as CD-1, constructed prior to 1980, with a maximum process weight rate of 993 pounds of wood per hour, controlled by a baghouse (CD-1) with a maximum air flow rate of 45,000 scfm and a outlet grain loading of less than 0.001 grain per dry standard cubic foot, and exhausting to stack CD-1. [326 IAC 2-7-1(21)(G)(xxix)] [326 IAC 6.5-1-2]

(3) One (1) insignificant woodworking operation, identified as T-1, constructed prior to 1980, with a maximum process weight rate of 834 pounds of wood per hour, controlled by a baghouse (T-1) with a maximum air flow rate of 61,000 scfm and a outlet grain loading of less than 0.001 grain per dry standard cubic foot, and exhausting to stack T-1. [326 IAC 2-7-1(21)(G)(xxix)] [326 IAC 6.5-1-2]

Under 40 CFR 63, Subpart JJ, the woodworking operations, identified as CD1, MD, and T-1, are each considered an existing affected facility.

(b) Activities with VOC emissions less than 3 lb/hr or 15 lb/day, consisting of one (1) pyrolysis furnace rated at 0.4 MMBtu per hour, identified as BO-3, constructed in 2003, using an afterburner for control and exhausting to stack BO-3. [326 IAC 4-2-2]

Kimball Electronics, Inc.

(a) One (1) composite milling operation used for milling metal and plastic, with particulate emissions controlled by a cyclone (DC-1), and exhausting to stack 401. [326 IAC 6.5-1-2]

A.5 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][IC 13-15-3-6(a)]

(a) This permit, T037-29558-00100, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability [326 IAC 2-7-7] [IC 13-17-12]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

(a) A certification required by this permit meets the requirements of 326 IAC 2-7-6(1) if:
  (1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(34), and

(2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

(c) A "responsible official" is defined at 326 IAC 2-7-1(34).

B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)][326 IAC 2-7-6(1) and (6)][326 IAC 1-6-3]

(a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The Permittee shall implement the PMPs.

(b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

The Permittee shall implement the PMPs.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Emergency Provisions [326 IAC 2-7-16]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the

affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, or Southwest Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865
Southwest Regional Office phone: (812) 380-2305; fax: (812) 380-2304**.**

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.
The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or

contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]

(a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

(c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

(d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

(2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and

(4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.

(e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

(f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]

(g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]

(a) All terms and conditions of permits established prior to T037-29558-00100 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised under 326 IAC 2-7-10.5, or

(3) deleted under 326 IAC 2-7-10.5.

(b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.16 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(b) A timely renewal application is one that is:

(1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.17 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]

(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.18 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]

(a) No Part 70 permit revision or notice shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.19 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b),(c), or (e) without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

(3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b),(c), or (e). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-7-20(b)(1), (c)(1), and (e)(2).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).

(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

(e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.20 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.

B.21 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee’s right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-7-5(1)]

C.1 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-1 (Applicability) and 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.2 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.3 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

C.4 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.5 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the attached plan as in Attachment A. The provisions of 326 IAC 6-5 are not federally enforceable.

C.6 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-1(3), 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4, and 326 IAC 1-7-5(a), (b), and (d) are not federally enforceable.

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work

or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Demolition and Renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

(g) Indiana Licensed Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-7-6(1)]

C.8 Performance Testing [326 IAC 3-6]

(a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality

100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.9 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]

C.10 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or of initial start-up, whichever is later, to begin such monitoring. If due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance or the date of initial startup, whichever is later, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34). Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

C.11 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.

(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps [326 IAC 2-7-5][326 IAC 2-7-6]

C.12 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee shall maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.13 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.14 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

(a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to normal or usual manner of operation.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records; and/or

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall record the reasonable response steps taken.

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.

(b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.16 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

(1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);

(2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

The emission statement does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

C.17 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

C.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

(b) The address for report submittal is:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

Stratospheric Ozone Protection

C.19 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with applicable standards for recycling and emissions reduction.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Kimball Office (K.O.) - Jasper Cherry Street

Emissions Unit Description: Boilers

(a) Two (2) boilers, consisting of the following:

(1) One (1) wood-fired (firetube) boiler, identified as B-1A, constructed in 1995, with a maximum heat input capacity of 20.5 MMBtu per hour, with a centrifugal collector (cyclone) for particulate control, and exhausting at stack S1.

(2) One (1) natural gas-fired (firetube) boiler used as back-up and equipped to burn only natural gas, identified as B-2A, constructed in 1996, rated at 16.8 MMBtu per hour, and exhausting at stack S2.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Particulate [326 IAC 6.5-4-17]

(a) Pursuant to 326 IAC 6.5-4-17, the particulate matter emissions from the 20.5 MMBtu/hr wood-fired boiler (B-1A) located at Kimball Office (K.O.) - Jasper Cherry Street shall not exceed 0.60 pounds per million British thermal units and 6.9 tons per year.

(b) Pursuant to 326 IAC 6.5-4-17, the particulate matter emissions from the 16.8 MMBtu per hour natural gas-fired boiler (B-2A) shall not exceed 0.003 pounds per MMBtu, 0.01 grains per dry standard foot and 0.2 tons per year.

D.1.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan is required for the wood-fired boiler and its control device. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.1.3 Particulate Control [326 IAC 2-7-6(6)]

Except as otherwise provided by statue, rule, or this permit, and in order to comply with Condition D.1.1(a), the cyclone for particulate control shall be in operation and control emissions from the wood-fired boiler at all times that the wood-fired boiler is in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.4 Visible Emissions Notations

(a) Visible emission notations of the wood-fired boiler (B-1A) stack exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take a reasonable response step. Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.1.5 Cyclone Failure Detection

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. The boiler shall be shut down no later than the completion of the processing of the material in the associated process. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section C- Response to Excursions or Exceedances).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.6 Record Keeping Requirements

(a) To document the compliance status with Condition D.1.4, the Permittee shall maintain records of daily visible emission notations of the wood-fired boiler (B-1A) stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (i.e. the process did not operate that day).

(b) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Kimball Office (K.O.) - Jasper Cherry Street

Emissions Unit Description: Insignificant Activities: Woodworking

(a) Insignificant woodworking operations, meeting the definition of "insignificant woodworking operation" specified in 326 IAC 2-7-1(21)(G)(xxix), with a maximum process capacity of 2.54 tons per hour of wood, laminate and veneer, controlled by five (5) baghouses, as follows:

Baghouse / Stack ID	Max. Flow Rate (scfm)	Outlet Grain Loading (gr/scf)
TD1 (formerly MR1A)	70,000	Less than 0.001
TD2	50,000	Less than 0.001
TD3 (formerly MR1B)	14,500	Less than 0.001
TD4	63,000	Less than 0.001
TD5	62,970	Less than 0.001

Each baghouse exhausts either through a stack or into the building and then to general ventilation, depending upon seasonal heating requirements. [326 IAC 2-7-1(21)(G)(xxix)] [326 IAC 6.5-1-9]

Under 40 CFR 63, Subpart JJ, the woodworking operations, identified as TD1, TD2, TD3, TD4, and TD5, are each considered an existing affected facility.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Prevention of Significant Deterioration [326 IAC 2-2]

Pursuant to Minor Source Modification 037-17478-00100, issued on October 8, 2003, and 326 IAC 2-2 (Prevention of Significant Deterioration), the baghouse (TD4) shall comply with the following limits when the woodworking operation is in operation:

(a) Emissions of PM shall be limited to less than 5.7 pounds per hour.

(b) Emissions of PM_{10} shall be limited to less than 3.42 pounds per hour.

(c) At least 99% control efficiency; and

(d) No visible emissions.

Compliance with these limits renders the requirements of 326 IAC 2-2 (PSD) not applicable.

D.2.2 Baghouse Limitations [326 IAC 2-7-1(21)(G)(xxix)]

The woodworking operations, controlled by the baghouses TD1, TD2, TD3, TD4, and TD5, shall be considered insignificant activities for Title V permitting purposes provided that the baghouse operations meet the requirements of 326 IAC 2-7-1(21)(G)(xxix), including the following:

(a) Each woodworking baghouse shall not exhaust to the atmosphere greater than one hundred twenty-five thousand (125,000) cubic feet of air per minute and shall not emit particulate matter with a diameter less than ten (10) microns in excess of three-thousandths (0.003) grain per dry standard cubic foot of outlet air.

(b) The opacity from each baghouse shall not exceed ten percent (10%).

(c) Visible emissions from the baghouse shall be observed daily using procedures in accordance with Method 22 and normal or abnormal emissions are recorded. In the

event abnormal emissions are observed for greater than six (6) minutes in duration, the following shall occur:

(1) The baghouse shall be inspected.

(2) Corrective actions, such as replacing or reseating bags, are initiated, when necessary.

D.2.3 Particulate Emission Limitations [326 IAC 6.5-4-17]

Pursuant to 326 IAC 6.5-4-17, the particulate emissions from the woodworking operations located at Kimball Office (K.O.) – Jasper Cherry Street, identified as TD1 and TD3, shall be limited to a total of two (2) tons per year.

D.2.4 Particulate Emission Limitations [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2(a), the allowable particulate emission rate from the woodworking operations located at Kimball Office (K.O.) – Jasper Cherry Street, identified as TD2, TD4, and TD5, shall not exceed three-hundredths (0.03) grain per dry standard cubic foot of exhaust air.

D.2.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan is required for the woodworking facility and its control device. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.2.6 Particulate Control [326 IAC 2-7-21(1)(G)(xxix)(DD)] [326 IAC 6.5-1-2] [326 IAC 6.5-4-17] [326 IAC 2-7-6(6)]

The baghouses for particulate control shall be in operation at all times when the woodworking facilities are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.2.7 Baghouse Inspections [326 IAC 2-7-21(1)(G)(xxix)(FF)]

An inspection shall be performed each calendar quarter of all bags controlling the woodworking operation when venting to the atmosphere. A baghouse inspection shall be performed within three (3) months of redirecting vents to the atmosphere and every three (3) months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be repaired or replaced.

D.2.8 Broken or Failed Bag Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(c) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

Bag failure can be indicated by a significant drop in the baghouses pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.9 Record Keeping Requirements

(a) To document the compliance status with Condition D.2.7, the Permittee shall maintain records of the results of the inspections required under Condition D.2.2(c) and Condition D.2.7 and the dates the vents are redirected.

(b) To document the compliance status with Conditions D.2.1 and D.2.2(c), the Permittee shall maintain records of daily visible emission notations of the baghouse exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (i.e. the process did not operate that day).

(c) The Permittee shall maintain records of corrective actions to document compliance with 326 IAC 2-7-21(1)(G)(xxix)(GG)(dd).

(d) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Kimball Office (K.O.) – Jasper Cherry Street

Emissions Unit Description: Surface Coating

(a) Two (2) surface coating booths, identified as SB-2A and SB-3A, constructed in 1989 and 1987, respectively, each with maximum process capacities of 595 square feet of particleboard, plastic laminate or veneer per hour, using surface coating with particulate emissions controlled by dry filters, and exhausting at stacks SB-2 and SB-3, respectively.

Under Subpart JJ, the surface coating operations, identified as SB-2A and SB-3A, are each considered an existing affected facility.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 Particulate Emission Limitations [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2(a), particulate emissions from the surface coating operations (SB-2A and SB-3A) shall not exceed 0.03 grains per dry standard cubic foot of exhaust air.

D.3.2 Volatile Organic Compounds [326 IAC 8-1-6]

The input of VOC to SB-3A shall be limited to less than 24.9 tons of VOC per twelve (12) consecutive month period, with compliance determined at the end of each month. Therefore, 326 IAC 8-1-6 does not apply.

D.3.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan is required for the surface coating facility and its control device. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.3.4 Particulate Control [326 IAC 2-7-6(6)]

In order to comply with Condition D.3.1, the dry filters for particulate control shall be in operation and control emissions from the surface coating operations at all times that these facilities are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.3.5 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the particulate matter from the surface coating booth stacks (SB-2 and SB-3) while one or more of the booths are in operation. If a condition exists which should result in a response step, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stacks and the presence of particulate matter on the rooftops and the nearby ground. When there is a noticeable change in particulate matter emissions, or when evidence of particulate matter emissions is observed, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this

permit.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.6 Record Keeping Requirements

(a) To document the compliance status with Condition D.3.5, the Permittee shall maintain a log of weekly particulate matter observations, and daily and monthly inspections.

(b) To document the compliance status with Condition D.3.2, the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC content and usage limits and/or the VOC emission limits established in Condition D.3.2 for SB-3A.

(1) The amount of VOC in each coating material and solvent used;

(2) The weight of VOCs emitted for each month; and

(3) The weight of VOCs emitted for each compliance period.

(c) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Kimball Hospitality (K.H.) - Jasper 16th Street

Emissions Unit Description: Boilers

(a) Two (2) boilers, consisting of the following:

(1) One (1) wood waste-fired (firetube) boiler, identified as B-1B, constructed in 1977, with a maximum heat input capacity of 25.1 MMBtu per hour, with a fly ash collector for particulate control, and exhausting to stack S1.

(2) One (1) natural gas-fired (firetube) boiler equipped to burn only natural gas, identified as B-2B, constructed in 1977, with a maximum heat input capacity of 16.7 MMBtu per hour, and exhausting at stack S2.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.4.1 Particulate Emission Limitations [326 IAC 6.5-1-2]

(a) Pursuant to 326 IAC 6.5-1-2(b)(1)(B), the particulate emissions from the 25.1 MMBtu wood-fired boiler (B-1B) located at Kimball Hospitality (K.H.) – Jasper 16th Street shall not exceed thirty-five hundredths (0.35) pounds per MMBtu of heat input.

(b) Pursuant to 326 IAC 6.5-1-2(b)(3), the particulate emissions from the 16.7 MMBtu natural gas-fired boiler (B-2B) located at Kimball Hospitality (K.H.) – Jasper 16th Street shall not exceed 0.01 grain per dry standard cubic foot.

D.4.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan is required for the wood-fired boiler and its control device. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

D.4.3 Particulate Control [326 IAC 2-7-6(6)]

In order to comply with Condition D.4.1, the fly ash collector/cyclone for particulate control shall be in operation and control emissions from the wood-fired boiler (B-1B) at all times that the wood-fired boiler is in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.4.4 Visible Emissions Notations

(a) Visible emission notations of the wood-fired boiler (B-1B) stack exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.4.5 Fly Ash Collector/Cyclone Failure Detection

In the event that fly ash collector/cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. The boiler shall be shut down no later than the completion of the processing of the material in the associated process. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section C-Response to Excursions or Exceedances).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.4.6 Record Keeping Requirements

(a) To document the compliance status with Condition D.4.4, the Permittee shall maintain records of daily visible emission notations of the wood-fired boiler (B-1B) stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (i.e. the process did not operate that day).

(b) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

Kimball Hospitality (K.H.) - Jasper 16th Street

Emissions Unit Description: Insignificant Woodworking and R&D Booth

(a) One (1) insignificant woodworking operation, identified as MV, meeting the definition of "insignificant woodworking operation" specified in 326 IAC 2-7-1(21)(G)(xxix), controlled by one (1) baghouse (MV), having an exhaust rate of 78,385 scfm and an outlet grain loading of less than 0.001 grain per dry standard cubic foot, and exhausting at stack MV. [326 IAC 2-7-1(21)(G)(xxix)] [326 IAC 6.5-1-2]

Under 40 CFR 63, Subpart JJ, the woodworking operations, identified as MV, is considered an existing affected facility.

(b) One (1) research and development booth, identified as RD1, equipped with HVLP and air assisted airless spray guns, using dry filters to control particulate emissions, and exhausting to stack RD1. [326 6.5-1-2]

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.5.1 Baghouse Limitations [326 IAC 2-7-1(21)(G)(xxix)]

The woodworking operation (MV) controlled by a baghouse shall be considered insignificant activities for Title V permitting purposes provided that the baghouse operations meet the requirements of 326 IAC 2-7-1(21)(G)(xxix), including the following:

(a) Each woodworking baghouse shall not exhaust to the atmosphere greater than one hundred twenty-five thousand (125,000) cubic feet of air per minute and shall not emit particulate matter with a diameter less than ten (10) microns in excess of three-thousandths (0.003) grain per dry standard cubic foot of outlet air.

(b) The opacity from each baghouse shall not exceed ten percent (10%).

(c) Visible emissions from the baghouse shall be observed daily using procedures in accordance with Method 22 and normal or abnormal emissions are recorded. In the event abnormal emissions are observed for greater than six (6) minutes in duration, the following shall occur:

(1) The baghouse shall be inspected.

(2) Corrective actions, such as replacing or reseating bags, are initiated, when necessary.

D.5.2 Particulate Emission Limitations [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2(a), the allowable particulate emission rate from each of the woodworking operations located at Kimball Hospitality (K.H.) – Jasper 16th Street and identified as MV, and the research and development booth (RD1), shall not exceed three-hundredths (0.03) grain per dry standard cubic foot of exhaust air.

D.5.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan is required for this woodworking facility and its control device. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.5.4 Particulate Control [326 IAC 2-7-21(1)(G)(xxix)(DD)] [326 IAC 6.5-1-2] [326 IAC 2-7-6(6)]

(a) The baghouse for particulate control shall be in operation at all times when the woodworking facility is in operation.

(b) In order to comply with D.5.2, the dry filters for particulate control shall be in operation and control emissions from the research and development booth (RD1), at all times that this booth is in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.5.5 Baghouse Inspections [326 IAC 2-7-21(1)(G)(xxix)(FF)]

An inspection shall be performed each calendar quarter of all bags controlling the woodworking operation when venting to the atmosphere. A baghouse inspection shall be performed within three (3) months of redirecting vents to the atmosphere and every three (3) months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be repaired or replaced.

D.5.6 Broken or Failed Bag Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced.

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emissions unit.

(c) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, or dust traces.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.5.7 Record Keeping Requirements

(a) To document the compliance status with Condition D.5.5, the Permittee shall maintain records of the results of the inspections required under Condition D.5.1(c) and Condition D.5.5 and the dates the vents are redirected.

(b) To document the compliance status with Condition D.5.1(c), the Permittee shall maintain records of daily visible emission notations of the baghouse exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (i.e. the process did not operate that day).

(c) The Permittee shall maintain records of corrective actions to document the compliance status with 326 IAC 2-7-21(1)(G)(xxix)(GG)(dd).

(d) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

SECTION D.6 EMISSIONS UNIT OPERATION CONDITIONS

Kimball Hospitality (K.H.) – Jasper 16th Street

Emissions Unit Description: Wood Surface Coating

(a) Twenty-nine (29) spray booths for wood furniture and panel coating, each equipped with HVLP or air assisted airless spray guns, as described below:

Spray Booth	Unit ID	Installation Date	Type of Control	# of Stacks	Stack/Vent IDs
WOOD FINISH SPRAY BOOTH	1AB	1988	Filter	2	1AB
WOOD FINISH SPRAY BOOTH	2A	1978	Filter	1	2A
WOOD FINISH SPRAY BOOTH	3AB	1978	Water Pan	2	3AB
WOOD FINISH SPRAY BOOTH	4AB	1978	Water Pan	2	4AB
WOOD FINISH SPRAY BOOTH	5AB	1978	Water Pan	2	5AB
WOOD FINISH SPRAY BOOTH	6A	1978	Water Pan	1	6A
WOOD FINISH SPRAY BOOTH	7AB	1978	Filter	2	7AB
WOOD FINISH SPRAY BOOTH	8AB	1988	Baffle	2	8AB
WOOD FINISH SPRAY BOOTH	9AB	1988	Baffle	2	9AB
WOOD FINISH SPRAY BOOTH	10A	Modified in 2003	Side Vertical Draft	1	10A
WOOD FINISH SPRAY BOOTH	11AB	1977	Water Pan	2	11AB
WOOD FINISH SPRAY BOOTH	12A	1977	Filter	1	12A
WOOD FINISH SPRAY BOOTH	13AB	Modified in 2003	Down Draft	2	13AB
WOOD FINISH SPRAY BOOTH	14A	1977	Water Pan	1	14A
WOOD FINISH SPRAY BOOTH	15AB	1977	Water Pan	2	15AB
WOOD FINISH SPRAY BOOTH	16A	1977	Water Pan	1	16A
WOOD FINISH SPRAY BOOTH	18A	1977	Water Pan	1	18A
WOOD FINISH SPRAY BOOTH	19AB	1977	Water Pan	2	19AB
WOOD FINISH SPRAY BOOTH	20A	1977	Water Pan	1	20A
WOOD FINISH SPRAY BOOTH	21AB	1977	Water Pan	2	21AB
WOOD FINISH SPRAY BOOTH	22A	1977	Water Pan	1	22A
WOOD FINISH SPRAY BOOTH	23AB	1977	Water Pan	2	23AB
WOOD FINISH SPRAY BOOTH	24AB	1977	Water Pan	2	24AB
WOOD FINISH SPRAY BOOTH	25A	1977	Water Pan	1	25A
WOOD FINISH SPRAY BOOTH	26A	1977	Water Pan	1	26A
WOOD FINISH SPRAY BOOTH	28A	1987	Baffle	1	28A
WOOD FINISH SPRAY BOOTH	29A	1988	Baffle	1	29ABC
WOOD FINISH SPRAY BOOTH	29B	1988	Baffle	1	
WOOD FINISH SPRAY BOOTH	29C	1988	Filter	1	

Under Subpart JJ, the surface coating operations, identified as 1AB, 2A, 3AB, 4AB, 5AB, 6A, 7AB, 8AB, 9AB, 10A, 11AB, 12A, 13A, 14A, 15AB, 16A, 17AB, 18A, 19AB, 20A, 21AB, 22A, 23AB, 24AB, 25A, 26A, 28A, 29A, 29B, and 29C, are each considered an existing affected facility.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.6.1 Volatile Organic Compounds (BACT) [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6 and Part 70 Operating Permit No. T037-7356-00100 issued May 15, 2006, spray booths 1AB, 8AB, 9AB, 28A, 29A, 29B, and 29C shall apply all coating material, with the exception of no more than ten (10) gallons of coating per day used for touch-up and repair operations, using one (1) or more of the following application systems:

(a) Airless spray application;
(b) Air-assisted airless spray application;
(c) Electrostatic spray application;
(d) Electrostatic bell or disc application;
(e) Heated airless spray application;
(f) Roller coat;
(g) Brush or wipe application; or
(h) Dip-and-drain application.

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

D.6.2 Volatile Organic Compounds (VOC) [326 IAC 8-2-12]

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), the surface coating applied to wood furniture and cabinets at emission units identified as 10A and 13AB shall apply all coating material, with the exception of no more than ten (10) gallons of coating per day used for touch-up and repair operations, using one (1) or more of the following application systems:

(a) Airless spray application;
(b) Air-assisted airless spray application;
(c) Electrostatic spray application;
(d) Electrostatic bell or disc application;
(e) Heated airless spray application;
(f) Roller coat;
(g) Brush or wipe application; or
(h) Dip-and-drain application.

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

D.6.3 Particulate Emission Limitations [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2(a), particulate emissions from the surface coating operations (1AB, 2A, 3AB, 4AB, 5AB, 6A, 7AB, 8AB, 9AB, 10A, 11AB, 12A, 13AB, 14A, 15AB, 16A, 18A, 19AB, 20A, 21AB, 22A, 23AB, 24AB, 25A, 26A, 28A, 29A, 29B, 29C) shall not exceed 0.03 grains per dry standard cubic foot of exhaust air.

D.6.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan is required for the wood surface coating facility and its control device. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.6.5 Particulate Control [326 IAC 2-7-6(6)]

In order to comply with Condition D.6.3, the dry filters, water pans and baffles for particulate control shall be in operation and control emissions from the surface coating operations at all times that these facilities are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.6.6 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the dry filters. Daily inspections shall be performed to verify that the water level of the water pans meet the manufacturer's recommended level. To monitor the performance of the water pans, the water level of the pans shall be maintained weekly at a level where surface agitation indicates impact of the air flow. Water shall be kept free of solids and floating material that reduces the capture efficiency of the water pan. To monitor the performance of the baffles, weekly inspections of the baffle panels shall be conducted to verify placement and configuration meet recommendations of the manufacturer. To monitor the performance of the dry filters, water pans and baffles, weekly observations shall be made of the particulate matter from the surface coating booth stacks (1AB, 2A, 3AB, 4AB, 5AB, 6A, 7AB, 8AB, 9AB, 10A, 11AB, 12A, 13AB, 14A, 15AB, 16A, 18A, 19AB, 20A, 21AB, 22A, 23AB, 24AB, 25A, 26A, 28A, 29ABC) while one or more of the booths are in operation. If a condition exists which should result in a response step, the Permittee shall take reasonable response steps. Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stacks and the presence of particulate matter on the rooftops and the nearby ground. When there is a noticeable change in particulate matter emissions, or when evidence of particulate matter emissions is observed, the Permittee shall take reasonable response steps. Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.6.7 Record Keeping Requirements

(a) To document the compliance status with Condition D.6.6, the Permittee shall maintain a log of weekly particulate matter observations, and daily and monthly inspections.

(b) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

SECTION D.7 EMISSIONS UNIT OPERATION CONDITIONS

Kimball Office (K.O.) - Jasper 15th Street

Emissions Unit Description: Boilers

Two (2) boilers, consisting of the following:

(1) One (1) wood waste-fired boiler (Brownnell HRT, firetube), identified as B-1C, constructed in 1961, with a maximum heat input capacity of 14.3 MMBtu per hour, with an 80% efficient fly ash collector for particulate control, and exhausting at stack BS-1.

(2) One (1) natural gas-fired boiler (North American Atlas, firetube) using No.2 fuel oil as emergency back-up fuel, identified as B-2C, constructed in 1971, with a maximum heat input capacity of 16.8 MMBtu per hour, and exhausting at stack BS-2.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.7.1 Particulate Emission Limitations [326 IAC 6.5-1-2]

(a) Pursuant to 326 IAC 6.5-1-2(b)(1)(C), the particulate emissions from the 14.3 MMBtu wood-fired boiler (B-1C) located at Kimball Office (K.O.) - Jasper 15th Street shall not exceed six-tenths (0.6) pound per MMBtu of heat input.

(b) Pursuant to 326 IAC 6.5-1-2(b)(3), the particulate emissions from the 16.8 MMBtu natural gas-fired boiler (B-2C) located at Kimball Office (K.O.) - Jasper 15th Street shall not exceed one-hundredth (0.01) grain per dry standard cubic feet when burning natural gas.

(c) Pursuant to 326 IAC 6.5-1-2(b)(2), the particulate emissions from the 16.8 MMBtu natural gas-fired boiler (B-2C) located at Kimball Office (K.O.) - Jasper 15th Street shall not exceed fifteen-hundredths (0.15) pound per MMBtu heat input when burning No. 2 fuel oil.

D.7.2 Sulfur Dioxide (SO_2) [326 IAC 7-1.1-1] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (SO_2 Emissions Limitations), the SO_2 emissions from the 16.8 MMBtu per hour boiler identified as B-2C shall not exceed five tenths (0.5) pound per MMBtu heat input when burning No. 2 fuel oil as emergency backup fuel. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

D.7.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan is required for the wood-fired boiler and its control device. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.7.4 Sulfur Dioxide Emissions and Sulfur Content

Compliance with Condition D.7.2 for the 16.8 MMBtu/hr boiler, identified as B-2C, when burning fuel oil as emergency backup shall be determined utilizing one (1) of the following options:

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million Btu heat input by:

(1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or

(2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the 16.8 MMBtu per hour boiler identified as B-2C, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

D.7.5 Particulate Control [326 IAC 2-7-6(6)]

In order to comply with Conditions D.7.1(a), the fly ash collector/cyclone for particulate control shall be in operation and control emissions from the wood-fired boiler at all times that the wood-fired boiler is in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.7.6 Visible Emissions Notations

(a) Visible emission notations of the wood-fired boiler (B-1C) stack exhaust shall be performed once per day during normal daylight operations. Visible emission notations of the natural gas-fired boiler (B-2C) stack exhaust shall be performed once per day during normal daylight operations when combusting fuel oil. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.7.7 Fly Ash Collector/Cyclone Failure Detection

In the event that fly ash collector/cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps shall be considered a deviation from this permit.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.7.8 Record Keeping Requirements

(a) To document the compliance status with Condition D.7.6, the Permittee shall maintain records of daily visible emission notations of the wood-fired boiler (B-1C) stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (i.e. the process did not operate that day).

(b) To document the compliance status with Condition D.7.6, the Permittee shall maintain records of daily visible emission notations of the natural gas-fired boiler (B-2C) stack exhaust when this boiler burns fuel oil as backup. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (i.e. the process did not operate that day).

(c) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

D.7.9 Reporting Requirements

The natural gas boiler certification for the 16.8 MMBtu/hr natural gas-fired boiler, identified as B-2C, shall be submitted not later than thirty (30) days after the end of the six (6) month period being reported. Section C - General Reporting Requirements contains the Permittee's obligation with regard to the reporting required. The natural gas-fired boiler certification does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official,” as defined by 326 IAC 2-1.1-1(1).

SECTION D.8 EMISSIONS UNIT OPERATION CONDITIONS

Kimball Office (K.O.) - Jasper 15th Street

Emissions Unit Description: Insignificant Activities: Woodworking

(a) Three (3) insignificant woodworking operations, meeting the definition of "insignificant woodworking operation" specified in 326 IAC 2-7-1(21)(G)(xxix), as follows:

(1) One (1) insignificant woodworking operation, identified as MD, constructed prior to 1980, with a maximum process weight rate of 993 pounds of wood per hour, controlled by a baghouse (MD) with a maximum air flow rate of 76,800 scfm and a outlet grain loading of less than 0.001 grain per dry standard cubic foot, and exhausting to stack MD. [326 IAC 2-7-1(21)(G)(xxix)] [326 IAC 6.5-1-2]

(2) One (1) insignificant woodworking operation, identified as CD-1, constructed prior to 1980, with a maximum process weight rate of 993 pounds of wood per hour, controlled by a baghouse (CD-1) with a maximum air flow rate of 45,000 scfm and a outlet grain loading of less than 0.001 grain per dry standard cubic foot, and exhausting to stack CD-1. [326 IAC 2-7-1(21)(G)(xxix)] [326 IAC 6.5-1-2]

(3) One (1) insignificant woodworking operation, identified as T-1, constructed prior to 1980, with a maximum process weight rate of 834 pounds of wood per hour, controlled by a baghouse (T-1) with a maximum air flow rate of 61,000 scfm and a outlet grain loading of less than 0.001 grain per dry standard cubic foot, and exhausting to stack T-1. [326 IAC 2-7-1(21)(G)(xxix)] [326 IAC 6.5-1-2]

Under 40 CFR 63, Subpart JJ, the woodworking operations, identified as CD1, MD, and T-1, are each considered an existing affected facility.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.8.1 Baghouse Limitations [326 IAC 2-7-1(21)(G)(xxix)]

The woodworking operations (MD, CD-1 and T-1) controlled by a baghouse shall be considered insignificant activities for Title V permitting purposes provided that the baghouse operations meet the requirements of 326 IAC 2-7-1(21)(G)(xxix), including the following:

(a) Each woodworking baghouse shall not exhaust to the atmosphere greater than one hundred twenty-five thousand (125,000) cubic feet of air per minute and shall not emit particulate matter with a diameter less than ten (10) microns in excess of three-thousandths (0.003) grain per dry standard cubic foot of outlet air.

(b) The opacity from each baghouse shall not exceed ten percent (10%).

(c) Visible emissions from the baghouse shall be observed daily using procedures in accordance with Method 22 and normal or abnormal emissions are recorded. In the event abnormal emissions are observed for greater than six (6) minutes in duration, the following shall occur:

(1) The baghouse shall be inspected.

(2) Corrective actions, such as replacing or reseating bags, are initiated, when necessary.

D.8.2 Particulate Emission Limitations [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2(a), the allowable particulate emission rate from each of the woodworking operations located at Kimball Office (K.O.) - Jasper 15th Street, identified as MD, CD-1 and T-1, shall not exceed three-hundredths (0.03) grain per dry standard cubic foot of exhaust air.

D.8.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan is required for the woodworking operation and its control device. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

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Compliance Determination Requirements

D.8.4 Particulate Control [326 IAC 2-7-21(1)(G)(xxix)(DD)] [326 IAC 6.5-1-2] [326 IAC 2-7-6(6)]

The baghouses for particulate control shall be in operation at all times when the woodworking facilities are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.8.5 Baghouse Inspections [326 IAC 2-7-21(1)(G)(xxix)(FF)]

An inspection shall be performed each calendar quarter of all bags controlling the woodworking operation when venting to the atmosphere. A baghouse inspection shall be performed within three (3) months of redirecting vents to the atmosphere and every three (3) months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be repaired or replaced.

D.8.6 Broken or Failed Bag Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced.

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emissions unit.

(c) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, or dust traces.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.8.7 Record Keeping Requirements

(a) To document the compliance status with Condition D.8.5, the Permittee shall maintain records of the results of the inspections required under Condition D.8.1(c) and Condition D.8.5 and the dates the vents are redirected.

(b) To document the compliance status with Condition D.8.1(c), the Permittee shall maintain records of daily visible emission notations of the baghouse exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (i.e. the process did not operate that day).

(c) The Permittee shall maintain records of corrective actions to document the compliance status with 326 IAC 2-7-21(1)(G)(xxix)(GG)(dd).

(d) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

SECTION D.9 EMISSIONS UNIT OPERATION CONDITIONS

Kimball Office (K.O.) - Jasper 15th Street

Emissions Unit Description: Insignificant Activities

(a) Activities with VOC emissions less than 3 lb/hr or 15 lb/day, consisting of one (1) pyrolysis furnace rated at 0.4 MMBtu per hour, identified as BO-3, constructed in 2003, using an afterburner for control and exhausting to stack BO-3. [326 IAC 4-2-2]

(b) One (1) natural gas-fired boiler for the UV water-based wood coating process, approved for construction in 2008, identified as UV-Boiler, with a maximum rated capacity of 1.67 MMBtu per hour. [326 IAC 6.5-1-2]

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.9.1 Particulate Emission Limitations [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2(b)(3), the allowable particulate emission rate from the gas-fired boiler, identified as UV-Boiler, shall not exceed one-hundredths (0.01) grain per dry standard cubic foot of outlet air.

D.9.2 Burning Regulations [326 IAC 4-2-2]

Pursuant to 326 IAC 4-2-2, the pyrolysis cleaning furnace (BO-3) shall:

(a) Consist of primary and secondary chambers or the equivalent.

(b) Be equipped with a primary burner unless burning wood products.

(c) Comply with 326 IAC 5-1 and 326 IAC 2.

(d) Be maintained properly as specified by the manufacturer and approved by the commissioner.

(e) Be operated according to the manufacturer's recommendations and only burn waste approved by the commissioner.

(f) Comply with other state and/or local rules or ordinances regarding installation and operation of incinerators.

(g) Be operated so that emissions of hazardous material including, but not limited to, viable pathogenic bacteria, dangerous chemicals or gases, or noxious odors are prevented.

(h) Not emit particulate matter in excess of five-tenths (0.5) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas at standard conditions corrected to fifty percent (50%) excess air.

(i) Not create a nuisance or a fire hazard.

If any of the above result, the burning shall be terminated immediately.

SECTION D.10 EMISSIONS UNIT OPERATION CONDITIONS

Kimball Office (K.O.) - Jasper 15th Street

Emissions Unit Description: UV Water-based Wood Coating

(a) One (1) UV water-based wood coating process, approved for construction in 2008, consisting of two (2) coating lines and one (1) sanding/scuffing operation, identified as follows:

(1) One (1) enclosed flat spray coating line, identified as UV-1, with a maximum process capacity of 1,000 pounds per hour of existing wood parts, with particulate controlled by a water filtration system, exhausting to stacks UV1A-A1, UV1B-A2, UV1C-A3, UV1D-A4, UV1E-A5, UV1F-A6a, UV1F-A6b, and UV1F-A6c.

Under Subpart JJ, the one (1) enclosed flat spray coating line, identified as UV-1, is considered an affected facility.

(2) One (1) roll coating line with two (2) machines, identified as UV-2, with a maximum process capacity of 1,000 pounds per hour of existing wood parts, exhausting to stacks UV2B-A7, UV2B-A8, UV2E-A9a, and UV2E-A9b.

Under Subpart JJ, the one (1) enclosed flat spray coating line, identified as UV-2, is considered an affected facility.

(3) One (1) sanding/scuffing operation, identified as UV-D1, with particulate emissions controlled by a cartridge filter with a maximum process capacity of 40 pounds per hour, identified as UV-DC1.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.10.1 PSD Minor Limit [326 IAC 2-2]

Pursuant to Significant Permit Modification No. T037-25958-00100, issued on May 23, 2008, the total amount of VOC in coatings, dilution solvents, and cleaning solvents used in the surface coating facilities (SB-1, SB-2, SB-3, SB-4, SB-5, SB-6, SB-7, SB-8, SB-9, SB-10AB, SB-11, SB-12, SB-13, SB-14, SB-15, SB-16, SB-17, SB-18, SB-19, SB-20, SB-21, SB-23, SB-24, SB-26, SB-27, SB-28, SB-29, SB-30, SB-32, SB-33, SB-37, DT-22, DT-25, and DT-38) and in the UV water-based wood coating process (UV-1 and UV-2) at Kimball Office (K.O.) - Jasper 15th Street shall be limited to less than 248 tons of VOC per twelve (12) consecutive month period, with compliance determined at the end of each month. This usage limit, combined with the VOC emissions from the boilers and natural gas-fired facilities at Kimball Office (K.O.) - Jasper 15th Street, is required to limit the potential to emit of VOC from the facilities at Kimball Office (K.O.) - Jasper 15th Street to less than two hundred fifty (250) tons per twelve (12) consecutive month period.

Compliance with this limit renders 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.10.2 Minor Source Modification Limits [326 IAC 2-7-10.5(d)(4)(C)]

Pursuant to Significant Permit Modification No. T037-25958-00100, issued on May 23, 2008, particulate matter (PM) from the flat spray coating line UV-1 and the sanding/scuffing process line UV-DC1, shall be controlled such that these emissions units shall comply with the following limits:

(a) Operate the controls with a control efficiency of at least ninety-nine percent (99%);
(b) Have no visible emissions;
(c) The PM emissions from the flat spray coating line UV-1 and the sanding/scuffing process line UV-D1 shall be less than 5.71 lbs/hr; and
(d) The PM_{10} emissions from the flat spray coating line UV-1 and the sanding/scuffing process line UV-

D1 shall be less than 3.42 lbs/hr.

Compliance with these limits shall result in actual emissions of less than twenty-five (25) tons per year of PM and fifteen (15) tons per year of PM_{10}.

D.10.3 Particulate Emission Limitations [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2(a), particulate matter (PM) emissions from the flat spray coating line UV-1 and the sanding/scuffing process line UV-DC1 shall not exceed three-hundredths (0.03) grain per dry standard cubic foot (dscf).

D.10.4 Volatile Organic Compounds (VOC) [326 IAC 8-2-12]

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), each of the two (2) coating lines, identified as UV-1 and UV-2, shall apply all coating material, with the exception of no more than ten (10) gallons of coating per day used for touch-up and repair operations, using one (1) or more of the following application systems:

(a) Airless spray application;
(b) Air-assisted airless spray application;
(c) Electrostatic spray application;
(d) Electrostatic bell or disc application;
(e) Heated airless spray application;
(f) Roller coat;
(g) Brush or wipe application; or
(h) Dip-and-drain application.

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

D.10.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan is required for the UV water-based coating operation and its control device. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.10.6 Operator Training for PM Control

In order to comply with Conditions D.10.2 and D.10.3, the Permittee shall implement an operator-training program:

(1) All operators of spray coating line shall be trained in the proper setup and operation of the particulate control system. All existing operators shall be trained within 60 days of the date of permit issuance. All new operators shall be trained upon hiring or transfer.

(2) Training shall include water filtration system inspection, maintenance and troubleshooting practices. The training program shall be written and retained on site. The training program shall include a description of the methods to be used at the completion of initial and refresher training to demonstrate and document successful completion. Copies of the training program, the list of trained operators and training records shall be maintained on site or available within a reasonable time for inspection by IDEM.

(3) All operators shall be given refresher training annually.

D.10.7 Particulate Matter (PM)

In order to comply with Conditions D.10.2 and D.10.3, the water filteration system and the cartridge filter for particulate control shall be in operation at all times the associated processes are in operation.

D.10.8 Volatile Organic Compounds (VOC)

Compliance with the VOC limitations contained in Condition D.10.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.10.9 Visible Emission Notations

(a) Visible emission notations of the sanding/scuffing process line UV-D1 cartridge filter, identified as UV-DC1, shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.10.10 Record Keeping Requirements

(a) To document the compliance status with Condition D.10.1, the Permittee shall maintain records in accordance with (1) and (2) below. Records maintained for (1) and (2) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits established in Condition D.10.1 for the spray coating lines UV-1 and UV-2.

(1) The amount of VOC in each coating material and solvent used.

(2) The weight of VOCs emitted for each month.

(b) To document the compliance status with Condition D.10.6, the Permittee shall maintain a copy of the operator-training program and training records.

(c) To document the compliance status with Condition D.10.9, the Permittee shall maintain daily records of the visual emissions notations of the cartridge filter exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (e.g. the process did not operate that day).

(d) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

D.10.11 Reporting Requirements

A quarterly report of the monthly VOC emissions from the booths covered by Condition D.10.1 calculated in accordance with Condition D.10.8 and a quarterly summary of the information to document the compliance status with Condition D.10.1 shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting Requirements contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official,” as defined by 326 IAC 2-7-1(34).

SECTION D.11 FACILITY OPERATION CONDITIONS

Facility Description: Surface Coating: Kimball Office (K.O.) – Jasper 15th Street:

(a) Thirty-four (34) surface coating booths for wood furniture, and metal panel coating, as described in the following table:

Spray Booth	Unit IDs	Installation Date	Type of Control	Application Method	# of Stacks	Stack/Vent IDs
Wood Spray Booth	SB-1	1970	Water Pan	WOOD FURNITURE NESHAP COMPLIANT	1	1
Wood Spray Booth	SB-2	1998	Filter Pan		2	2
Wood Spray Booth	SB-3	1970	Water Pan		2	3AB
Wood Spray Booth	SB-4	1970	Filter		2	4AB
Wood Spray Booth	SB-5	2004	Filter		3	5ABC
Wood Spray Booth	SB-6	1970	Water Pan		1	6
Wood Spray Booth	SB-7	1983	Water Pan		2	7AB
Wood Spray Booth	SB-8	1970	Filter		1	8
Wood Spray Booth	SB-9	2004	Filter		2	9AB
Wood Spray Booth	SB-10AB	1970	Filter		2	10AB
Wood Spray Booth	SB-11	1970	Water Pan		1	11
Wood Spray Booth	SB-12	Modified 2002	Water Pan		2	12
Wood Spray Booth	SB-13	1970	Filter		1	13
Wood Spray Booth	SB-14	Modified 2002	Water Pan		2	14
Wood Spray Booth	SB-15	2004	Filter		1	15
Wood Spray Booth	SB-16	1998	Filter		2	16AB
Wood Spray Booth	SB-17	Modified 2002	Water Pan /filter		2	17AB
Wood Spray Booth	SB-18	2004	Filter		2	18AB
Wood Spray Booth	SB-19	1998	Filter		2	19A
Wood Spray Booth	SB-20	Modified 2002	Water Pan		2	20AB
Wood Spray Booth	SB-21	Modified 2002	Filter		2	21AB
Wood Spray Booth	SB-23	1979	Filter		1	23
Wood Spray Booth	SB-24	1979	Filter		1	24
Wood Spray Booth	SB-26	1979	Baffle		1	26
Metal Paint Booth H.S. Paints	SB-27	1979	Filter	Electrostatic Airless	1	27
Metal Paint Booth H.S. Paints	SB-28	1987	Filter		1	28
Metal Paint Booth H.S. Paints	SB-29	1987	Filter		1	29AB
Metal Paint Booth H.S. Paints	SB-30	1978	Filter	Electrostatic Disc	1	30
Wood Spray Booth	SB-32	1989	Baffle	WOOD FURNITURE NESHAP COMPLIANT	2	32AB
Wood Spray Booth	SB-33	1989	Baffle		2	33
Wood Spray Booth	SB-37	1992	Filter		1	37
Dip Tank	DT-22	1990	Water pan	n/a	1	22
Dip Tank	DT-25	1979	Filter	n/a	1	25
Dip Tank	DT-38	1992	Filter	n/a	1	38

NOTE: One (1) additional non-spraying sidedraft flash tunnel, identified as SB-9SDFT, constructed in 2004, installed adjacent to and working in tandem with SB-9 above, using no controls and exhausting to stack 9AB

Under Subpart JJ, the surface coating operations, identified as SB-1, SB-2, SB-2A, SB-3, SB-2A, SB-4, SB-5, SB-6, SB-7, SB-8, SB-9, SB-10AB, SB-11, SB-12, SB-13, SB-14, SB-15, SB-16, SB-17, SB-18, SB-19, SB-20, SB-21, SB-23, SB-24, SB-26, SB-32, SB-33, SB-37, DT-22, DT-25, and DT-38, are each considered an existing affected facility.

Under Subpart RRRR, the surface coating operations, identified as SB-27, SB-28, SB-29, and SB-30, are each considered an existing affected facility.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.11.1 PSD Minor Limit [326 IAC 2-2]

Pursuant to an Amendment letter dated October 22, 1987, the usage of VOC including coatings, dilution solvents, and cleaning solvents, in the surface coating facilities at Kimball Office (K.O.) - Jasper 15th Street (SB-1, SB-2, SB-3, SB-4, SB-5, SB-6, SB-7, SB-8, SB-9, SB-10AB, SB-11, SB-12R, SB-13, SB-14R, SB-15, SB-16, SB-17R, SB-18, SB-19, SB-20R, SB-21R, SB-23, SB-24, SB-26, SB-27, SB-28, SB-29, SB-30, SB-32, SB-33, SB-37, DT-22, DT-25 and DT-38) shall be limited to less than 248 tons per twelve consecutive month period, with compliance determined at the end of each month. This usage limit, combined with VOC emissions from the boilers and natural gas-fired facilities at Kimball Office (K.O.) - Jasper 15th Street, is required to limit the potential to emit of VOC from the facilities at Kimball Office (K.O.) - Jasper 15th Street to less than 250 tons per twelve consecutive month period. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the facilities at Kimball Office (K.O.) – Jasper 15th Street.

Compliance with this limit renders 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.11.2 Volatile Organic Compounds (VOC) [326 IAC 8-2-12]

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), the surface coating applied to wood furniture and cabinets at surface coating booths SB-2, SB-5, SB-9, SB-12R, SB-14R, SB-15, SB-16, SB-17R, SB-18, SB-19, SB-20R, SB-21R, SB-37, DT-22 and DT-38 shall utilize one (1) of the following application methods:

(a) Airless Spray Application
(b) Air Assisted Airless Spray Application
(c) Electrostatic Spray Application
(d) Electrostatic Bell or Disc Application
(e) Heated Airless Spray Application
(f) Roller Coating
(g) Brush or Wipe Application
(h) Dip-and-Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

D.11.3 Volatile Organic Compounds (BACT) [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6 and Part 70 Operating Permit No. T037-7356-00100 issued May 15, 2006, spray booths SB-7, SB-32, and SB-33 shall utilize one (1) of the following application methods:

(a) Airless Spray Application
(b) Air Assisted Airless Spray Application
(c) Electrostatic Spray Application
(d) Electrostatic Bell or Disc Application
(e) Heated Airless Spray Application
(f) Roller Coating
(g) Brush or Wipe Application
(h) Dip-and-Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

D.11.4 Volatile Organic Compounds (VOC) [326 IAC 8-2-6]

Pursuant to 326 IAC 8-2-6, the Permittee shall not allow the discharge into the atmosphere of any volatile organic compounds (VOC) in excess of three (3) pounds of VOC per gallon, excluding water, as delivered to the applicator at booths SB-28 and SB-29.

D.11.5 Particulate Matter Emission Limitations [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2(a), particulate matter emissions from the surface coating operations shall not exceed 0.03 grains per dry standard cubic foot of exhaust air.

D.11.6 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan is required for the wood surface coating operation and its control device. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.11.7 Particulate Control [326 IAC 2-7-6(6)]

In order to comply with Condition D.11.5, the dry filters, and water pans and baffles for particulate control shall be in operation and control emissions from the surface coating operations at all times that these facilities are in operation.

D.11.8 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Condition D.11.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the “as supplied” and “as applied” VOC data sheets. IDEM, OAQ, reserves the authority to determine-compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.11.9 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the dry filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks (SB-2, SB-4, SB-5, SB-8, SB-9, SB-10AB, SB-13, SB-15, SB-16, SB-18, SB-19, SB-21R, SB-23, SB-24, SB-27, SB-28, SB-29, SB-30, SB-37, DT-25, DT-38) while one or more of the booths are in operation. If a condition exists which should result in a response step, the Permittee shall take reasonable response steps. Section C – Response to Excursions and Exceedances contains the Permittee’s obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

(b) Daily inspections shall be performed to verify that the water level of the water pans meet the manufacturer’s recommended level. To monitor the performance of the water pans, the water level of the pans shall be maintained weekly at a level where surface agitation indicates impact of the air flow. Water shall be kept free of solids and floating material that reduces the capture efficiency of the water pan. To monitor the performance of the baffles, weekly inspections of the baffle panels shall be conducted to verify placement and configuration meet recommendations of the manufacturer. In addition, weekly observations shall be made of the overspray from the surface coating booth stacks (SB-1, SB-3, SB-6, SB-7, SB-11, SB-12R, SB-14R, SB-17R, SB-20R, SB-26, SB-32, SB-33, DT-22) while one or more of the booths are in operation. If a condition exists which should result in response steps, the Permittee shall take reasonable response steps. Section C – Response to Excursions and Exceedances contains the Permittee’s obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

(c) Monthly inspections shall be performed of the coating emissions from the stacks and the presence of overspray on the rooftops and the nearby ground. When there is a noticeable change in

overspray emissions, or when evidence of overspray emissions is observed, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.11.10 Record Keeping Requirements

(a) To document the compliance status with Condition D.11.1, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.11.1 for surface coating booths SB-1, SB-2, SB-3, SB-4, SB-5, SB-6, SB-7, SB-8, SB-9, SB-10AB, SB-11, SB-12R, SB-13, SB-14R, SB-15, SB-16, SB-17R, SB-18, SB-19, SB-20R, SB-21R, SB-23, SB-24, SB-26, SB-27, SB-28, SB-29, SB-30, SB-32, SB-33, SB-37, DT-22, DT-25 and DT-38. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

(1) The amount and VOC content of each coating material, dilution solvent, cleaning solvent, adhesive and strippable spray booth coating used on a monthly basis. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

(2) The total VOC usage for each month; and

(3) The weight of VOCs emitted for each compliance period.

(b) To document the compliance status with Condition D.11.4, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC emission limits established in Condition D.11.4.

(1) The amount and VOC content of each coating material and solvent used, less water, on a monthly basis. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

(2) The volume weighted VOC content of the coatings used for each month.

(3) The Permittee shall maintain at the source, for a period of at least five (5) years, records of all data and calculations used to determine VOC emissions from surface coating booths SB-28 and SB-29.

(c) To document the compliance status with Condition D.11.9, the Permittee shall maintain a log of weekly overspray observations, and daily and monthly inspections.

(d) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

D.11.11 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.11.1 shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting Requirements contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official,” as defined by 326 IAC 2-7-1(34).

SECTION D.12 EMISSIONS UNIT OPERATION CONDITIONS

Kimball Electronics, Inc.

Emissions Unit Description: Conformal Coaters and Soldering

(a) Six (6) circuit assembly stations as described in the following table:

Emission Unit	Unit ID New (old)	Installation Date	Stack New (old)
Wave Solder	A1 (WSU1)	03/01/1994	AS-1 (304)
Fluxer	A2 (WSU1)	08/01/1996	AS-1 (303)
Wave Solder	A3 (WSU2)	01/01/1998	AS-2 (202)
Fluxer	A4 (WSU2)	01/01/2001	AS-2 (201)
Wave Solder	A5 (WSU3)	02/01/1998	AS-3 (506)
Fluxer	A6 (WSU3)	10/18/2004	AS-3 (507)
Wave Solder	A7 (WSU4)	10/21/2000	AS-4 (711)
Fluxer	A8 (WSU4)	10/21/2000	AS-4 (711)
Wave Solder	J1 (WSU5)	01/01/1998	JS-1 (2001)
Fluxer	J2 (WSU5)	12/01/2002	JS-1 (2001)
Wave Solder	F3 (WSU6)	08/01/1994	FS-3 (2003)
Fluxer	F4 (WSU6)	12/01/2002	FS-3 (2003)
Repair Wave Solder	A9 (WSU7)	10/01/2000	AS-5 (206)
Piller House Solder	E1 (WSU8)	07/01/2001	ES-1 (505)

(b) Three (3) Selective Solder Systems, as described in the following table:

Emission Unit	Unit ID New (old)	Installation Date	Stack
Selective Solder/Fluxer	F1 (SSU1)	12/31/2004	FS-1 (710)
Selective Solder/Fluxer	F2 (SSU2)	12/31/2004	FS-2 (709)
Selective Solder/Fluxer	G3 (SSU3)	12/14/2005	GS-3 (305)

(c) Four (4) Conformal Coater Systems, as described in the following table:

Emission Unit	Unit ID New (old)	Installation Date	Stack
Coater	C1 (CCU1)	12/30/1997	CS-1 (2012)
Coater	E12 (CCU2)	02/01/2000	ES-9 (508)
Coater	E6 (CCU3)	12/30/2003	ES-3 (712)
Coater	E& (CCU4)	12/30/2003	ES-3 (713)

(d) One (1) surface coating line of printed circuit boards, approved for construction in 2006, with a maximum coating capacity of 60 units per hour, identified as CCU5:

(1) two (2) coaters; and

Emission Unit	Unit ID New (Old)	Installation Date	Stack New (Old)
Coater	E2 (CCU5 #1)	2005	ES-2 (EF-14)
Coater	E3 (CCU5 #2)	2005	ES-2 (EF-14)

(2) two (2) electric cure ovens.

Emission Unit	Unit ID New (Old)	Installation Date	Stack New (Old)
Cure Oven	E10 (CCU5 #1)	12/30/1997	ES-5 (EF-14)
Cure Oven	E11 (CCU5 #2)	2/1/2000	ES-5 (EF-14)

(The information describing the process contained in this emissions unit description box is

descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.12.1 Particulate Emission Limitations [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2(a), particulate emissions from the circuit assembly stations (WSU1, WSU2, WSU3, WSU4, WSU5, WSU6, WSU7, WSU8, WSU9, and WSU10), the selective solder systems (SSU1, SSU2, and SSU3), and the conformal coating systems (CCU1, CCU2, CCU3, CCU4, and CCU5) each shall not exceed 0.03 grains per dry standard cubic foot of exhaust air.

D.12.2 HAP Limitation [326 IAC 2-7-10.5] [326 IAC 2-4.1]

Pursuant to 326 IAC 2-7-10.5(d)(5) and Minor Source Modification 037-17162-00100, issued on May 28, 2003, the total usage of a single HAP (Toluene) in the two (2) PVA 2000 selective conformal coating systems, identified as CCU3 and CCU4, shall be limited to less than ten (10) tons per twelve consecutive month period, with compliance determined at the end of each month. Compliance with this limit makes the requirements of 326 IAC 2-4.1 and the requirements of 326 IAC 2-7-10.5(f) not applicable to this modification.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.12.3 Record Keeping Requirements

(a) To document the compliance status with Condition D.12.2, the Permittee shall maintain records in accordance with (1) and (2) below. Records maintained for (1) and (2) shall be taken monthly and shall be complete and sufficient to establish compliance with the HAPs emission limits established in Condition D.12.2.

(1) The amount of HAPs in each coating material and solvent used.

(2) The weight of HAPs emitted for each month.

(b) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

D.12.4 Reporting Requirements

A quarterly summary of the monthly HAP emissions from the booths covered by Condition D.12.2 shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting Requirements contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official,” as defined by 326 IAC 2-7-1(34).

SECTION D.13 EMISSIONS UNIT OPERATION CONDITIONS

Kimball Electronics, Inc.

Emissions Unit Description: Insignificant Activities

(a) One (1) composite milling operation used for milling metal and plastic, with particulate emissions controlled by a cyclone (DC-1), and exhausting to stack 401. [326 IAC 6.5-1-2]

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.13.1 Particulate Emission Limitations [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2(a), the allowable particulate emission rate from the composite milling operation shall not exceed three-hundredths (0.03) grain per dry standard cubic foot of outlet air.

Compliance Determination Requirement

D.13.2 Particulate Control [326 IAC 2-7-6(6)]

In order to comply with D.13.1, the cyclone for particulate control shall be in operation and control emissions from the composite milling operation at all times that the composite milling operation is in operation.

SECTION E.1 EMISSIONS UNIT OPERATION CONDITIONS

NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP) FOR WOOD FURNTITURE MANUFACTURING OPERATIONS [40 CFR Part 63, Subpart JJ]

Kimball Hospitality (K.H.) – Jasper 16th Street

Emissions Unit Description: Wood Furniture Manufacturing Operations

(a) Thirty (30) spray booths for wood furniture and panel coating, each equipped with HVLP or air assisted airless spray guns, as described below:

Spray Booth	Unit ID	Installation Date	Type of Control	# of Stacks	Stack/ Vent IDs
WOOD FINISH SPRAY BOOTH	1AB	1988	Filter	2	1AB
WOOD FINISH SPRAY BOOTH	2A	1978	Filter	1	2A
WOOD FINISH SPRAY BOOTH	3AB	1978	Water Pan	2	3AB
WOOD FINISH SPRAY BOOTH	4AB	1978	Water Pan	2	4AB
WOOD FINISH SPRAY BOOTH	5AB	1978	Water Pan	2	5AB
WOOD FINISH SPRAY BOOTH	6A	1978	Water Pan	1	6A
WOOD FINISH SPRAY BOOTH	7AB	1978	Filter	2	7AB
WOOD FINISH SPRAY BOOTH	8AB	1988	Baffle	2	8AB
WOOD FINISH SPRAY BOOTH	9AB	1988	Baffle	2	9AB
WOOD FINISH SPRAY BOOTH	10A	Modified in 2003	Side Vertical Draft	1	10A
WOOD FINISH SPRAY BOOTH	11AB	1977	Water Pan	2	11AB
WOOD FINISH SPRAY BOOTH	12A	1977	Filter	1	12A
WOOD FINISH SPRAY BOOTH	13AB	Modified in 2003	Down Draft	2	13AB
WOOD FINISH SPRAY BOOTH	14A	1977	Water Pan	1	14A
WOOD FINISH SPRAY BOOTH	15AB	1977	Water Pan	2	15AB
WOOD FINISH SPRAY BOOTH	16A	1977	Water Pan	1	16A
WOOD FINISH SPRAY BOOTH	18A	1977	Water Pan	1	18A
WOOD FINISH SPRAY BOOTH	19AB	1977	Water Pan	2	19AB
WOOD FINISH SPRAY BOOTH	20A	1977	Water Pan	1	20A
WOOD FINISH SPRAY BOOTH	21AB	1977	Water Pan	2	21AB
WOOD FINISH SPRAY BOOTH	22A	1977	Water Pan	1	22A
WOOD FINISH SPRAY BOOTH	23AB	1977	Water Pan	2	23AB
WOOD FINISH SPRAY BOOTH	24AB	1977	Water Pan	2	24AB
WOOD FINISH SPRAY BOOTH	25A	1977	Water Pan	1	25A
WOOD FINISH SPRAY BOOTH	26A	1977	Water Pan	1	26A
WOOD FINISH SPRAY BOOTH	28A	1987	Baffle	1	28A
WOOD FINISH SPRAY BOOTH	29A	1988	Baffle	1	29ABC
WOOD FINISH SPRAY BOOTH	29B	1988	Baffle	1	
WOOD FINISH SPRAY BOOTH	29C	1988	Filter	1	

Under Subpart JJ, the surface coating operations, identified as 1AB, 2A, 3AB, 4AB, 5AB, 6A, 7AB, 8AB, 9AB, 10A, 11AB, 12A, 13A, 14A, 15AB, 16A, 17AB, 18A, 19AB, 20A, 21AB, 22A, 23AB, 24AB, 25A, 26A, 28A, 29A, 29B, and 29C, are each considered an existing affected facility.

Kimball Office (K.O.) - Jasper 15th Street

Emissions Unit Description: Wood Furniture Manufacturing Operations

(b) Twenty-seven (27) surface coating booths for wood furniture, as described in the following table:

Spray Booth	Unit IDs	Installation Date	Type of Control	Application Method	# of Stacks	Stack/Vent IDs
WOOD SPRAY BOOTH	SB-1	1970	Water Pan	WOOD FURNITURE NESHAP COMPLIANT	1	1
WOOD SPRAY BOOTH	SB-2	1998	Filter Pan		2	2
WOOD SPRAY BOOTH	SB-3	1970	Water Pan		2	3AB
WOOD SPRAY BOOTH	SB-4	1970	Filter		2	4AB
WOOD SPRAY BOOTH	SB-5	2004	Filter		3	5ABC
WOOD SPRAY BOOTH	SB-6	1970	Water Pan		1	6
WOOD SPRAY BOOTH	SB-7	1983	Water Pan		2	7AB
WOOD SPRAY BOOTH	SB-8	1970	Filter		1	8
WOOD SPRAY BOOTH	SB-9	2004	Filter		2	9AB
WOOD SPRAY BOOTH	SB-10AB	1970	Filter		2	10AB
WOOD SPRAY BOOTH	SB-11	1970	Water Pan		1	11
WOOD SPRAY BOOTH	SB-12	Modified in 2002	Water Pan /filter		2	12
WOOD SPRAY BOOTH	SB-13	1970	Filter		1	13
WOOD SPRAY BOOTH	SB-14	Modified in 2002	Water Pan		2	14
WOOD SPRAY BOOTH	SB-15	2004	Filter		1	15
WOOD SPRAY BOOTH	SB-16	1998	Filter		2	16AB
WOOD SPRAY BOOTH	SB-17	Modified in 2002	Water Pan		2	17AB
WOOD SPRAY BOOTH	SB-18	2004	Filter		2	18AB
WOOD SPRAY BOOTH	SB-19	1998	Filter		2	19A
WOOD SPRAY BOOTH	SB-20	Modified in 2002	Water Pan		2	20AB
WOOD SPRAY BOOTH	SB-21	Modified in 2002	Filter		2	21AB
WOOD SPRAY BOOTH	SB-23	1979	Filter		1	23
WOOD SPRAY BOOTH	SB-24	1979	Filter		1	24
WOOD SPRAY BOOTH	SB-26	1979	Baffle		1	26
WOOD SPRAY BOOTH	SB-32	1989	Baffle	WOOD FURNITURE NESHAP COMPLIANT	2	32AB
WOOD SPRAY BOOTH	SB-33	1989	Baffle		2	33
WOOD SPRAY BOOTH	SB-37	1992	Filter		1	37

Under Subpart JJ, the surface coating operations, identified as SB-1, SB-2, SB-2A, SB-3, SB-2A, SB-4, SB-5, SB-6, SB-7, SB-8, SB-9, SB-10AB, SB-11, SB-12, SB-13, SB-14, SB-15, SB-16, SB-17, SB-18, SB-19, SB-20, SB-21, SB-23, SB-24, SB-26, SB-32, SB-33, SB-37, DT-22, DT-25, and DT-38, are each considered an existing affected facility.

Kimball Office (K.O.) - Jasper 15th Street

Emissions Unit Description: Wood Furniture Manufacturing Operations

(c) One (1) UV water-based wood coating process, approved for construction in 2008, consisting of two (2) coating lines and one (1) sanding/scuffing operation, identified as follows:

(1) One (1) enclosed flat spray coating line, identified as UV-1, with a maximum process capacity of 1,000 pounds per hour of existing wood parts, with particulate controlled by a water filtration system, exhausting to stacks UV1A-A1, UV1B-A2, UV1C-A3, UV1D-A4, UV1E-A5, UV1F-A6a, UV1F-A6b, and UV1F-A6c.

Under Subpart JJ, the one (1) enclosed flat spray coating line, identified as UV-1, is considered an affected facility.

(2) One (1) roll coating line with two (2) machines, identified as UV-2, with a maximum process capacity of 1,000 pounds per hour of existing wood parts, exhausting to stacks UV2B-A7, UV2B-A8, UV2E-A9a, and UV2E-A9b.

Under Subpart JJ, the one (1) enclosed flat spray coating line, identified as UV-2, is considered an affected facility.

(3) One (1) sanding/scuffing operation, identified as UV-D1, with particulate emissions controlled by a cartridge filter with a maximum process capacity of 40 pounds per hour, identified as UV-DC1.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

E.1.1 General Provisions Relating to NESHAP JJ [326 IAC 20-1] [40 CFR Part 63, Subpart A]

Pursuant to 40 CFR 63.800, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A - General Provisions, which is incorporated by reference as 326 IAC 20-1-1, as specified in Table 1 of 40 CFR Part 63, Subpart JJ, in accordance with the schedule in 40 CFR Part 63, Subpart JJ.

E.1.2 Wood Furniture Manufacturing Operations NESHAP [40 CFR Part 63, Subpart JJ][326 IAC 20-14]

The Permittee which engages in wood furniture manufacturing operations shall comply with the following provisions of 40 CFR Part 63, Subpart JJ (included as Attachment A of this permit):

(1) 40 CFR 63.802(a)
(2) 40 CFR 63.803
(3) 40 CFR 63.804(a)
(4) 40 CFR 63.804(b)
(5) 40 CFR 63.804(c)
(6) 40 CFR 63.804(f)
(7) 40 CFR 63.804(g)
(8) 40 CFR 63.805
(9) 40 CFR 63.806
(10) 40 CFR 63.807
(11) Tables 3, 4, and 6 (to Subpart JJ of Part 63)

SECTION E.2 New Source Performance Standards (NSPS)

Facility Description [326 IAC 2-7-5(15)]:

Kimball Office (K.O.) - Jasper 15th Street

(a) Two (2) metal coating spray booths, each installed in 1987, identified as SB-28 and SB-29, using electrostatic airless spray method, using dry filters for overspray control, and exhausting to stacks 28 and 29AB, respectively

Under 40 CFR 60, Subpart EE, emission units SB-28 and SB-29 are each considered an affected facility.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

E.2.1 General Provisions Relating to New Source Performance Standards under 40 CFR Part 60 [326 IAC 12-1][40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60 Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1 for surface coating operations, identified as SB-28 and SB-29, located at Kimball Office (K.O.) - Jasper 15th Street, except as otherwise specified in 40 CFR Part 60, Subpart EE.

(b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

E.2.2 Standards of Performance for Surface Coating of Metal Furniture NSPS [40 CFR 60, Subpart EE]

Pursuant to 40 CFR Part 60, Subpart EE, the Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart EE, Standard of Performance for Surface Coating of Metal Furniture (included as Attachment B to this permit), for the surface coating operations, identified as SB-28 and SB-29, located at Kimball Office (K.O.) - Jasper 15th Street as follows:

(1) 40 CFR 60.310(b)
(2) 40 CFR 60.311
(3) 40 CFR 60.312(a)
(4) 40 CFR 60.313(c)(1)(i) through (iv)
(5) 40 CFR 60.315(a)(2)
(6) 40 CFR 60.316(a)(1)
(7) 40 CFR 60.316(b)

SECTION E.3 EMISSIONS UNIT OPERATION CONDITIONS

NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP) FOR SURFACE COATING OF METAL FURNTITURE [40 CFR Part 63, Subpart RRRR]

Kimball Office (K.O.) - Jasper 15th Street

Emissions Unit Description: Surface Coating of Metal Furniture

(a) Four (4) surface coating booths for metal panel coating, as described in the following table:

Spray Booth	Unit IDs	Installation Date	Type of Control	Application Method	# of Stacks	Stack/Vent IDs
METAL PAINT BOOTH H.S. Paints	SB-27	1979	Filter	Electrostatic Airless	1	27
METAL PAINT BOOTH H.S. Paints	SB-28	1987	Filter		1	28
METAL PAINT BOOTH H.S. Paints	SB-29	1987	Filter		1	29AB
METAL PAINT BOOTH H.S. Paints	SB-30	1978	Filter	Electrostatic Disc	1	30

Under Subpart RRRR, the surface coating operations, identified as SB-27, SB-28, SB-29, and SB-30, are each considered an existing affected facility.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

E.3.1 General Provisions Relating to NESHAP RRRR [326 IAC 20-1] [40 CFR Part 63, Subpart A]

Pursuant to 40 CFR 63.4901, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A - General Provisions, which is incorporated by reference as 326 IAC 20-1-1, as specified in Table 2 of 40 CFR Part 63, Subpart RRRR, in accordance with the schedule in 40 CFR Part 63, Subpart RRRR.

E.3.2 Surface Coating of Metal Furniture NESHAP [40 CFR Part 63, Subpart RRRR]

The Permittee which engages in metal furniture surface coating operations shall comply with the following provisions of 40 CFR Part 63, Subpart RRRR (included as Attachment C of this permit):

(1) 40 CFR 63.4882
(2) 40 CFR 63.4883(b) and (d)
(3) 40 CFR 63.4890(c)
(4) 40 CFR 63.4891(a)
(5) 40 CFR 63.4900(a) and (b)
(6) 40 CFR 63.4910(c)
(7) 40 CFR 63.4920(a)
(8) 40 CFR 63.4930(a) through (g) and (j)
(9) 40 CFR 63.4931(e)
(10) 40 CFR 63.4940
(11) 40 CFR 63.4941(e)
(12) 40 CFR 63.4942(a)
(13) 40 CFR 63.5764
(14) Tables 3 and 4 (to Subpart RRRR of Part 63)

SECTION E.4 EMISSIONS UNIT OPERATION CONDITIONS

NEW SOURCE PERFORMANCE STANDARDS (NSPS) FOR SMALL INDUSTRIAL-COMMERCIAL-INSTITUTIONAL STEAM GENERATING UNITS [40 CFR Part 60, Subpart Dc]

Kimball Office (K.O.) - Jasper Cherry Street

Emissions Unit Description: Boilers

(a) Two (2) boilers, consisting of the following:

(1) One (1) wood-fired (firetube) boiler, identified as B-1A, constructed in 1995, with a maximum heat input capacity of 20.5 MMBtu per hour, with a centrifugal collector (cyclone) for particulate control, and exhausting at stack S1.

(2) One (1) natural gas-fired (firetube) boiler used as back-up and equipped to burn only natural gas, identified as B-2A, constructed in 1996, rated at 16.8 MMBtu per hour, and exhausting at stack S2.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

E.4.1 General Provisions Relating to New Source Performance Standards under 40 CFR Part 60 [326 IAC 12-1][40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1 for Kimball Office (K.O.) - Jasper Cherry Street boilers B-1A and B-2A, except as otherwise specified in 40 CFR Part 60, Subpart Dc.

(b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

E.4.2 Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units [40 CFR 60, Subpart Dc]

Pursuant to 40 CFR Part 60, Subpart Dc, the Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart Dc, Standard of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (included as Attachment D to this permit), for the Kimball Office (K.O.) - Jasper Cherry Street boilers B-1A and B-2A as follows:

(1) 40 CFR 60.40c(a), (c)
(2) 40 CFR 60.41c
(3) 40 CFR 60.48c(g), (i)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
CERTIFICATION

Source Name:	Kimball International, Inc. - 15th Street Contiguous Source
Source Address:	1620 Cherry Street & 1650 Cherry Street; 1180 East 16th Street; 1037 East 15th Street & 1450 Cherry Street; 1038 East 15th Street & Northwest corner of East 16th Street & Cherry Street, Jasper, Indiana 47549
Part 70 Permit No.:	T037-29558-00100

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)

☐ Report (specify)

☐ Notification (specify)

☐ Affidavit (specify)

☐ Other (specify)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
Signature:
Printed Name:
Title/Position:
Phone:
Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: (317) 233-0178
Fax: (317) 233-6865

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name:	Kimball International, Inc. - 15th Street Contiguous Source
Source Address:	1620 Cherry Street & 1650 Cherry Street; 1180 East 16th Street; 1037 East 15th Street & 1450 Cherry Street; 1038 East 15th Street & Northwest corner of East 16th Street & Cherry Street, Jasper, Indiana 47549
Part 70 Permit No.:	T037-29558-00100

This form consists of 2 pages **Page 1 of 2**

☐ This is an emergency as defined in 326 IAC 2-7-1(12)

- The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by:_____

Title / Position: _____

Date:_____

Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

PART 70 OPERATING PERMIT
SEMI-ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION

Source Name:	Kimball International, Inc. - 15th Street Contiguous Source
Source Address:	1620 Cherry Street & 1650 Cherry Street; 1180 East 16th Street; 1037 East 15th Street & 1450 Cherry Street; 1038 East 15th Street & Northwest corner of East 16th Street & Cherry Street, Jasper, Indiana 47549
Part 70 Permit No.:	T037-29558-00100
Facility:	Kimball Office (K.O.) - Jasper 15th Street 16.8 MMBtu/hr natural gas-fired boiler (B-2C)

☐ Natural Gas Only
☐ Alternate Fuel burned
From:_____ To:_____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Signature:
Printed Name:
Title/Position:
Phone:
Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Kimball International, Inc. - 15th Street Contiguous Source
Source Address: 1037 East 15th Street & 1450 Cherry Street, Jasper, IN 47549
Part 70 Permit No.: T037-29558-00100
Facility: Kimball Office (K.O.) – Jasper 15th Street - Surface Coating Operations
Parameter: VOC
Limit: Less than 248 tons of VOC per twelve (12) consecutive month period, with compliance determined at the end of each month.

Year: _____ Quarter: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.
☐ Deviation/s occurred in this quarter.

Deviation has been reported on:

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Kimball International, Inc. - 15th Street Contiguous Source
Source Address: 1038 East 15th Street & Northwest corner of East 16th Street & Cherry Street, Jasper, Indiana 47549
Part 70 Permit No.: T037-29558-00100
Facility: Kimball Electronics, Inc. - PVA-S-05 and PVA-S-06
Parameter: Single HAP
Limit: Less than ten (10) tons of a single HAP per twelve (12) consecutive month period, with compliance determined at the end of each month.

Year: _____ Quarter: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.
☐ Deviation/s occurred in this quarter.

Deviation has been reported on:

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Kimball International, Inc. - 15 th Street Contiguous Source
Source Address: 1620 Cherry Street & 1650 Cherry Street; 1180 East 16th Street; 1037 East 15th Street & 1450 Cherry Street; 1038 East 15th Street & Northwest corner of East 16th Street & Cherry Street, Jasper, Indiana 47549
Part 70 Permit No.: T037-29558-00100

Months: _____ to _____ Year: _____

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".	
☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed by:_____

Title / Position: _____

Date:_____

Phone: _____

Attachment A
to Part 70 Operating Permit Renewal No. T037-29558-00100

Kimball International, Inc.-15th St. Contiguous Source
1620 Cherry Street & 1650 Cherry Street,
1180 East 16th Street,
1037 East 15th Street & 1450 Cherry Street,
1038 East 15th Street,
Northwest Corner of East 16th Street & Cherry Street,
Jasper, IN 47549

40 CFR 63, Subpart JJ—National Emission Standards for Wood Furniture Manufacturing Operations

Source: 60 FR 62936, Dec. 7, 1995, unless otherwise noted.

§ 63.800 Applicability.

(a) The affected source to which this subpart applies is each facility that is engaged, either in part or in whole, in the manufacture of wood furniture or wood furniture components and that is located at a plant site that is a major source as defined in 40 CFR part 63, subpart A, §63.2. The owner or operator of a source that meets the definition for an incidental wood furniture manufacturer shall maintain purchase or usage records demonstrating that the source meets the definition in §63.801 of this subpart, but the source shall not be subject to any other provisions of this subpart.

(b) A source that complies with the limits and criteria specified in paragraphs (b)(1), (b)(2), or (b)(3) of this section is an area source for the purposes of this subpart and is not subject to any other provision of this rule, provided that: In the case of paragraphs (b)(1) and (b)(2), finishing materials, adhesives, cleaning solvents and washoff solvents used for wood furniture or wood furniture component manufacturing operations account for at least 90 percent of annual HAP emissions at the plant site, and if the plant site has HAP emissions that do not originate from the listed materials, the owner or operator shall keep any records necessary to demonstrate that the 90 percent criterion is being met. A source that initially relies on the limits and criteria specified in paragraphs (b)(1), (b)(2), and (b)(3) to become an area source, but subsequently exceeds the relevant limit (without first obtaining and complying with other limits that keep its potential to emit hazardous air pollutants below major source levels), becomes a major source and must comply thereafter with all applicable provisions of this subpart starting on the applicable compliance date in §63.800. Nothing in this paragraph (b) is intended to preclude a source from limiting its potential to emit through other appropriate mechanisms that may be available through the permitting authority.

(1) The owner or operator of the source uses no more than 250 gallons per month, for every month, of coating, gluing, cleaning, and washoff materials at the source, including materials used for source categories other than wood furniture (surface coating), but excluding materials used in routine janitorial or facility grounds maintenance, personal uses by employees or other persons, the use of products for the purpose of maintaining motor vehicles operated by the facility, or the use of toxic chemicals contained in intake water (used for processing or non-contact cooling) or intake air (used either as compressed air or for combustion). The owner or operator shall maintain records of the total gallons of coating, gluing, cleaning, and washoff materials used each month, and upon request submit such records to the Administrator. These records shall be maintained for five years.

(2) The owner or operator of the source uses no more than 3,000 gallons per rolling 12-month period, for every 12-month period, of coating, gluing, cleaning, and washoff materials at the source, including materials used for source categories other than wood furniture (surface coating), but excluding materials used in routine janitorial or facility grounds maintenance, personal uses by employees or other persons, the use of products for the purpose of maintaining motor vehicles operated by the facility, or the use of toxic chemicals contained in intake water (used for processing or non-contact cooling) or intake air (used either as compressed air or for combustion). A rolling 12-month period includes the previous 12 months of operation. The owner or operator of the source shall maintain records of the total gallons of coating, gluing, cleaning, and washoff materials used each month and the total gallons used each previous month, and upon request submit such records to the Administrator. Because records are needed over the

previous set of 12 months, the owner or operator shall keep monthly records beginning no less than one year before the compliance date specified in §63.800(e). Records shall be maintained for five years.

(3) The source emits no more than 4.5 Mg (5 tons) of any one HAP per rolling 12-month period and no more than 11.4 Mg (12.5 tons) of any combination of HAP per rolling 12-month period, and at least 90 percent of the plant-wide emissions per rolling 12-month period are associated with the manufacture of wood furniture or wood furniture components.

(c) This subpart does not apply to research or laboratory facilities as defined in §63.801.

(d) Owners or operators of affected sources shall also comply with the requirements of subpart A of this part (General Provisions), according to the applicability of subpart A to such sources, as identified in Table 1 of this subpart.

(e) The compliance date for existing affected sources that emit less than 50 tons per year of HAP in 1996 is December 7, 1998. The compliance date for existing affected sources that emit 50 tons or more of hazardous air pollutants in 1996 is November 21, 1997. The owner or operator of an existing area source that increases its emissions of (or its potential to emit) HAP such that the source becomes a major source that is subject to this subpart shall comply with this subpart one year after becoming a major source.

(f) New affected sources must comply with the provisions of this standard immediately upon startup or by December 7, 1995, whichever is later. New area sources that become major sources shall comply with the provisions of this standard immediately upon becoming a major source.

(g) Reconstructed affected sources are subject to the requirements for new affected sources. The costs associated with the purchase and installation of air pollution control equipment (e.g., incinerators, carbon adsorbers, etc.) are not considered in determining whether the facility has been reconstructed, unless the control equipment is required as part of the process (e.g., product recovery). Additionally, the costs of retrofitting and replacement of equipment that is installed specifically to comply with this subpart are not considered reconstruction costs. For example, an affected source may convert to waterborne coatings to meet the requirements of this subpart. At most facilities, this conversion will require the replacement of existing storage tanks, mix equipment, and transfer lines. The cost of replacing the equipment is not considered in determining whether the facility has been reconstructed.

[60 FR 62936, Dec. 7, 1995, as amended at 62 FR 30259, June 3, 1997]

§ 63.801 Definitions.

(a) All terms used in this subpart that are not defined below have the meaning given to them in the CAA and in subpart A (General Provisions) of this part.

Adhesive means any chemical substance that is applied for the purpose of bonding two surfaces together other than by mechanical means. Under this subpart, adhesives shall not be considered coatings or finishing materials. Products used on humans and animals, adhesive tape, contact paper, or any other product with an adhesive incorporated onto or in an inert substrate shall not be considered adhesives under this subpart.

Administrator means the Administrator of the United States Environmental Protection Agency or his or her authorized representative.

Aerosol adhesive means an adhesive that is dispensed from a pressurized container as a suspension of fine solid or liquid particles in gas.

Affected source means a wood furniture manufacturing facility that is engaged, either in part or in whole, in the manufacture of wood furniture or wood furniture components and that is located at a plant site that is a major source as defined in 40 CFR part 63.2, excluding sources that meet the criteria established in §63.800(a), (b) and (c) of this subpart.

Alternative method means any method of sampling and analyzing for an air pollutant that is not a reference or equivalent method but has been demonstrated to the Administrator's satisfaction to, in specific cases, produce results adequate for a determination of compliance.

As applied means the HAP and solids content of the coating or contact adhesive that is actually used for coating or gluing the substrate. It includes the contribution of materials used for in-house dilution of the coating or contact adhesive.

Basecoat means a coat of colored material, usually opaque, that is applied before graining inks, glazing coats, or other opaque finishing materials, and is usually topcoated for protection.

Baseline conditions means the conditions that exist prior to an affected source implementing controls, such as a control system.

Building enclosure means a building housing a process that meets the requirements of a temporary total enclosure. The EPA Method 204E is used to identify all emission points from the building enclosure and to determine which emission points must be tested. For additional information see *Guidelines for Determining Capture Efficiency,* January 1994. Docket No. A–93–10, Item No. IV-B-1.

Capture device means a hood, enclosed room, floor sweep, or other means of collecting solvent emissions or other pollutants into a duct so that the pollutant can be directed to a pollution control device such as an incinerator or carbon adsorber.

Capture efficiency means the fraction of all organic vapors generated by a process that are directed to a control device.

Certified product data sheet (CPDS) means documentation furnished by coating or adhesive suppliers or an outside laboratory that provides:

(1) The VHAP content of a finishing material, contact adhesive, or solvent, by percent weight, measured using the EPA Method 311 (as promulgated in this subpart), or an equivalent or alternative method (or formulation data if the coating meets the criteria specified in §63.805(a));

(2) The solids content of a finishing material or contact adhesive by percent weight, determined using data from the EPA Method 24, or an alternative or equivalent method (or formulation data if the coating meets the criteria specified in §63.805 (a)); and

(3) The density, measured by EPA Method 24 or an alternative or equivalent method. Therefore, the reportable VHAP content shall represent the maximum aggregate emissions potential of the finishing material, adhesive, or solvent in concentrations greater than or equal to 1.0 percent by weight or 0.1 percent for VHAP that are carcinogens, as defined by the Occupational Safety and Health Administration Hazard Communication Standard (29 CFR part 1910), as formulated. Only VHAP present in concentrations greater than or equal to 1.0 percent by weight, or 0.1 percent for VHAP that are carcinogens, must be reported on the CPDS. The purpose of the CPDS is to assist the affected source in demonstrating compliance with the emission limitations presented in §63.802.

Note: Because the optimum analytical conditions under EPA Method 311 vary by coating, the coating or adhesive supplier may also choose to include on the CPDS the optimum analytical conditions for analysis of the coating, adhesive, or solvent using EPA Method 311. Such information may include, but not be limited to, separation column, oven temperature, carrier gas, injection port temperature, extraction solvent, and internal standard.)

Cleaning operations means operations in which organic HAP solvent is used to remove coating materials or adhesives from equipment used in wood furniture manufacturing operations.

Coating means a protective, decorative, or functional film applied in a thin layer to a surface. Such materials include, but are not limited to, paints, topcoats, varnishes, sealers, stains, washcoats, basecoats, enamels, inks, and temporary protective coatings. Aerosol spray paints used for touch-up and repair are not considered coatings under this subpart.

Coating application station means the part of a coating operation where the coating is applied, e.g., a spray booth.

Coating operation means those activities in which a coating is applied to a substrate and is subsequently air-dried, cured in an oven, or cured by radiation.

Coating solids (or solids) means the part of the coating which remains after the coating is dried or cured; solids content is determined using data from the EPA Method 24, or an equivalent or alternative method.

Compliant coating/contact adhesive means a finishing material, contact adhesive, or strippable booth coating that meets the emission limits specified in Table 3 of this subpart.

Contact adhesive means an adhesive that is applied to two substrates, dried, and mated under only enough pressure to result in good contact. The bond is immediate and sufficiently strong to hold pieces together without further clamping, pressure, or airing.

Continuous coater means a finishing system that continuously applies finishing materials onto furniture parts moving along a conveyor. Finishing materials that are not transferred to the part are recycled to a reservoir. Several types of application methods can be used with a continuous coater including spraying, curtain coating, roll coating, dip coating, and flow coating.

Continuous compliance means that the affected source is meeting the emission limitations and other requirements of the rule at all times and is fulfilling all monitoring and recordkeeping provisions of the rule in order to demonstrate compliance.

Control device means any equipment that reduces the quantity of a pollutant that is emitted to the air. The device may destroy or secure the pollutant for subsequent recovery. Includes, but is not limited to, incinerators, carbon adsorbers, and condensers.

Control device efficiency means the ratio of the pollutant released by a control device and the pollutant introduced to the control device.

Control system means the combination of capture and control devices used to reduce emissions to the atmosphere.

Conventional air spray means a spray coating method in which the coating is atomized by mixing it with compressed air and applied at an air pressure greater than 10 pounds per square inch (gauge) at the point of atomization. Airless and air assisted airless spray technologies are not conventional air spray because the coating is not atomized by mixing it with compressed air. Electrostatic spray technology is also not considered conventional air spray because an electrostatic charge is employed to attract the coating to the workpiece.

Data quality objective (DQO) approach means a set of approval criteria that must be met so that data from an alternative test method can be used in determining the capture efficiency of a control system. For additional information, see *Guidelines for Determining Capture Efficiency,* January 1994. (Docket No. A–93–10, Item No. IV-B-1).

Day means a period of 24 consecutive hours beginning at midnight local time, or beginning at a time consistent with a facility's operating schedule.

Disposed offsite means sending used organic HAP solvent or coatings outside of the facility boundaries for disposal.

Emission means the release or discharge, whether directly or indirectly, of HAP into the ambient air.

Enamel means a coat of colored material, usually opaque, that is applied as a protective topcoat over a basecoat, primer, or previously applied enamel coats. In some cases, another finishing material may be applied as a topcoat over the enamel.

Equipment leak means emissions of VHAP from pumps, valves, flanges, or other equipment used to transfer or apply coatings, adhesives, or organic HAP solvents.

Equivalent method means any method of sampling and analyzing for an air pollutant that has been demonstrated to the Administrator's satisfaction to have a consistent and quantitatively known relationship to the reference method, under specific conditions.

Finishing material means a coating used in the wood furniture industry. Such materials include, but are not limited to, stains, basecoats, washcoats, enamels, sealers, and topcoats.

Finishing operation means those operations in which a finishing material is applied to a substrate and is subsequently air-dried, cured in an oven, or cured by radiation.

Foam adhesive means a contact adhesive used for gluing foam to fabric, foam to foam, and fabric to wood.

Gluing operation means those operations in which adhesives are used to join components, for example, to apply a laminate to a wood substrate or foam to fabric.

Incidental wood furniture manufacturer means a major source that is primarily engaged in the manufacture of products other than wood furniture or wood furniture components and that uses no more than 100 gallons per month of finishing material or adhesives in the manufacture of wood furniture or wood furniture components.

Incinerator means, for the purposes of this industry, an enclosed combustion device that thermally oxidizes volatile organic compounds to CO and CO_2. This term does not include devices that burn municipal or hazardous waste material.

Janitorial maintenance means the upkeep of equipment or building structures that is not directly related to the manufacturing process, for example, cleaning of restroom facilities.

Lower confidence limit (LCL) approach means a set of approval criteria that must be met so that data from an alternative test method can be used in determining the capture efficiency of a control system. For additional information, see *Guidelines for Determining Capture Efficiency,* January 1994. (Docket No. A–93–10, Item No. IV-B-1).

Material safety data sheet (MSDS) means the documentation required for hazardous chemicals by the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR Part 1910) for a solvent, cleaning material, contact adhesive, coating, or other material that identifies select reportable hazardous ingredients of the material, safety and health considerations, and handling procedures.

Noncompliant coating/contact adhesive means a finishing material, contact adhesive, or strippable booth coating that has a VHAP content (VOC content for the strippable booth coating) greater than the emission limitation presented in Table 3 of this subpart.

Nonporous substrate means a surface that is impermeable to liquids. Examples include metal, rigid plastic, flexible vinyl, and rubber.

Normally closed container means a container that is closed unless an operator is actively engaged in activities such as emptying or filling the container.

Operating parameter value means a minimum or maximum value established for a control device or process parameter that, if achieved by itself or in combination with one or more other operating parameter values, determines that an owner or operator has complied with an applicable emission limit.

Organic HAP solvent means a HAP that is a volatile organic liquid used for dissolving or dispersing constituents in a coating or contact adhesive, adjusting the viscosity of a coating or contact adhesive, or cleaning equipment. When used in a coating or contact adhesive, the organic HAP solvent evaporates during drying and does not become a part of the dried film.

Overall control efficiency means the efficiency of a control system, calculated as the product of the capture and control device efficiencies, expressed as a percentage.

Permanent total enclosure means a permanently installed enclosure that completely surrounds a source of emissions such that all emissions are captured and contained for discharge through a control device. For additional information, see *Guidelines for Determining Capture Efficiency,* January 1994. (Docket No. A–93–10, Item No. IV-B-1).

Recycled onsite means the reuse of an organic HAP solvent in a process other than cleaning or washoff.

Reference method means any method of sampling and analyzing for an air pollutant that is published in Appendix A of 40 CFR part 60.

Research or laboratory facility means any stationary source whose primary purpose is to conduct research and development to develop new processes and products where such source is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of products for commercial sale in commerce, except in a de minimis manner.

Responsible official has the meaning given to it in 40 CFR part 70, State Operating Permit Programs (Title V permits).

Sealer means a finishing material used to seal the pores of a wood substrate before additional coats of finishing material are applied. Special purpose finishing materials that are used in some finishing systems to optimize aesthetics are not sealers.

Solvent means a liquid used in a coating or contact adhesive to dissolve or disperse constituents and/or to adjust viscosity. It evaporates during drying and does not become a part of the dried film.

Stain means any color coat having a solids content by weight of no more than 8.0 percent that is applied in single or multiple coats directly to the substrate. It includes, but is not limited to, nongrain raising stains, equalizer stains, prestains, sap stains, body stains, no-wipe stains, penetrating stains, and toners.

Storage containers means vessels or tanks, including mix equipment, used to hold finishing, gluing, cleaning, or washoff materials.

Strippable spray booth material means a coating that:

(1) Is applied to a spray booth wall to provide a protective film to receive over spray during finishing operations;

(2) That is subsequently peeled off and disposed; and

(3) By achieving (1) and (2) of this definition reduces or eliminates the need to use organic HAP solvents to clean spray booth walls.

Substrate means the surface onto which a coating or contact adhesive is applied (or into which a coating or contact adhesive is impregnated).

Temporary total enclosure means an enclosure that meets the requirements of §63.805(e)(1) (i) through (iv) and is not permanent, but constructed only to measure the capture efficiency of pollutants emitted from a given source. Additionally, any exhaust point from the enclosure shall be at least four equivalent duct or hood diameters from each natural draft opening. For additional information, see *Guidelines for Determining Capture Efficiency,* January 1994. (Docket No. A–93–10, Item No. IV-B-1).

Thinner means a volatile liquid that is used to dilute coatings or contact adhesives (to reduce viscosity, color strength, and solids, or to modify drying conditions).

Topcoat means the last film-building finishing material that is applied in a finishing system.

Touchup and repair means the application of finishing materials to cover minor finishing imperfections.

VHAP means any volatile hazardous air pollutant listed in Table 2 to Subpart JJ.

VHAP of potential concern means any VHAP from the list in table 6 of this subpart.

Volatile organic compound (VOC) means any organic compound which participates in atmospheric photochemical reactions, that is, any organic compound other than those which the Administrator designates as having negligible photochemical reactivity. A VOC may be measured by a reference method, an equivalent method, an alternative method, or by procedures specified under any rule. A reference method, an equivalent method, or an alternative method, however, may also measure nonreactive organic compounds. In such cases, the owner or operator may exclude the nonreactive organic compounds when determining compliance with a standard. For a list of compounds that the Administrator has designated as having negligible photochemical reactivity, refer to 40 CFR part 51.10.

Washcoat means a transparent special purpose finishing material having a solids content by weight of 12.0 percent by weight or less. Washcoats are applied over initial stains to protect, to control color, and to stiffen the wood fibers in order to aid sanding.

Washoff operations means those operations in which organic HAP solvent is used to remove coating from wood furniture or a wood furniture component.

Wood furniture means any product made of wood, a wood product such as rattan or wicker, or an engineered wood product such as particleboard that is manufactured under any of the following standard industrial classification codes: 2434, 2511, 2512, 2517, 2519, 2521, 2531, 2541, 2599, or 5712.

Wood furniture component means any part that is used in the manufacture of wood furniture. Examples include, but are not limited to, drawer sides, cabinet doors, seat cushions, and laminated tops. However, foam seat cushions manufactured and fabricated at a facility that does not engage in any other wood furniture or wood furniture component manufacturing operation are excluded from this definition.

Wood furniture manufacturing operations means the finishing, gluing, cleaning, and washoff operations associated with the production of wood furniture or wood furniture components.

(b) The nomenclature used in this subpart has the following meaning:

(1) A_k= the area of each natural draft opening (k) in a total enclosure, in square meters.

(2) C_c=the VHAP content of a finishing material (c), in kilograms of volatile hazardous air pollutants per kilogram of coating solids (kg VHAP/kg solids), as supplied. Also given in pounds of volatile hazardous air pollutants per pound of coating solids (lb VHAP/lb solids).

(3) C_{aj}=the concentration of VHAP in gas stream (j) exiting the control device, in parts per million by volume.

(4) C_{bi}=the concentration of VHAP in gas stream (i) entering the control device, in parts per million by volume.

(5) C_{di}=the concentration of VHAP in gas stream (i) entering the control device from the affected source, in parts per million by volume.

(6) C_{fk}=the concentration of VHAP in uncontrolled gas stream (k) emitted directly to the atmosphere from the affected source, in parts per million by volume.

(7) E=the emission limit achieved by an emission point or a set of emission points, in kg VHAP/kg solids (lb VHAP/lb solids).

(8) F=the control device efficiency, expressed as a fraction.

(9) FV=the average inward face velocity across all natural draft openings in a total enclosure, in meters per hour.

(10) G=the VHAP content of a contact adhesive, in kg VHAP/kg solids (lb VHAP/lb solids), as applied.

(11) M=the mass of solids in finishing material used monthly, kg solids/month (lb solids/month).

(12) N=the capture efficiency, expressed as a fraction.

(13) Q_{aj}=the volumetric flow rate of gas stream (j) exiting the control device, in dry standard cubic meters per hour.

(14) Q_{bi}=the volumetric flow rate of gas stream (i) entering the control device, in dry standard cubic meters per hour.

(15) Q_{di}=the volumetric flow rate of gas stream (i) entering the control device from the emission point, in dry standard cubic meters per hour.

(16) Q_{fk}=the volumetric flow rate of uncontrolled gas stream (k) emitted directly to the atmosphere from the emission point, in dry standard cubic meters per hour.

(17) Q_{ini}=the volumetric flow rate of gas stream (i) entering the total enclosure through a forced makeup air duct, in standard cubic meters per hour (wet basis).

(18) Q_{outj}=the volumetric flow rate of gas stream (j) exiting the total enclosure through an exhaust duct or hood, in standard cubic meters per hour (wet basis).

(19) R=the overall efficiency of the control system, expressed as a percentage.

(20) S=the VHAP content of a solvent, expressed as a weight fraction, added to finishing materials.

(21) W=the amount of solvent, in kilograms (pounds), added to finishing materials during the monthly averaging period.

(22) ac=after the control system is installed and operated.

(23) bc=before control.

[60 FR 62936, Dec. 7, 1995, as amended at 62 FR 30260, June 3, 1997; 62 FR 31363, June 9, 1997; 63 FR 71380, Dec. 28, 1998]

§ 63.802 Emission limits.

(a) Each owner or operator of an existing affected source subject to this subpart shall:

(1) Limit VHAP emissions from finishing operations by meeting the emission limitations for existing sources presented in Table 3 of this subpart, using any of the compliance methods in §63.804(a). To determine VHAP emissions from a finishing material containing formaldehyde or styrene, the owner or operator of the affected source shall use the methods presented in §63.803(l)(2) for determining styrene and formaldehyde usage.

(2) Limit VHAP emissions from contact adhesives by achieving a VHAP limit for contact adhesives based on the following criteria:

(i) For foam adhesives (contact adhesives used for upholstery operations) used in products that meet the upholstered seating flammability requirements of California Technical Bulletin 116, 117, or 133, the Business and Institutional Furniture Manufacturers Association's (BIFMA's) X5.7, UFAC flammability testing, or any similar requirements from local, State, or Federal fire regulatory agencies, the VHAP content of the adhesive shall not exceed 1.8 kg VHAP/kg solids (1.8 lb VHAP/lb solids), as applied; or

(ii) For all other contact adhesives (including foam adhesives used in products that do not meet the standards presented in paragraph (a)(2)(i) of this section, but excluding aerosol adhesives and excluding contact adhesives applied to nonporous substrates, the VHAP content of the adhesive shall not exceed 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids), as applied.

(3) Limit HAP emissions from strippable spray booth coatings by using coatings that contain no more than 0.8 kg VOC/kg solids (0.8 lb VOC/lb solids), as applied.

(b) Each owner or operator of a new affected source subject to this subpart shall:

(1) Limit VHAP emissions from finishing operations by meeting the emission limitations for new sources presented in Table 3 of this subpart using any of the compliance methods in §63.804(d). To determine VHAP emissions from a finishing material containing formaldehyde or styrene, the owner or operator of the affected source shall use the methods presented in §63.803(l)(2) for determining styrene and formaldehyde usage.

(2) Limit VHAP emissions from contact adhesives by achieving a VHAP limit for contact adhesives, excluding aerosol adhesives and excluding contact adhesives applied to nonporous substrates, of no greater than 0.2 kg VHAP/kg solids (0.2 lb VHAP/lb solids), as applied, using either of the compliance methods in §63.804(e).

(3) Limit HAP emissions from strippable spray booth coatings by using coatings that contain no more than 0.8 kg VOC/kg solids (0.8 lb VOC/lb solids), as applied.

§ 63.803 Work practice standards.

(a) *Work practice implementation plan.* (1) Each owner or operator of an affected source subject to this subpart shall prepare and maintain a written work practice implementation plan that defines environmentally desirable work practices for each wood furniture operation manufacturing operation and addresses each of the work practice standards presented in paragraphs (b) through (l) of this section. The plan shall be developed no more than 60 days after the compliance date.

(2) The written work practice implementation plan shall be available for inspection by the Administrator (or delegated State, local, or Tribal authority) upon request. If the Administrator (or delegated State, local, or Tribal authority) determines that the work practice implementation plan does not include sufficient mechanisms for ensuring that the work practice standards are being implemented, the Administrator (or delegated State, local, or Tribal authority) may require the affected source to modify the plan. Revisions or modifications to the plan do not require a revision of the source's Title V permit.

(3) The inspection and maintenance plan required by paragraph (c) of this section and the formulation assessment plan for finishing operations required by paragraph (l) of this section are also reviewable by the Administrator (or delegated State, local, or Tribal authority).

(b) *Operator training course.* Each owner or operator of an affected source shall train all new and existing personnel, including contract personnel, who are involved in finishing, gluing, cleaning, and washoff operations, use of manufacturing equipment, or implementation of the requirements of this subpart. All new personnel, those hired after the compliance date of the standard, shall be trained upon hiring. All existing personnel, those hired before the compliance date of the standard, shall be trained within six months of the compliance date of the standard. All personnel shall be given refresher training annually. The affected source shall maintain a copy of the training program with the work practice implementation plan. The training program shall include, at a minimum, the following:

(1) A list of all current personnel by name and job description that are required to be trained;

(2) An outline of the subjects to be covered in the initial and refresher training for each position or group of personnel;

(3) Lesson plans for courses to be given at the initial and the annual refresher training that include, at a minimum, appropriate application techniques, appropriate cleaning and washoff procedures, appropriate equipment setup and adjustment to minimize finishing material usage and overspray, and appropriate management of cleanup wastes; and

(4) A description of the methods to be used at the completion of initial or refresher training to demonstrate and document successful completion.

(c) *Inspection and maintenance plan.* Each owner or operator of an affected source shall prepare and maintain with the work practice implementation plan a written leak inspection and maintenance plan that specifies:

(1) A minimum visual inspection frequency of once per month for all equipment used to transfer or apply coatings, adhesives, or organic HAP solvents;

(2) An inspection schedule;

(3) Methods for documenting the date and results of each inspection and any repairs that were made;

(4) The timeframe between identifying the leak and making the repair, which adheres, at a minimum, to the following schedule:

(i) A first attempt at repair (e.g., tightening of packing glands) shall be made no later than five calendar days after the leak is detected; and

(ii) Final repairs shall be made within 15 calendar days after the leak is detected, unless the leaking equipment is to be replaced by a new purchase, in which case repairs shall be completed within three months.

(d) *Cleaning and washoff solvent accounting system.* Each owner or operator of an affected source shall develop an organic HAP solvent accounting form to record:

(1) The quantity and type of organic HAP solvent used each month for washoff and cleaning, as defined in §63.801 of this subpart;

(2) The number of pieces washed off, and the reason for the washoff; and

(3) The quantity of spent organic HAP solvent generated from each washoff and cleaning operation each month, and whether it is recycled onsite or disposed offsite.

(e) *Chemical composition of cleaning and washoff solvents.* Each owner or operator of an affected source shall not use cleaning or washoff solvents that contain any of the pollutants listed in Table 4 to this subpart, in concentrations subject to MSDS reporting as required by OSHA.

(f) *Spray booth cleaning.* Each owner or operator of an affected source shall not use compounds containing more than 8.0 percent by weight of VOC for cleaning spray booth components other than conveyors, continuous coaters and their enclosures, or metal filters, or plastic filters unless the spray booth is being refurbished. If the spray booth is being refurbished, that is the spray booth coating or other protective material used to cover the booth is being replaced, the affected source shall use no more than 1.0 gallon of organic HAP solvent per booth to prepare the surface of the booth prior to applying the booth coating.

(g) *Storage requirements.* Each owner or operator of an affected source shall use normally closed containers for storing finishing, gluing, cleaning, and washoff materials.

(h) *Application equipment requirements.* Each owner or operator of an affected source shall use conventional air spray guns to apply finishing materials only under any of the following circumstances:

(1) To apply finishing materials that have a VOC content no greater than 1.0 lb VOC/lb solids, as applied;

(2) For touchup and repair under the following conditions:

(i) The touchup and repair occurs after completion of the finishing operation; or

(ii) The touchup and repair occurs after the application of stain and before the application of any other type of finishing material, and the materials used for touchup and repair are applied from a container that has a volume of no more than 2.0 gallons.

(3) When spray is automated, that is, the spray gun is aimed and triggered automatically, not manually;

(4) When emissions from the finishing application station are directed to a control device;

(5) The conventional air gun is used to apply finishing materials and the cumulative total usage of that finishing material is no more than 5.0 percent of the total gallons of finishing material used during that semiannual period; or

(6) The conventional air gun is used to apply stain on a part for which it is technically or economically infeasible to use any other spray application technology.

The affected source shall demonstrate technical or economic infeasibility by submitting to the Administrator a videotape, a technical report, or other documentation that supports the affected source's claim of technical or economic infeasibility. The following criteria shall be used, either independently or in combination, to support the affected source's claim of technical or economic infeasibility:

(i) The production speed is too high or the part shape is too complex for one operator to coat the part and the application station is not large enough to accommodate an additional operator; or

(ii) The excessively large vertical spray area of the part makes it difficult to avoid sagging or runs in the stain.

(i) *Line cleaning.* Each owner or operator of an affected source shall pump or drain all organic HAP solvent used for line cleaning into a normally closed container.

(j) *Gun cleaning.* Each owner or operator of an affected source shall collect all organic HAP solvent used to clean spray guns into a normally closed container.

(k) *Washoff operations.* Each owner or operator of an affected source shall control emissions from washoff operations by:

(1) Using normally closed tanks for washoff; and

(2) Minimizing dripping by tilting or rotating the part to drain as much solvent as possible.

(l) *Formulation assessment plan for finishing operations.* Each owner or operator of an affected source shall prepare and maintain with the work practice implementation plan a formulation assessment plan that:

(1) Identifies VHAP from the list presented in Table 5 of this subpart that are being used in finishing operations by the affected source;

(2) Establishes a baseline level of usage by the affected source, for each VHAP identified in paragraph (l)(1) of this section. The baseline usage level shall be the highest annual usage from 1994, 1995, or 1996, for each VHAP identified in paragraph (l)(1) of this section. For formaldehyde, the baseline level of usage shall be based on the amount of free formaldehyde present in the finishing material when it is applied. For styrene, the baseline level of usage shall be an estimate of unreacted styrene, which shall be calculated by multiplying the amount of styrene monomer in the finishing material, when it is applied, by a factor of 0.16. Sources using a control device to reduce emissions may adjust their usage based on the overall control efficiency of the control system, which is determined using the equation in §63.805 (d) or (e).

(3) Tracks the annual usage of each VHAP identified in (l)(1) by the affected source that is present in amounts subject to MSDS reporting as required by OSHA.

(4) If, after November 1998, the annual usage of the VHAP identified in paragraph (l)(1) exceeds its baseline level, then the owner or operator of the affected source shall provide a written notification to the permitting authority that describes the amount of the increase and explains the reasons for exceedance of the baseline level. The following explanations would relieve the owner or operator from further action, unless the affected source is not in compliance with any State regulations or requirements for that VHAP:

(i) The exceedance is no more than 15.0 percent above the baseline level;

(ii) Usage of the VHAP is below the de minimis level presented in Table 5 of this subpart for that VHAP (sources using a control device to reduce emissions may adjust their usage based on the overall control efficiency of the control system, which is determined using the procedures in §63.805 (d) or (e);

(iii) The affected source is in compliance with its State's air toxic regulations or guidelines for the VHAP; or

(iv) The source of the pollutant is a finishing material with a VOC content of no more than 1.0 kg VOC/kg solids (1.0 lb VOC/lb solids), as applied.

(5) If none of the above explanations are the reason for the increase, the owner or operator shall confer with the permitting authority to discuss the reason for the increase and whether there are practical and reasonable technology-based solutions for reducing the usage. The evaluation of whether a technology is reasonable and practical shall be based on cost, quality, and marketability of the product, whether the technology is being used successfully by other wood furniture manufacturing operations, or other criteria mutually agreed upon by the permitting authority and owner or operator. If there are no practical and reasonable solutions, the facility need take no further action. If there are solutions, the owner or operator shall develop a plan to reduce usage of the pollutant to the extent feasible. The plan shall address the approach to be used to reduce emissions, a timetable for implementing the plan, and a schedule for submitting notification of progress.

(6) If, after November 1998, an affected source uses a VHAP of potential concern listed in table 6 of this subpart for which a baseline level has not been previously established, then the baseline level shall be established as the *de minimis* level provided in that same table for that chemical. The affected source shall track the annual usage of each VHAP of potential concern identified in this paragraph that is present in amounts subject to MSDS reporting as required by OSHA. If usage of the VHAP of potential concern exceeds the *de minimis* level listed in table 6 of this subpart for that chemical, then the affected source shall provide an explanation to the permitting authority that documents the reason for the exceedance of the *de minimis* level. If the explanation is not one of those listed in paragraphs (l)(4)(i) through (l)(4)(iv) of this section, the affected source shall follow the procedures in paragraph (l)(5) of this section.

[60 FR 62936, Dec. 7, 1995, as amended at 63 FR 71380, Dec. 28, 1998; 68 FR 37353, June 23, 2003]

§ 63.804 Compliance procedures and monitoring requirements.

(a) The owner or operator of an existing affected source subject to §63.802(a)(1) shall comply with those provisions using any of the methods presented in §63.804 (a)(1) through (a)(4).

(1) Calculate the average VHAP content for all finishing materials used at the facility using Equation 1, and maintain a value of E no greater than 1.0;

$$E=(M_{c1}C_{c1}+M_{c2}C_{c2}+\ *\ *\ *+M_{cn}C_{cn}+S_1W_1+S_2W_2+\ *\ *\ *\ S_nW_n)/(M_{c1}+M_{c2}+\ *\ *\ *+M_{cn}) \quad \text{Equation 1}$$

(2) Use compliant finishing materials according to the following criteria:

(i) Demonstrate that each stain, sealer, and topcoat has a VHAP content of no more than 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids), as applied, and each thinner contains no more than 10.0 percent VHAP by weight by maintaining certified product data sheets for each coating and thinner;

(ii) Demonstrate that each washcoat, basecoat, and enamel that is purchased pre-made, that is, it is not formulated onsite by thinning another finishing material, has a VHAP content of no more than 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids), as applied, and each thinner contains no more than 10.0 percent VHAP by weight by maintaining certified product data sheets for each coating and thinner; and

(iii) Demonstrate that each washcoat, basecoat, and enamel that is formulated at the affected source is formulated using a finishing material containing no more than 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids) and a thinner containing no more than 3.0 percent VHAP by weight.

(3) Use a control system with an overall control efficiency (R) such that the value of E_{ac} in Equation 2 is no greater than 1.0.

$R=[(E_{bc}-E_{ac})/E_{bc}](100)$ Equation 2

The value of E_{bc} in Equation 2 shall be calculated using Equation 1; or

(4) Use any combination of an averaging approach, as described in paragraph (a)(1) of this section, compliant finishing materials, as described in paragraph (a)(2) of this section, and a control system, as described in paragraph (a)(3) of this section.

(b) The owner or operator of an affected source subject to §63.802(a)(2)(i) shall comply with the provisions by using compliant foam adhesives with a VHAP content no greater than 1.8 kg VHAP/kg solids (1.8 lb VHAP/lb solids), as applied.

(c) The owner or operator of an affected source subject to §63.802(a)(2)(ii) shall comply with those provisions by using either of the methods presented in §63.804 (c)(1) and (c)(2).

(1) Use compliant contact adhesives with a VHAP content no greater than 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids), as applied; or

(2) Use a control system with an overall control efficiency (R) such that the value of G_{ac} is no greater than 1.0.

$R=[(G_{bc}-G_{ac})/G_{bc}]\ (100)$ Equation 3

(d) The owner or operator of a new affected source subject to §63.802(b)(1) may comply with those provisions by using any of the following methods:

(1) Calculate the average VHAP content across all finishing materials used at the facility using Equation 1, and maintain a value of E no greater than 0.8;

(2) Use compliant finishing materials according to the following criteria:

(i) Demonstrate that each sealer and topcoat has a VHAP content of no more than 0.8 kg VHAP/kg solids (0.8 lb VHAP/lb solids), as applied, each stain has a VHAP content of no more than 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids), as applied, and each thinner contains no more than 10.0 percent VHAP by weight;

(ii) Demonstrate that each washcoat, basecoat, and enamel that is purchased pre-made, that is, it is not formulated onsite by thinning another finishing material, has a VHAP content of no more than 0.8 kg VHAP/kg solids (0.8 lb VHAP/lb solids), as applied, and each thinner contains no more than 10.0 percent VHAP by weight; and

(iii) Demonstrate that each washcoat, basecoat, and enamel that is formulated onsite is formulated using a finishing material containing no more than 0.8 kg VHAP/kg solids (0.8 lb VHAP/lb solids) and a thinner containing no more than 3.0 percent HAP by weight.

(3) Use a control system with an overall control efficiency (R) such that the value of E_{ac} in Equation 4 is no greater than 0.8.

$R=[(E_{bc}-E_{ac})/E_{bc}](100)$ Equation 4

The value of E_{bc} in Equation 4 shall be calculated using Equation 1; or

(4) Use any combination of an averaging approach, as described in (d)(1), compliant finishing materials, as described in (d)(2), and a control system, as described in (d)(3).

(e) The owner or operator of a new affected source subject to §63.802(b)(2) shall comply with the provisions using either of the following methods:

(1) Use compliant contact adhesives with a VHAP content no greater than 0.2 kg VHAP/kg solids (0.2 lb VHAP/lb solids), as applied; or

(2) Use a control system with an overall control efficiency (R) such that the value of G_{ac} in Equation 3 is no greater than 0.2.

(f) *Initial compliance.* (1) Owners or operators of an affected source subject to the provisions of §63.802 (a)(1) or (b)(1) that comply through the procedures established in §63.804 (a)(1) or (d)(1) shall submit the results of the averaging calculation (Equation 1) for the first month with the initial compliance status report required by §63.807(b). The first month's calculation shall include data for the entire month in which the compliance date falls. For example, if the source's compliance date is November 21, 1997, the averaging calculation shall include data from November 1, 1997 to November 30, 1997.

(2) Owners or operators of an affected source subject to the provisions of §63.802 (a)(1) or (b)(1) that comply through the procedures established in §63.804 (a)(2) or (d)(2) shall submit an initial compliance status report, as required by §63.807(b), stating that compliant stains, washcoats, sealers, topcoats, basecoats, enamels, and thinners, as applicable, are being used by the affected source.

(3) Owners or operators of an affected source subject to the provisions of §63.802 (a)(1) or (b)(1) that are complying through the procedures established in §63.804 (a)(2) or (d)(2) and are applying coatings using continuous coaters shall demonstrate initial compliance by:

(i) Submitting an initial compliance status report, as required by §63.807(b), stating that compliant coatings, as determined by the VHAP content of the coating in the reservoir and the VHAP content as calculated from records, and compliant thinners are being used; or

(ii) Submitting an initial compliance status report, as required by §63.807(b), stating that compliant coatings, as determined by the VHAP content of the coating in the reservoir, are being used; the viscosity of the coating in the reservoir is being monitored; and compliant thinners are being used. The affected source shall also submit data that demonstrate that viscosity is an appropriate parameter for demonstrating compliance.

(4) Owners or operators of an affected source subject to the provisions of §63.802 (a)(1) or (b)(1) that comply through the procedures established in §63.804 (a)(3) or (d)(3) shall demonstrate initial compliance by:

(i) Submitting a monitoring plan that identifies each operating parameter to be monitored for the capture device and discusses why each parameter is appropriate for demonstrating continuous compliance;

(ii) Conducting an initial performance test as required under §63.7 using the procedures and test methods listed in §63.7 and §63.805 (c) and (d) or (e);

(iii) Calculating the overall control efficiency (R) following the procedures in §63.805 (d) or (e); and

(iv) Determining those operating conditions critical to determining compliance and establishing one or more operating parameters that will ensure compliance with the standard.

(A) For compliance with a thermal incinerator, minimum combustion temperature shall be the operating parameter.

(B) For compliance with a catalytic incinerator equipped with a fixed catalyst bed, the minimum gas temperature both upstream and downstream of the catalyst bed shall be the operating parameter.

(C) For compliance with a catalytic incinerator equipped with a fluidized catalyst bed, the minimum gas temperature upstream of the catalyst bed and the pressure drop across the catalyst bed shall be the operating parameters.

(D) For compliance with a carbon adsorber, the operating parameters shall be the total regeneration mass stream flow for each regeneration cycle and the carbon bed temperature after each regeneration, or the concentration level of organic compounds exiting the adsorber, unless the owner or operator requests and receives approval from the Administrator to establish other operating parameters.

(E) For compliance with a control device not listed in this section, one or more operating parameter values shall be established using the procedures identified in §63.804(g)(4)(vi).

(v) Owners or operators complying with §63.804(f)(4) shall calculate each site-specific operating parameter value as the arithmetic average of the maximum or minimum operating parameter values, as appropriate, that demonstrate compliance with the standards, during the three test runs required by §63.805(c)(1).

(5) Owners or operators of an affected source subject to the provisions of §63.802 (a)(2) or (b)(2) that comply through the procedures established in §63.804 (b), (c)(1), or (e)(1), shall submit an initial compliance status report, as required by §63.807(b), stating that compliant contact adhesives are being used by the affected source.

(6) Owners or operators of an affected source subject to the provisions of §63.802 (a)(2)(ii) or (b)(2) that comply through the procedures established in §63.804 (c)(2) or (e)(2), shall demonstrate initial compliance by:

(i) Submitting a monitoring plan that identifies each operating parameter to be monitored for the capture device and discusses why each parameter is appropriate for demonstrating continuous compliance;

(ii) Conducting an initial performance test as required under §63.7 using the procedures and test methods listed in §63.7 and §63.805 (c) and (d) or (e);

(iii) Calculating the overall control efficiency (R) following the procedures in §63.805 (d) or (e); and

(iv) Determining those operating conditions critical to determining compliance and establishing one or more operating parameters that will ensure compliance with the standard.

(A) For compliance with a thermal incinerator, minimum combustion temperature shall be the operating parameter.

(B) For compliance with a catalytic incinerator equipped with a fixed catalyst bed, the minimum gas temperature both upstream and downstream of the catalyst shall be the operating parameter.

(C) For compliance with a catalytic incinerator equipped with a fluidized catalyst bed, the minimum gas temperature upstream of the catalyst bed and the pressure drop across the catalyst bed shall be the operating parameters.

(v) Owners or operators complying with §63.804(f)(6) shall calculate each site-specific operating parameter value as the arithmetic average of the maximum or minimum operating values as appropriate, that demonstrate compliance with the standards, during the three test runs required by §63.805(c)(1).

(7) Owners or operators of an affected source subject to the provisions of §63.802 (a)(3) or (b)(3) shall submit an initial compliance status report, as required by §63.807(b), stating that compliant strippable spray booth coatings are being used by the affected source.

(8) Owners or operators of an affected source subject to the work practice standards in §63.803 shall submit an initial compliance status report, as required by §63.807(b), stating that the work practice implementation plan has been developed and procedures have been established for implementing the provisions of the plan.

(g) *Continuous compliance demonstrations.* (1) Owners or operators of an affected source subject to the provisions of §63.802 (a)(1) or (b)(1) that comply through the procedures established in §63.804 (a)(1) or (d)(1) shall demonstrate continuous compliance by submitting the results of the averaging calculation (Equation 1) for each month within that semiannual period and submitting a compliance certification with the semiannual report required by §63.807(c).

(i) The compliance certification shall state that the value of (E), as calculated by Equation 1, is no greater than 1.0 for existing sources or 0.8 for new sources. An affected source is in violation of the standard if E is greater than 1.0 for

existing sources or 0.8 for new sources for any month. A violation of the monthly average is a separate violation of the standard for each day of operation during the month, unless the affected source can demonstrate through records that the violation of the monthly average can be attributed to a particular day or days during the period.

(ii) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(2) Owners or operators of an affected source subject to the provisions of §63.802 (a)(1) or (b)(1) that comply through the procedures established in §63.804 (a)(2) or (d)(2) shall demonstrate continuous compliance by using compliant coatings and thinners, maintaining records that demonstrate the coatings and thinners are compliant, and submitting a compliance certification with the semiannual report required by §63.807(c).

(i) The compliance certification shall state that compliant stains, washcoats, sealers, topcoats, basecoats, enamels, and thinners, as applicable, have been used each day in the semiannual reporting period or should otherwise identify the periods of noncompliance and the reasons for noncompliance. An affected source is in violation of the standard whenever a noncompliant coating, as demonstrated by records or by a sample of the coating, is used.

(ii) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(3) Owners or operators of an affected source subject to the provisions of §63.802 (a)(1) or (b)(1) that are complying through the procedures established in §63.804 (a)(2) or (d)(2) and are applying coatings using continuous coaters shall demonstrate continuous compliance by following the procedures in paragraph (g)(3) (i) or (ii) of this section.

(i) Using compliant coatings, as determined by the VHAP content of the coating in the reservoir and the VHAP content as calculated from records, using compliant thinners, and submitting a compliance certification with the semiannual report required by §63.807(c).

(A) The compliance certification shall state that compliant coatings have been used each day in the semiannual reporting period, or should otherwise identify the days of noncompliance and the reasons for noncompliance. An affected source is in violation of the standard whenever a noncompliant coating, as determined by records or by a sample of the coating, is used. Use of a noncompliant coating is a separate violation for each day the noncompliant coating is used.

(B) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(ii) Using compliant coatings, as determined by the VHAP content of the coating in the reservoir, using compliant thinners, maintaining a viscosity of the coating in the reservoir that is no less than the viscosity of the initial coating by monitoring the viscosity with a viscosity meter or by testing the viscosity of the initial coating and retesting the coating in the reservoir each time solvent is added, maintaining records of solvent additions, and submitting a compliance certification with the semiannual report required by §63.807(c).

(A) The compliance certification shall state that compliant coatings, as determined by the VHAP content of the coating in the reservoir, have been used each day in the semiannual reporting period. Additionally, the certification shall state that the viscosity of the coating in the reservoir has not been less than the viscosity of the initial coating, that is, the coating that is initially mixed and placed in the reservoir, for any day in the semiannual reporting period.

(B) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(C) An affected source is in violation of the standard when a sample of the as-applied coating exceeds the applicable limit established in §63.804 (a)(2) or (d)(2), as determined using EPA Method 311, or the viscosity of the coating in the reservoir is less than the viscosity of the initial coating.

(4) Owners or operators of an affected source subject to the provisions of §63.802 (a)(1) or (b)(1) that comply through the procedures established in §63.804 (a)(3) or (d)(3) shall demonstrate continuous compliance by installing, calibrating, maintaining, and operating the appropriate monitoring equipment according to manufacturer's

specifications. The owner or operator shall also submit the excess emissions and continuous monitoring system performance report and summary report required by §63.807(d) and §63.10(e) of subpart A.

(i) Where a capture/control device is used, a device to monitor each site-specific operating parameter established in accordance with §63.804(f)(6)(i) is required.

(ii) Where an incinerator is used, a temperature monitoring device equipped with a continuous recorder is required.

(A) Where a thermal incinerator is used, a temperature monitoring device shall be installed in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs.

(B) Where a catalytic incinerator equipped with a fixed catalyst bed is used, temperature monitoring devices shall be installed in the gas stream immediately before and after the catalyst bed.

(C) Where a catalytic incinerator equipped with a fluidized catalyst bed is used, a temperature monitoring device shall be installed in the gas stream immediately before the bed. In addition, a pressure monitoring device shall be installed to determine the pressure drop across the catalyst bed. The pressure drop shall be measured monthly at a constant flow rate.

(iii) Where a carbon adsorber is used one of the following is required:

(A) An integrating stream flow monitoring device having an accuracy of ±10 percent, capable of recording the total regeneration stream mass flow for each regeneration cycle; and a carbon bed temperature monitoring device, having an accuracy of ±1 percent of the temperature being monitored or ±0.5 °C, whichever is greater, and capable of recording the carbon bed temperature after each regeneration and within 15 minutes of completing any cooling cycle;

(B) An organic monitoring device, equipped with a continuous recorder, to indicate the concentration level of organic compounds exiting the carbon adsorber; or

(C) Any other monitoring device that has been approved by the Administrator in accordance with §63.804(f)(4)(iv)(D).

(iv) Owners or operators of an affected source shall not operate the capture or control device at a daily average value greater than or less than (as appropriate) the operating parameter values. The daily average value shall be calculated as the average of all values for a monitored parameter recorded during the operating day.

(v) Owners or operators of an affected source that are complying through the use of a catalytic incinerator equipped with a fluidized catalyst bed shall maintain a constant pressure drop, measured monthly, across the catalyst bed.

(vi) An owner or operator who uses a control device not listed in §63.804(f)(4) shall submit, for the Administrator's approval, a description of the device, test data verifying performance, and appropriate site-specific operating parameters that will be monitored to demonstrate continuous compliance with the standard.

(5) Owners or operators of an affected source subject to the provisions of §63.802 (a)(2) (i) or (ii) or (b)(2) that comply through the procedures established in §63.804 (b), (c)(1), or (e)(1), shall submit a compliance certification with the semiannual report required by §63.807(c).

(i) The compliance certification shall state that compliant contact and/or foam adhesives have been used each day in the semiannual reporting period, or should otherwise identify each day noncompliant contact and/or foam adhesives were used. Each day a noncompliant contact or foam adhesive is used is a single violation of the standard.

(ii) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(6) Owners or operators of an affected source subject to the provisions of §63.802 (a)(2)(ii) or (b)(2) that comply through the procedures established in §63.804 (c)(2) or (e)(2), shall demonstrate continuous compliance by installing, calibrating, maintaining, and operating the appropriate monitoring equipment according to the manufacturer's

specifications. The owner or operator shall also submit the excess emissions and continuous monitoring system performance report and summary report required by §63.807(d) and §63.10(e) of subpart A of this part.

(i) Where a capture/control device is used, a device to monitor each site-specific operating parameter established in accordance with §63.804(f)(6)(i) is required.

(ii) Where an incinerator is used, a temperature monitoring device equipped with a continuous recorder is required.

(A) Where a thermal incinerator is used, a temperature monitoring device shall be installed in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs.

(B) Where a catalytic incinerator equipped with a fixed catalyst bed is used, temperature monitoring devices shall be installed in the gas stream immediately before and after the catalyst bed.

(C) Where a catalytic incinerator equipped with a fluidized catalyst bed is used, a temperature monitoring device shall be installed in the gas stream immediately before the bed. In addition, a pressure monitoring device shall be installed to measure the pressure drop across the catalyst bed. The pressure drop shall be measured monthly at a constant flow rate.

(iii) Where a carbon adsorber is used one of the following is required:

(A) An integrating stream flow monitoring device having an accuracy of ±10 percent, capable of recording the total regeneration stream mass flow for each regeneration cycle; and a carbon bed temperature monitoring device, having an accuracy of ±1 percent of the temperature being monitored or ±0.5 °C, whichever is greater, and capable of recording the carbon bed temperature after each regeneration and within 15 minutes of completing any cooling cycle;

(B) An organic monitoring device, equipped with a continuous recorder, to indicate the concentration level of organic compounds exiting the carbon adsorber; or

(C) Any other monitoring device that has been approved by the Administrator in accordance with §63.804(f)(4)(iv)(D).

(iv) Owners or operators of an affected source shall not operate the capture or control device at a daily average value greater than or less than (as appropriate) the operating parameter values. The daily average value shall be calculated as the average of all values for a monitored parameter recorded during the operating day.

(v) Owners or operators of an affected source that are complying through the use of a catalytic incinerator equipped with a fluidized catalyst bed shall maintain a constant pressure drop, measured monthly, across the catalyst bed.

(vi) An owner or operator using a control device not listed in this section shall submit to the Administrator a description of the device, test data verifying the performance of the device, and appropriate operating parameter values that will be monitored to demonstrate continuous compliance with the standard. Compliance using this device is subject to the Administrator's approval.

(7) Owners or operators of an affected source subject to the provisions of §63.802 (a)(3) or (b)(3) shall submit a compliance certification with the semiannual report required by §63.807(c).

(i) The compliance certification shall state that compliant strippable spray booth coatings have been used each day in the semiannual reporting period, or should otherwise identify each day noncompliant materials were used. Each day a noncompliant strippable booth coating is used is a single violation of the standard.

(ii) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(8) Owners or operators of an affected source subject to the work practice standards in §63.803 shall submit a compliance certification with the semiannual report required by §63.807(c).

(i) The compliance certification shall state that the work practice implementation plan is being followed, or should otherwise identify the provisions of the plan that have not been implemented and each day the provisions were not implemented. During any period of time that an owner or operator is required to implement the provisions of the plan, each failure to implement an obligation under the plan during any particular day is a violation.

(ii) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

§ 63.805 Performance test methods.

(a) The EPA Method 311 of appendix A of part 63 shall be used in conjunction with formulation data to determine the VHAP content of the liquid coating. Formulation data shall be used to identify VHAP present in the coating. The EPA Method 311 shall then be used to quantify those VHAP identified through formulation data. The EPA Method 311 shall not be used to quantify HAP such as styrene and formaldehyde that are emitted during the cure. The EPA Method 24 (40 CFR part 60, appendix A) shall be used to determine the solids content by weight and the density of coatings. If it is demonstrated to the satisfaction of the Administrator that a coating does not release VOC or HAP byproducts during the cure, for example, all VOC and HAP present in the coating is solvent, then batch formulation information shall be accepted. The owner or operator of an affected source may request approval from the Administrator to use an alternative method for determining the VHAP content of the coating. In the event of any inconsistency between the EPA Method 24 or Method 311 test data and a facility's formulation data, that is, if the EPA Method 24/311 value is higher, the EPA Method 24/311 test shall govern unless after consultation, a regulated source could demonstrate to the satisfaction of the enforcement agency that the formulation data were correct. Sampling procedures shall follow the guidelines presented in “Standard Procedures for Collection of Coating and Ink Samples for VOC Content Analysis by Reference Method 24 and Reference Method 24A,” EPA–340/1–91–010. (Docket No. A–93–10, Item No. IV-A-1).

(b) Owners or operators demonstrating compliance in accordance with §63.804 (f)(4) or (f)(6) and §63.804 (g)(4) or (g)(6), or complying with any of the other emission limits of §63.802 by operating a capture or control device shall determine the overall control efficiency of the control system (R) as the product of the capture and control device efficiency, using the test methods cited in §63.805(c) and the procedures in §63.805 (d) or (e).

(c) When an initial compliance demonstration is required by §63.804 (f)(4) or (f)(6) of this subpart, the procedures in paragraphs (c)(1) through (c)(6) of this section shall be used in determining initial compliance with the provisions of this subpart.

(1) The EPA Method 18 (40 CFR part 60, appendix A) shall be used to determine the HAP concentration of gaseous air streams. The test shall consist of three separate runs, each lasting a minimum of 30 minutes.

(2) The EPA Method 1 or 1A (40 CFR part 60, appendix A) shall be used for sample and velocity traverses.

(3) The EPA Method 2, 2A, 2C, or 2D (40 CFR part 60, appendix A) shall be used to measure velocity and volumetric flow rates.

(4) The EPA Method 3 (40 CFR part 60, appendix A) shall be used to analyze the exhaust gases.

(5) The EPA Method 4 (40 CFR part 60, appendix A) shall be used to measure the moisture in the stack gas.

(6) The EPA Methods 2, 2A, 2C, 2D, 3, and 4 shall be performed, as applicable, at least twice during each test period.

(d) Each owner or operator of an affected source demonstrating compliance in accordance with §63.804 (f)(4) or (f)(6) shall perform a gaseous emission test using the following procedures:

(1) Construct the overall HAP emission reduction system so that all volumetric flow rates and total HAP emissions can be accurately determined by the applicable test methods specified in §63.805(c) (1) through (6);

(2) Determine capture efficiency from the affected emission point(s) by capturing, venting, and measuring all HAP emissions from the affected emission point(s). During a performance test, the owner or operator shall isolate affected emission point(s) located in an area with other nonaffected gaseous emission sources from all other gaseous emission point(s) by any of the following methods:

(i) Build a temporary total enclosure (see §63.801) around the affected emission point(s); or

(ii) Use the building that houses the process as the enclosure (see §63.801);

(iii) Use any alternative protocol and test method provided they meet either the requirements of the data quality objective (DQO) approach or the lower confidence level (LCL) approach (see §63.801);

(iv) Shut down all nonaffected HAP emission point(s) and continue to exhaust fugitive emissions from the affected emission point(s) through any building ventilation system and other room exhausts such as drying ovens. All exhaust air must be vented through stacks suitable for testing; or

(v) Use another methodology approved by the Administrator provided it complies with the EPA criteria for acceptance under part 63, appendix A, Method 301.

(3) Operate the control device with all affected emission points that will subsequently be delivered to the control device connected and operating at maximum production rate;

(4) Determine the efficiency (F) of the control device using the following equation:

$$F = \frac{\sum_{i=1}^{n} Q_{bi} C_{bi} - \sum_{j=1}^{p} Q_{aj} C_{aj}}{\sum_{i=1}^{n} Q_{bi} C_{bi}} \qquad (Equation\ 5)$$

(5) Determine the efficiency (N) of the capture system using the following equation:

$$N = \frac{\sum_{i=1}^{n} Q_{di} C_{di}}{\sum_{i=1}^{n} Q_{di} C_{di} + \sum_{k=1}^{p} Q_{fk} C_{fk}} \qquad (Equation\ 6)$$

(6) For each affected source complying with §63.802(a)(1) in accordance with §63.804(a)(3), compliance is demonstrated if the product of (F×N)(100) yields a value (R) such that the value of E_{ac} in Equation 2 is no greater than 1.0.

(7) For each new affected source complying with §63.802(b)(1) in accordance with §63.804(d)(3), compliance is demonstrated if the product of (F×N)(100) yields a value (R) such that the value of E_{ac} in Equation 4 is no greater than 0.8.

(8) For each affected source complying with §63.802(a)(2)(ii) in accordance with §63.804(c)(2), compliance is demonstrated if the product of (F×N)(100) yields a value (R) such that the value of G_{ac} in Equation 3 is no greater than 1.0.

(9) For each new affected source complying with §63.802(b)(2) in accordance with §63.804(e)(2), compliance is demonstrated if the product of (F×N)(100) yields a value (R) such that the value of G_{ac} in Equation 3 is no greater than 0.2.

(e) An alternative method to the compliance method in §63.805(d) is the installation of a permanent total enclosure around the affected emission point(s). A permanent total enclosure presents prima facia evidence that all HAP emissions from the affected emission point(s) are directed to the control device. Each affected source that complies using a permanent total enclosure shall:

(1) Demonstrate that the total enclosure meets the requirements in paragraphs (e)(1) (i) through (iv). The owner or operator of an enclosure that does not meet these requirements may apply to the Administrator for approval of the enclosure as a total enclosure on a case-by-case basis. The enclosure shall be considered a total enclosure if it is demonstrated to the satisfaction of the Administrator that all HAP emissions from the affected emission point(s) are contained and vented to the control device. The requirements for automatic approval are as follows:

(i) The total area of all natural draft openings shall not exceed 5 percent of the total surface area of the total enclosure's walls, floor, and ceiling;

(ii) All sources of emissions within the enclosure shall be a minimum of four equivalent diameters away from each natural draft opening;

(iii) The average inward face velocity (FV) across all natural draft openings shall be a minimum of 3,600 meters per hour as determined by the following procedures:

(A) All forced makeup air ducts and all exhaust ducts are constructed so that the volumetric flow rate in each can be accurately determined by the test methods specified in §63.805 (c)(2) and (3). Volumetric flow rates shall be calculated without the adjustment normally made for moisture content; and

(B) Determine FV by the following equation:

$$FV = \frac{\sum_{j=1}^{n} Q_{out\,j} - \sum_{i=1}^{p} Q_{in\,i}}{\sum_{k=1}^{q} A_k} \qquad \text{(Equation 7)}$$

(iv) All access doors and windows whose areas are not included as natural draft openings and are not included in the calculation of FV shall be closed during routine operation of the process.

(2) Determine the control device efficiency using Equation (5), and the test methods and procedures specified in §63.805 (c)(1) through (6).

(3) For each affected source complying with §63.802(a)(1) in accordance with §63.804(a)(3), compliance is demonstrated if:

(i) The installation of a permanent total enclosure is demonstrated (N=1);

(ii) The value of F is determined from Equation (5); and

(iii) The product of (F×N)(100) yields a value (R) such that the value of E_{ac} in Equation 2 is no greater than 1.0.

(4) For each new affected source complying with §63.802(b)(1) in accordance with §63.804(d)(3), compliance is demonstrated if:

(i) The installation of a permanent total enclosure is demonstrated (N = 1);

(ii) The value of F is determined from Equation (5); and

(iii) The product of (F×N)(100) yields a value (R) such that the value of E_{ac} in Equation 4 is no greater than 0.8.

(5) For each affected source complying with §63.802(a)(2)(ii) in accordance with §63.804(c)(2), compliance is demonstrated if:

(i) The installation of a permanent total enclosure is demonstrated (N=1);

(ii) The value of F is determined from Equation (5); and

(iii) The product of (F×N)(100) yields a value (R) such that the value of G_{ac} in Equation 3 is no greater than 1.0.

(6) For each new affected source complying with §63.802(b)(2) in accordance with §63.804(e)(2), compliance is demonstrated if:

(i) The installation of a permanent total enclosure is demonstrated (N=1);

(ii) The value of F is determined from Equation (5); and

(iii) The product of (F×N)(100) yields a value (R) such that the value of G_{ac} in Equation 3 is no greater than 0.2.

§ 63.806 Recordkeeping requirements.

(a) The owner or operator of an affected source subject to this subpart shall fulfill all recordkeeping requirements of §63.10 of subpart A, according to the applicability criteria in §63.800(d) of this subpart.

(b) The owner or operator of an affected source subject to the emission limits in §63.802 of this subpart shall maintain records of the following:

(1) A certified product data sheet for each finishing material, thinner, contact adhesive, and strippable spray booth coating subject to the emission limits in §63.802; and

(2) The VHAP content, in kg VHAP/kg solids (lb VHAP/lb solids), as applied, of each finishing material and contact adhesive subject to the emission limits in §63.802; and

(3) The VOC content, in kg VOC/kg solids (lb VOC/lb solids), as applied, of each strippable booth coating subject to the emission limits in §63.802 (a)(3) or (b)(3).

(c) The owner or operator of an affected source following the compliance method in §63.804 (a)(1) or (d)(1) shall maintain copies of the averaging calculation for each month following the compliance date, as well as the data on the quantity of coatings and thinners used that is necessary to support the calculation of E in Equation 1.

(d) The owner or operator of an affected source following the compliance procedures of §63.804 (f)(3)(ii) and (g)(3)(ii) shall maintain the records required by §63.806(b) as well as records of the following:

(1) Solvent and coating additions to the continuous coater reservoir;

(2) Viscosity measurements; and

(3) Data demonstrating that viscosity is an appropriate parameter for demonstrating compliance.

(e) The owner or operator of an affected source subject to the work practice standards in §63.803 of this subpart shall maintain onsite the work practice implementation plan and all records associated with fulfilling the requirements of that plan, including, but not limited to:

(1) Records demonstrating that the operator training program required by §63.803(b) is in place;

(2) Records collected in accordance with the inspection and maintenance plan required by §63.803(c);

(3) Records associated with the cleaning solvent accounting system required by §63.803(d);

(4) Records associated with the limitation on the use of conventional air spray guns showing total finishing material usage and the percentage of finishing materials applied with conventional air spray guns for each semiannual period as required by §63.803(h)(5).

(5) Records associated with the formulation assessment plan required by §63.803(l); and

(6) Copies of documentation such as logs developed to demonstrate that the other provisions of the work practice implementation plan are followed.

(f) The owner or operator of an affected source following the compliance method of §63.804 (f)(4) or (g)(4) shall maintain copies of the calculations demonstrating that the overall control efficiency (R) of the control system results in the value of E_{ac}required by Equations 2 or 4, records of the operating parameter values, and copies of the semiannual compliance reports required by §63.807(d).

(g) The owner or operator of an affected source following the compliance method of §63.804 (f)(6) or (g)(6), shall maintain copies of the calculations demonstrating that the overall control efficiency (R) of the control system results in the applicable value of G_{ac}calculated using Equation 3, records of the operating parameter values, and copies of the semiannual compliance reports required by §63.807(d).

(h) The owner or operator of an affected source subject to the emission limits in §63.802 and following the compliance provisions of §63.804(f) (1), (2), (3), (5), (7) and (8) and §63.804(g) (1), (2), (3), (5), (7), and (8) shall maintain records of the compliance certifications submitted in accordance with §63.807(c) for each semiannual period following the compliance date.

(i) The owner or operator of an affected source shall maintain records of all other information submitted with the compliance status report required by §63.9(h) and §63.807(b) and the semiannual reports required by §63.807(c).

(j) The owner or operator of an affected source shall maintain all records in accordance with the requirements of §63.10(b)(1).

§ 63.807 Reporting requirements.

(a) The owner or operator of an affected source subject to this subpart shall fulfill all reporting requirements of §63.7 through §63.10 of subpart A (General Provisions) according to the applicability criteria in §63.800(d) of this subpart.

(b) The owner or operator of an affected source demonstrating compliance in accordance with §63.804(f) (1), (2), (3), (5), (7) and (8) shall submit the compliance status report required by §63.9(h) of subpart A (General Provisions) no later than 60 days after the compliance date. The report shall include the information required by §63.804(f) (1), (2), (3), (5), (7), and (8) of this subpart.

(c) The owner or operator of an affected source demonstrating compliance in accordance with §63.804(g) (1), (2), (3), (5), (7), and (8) shall submit a report covering the previous 6 months of wood furniture manufacturing operations:

(1) The first report shall be submitted 30 calendar days after the end of the first 6-month period following the compliance date.

(2) Subsequent reports shall be submitted 30 calendar days after the end of each 6-month period following the first report.

(3) The semiannual reports shall include the information required by §63.804(g) (1), (2), (3), (5), (7), and (8), a statement of whether the affected source was in compliance or noncompliance, and, if the affected source was in noncompliance, the measures taken to bring the affected source into compliance.

(4) The frequency of the reports required by paragraph (c) of this section shall not be reduced from semiannually regardless of the history of the owner's or operator's compliance status.

(d) The owner or operator of an affected source demonstrating compliance in accordance with §63.804(g) (4) and (6) of this subpart shall submit the excess emissions and continuous monitoring system performance report and summary report required by §63.10(e) of subpart A. The report shall include the monitored operating parameter values required by §63.804(g) (4) and (6). If the source experiences excess emissions, the report shall be submitted quarterly for at least 1 year after the excess emissions occur and until a request to reduce reporting frequency is approved, as indicated in §63.10(e)(3)(C). If no excess emissions occur, the report shall be submitted semiannually.

(e) The owner or operator of an affected source required to provide a written notification under §63.803(1)(4) shall include in the notification one or more statements that explains the reasons for the usage increase. The notification shall be submitted no later than 30 calendar days after the end of the annual period in which the usage increase occurred.

§ 63.808 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a 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 of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

(c) The authorities that cannot be delegated to State, local, or Tribal agencies are as specified in paragraphs (c)(1) through (5) of this section.

(1) Approval of alternatives to the requirements in §§63.800, 63.802, and 63.803(a)(1), (b), (c) introductory text, and (d) through (l).

(2) Approval of alternatives to the monitoring and compliance requirements in §§63.804(f)(4)(iv)(D) and (E), 63.804(g)(4)(iii)(C), 63.804(g)(4)(vi), and 63.804(g)(6)(vi).

(3) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart, as well as approval of any alternatives to the specific test methods under §§63.805(a), 63.805(d)(2)(v), and 63.805(e)(1).

(4) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart.

(5) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

[68 FR 37354, June 23, 2003]

§§ 63.809-63.819 [Reserved]

Table 1 to Subpart JJ of Part 63—General Provisions Applicability to Subpart JJ

Reference	Applies to subpart JJ	Comment
63.1(a)	Yes	
63.1(b)(1)	No	Subpart JJ specifies applicability.
63.1(b)(2)	Yes	

63.1(b)(3)	Yes	
63.1(c)(1)	No	Subpart JJ specifies applicability.
63.1(c)(2)	No	Area sources are not subject to subpart JJ.
63.1(c)(4)	Yes	
63.1(c)(5)	Yes	
63.1(e)	Yes	
63.2	Yes	Additional terms are defined in 63.801(a) of subpart JJ. When overlap between subparts A and JJ occurs, subpart JJ takes precedence.
63.3	Yes	Other units used in subpart JJ are defined in 63.801(b).
63.4	Yes	
63.5	Yes	
63.6(a)	Yes	
63.6(b)(1)	Yes	
63.6(b)(2)	Yes	
63.6(b)(3)	Yes	
63.6(b)(4)	No	May apply when standards are proposed under Section 112(f) of the CAA.
63.6(b)(5)	Yes	
63.6(b)(7)	Yes	
63.6(c)(1)	Yes	
63.6(c)(2)	No	
63.6(c)(5)	Yes	
63.6(e)(1)	Yes	
63.6(e)(2)	Yes	
63.6(e)(3)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.6(f)(1)	No	Affected sources complying through the procedures specified in 63.804 (a)(1), (a)(2), (b), (c)(1), (d)(1), (d)(2), (e)(1), and (e)(2) are subject to the emission standards at all times, including periods of startup, shutdown, and malfunction.
63.6(f)(2)	Yes	
63.6(f)(3)	Yes	
63.6(g)	Yes	
63.6(h)	No	
63.6 (i)(1)–(i)(3)	Yes	
63.6(i)(4)(i)	Yes	
63.6(i)(4)(ii)	No	
63.6 (i)(5)–	Yes	

(i)(14)		
63.6(i)(16)	Yes	
63.6(j)	Yes	
63.7	Yes	Applies only to affected sources using a control device to comply with the rule.
63.8	Yes	Applies only to affected sources using a control device to comply with the rule.
63.9(a)	Yes	
63.9(b)	Yes	Existing sources are required to submit initial notification report within 270 days of the effective date.
63.9(c)	Yes	
63.9(d)	Yes	
63.9(e)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.9(f)	No	
63.9(g)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.9(h)	Yes	63.9(h)(2)(ii) applies only to affected sources using a control device to comply with the rule.
63.9(i)	Yes	
63.9(j)	Yes	
63.10(a)	Yes	
63.10(b)(1)	Yes	
63.10(b)(2)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.10(b)(3)	Yes	
63.10(c)	Yes	
63.10(d)(1)	Yes	
63.10(d)(2)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.10(d)(3)	No	
63.10(d)(4)	Yes	
63.10(d)(5)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.10(e)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.10(f)	Yes	
63.11	No	
63.12–63.15	Yes	

Table 2 to Subpart JJ of Part 63—List of Volatile Hazardous Air Pollutants

Chemical name	CAS No.
Acetaldehyde	75070

Acetamide	60355
Acetonitrile	75058
Acetophenone	98862
2-Acetylaminofluorine	53963
Acrolein	107028
Acrylamide	79061
Acrylic acid	79107
Acrylonitrile	107131
Allyl chloride	107051
4-Aminobiphenyl	92671
Aniline	62533
o-Anisidine	90040
Benzene	71432
Benzidine	92875
Benzotrichloride	98077
Benzyl chloride	100447
Biphenyl	92524
Bis (2-ethylhexyl) phthalate (DEHP)	117817
Bis (chloromethyl) ether	542881
Bromoform	75252
1,3-Butadiene	106990
Carbon disulfide	75150
Carbon tetrachloride	56235
Carbonyl sulfide	463581
Catechol	120809
Chloroacetic acid	79118
2-Chloroacetophenone	532274
Chlorobenzene	108907
Chloroform	67663
Chloromethyl methyl ether	107302
Chloroprene	126998

Cresols (isomers and mixture)	1319773
o-Cresol	95487
m-Cresol	108394
p-Cresol	106445
Cumene	98828
2,4–D (2,4-Dichlorophenoxyacetic acid, including salts and esters)	94757
DDE (1,1-Dichloro-2,2-bis(p-chlorophenyl)ethylene)	72559
Diazomethane	334883
Dibenzofuran	132649
1,2-Dibromo-3-chloropropane	96128
Dibutylphthalate	84742
1,4-Dichlorobenzene	106467
3,3′-Dichlorobenzidine	91941
Dichloroethyl ether (Bis(2-chloroethyl)ether)	111444
1,3-Dichloropropene	542756
Diethanolamine	111422
N,N-Dimethylaniline	121697
Diethyl sulfate	64675
3,3′-Dimethoxybenzidine	119904
4-Dimethylaminoazobenzene	60117
3,3′-Dimethylbenzidine	119937
Dimethylcarbamoyl chloride	79447
N,N-Dimethylformamide	68122
1,1-Dimethylhydrazine	57147
Dimethyl phthalate	131113
Dimethyl sulfate	77781
4,6-Dinitro-o-cresol, and salts	534521
2,4-Dinitrophenol	51285
2,4-Dinitrotoluene	121142
1,4-Dioxane (1,4-Diethyleneoxide)	123911
1,2-Diphenylhydrazine	122667

Epichlorohydrin (1-Chloro-2,3-epoxypropane)	106898
1,2-Epoxybutane	106887
Ethyl acrylate	140885
Ethylbenzene	100414
Ethyl carbamate (Urethane)	51796
Ethyl chloride (Chloroethane)	75003
Ethylene dibromide (Dibromoethane)	106934
Ethylene dichloride (1,2-Dichloroethane)	107062
Ethylene glycol	107211
Ethylene oxide	75218
Ethylenethiourea	96457
Ethylidene dichloride (1,1-Dichloroethane)	75343
Formaldehyde	50000
Glycolethers[a]	
Hexachlorobenzene	118741
Hexachloro-1,3-butadiene	87683
Hexachloroethane	67721
Hexamethylene-1,6-diisocyanate	822060
Hexamethylphosphoramide	680319
Hexane	110543
Hydrazine	302012
Hydroquinone	123319
Isophorone	78591
Maleic anhydride	108316
Methanol	67561
Methyl bromide (Bromomethane)	74839
Methyl chloride (Chloromethane)	74873
Methyl chloroform (1,1,1-Trichloroethane)	71556
Methyl ethyl ketone (2-Butanone)	78933
Methylhydrazine	60344
Methyl iodide (Iodomethane)	74884

Methyl isobutyl ketone (Hexone)	108101
Methyl isocyanate	624839
Methyl methacrylate	80626
Methyl tert-butyl ether	1634044
4,4′-Methylenebis (2-chloroaniline)	101144
Methylene chloride (Dichloromethane)	75092
4,4′-Methylenediphenyl diisocyanate (MDI)	101688
4,4′-Methylenedianiline	101779
Naphthalene	91203
Nitrobenzene	98953
4-Nitrobiphenyl	92933
4-Nitrophenol	100027
2-Nitropropane	79469
N-Nitroso-N-methylurea	684935
N-Nitrosodimethylamine	62759
N-Nitrosomorpholine	59892
Phenol	108952
p-Phenylenediamine	106503
Phosgene	75445
Phthalic anhydride	85449
Polychlorinated biphenyls (Aroclors)	1336363
Polycyclic Organic Matter[b]	
1,3-Propane sultone	1120714
beta-Propiolactone	57578
Propionaldehyde	123386
Propoxur (Baygon)	114261
Propylene dichloride (1,2-Dichloropropane)	78875
Propylene oxide	75569
1,2-Propylenimine (2-Methyl aziridine)	75558
Quinone	106514
Styrene	100425

Styrene oxide	96093
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746016
1,1,2,2-Tetrachloroethane	79345
Tetrachloroethylene (Perchloroethylene)	127184
Toluene	108883
2,4-Toluenediamine	95807
Toluene-2,4-diisocyanate	584849
o-Toluidine	95534
1,2,4-Trichlorobenzene	120821
1,1,2-Trichloroethane	79005
Trichloroethylene	79016
2,4,5-Trichlorophenol	95954
2,4,6-Trichlorophenol	88062
Triethylamine	121448
Trifluralin	1582098
2,2,4-Trimethylpentane	540841
Vinyl acetate	108054
Vinyl bromide	593602
Vinyl chloride	75014
Vinylidene chloride (1,1-Dichloroethylene)	75354
Xylenes (isomers and mixture)	1330207
o-Xylene	95476
m-Xylene	108383
p-Xylene	106423

[a]Includes mono- and di-ethers of ethylene glycol, diethylene glycols and triethylene glycol; R-(OCH_2CH_2) RR-OR where:

n = 1, 2, or 3,

R = alkyl or aryl groups

R′= R, H, or groups which, when removed, yield glycol ethers with the structure: R-$(OCH_2CH_2)_n$—OH. Polymers are excluded from the glycol category.

[b]Includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100°C.

[63 FR 71381, Dec. 28, 1998]

Table 3 to Subpart JJ of Part 63—Summary of Emission Limits

Emission point	Existing source	New source
Finishing Operations:		
(a) Achieve a weighted average VHAP content across all coatings (maximum kg VHAP/kg solids [lb VHAP/lb solids], as applied	[a]1.0	[a]0.8
(b) Use compliant finishing materials (maximum kg VHAP/kg solids [lb VHAP/lb solids], as applied):		
—stains	[a]1.0	[a]1.0
—washcoats	[a,b]1.0	[a,b]0.8
—sealers	[a]1.0	[a]0.8
—topcoats	[a]1.0	[a]0.8
—basecoats	[a,b]1.0	[a,b]0.8
—enamels	[a,b]1.0	[a,b]0.8
—thinners (maximum percent VHAP allowable); or	10.0	10.0
(c) As an alternative, use control device; or	[c]1.0	[c]0.8
(d) Use any combination of (a), (b), and (c)	1.0	0.8
Cleaning Operations:		
Strippable spray booth material (maximum VOC content, kg VOC/kg solids [lb VOC/lb solids])	0.8	0.8
Contact Adhesives:		
(a) Use compliant contact adhesives (maximum kg VHAP/kg solids [lb VHAP/lb solids], as applied) based on following criteria:		
i. For aerosol adhesives, and for contact adhesives applied to nonporous substrates	[d]NA	[d]NA
ii. For foam adhesives used in products that meet flammability requirements	1.8	0.2
iii. For all other contact adhesives (including foam adhesives used in products that do not meet flammability requirements); or	1.0	0.2
(b) Use a control device	[e]1.0	[e]0.2

[a]The limits refer to the VHAP content of the coating, as applied.

[b]Washcoats, basecoats, and enamels must comply with the limits presented in this table if they are purchased premade, that is, if they are not formulated onsite by thinning other finishing materials. If they are formulated onsite, they must be formulated using compliant finishing materials, i.e., those that meet the limits specified in this table, and thinners containing no more than 3.0 percent VHAP by weight.

[c]The control device must operate at an efficiency that is equivalent to no greater than 1.0 kilogram (or 0.8 kilogram) of VHAP being emitted from the affected emission source per kilogram of solids used.

[d]There is no limit on the VHAP content of these adhesives.

[e]The control device must operate at an efficiency that is equivalent to no greater than 1.0 kilogram (or 0.2 kilogram) of VHAP being emitted from the affected emission source per kilogram of solids used.

[60 FR 62936, Dec. 7, 1995, as amended at 62 FR 30260, June 3, 1997]

Table 4 to Subpart JJ of Part 63—Pollutants Excluded From Use in Cleaning and Washoff Solvents

Chemical name	CAS No.
4-Aminobiphenyl	92671
Styrene oxide	96093
Diethyl sulfate	64675
N-Nitrosomorpholine	59892
Dimethyl formamide	68122
Hexamethylphosphoramide	680319
Acetamide	60355
4,4′-Methylenedianiline	101779
o-Anisidine	90040
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746016
Beryllium salts	
Benzidine	92875
N-Nitroso-N-methylurea	684935
Bis (chloromethyl) ether	542881
Dimethyl carbamoyl chloride	79447
Chromium compounds (hexavalent)	
1,2-Propylenimine (2-Methyl aziridine)	75558
Arsenic and inorganic arsenic compounds	99999904
Hydrazine	302012
1,1-Dimethyl hydrazine	57147
Beryllium compounds	7440417
1,2-Dibromo-3-chloropropane	96128
N-Nitrosodimethylamine	62759
Cadmium compounds	
Benzo (a) pyrene	50328

Polychlorinated biphenyls (Aroclors)	1336363
Heptachlor	76448
3,3′-Dimethyl benzidine	119937
Nickel subsulfide	12035722
Acrylamide	79061
Hexachlorobenzene	118741
Chlordane	57749
1,3-Propane sultone	1120714
1,3-Butadiene	106990
Nickel refinery dust	
2-Acetylaminoflourine	53963
3,3′-Dichlorobenzidine	53963
Lindane (hexachlorcyclohexane, gamma)	58899
2,4-Toluene diamine	95807
Dichloroethyl ether (Bis(2-chloroethyl) ether)	111444
1,2-Diphenylhydrazine	122667
Toxaphene (chlorinated camphene)	8001352
2,4-Dinitrotoluene	121142
3,3′-Dimethoxybenzidine	119904
Formaldehyde	50000
4,4′-Methylene bis (2-chloroaniline)	101144
Acrylonitrile	107131
Ethylene dibromide (1,2-Dibromoethane)	106934
DDE (1,1-p-chlorophenyl 1–2 dichloroethylene)	72559
Chlorobenzilate	510156
Dichlorvos	62737
Vinyl chloride	75014
Coke Oven Emissions	
Ethylene oxide	75218
Ethylene thiourea	96457
Vinyl bromide (bromoethene)	593602

Selenium sulfide (mono and di)	7488564
Chloroform	67663
Pentachlorophenol	87865
Ethyl carbamate (Urethane)	51796
Ethylene dichloride (1,2-Dichloroethane)	107062
Propylene dichloride (1,2-Dichloropropane)	78875
Carbon tetrachloride	56235
Benzene	71432
Methyl hydrazine	60344
Ethyl acrylate	140885
Propylene oxide	75569
Aniline	62533
1,4-Dichlorobenzene(p)	106467
2,4,6-Trichlorophenol	88062
Bis (2-ethylhexyl) phthalate (DEHP)	117817
o-Toluidine	95534
Propoxur	114261
1,4-Dioxane (1,4-Diethyleneoxide)	123911
Acetaldehyde	75070
Bromoform	75252
Captan	133062
Epichlorohydrin	106898
Methylene chloride (Dichloromethane)	75092
Dibenz (ah) anthracene	53703
Chrysene	218019
Dimethyl aminoazobenzene	60117
Benzo (a) anthracene	56553
Benzo (b) fluoranthene	205992
Antimony trioxide	1309644
2-Nitropropane	79469
1,3-Dichloropropene	542756

7, 12-Dimethylbenz(a) anthracene	57976
Benz(c) acridine	225514
Indeno(1,2,3-cd)pyrene	193395
1,2:7,8-Dibenzopyrene	189559

[63 FR 71382, Dec. 28, 1998]

Table 5 to Subpart JJ of Part 63—List of VHAP of Potential Concern Identified by Industry

CAS No.	Chemical name	EPA de minimis, tons/yr
68122	Dimethyl formamide	1.0
50000	Formaldehyde	0.2
75092	Methylene chloride	4.0
79469	2-Nitropropane	1.0
78591	Isophorone	0.7
1000425	Styrene monomer	1.0
108952	Phenol	0.1
111422	Dimethanolamine	5.0
109864	2-Methoxyethanol	10.0
111159	2-Ethoxyethyl acetate	10.0

[63 FR 71382, Dec. 28, 1998]

Table 6 to Subpart JJ of Part 63—VHAP of Potential Concern

CAS No.	Chemical name	EPA de minimis, tons/yr*
92671	4-Aminobiphenyl	1.0
96093	Styrene oxide	1.0
64675	Diethyl sulfate	1.0
59892	N-Nitrosomorpholine	1.0
68122	Dimethyl formamide	1.0
680319	Hexamethylphosphoramide	0.01
60355	Acetamide	1.0
101779	4,4′-Methylenedianiline	1.0
90040	o-Anisidine	1.0
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin	0.00000006

92875	Benzidine	0.00003
684935	N-Nitroso-N-methylurea	0.00002
542881	Bis(chloromethyl) ether	0.00003
79447	Dimethyl carbamoyl chloride	0.002
75558	1,2-Propylenimine (2-Methyl aziridine)	0.0003
57147	1,1-Dimethyl hydrazine	0.0008
96128	1,2-Dibromo-3-chloropropane	0.001
62759	N-Nitrosodimethylamine	0.0001
50328	Benzo (a) pyrene	0.001
1336363	Polychlorinated biphenyls (Aroclors)	0.0009
76448	Heptachlor	0.002
119937	3,3′-Dimethyl benzidine	0.001
79061	Acrylamide	0.002
118741	Hexachlorobenzene	0.004
57749	Chlordane	0.005
1120714	1,3-Propane sultone	0.003
106990	1,3-Butadiene	0.007
53963	2-Acetylaminoflourine	0.0005
91941	3,3′-Dichlorobenzidine	0.02
58899	Lindane (hexachlorocyclohexane, gamma)	0.005
95807	2,4-Toluene diamine	0.002
111444	Dichloroethyl ether (Bis(2-chloroethyl)ether)	0.006
122667	1,2—Diphenylhydrazine	0.009
8001352	Toxaphene (chlorinated camphene)	0.006
121142	2,4-Dinitrotoluene	0.002
119904	3,3′-Dimethoxybenzidine	0.01
50000	Formaldehyde	0.2
101144	4,4′-Methylene bis(2-chloroaniline)	0.02
107131	Acrylonitrile	0.03
106934	Ethylene dibromide(1,2-Dibromoethane)	0.01
72559	DDE (1,1-p-chlorophenyl 1–2 dichloroethylene)	0.01

510156	Chlorobenzilate	0.04
62737	Dichlorvos	0.02
75014	Vinyl chloride	0.02
75218	Ethylene oxide	0.09
96457	Ethylene thiourea	0.06
593602	Vinyl bromide (bromoethene)	0.06
67663	Chloroform	0.09
87865	Pentachlorophenol	0.07
51796	Ethyl carbamate (Urethane)	0.08
107062	Ethylene dichloride (1,2-Dichloroethane)	0.08
78875	Propylene dichloride (1,2-Dichloropropane)	0.1
56235	Carbon tetrachloride	0.1
71432	Benzene	0.2
140885	Ethyl acrylate	0.1
75569	Propylene oxide	0.5
62533	Aniline	0.1
106467	1,4-Dichlorobenzene(p)	0.3
88062	2,4,6-Trichlorophenol	0.6
117817	Bis (2-ethylhexyl) phthalate (DEHP)	0.5
95534	o-Toluidine	0.4
114261	Propoxur	2.0
79016	Trichloroethylene	1.0
123911	1,4-Dioxane (1,4-Diethyleneoxide)	0.6
75070	Acetaldehyde	0.9
75252	Bromoform	2.0
133062	Captan	2.0
106898	Epichlorohydrin	2.0
75092	Methylene chloride (Dichloromethane)	4.0
127184	Tetrachloroethylene (Perchloroethylene)	4.0
53703	Dibenz (ah) anthracene	0.01
218019	Chrysene	0.01

60117	Dimethyl aminoazobenzene	1.0
56553	Benzo (a) anthracene	0.01
205992	Benzo (b) fluoranthene	0.01
79469	2-Nitropropane	1.0
542756	1,3-Dichloropropene	1.0
57976	7,12-Dimethylbenz (a) anthracene	0.01
225514	Benz(c)acridine	0.01
193395	Indeno(1,2,3-cd)pyrene	0.01
189559	1,2:7,8-Dibenzopyrene	0.01
79345	1,1,2,2-Tetrachloroethane	0.03
91225	Quinoline	0.0006
75354	Vinylidene chloride (1,1-Dichloroethylene)	0.04
87683	Hexachlorobutadiene	0.09
82688	Pentachloronitrobenzene (Quintobenzene)	0.03
78591	Isophorone	0.7
79005	1,1,2-Trichloroethane	0.1
74873	Methyl chloride (Chloromethane)	1.0
67721	Hexachloroethane	0.5
1582098	Trifluralin	0.9
1319773	Cresols/Cresylic acid (isomers and mixture)	1.0
108394	m-Cresol	1.0
75343	Ethylidene dichloride (1,1-Dichloroethane)	1.0
95487	o-Cresol	1.0
106445	p-Cresol	1.0
74884	Methyl iodide (Iodomethane)	1.0
100425	Styrene	1.0
107051	Allyl chloride	1.0
334883	Diazomethane	1.0
95954	2,4,5—Trichlorophenol	1.0
133904	Chloramben	1.0
106887	1,2—Epoxybutane	1.0

108054	Vinyl acetate	1.0
126998	Chloroprene	1.0
123319	Hydroquinone	1.0
92933	4-Nitrobiphenyl	1.0
56382	Parathion	0.1
13463393	Nickel Carbonyl	0.1
60344	Methyl hydrazine	0.006
151564	Ethylene imine	0.0003
77781	Dimethyl sulfate	0.1
107302	Chloromethyl methyl ether	0.1
57578	beta-Propiolactone	0.1
100447	Benzyl chloride	0.04
98077	Benzotrichloride	0.0006
107028	Acrolein	0.04
584849	2,4—Toluene diisocyanate	0.1
75741	Tetramethyl lead	0.01
78002	Tetraethyl lead	0.01
12108133	Methylcyclopentadienyl manganese	0.1
624839	Methyl isocyanate	0.1
77474	Hexachlorocyclopentadiene	0.1
62207765	Fluomine	0.1
10210681	Cobalt carbonyl	0.1
79118	Chloroacetic acid	0.1
534521	4,6-Dinitro-o-cresol, and salts	0.1
101688	Methylene diphenyl diisocyanate	0.1
108952	Phenol	0.1
62384	Mercury, (acetato-o) phenyl	0.01
98862	Acetophenone	1.0
108316	Maleic anhydride	1.0
532274	2-Chloroacetophenone	0.06
51285	2,4-Dinitrophenol	1.0

109864	2-Methyoxy ethanol	10.0
98953	Nitrobenzene	1.0
74839	Methyl bromide (Bromomethane)	10.0
75150	Carbon disulfide	1.0
121697	N,N-Dimethylaniline	1.0
106514	Quinone	5.0
123386	Propionaldehyde	5.0
120809	Catechol	5.0
85449	Phthalic anhydride	5.0
463581	Carbonyl sulfide	5.0
132649	Dibenzofurans	5.0
100027	4-Nitrophenol	5.0
540841	2,2,4-Trimethylpentane	5.0
111422	Diethanolamine	5.0
822060	Hexamethylene-1,6-diisocyanate	5.0
	Glycol ethers[a]	5.0
	Polycyclic organic matter[b]	0.01

*These values are based on the de minimis levels provided in the proposed rulemaking pursuant to section 112(g) of the Act using a 70-year lifetime exposure duration for all VHAP. Default assumptions and the de minimis values based on inhalation reference doses (RfC) are not changed by this adjustment.

[a]Except for ethylene glycol butyl ether, ethylene glycol ethyl ether (2-ethoxy ethanol), ethylene glycol hexyl ether, ethylene glycol methyl ether (2-methoxyethanol), ethylene glycol phenyl ether, ethylene glycol propyl ether, ethylene glycol mono-2-ethylhexyl ether, diethylene glycol butyl ether, diethylene glycol ethyl ether, diethylene glycol methyl ether, diethylene glycol hexyl ether, diethylene glycol phenyl ether, diethylene glycol propyl ether, triethylene glycol butyl ether, triethylene glycol ethyl ether, triethylene glycol methyl ether, triethylene glycol propyl ether, ethylene glycol butyl ether acetate, ethylene glycol ethyl ether acetate, and diethylene glycol ethyl ether acetate.

[b]Except for benzo(b)fluoranthene, benzo(a)anthracene, benzo(a)pyrene, 7,12-dimethylbenz(a)anthracene, benz(c)acridine, chrysene, dibenz(ah) anthracene, 1,2:7,8-dibenzopyrene, indeno(1,2,3-cd)pyrene, but including dioxins and furans.

[63 FR 71383, Dec. 28, 1998]

Attachment B
to Part 70 Operating Permit T037-29558-00100

Kimball International, Inc.-15th St. Contiguous Source
1620 Cherry Street & 1650 Cherry Street,
1180 East 16th Street,
1037 East 15th Street & 1450 Cherry Street,
1038 East 15th Street,
Northwest Corner of East 16th Street & Cherry Street,
Jasper, IN 47549

40 CFR 60, Subpart EE—Standards of Performance for Surface Coating of Metal Furniture

Source: 47 FR 49287, Oct. 29, 1982, unless otherwise noted.

§ 60.310 Applicability and designation of affected facility.

(a) The affected facility to which the provisions of this subpart apply is each metal furniture surface coating operation in which organic coatings are applied.

(b) This subpart applies to each affected facility identified in paragraph (a) of this section on which construction, modification, or reconstruction is commenced after November 28, 1980.

(c) Any owner or operator of a metal furniture surface coating operation that uses less than 3,842 liters of coating (as applied) per year and keeps purchase or inventory records or other data necessary to substantiate annual coating usage shall be exempt from all other provisions of this subpart. These records shall be maintained at the source for a period of at least 2 years.

[47 FR 49287, Oct. 29, 1982, as amended at 50 FR 18248, Apr. 30, 1985]

§ 60.311 Definitions and symbols.

(a) All terms used in this subpart not defined below are given the meaning in the Act and in subpart A of this part.

Bake oven means a device which uses heat to dry or cure coatings.

Dip coating means a method of applying coatings in which the part is submerged in a tank filled with the coatings.

Electrodeposition (EDP) means a method of applying coatings in which the part is submerged in a tank filled with the coatings and in which an electrical potential is used to enhance deposition of the coatings on the part.

Electrostatic spray application means a spray application method that uses an electrical potential to increase the transfer efficiency of the coatings.

Flash-off area means the portion of a surface coating operation between the coating application area and bake oven.

Flow coating means a method of applying coatings in which the part is carried through a chamber containing numerous nozzles which direct unatomized streams of coatings from many different angles onto the surface of the part.

Organic coating means any coating used in a surface coating operation, including dilution solvents, from which volatile organic compound emissions occur during the application or the curing process. For the purpose of this regulation, powder coatings are not included in this definition.

Powder coating means any surface coating which is applied as a dry powder and is fused into a continuous coating film through the use of heat.

Spray application means a method of applying coatings by atomizing and directing the atomized spray toward the part to be coated.

Surface coating operation means the system on a metal furniture surface coating line used to apply and dry or cure an organic coating on the surface of the metal furniture part or product. The surface coating operation may be a prime coat or a top coat operation and includes the coating application station(s), flash-off area, and curing oven.

Transfer efficiency means the ratio of the amount of coating solids deposited onto the surface of a part or product to the total amount of coating solids used.

VOC content means the proportion of a coating that is volatile organic compounds (VOC's), expressed as kilograms of VOC's per liter of coating solids.

VOC emissions means the mass of volatile organic compounds (VOC's), expressed as kilograms of VOC's per liter of applied coating solids, emitted from a metal furniture surface coating operation.

(b) All symbols used in this subpart not defined below are given the meaning in the Act and in subpart A of this part.

C_a=the VOC concentration in each gas stream leaving the control device and entering the atmosphere (parts per million by volume, as carbon)

C_b=the VOC concentration in each gas stream entering the control device (parts per million by volume, as carbon)

C_f=the VOC concentration in each gas stream emitted directly to the atmosphere (parts per million by volume, as carbon)

D_c=density of each coating, as received (kilograms per liter)

D_d=density of each diluent VOC-solvent (kilograms per liter)

D_r=density of VOC-solvent recovered by an emission control device (kilograms per liter)

E=VOC destruction efficiency of the control device (fraction)

F=the proportion of total VOC's emitted by an affected facility that enters the control device (fraction)

G=the volume-weighted average mass of VOC's in coatings consumed in a calendar month per unit volume of coating solids applied (kilograms per liter)

L_c=the volume of each coating consumed, as received (liters)

L_d=the volume of each diluent VOC-solvent added to coatings (liters)

L_r=the volume of VOC-solvent recovered by an emission control device (liters)

L_s=the volume of coating solids consumed (liters)

M_d=the mass of diluent VOC-solvent consumed (kilograms)

M_o=the mass of VOC's in coatings consumed, as received (kilograms)

M_r=the mass of VOC's recovered by an emission control device (kilograms)

N=the volume weighted average mass of VOC emissions to the atmosphere per unit volume of coating solids applied (kilograms per liter)

Q_a=the volumetric flow rate of each gas stream leaving the control device and entering the atmosphere (dry standard cubic meters per hour)

Q_b=the volumetric flow rate of each gas stream entering the control device (dry standard cubic meters per hour)

Q_f=the volumetric flow rate of each gas stream emitted directly to the atmosphere (dry standard cubic meters per hour)

R=the overall VOC emission reduction achieved for an affected facility (fraction)

T=the transfer efficiency (fraction)

V_s=the proportion of solids in each coating (or input stream), as received (fraction by volume)

W_o=the proportion of VOC's in each coating (or input stream), as received (fraction by weight)

§ 60.312 Standard for volatile organic compounds (VOC).

(a) On and after the date on which the initial performance test required to be conducted by §60.8(a) is completed, no owner or operator subject to the provisions of this subpart shall cause the discharge into the atmosphere of VOC emissions from any metal furniture surface coating operation in excess of 0.90 kilogram of VOC per liter of coating solids applied.

§ 60.313 Performance tests and compliance provisions.

(a) Section 60.8(d) and (f) do not apply to the performance test procedures required by this subpart.

(b) The owner or operator of an affected facility shall conduct an initial performance test as required under §60.8(a) and thereafter a performance test each calendar month for each affected facility according to the procedures in this section.

(c) The owner or operator shall use the following procedures for determining monthly volume-weighted average emissions of VOC's in kilograms per liter of coating solids applied (G).

(1) An owner or operator shall use the following procedures for any affected facility which does not use a capture system and control device to comply with the emissions limit specified under §60.312. The owner or operator shall determine the composition of the coatings by formulation data supplied by the manufacturer of the coating or by an analysis of each coating, as received, using Method 24. The Administrator may require the owner or operator who uses formulation data supplied by the manufacturer of the coating to determine the VOC content of coatings using Method 24. The owner or operator shall determine the volume of coating and the mass of VOC-solvent used for thinning purposes from company records on a monthly basis. If a common coating distribution system serves more than one affected facility or serves both affected and existing facilities, the owner or operator shall estimate the volume of coating used at each facility by using the average dry weight of coating and the surface area coated by each affected and existing facility or by other procedures acceptable to the Administrator.

(i) Calculate the volume-weighted average of the total mass of VOC's consumed per unit volume of coating solids applied (G) during each calendar month for each affected facility, except as provided under §60.313(c)(2) and (c)(3). Each monthly calculation is considered a performance test. Except as provided in paragraph (c)(1)(iv) of this section, the volume-weighted average of the total mass of VOC's consumed per unit volume of coating solids applied (G) each calendar month will be determined by the following procedures.

(A) Calculate the mass of VOC's used (M_o+M_d) during each calendar month for each affected facility by the following equation:

$$M_o + M_d = \sum_{i=1}^{n} L_{ci} D_{ci} W_{oi} + \sum_{j=1}^{m} L_{dj} D_{dj}$$

($\Sigma L_{dj} D_{dj}$ will be 0 if no VOC solvent is added to the coatings, as received.)

Where: n is the number of different coatings used during the calendar month and m is the number of different diluent VOC-solvents used during the calendar month.

(B) Calculate the total volume of coating solids used (L_s) in each calendar month for each affected facility by the following equation:

$$L_s = \sum_{i=1}^{n} L_{ci} V_{si}$$

Where: n is the number of different coatings used during the calendar month.

Select the appropriate transfer efficiency from table 1. If the owner or operator can demonstrate to the satisfaction of the Administrator that transfer efficiencies other than those shown are appropriate, the Administrator will approve their use on a case-by-case basis. Transfer efficiency values for application methods not listed below shall be determined by the Administrator on a case-by-case basis. An owner or operator must submit sufficient data for the Administrator to judge the accuracy of the transfer efficiency claims.

Table 1—Transfer Efficiencies

Application methods	Transfer efficiency (T)
Air atomized spray	0.25
Airless spray	.25
Manual electrostatic spray	.60
Nonrotational automatic electrostatic spray	.70
Rotating head electrostatic spray (manual and automatic)	.80
Dip coat and flow coat	.90
Electrodeposition	.95

Where more than one application method is used within a single surface coating operation, the owner or operator shall determine the composition and volume of each coating applied by each method through a means acceptable to the Administrator and compute the weighted average transfer efficiency by the following equation:

$$T = \frac{\sum_{i=1}^{n} L_{cik} V_{sik} T_k}{\sum_{k=1}^{p} L_s}$$

Where n is the number of coatings used and p is the number of application methods used.

(C) Calculate the volume-weighted average mass of VOC's consumed per unit volume of coating solids applied (G) during the calendar month for each affected facility by the following equation:

$$G = \frac{M_o + M_d}{L_s T}$$

(ii) Calculate the volume-weighted average of VOC emissions to the atmosphere (N) during the calendar month for each affected facility by the following equation:

N=G

(iii) Where the volume-weighted average mass of VOC discharged to the atmosphere per unit volume of coating solids applied (N) is less than or equal to 0.90 kilogram per liter, the affected facility is in compliance.

(iv) If each individual coating used by an affected facility has a VOC content, as received, which when divided by the lowest transfer efficiency at which the coating is applied, results in a value equal to or less than 0.90 kilogram per liter, the affected facility is in compliance provided no VOC's are added to the coatings during distribution or application.

(2) An owner or operator shall use the following procedures for any affected facility that uses a capture system and a control device that destroys VOC's (e.g., incinerator) to comply with the emission limit specified under §60.312.

(i) Determine the overall reduction efficiency (R) for the capture system and control device. For the initial performance test the overall reduction efficiency (R) shall be determined as prescribed in paragraphs (c)(2)(i) (A), (B), and (C) of this section. In subsequent months, the owner or operator may use the most recently determined overall reduction efficiency (R) for the performance test providing control device and capture system operating conditions have not changed. The procedure in, paragraphs (c)(2)(i) (A), (B), and (C), of this section, shall be repeated when directed by the Administrator or when the owner or operator elects to operate the control device or capture system at conditions different from the initial performance test.

(A) Determine the fraction (F) of total VOC's emitted by an affected facility that enters the control device using the following equation:

$$F = \frac{\sum_{i=1}^{n} C_{ai} Q_{ai}}{\sum_{i=1}^{n} C_{ai} Q_{ai} + \sum_{i=1}^{m} C_{fi} Q_{fi}}$$

Where

n is the number of gas streams entering the control device and

m is the number of gas streams emitted directly to the atmosphere.

(B) Determine the destruction efficiency of the control device (E) using values of the volumetric flow rate of each of the gas streams and the VOC content (as carbon) of each of the gas streams in and out of the device by the following equation:

$$E = \frac{\sum_{i=1}^{n} Q_{ai} C_{ai} - \sum_{j=1}^{m} Q_{aj} C_{aj}}{\sum_{i=1}^{n} Q_{ai} C_{ai}}$$

Where:

n is the number of gas streams entering the control device, and

m is the number of gas streams leaving the contol device and entering the atmosphere.

(C) Determine overall reduction efficiency (R) using the following equation:

R=EF

(ii) Calculate the volume-weighted average of the total mass of VOC's per unit volume of coating solids applied (G) during each calendar month for each affected facility using equations in paragraphs (c)(1)(i) (A), (B), and (C) of this section.

(iii) Calculate the volume-weighted average of VOC emissions to the atmosphere (N) during each calendar month by the following equation:

N=G(1−R)

(iv) If the volume-weighted average mass of VOC's emitted to the atmosphere for each calendar month (N) is less than or equal to 0.90 kilogram per liter of coating solids applied, the affected facility is in compliance. Each monthly calculation is a performance test.

(3) An owner or operator shall use the following procedure for any affected facility which uses a control device that recovers the VOC's (e.g., carbon adsorber) to comply with the applicable emission limit specified under §60.312.

(i) Calculate the total mass of VOC's consumed (M_o+M_d) and the volume-weighted average of the total mass of VOC's per unit volume of coating solids applied (G) during each calendar month for each affected facility using equations in paragraph (c)(1)(i) (A), (B), and (C) of this section.

(ii) Calculate the total mass of VOC's recovered (M_r) during each calendar month using the following equation:

M_r=$L_r$$D_r$

(iii) Calculate overall reduction efficiency of the control device (R) for each calendar month for each affected facility using the following equation:

$$R = \frac{M_r}{M_o + M_d}$$

(iv) Calculate the volume-weighted average mass of VOC's emitted to the atmosphere (N) for each calendar month for each affected facility using equation in paragraph (c)(2)(iii) of this section.

(v) If the weighted average mass of VOC's emitted to the atmosphere for each calendar month (N) is less than or equal to 0.90 kilogram per liter of coating solids applied, the affected facility is in compliance. Each monthly calculation is a performance test.

[47 FR 49287, Oct. 29, 1982, as amended at 65 FR 61759, Oct. 17, 2000]

§ 60.314 Monitoring of emissions and operations.

(a) The owner or operator of an affected facility which uses a capture system and an incinerator to comply with the emission limits specified under §60.312 shall install, calibrate, maintain, and operate temperature measurement devices according to the following procedures:

(1) Where thermal incineration is used, a temperature measurement device shall be installed in the firebox. Where catalytic incineration is used, a temperature measurement device shall be installed in the gas stream immediately before and after the catalyst bed.

(2) Each temperature measurement device shall be installed, calibrated, and maintained according to the manufacturer's specifications. The device shall have an accuracy of the greater of 0.75 percent of the temperature being measured expressed in degrees Celsius or ±2.5 °C.

(3) Each temperature measurement device shall be equipped with a recording device so that a permanent continuous record is produced.

(b) The owner or operator of an affected facility which uses a capture system and a solvent recovery system to comply with the emission limits specified under §60.312 shall install the equipment necessary to determine the total volume of VOC-solvent recovered daily.

§ 60.315 Reporting and recordkeeping requirements.

(a) The reporting requirements of §60.8(a) apply only to the initial performance test. Each owner or operator subject to the provisions of this subpart shall include the following data in the report of the initial performance test required under §60.8(a):

(1) Except as provided in paragraph (a)(2) of this section, the volume-weighted average mass of VOC's emitted to the atmosphere per volume of applied coating solids (N) for a period of one calendar month from each affected facility.

(2) For each affected facility where compliance is determined under the provisions of §60.313(c)(1)(iv), a list of the coatings used during a period of one calendar month, the VOC content of each coating calculated from data determined using Method 24 or supplied by the manufacturer of the coating, and the minimum transfer efficiency of any coating application equipment used during the month.

(3) For each affected facility where compliance is achieved through the use of an incineration system, the following additional information will be reported:

(i) The proportion of total VOC's emitted that enters the control device (F),

(ii) The VOC reduction efficiency of the control device (E),

(iii) The average combustion temperature (or the average temperature upstream and downstream of the catalyst bed), and

(iv) A description of the method used to establish the amount of VOC's captured and sent to the incinerator.

(4) For each affected facility where compliance is achieved through the use of a solvent recovery system, the following additional information will be reported:

(i) The volume of VOC-solvent recovered (L_r), and

(ii) The overall VOC emission reduction achieved (R).

(b) Following the initial performance test, the owner or operator of an affected facility shall identify, record, and submit a written report to the Administrator every calendar quarter of each instance in which the volume-weighted average of

the total mass of VOC's emitted to the atmosphere per volume of applied coating solids (N) is greater than the limit specified under §60.312. If no such instances have occurred during a particular quarter, a report stating this shall be submitted to the Administrator semiannually.

(c) Following the initial performance test, the owner or operator of an affected facility shall identify, record, and submit at the frequency specified in §60.7(c) the following:

(1) Where compliance with §60.312 is achieved through the use of thermal incineration, each 3-hour period when metal furniture is being coated during which the average temperature of the device was more than 28 °C below the average temperature of the device during the most recent performance test at which destruction efficiency was determined as specified under §60.313.

(2) Where compliance with §60.312 is achieved through the use of catalytic incineration, each 3-hour period when metal furniture is being coated during which the average temperature of the device immediately before the catalyst bed is more than 28 °C below the average temperature of the device immediately before the catalyst bed during the most recent performance test at which destruction efficiency was determined as specified under §60.313. Additionally, when metal furniture is being coated, all 3-hour periods during which the average temperature difference across the catalyst bed is less than 80 percent of the average temperature difference across the catalyst bed during the most recent performance test at which destruction efficiency was determined as specified under §60.313 will be recorded.

(3) For thermal and catalytic incinerators, if no such periods as described in paragraphs (c)(1) and (c)(2) of this section occur, the owner or operator shall state this in the report.

(d) Each owner or operator subject to the provisions of this subpart shall maintain at the source, for a period of at least 2 years, records of all data and calculations used to determine VOC emissions from each affected facility. Where compliance is achieved through the use of thermal incineration, each owner or operator shall maintain, at the source, daily records of the incinerator combustion chamber temperature. If catalytic incineration is used, the owner or operator shall maintain at the source daily records of the gas temperature, both upstream and downstream of the incinerator catalyst bed. Where compliance is achieved through the use of a solvent recovery system, the owner or operator shall maintain at the source daily records of the amount of solvent recovered by the system for each affected facility.

[47 FR 49287, Oct. 29, 1982, as amended at 55 FR 51383, Dec. 13, 1990; 65 FR 61759, Oct. 17, 2000]

§ 60.316 Test methods and procedures.

(a) The reference methods in appendix A to this part except as provided under §60.8(b) shall be used to determine compliance with §60.312 as follows:

(1) Method 24, or coating manufacturer's formulation data, for use in the determination of VOC content of each batch of coating as applied to the surface of the metal parts. In case of an inconsistency between the Method 24 results and the formulation data, the Method 24 results will govern.

(2) Method 25 for the measurement of VOC concentration.

(3) Method 1 for sample and velocity traverses.

(4) Method 2 for velocity and volumetric flow rate.

(5) Method 3 for gas analysis.

(6) Method 4 for stack gas moisture.

(b) For Method 24, the coating sample must be at least a 1 liter sample in a 1 liter container taken at a point where the sample will be representative of the coating material as applied to the surface of the metal part.

(c) For Method 25, the minimum sampling time for each of 3 runs is 60 minutes and the minimum sample volume is 0.003 dry standard cubic meters except that shorter sampling times or smaller volumes, when necessitated by process variables or other factors, may be approved by the Administrator.

(d) The Administrator will approve testing of representative stacks on a case-by-case basis if the owner or operator can demonstrate to the satisfaction of the Administrator that testing of representative stacks yields results comparable to those that would be obtained by testing all stacks.

Attachment C
to Part 70 Operating Permit T037-29558-00100

Kimball International, Inc.-15th St. Contiguous Source
1620 Cherry Street & 1650 Cherry Street,
1180 East 16th Street,
1037 East 15th Street & 1450 Cherry Street,
1038 East 15th Street,
Northwest Corner of East 16th Street & Cherry Street,
Jasper, IN 47549

40 CFR 63, 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?

(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.

(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 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) 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) 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 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;

(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 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:

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

Where:

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

$M_{volatiles}$= 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.

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

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 §§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:

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

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 TSDF 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:

$$A=\sum_{i=1}^{m}\left(Vol_{c,i}\right)\left(D_{c,i}\right)\left(W_{c,i}\right) \qquad \text{(Eq. 1A)}$$

Where:

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

$Vol_{c,i}$= 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.

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

$$B=\sum_{j=1}^{n}\left(Vol_{t,j}\right)\left(D_{t,j}\right)\left(W_{t,j}\right) \qquad \text{(Eq. 1B)}$$

Where:

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

$Vol_{t,j}$= 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:

$$C=\sum_{k=1}^{p}\left(Vol_{s,k}\right)\left(D_{s,k}\right)\left(W_{s,k}\right) \qquad \text{(Eq. 1C)}$$

Where:

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

$Vol_{s,k}$= 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:

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

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:

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

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:

$$H_R = (A_I + B_I + C_I - R_w)\left(\frac{CE}{100} \times \frac{DRE}{100}\right) + H_{unc} \qquad \text{(Eq. 1)}$$

Where:

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

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, as calculated in Equation 1A of this section.

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, as calculated in Equation 1B of this section.

C_I= 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.

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

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.

$Vol_{c,i}$= 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.

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

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.

$Vol_{t,j}$= 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.

$$C_I = \sum_{k=1}^{p} \left(Vol_{s,k}\right)\left(D_{s,k}\right)\left(W_{s,k}\right) \quad \text{(Eq. 1C)}$$

Where:

C_l= 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:

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

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:

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

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:

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

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.

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

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.

$Vol_{c,i}$= 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:

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

(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:

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

(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 atmosphere, using Equation 4 of this section:

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

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.

(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:

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

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:

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

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:

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

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.

$TVH_{uncaptured}$= 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.

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

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:

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

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 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.

(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.

(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.

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 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	i. collecting the temperature data according to §63.4967(c); ii. reducing the data to 3-hour block averages; and

	according to §63.4966(b), or	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.
5. emission capture system that is a PTE according to §63.4964(a)	a. the direction of the air flow at all times must be into the enclosure; and either	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.
	b. the average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or	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.
	c. the pressure drop across the enclosure must be at least 0.007 inch H_2O, as established in Method 204 of appendix M to 40 CFR part 51	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.
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	Yes.	

	Established		
§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)(1)–(7)	Compliance Dates for New and Reconstructed Sources	Yes	Section 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	No	Subpart RRRR does not establish

	Emission Standards		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 Status	Yes	Section 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 Applicability Determinations	Yes.	
§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 naphtha	64742–95–6	0.02	1% xylene, 1% 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 Groups[1]

You May Use the Mass Fraction Values in the Following Fable 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.

[1]Use 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.

[2]E.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.

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

Attachment D
to Part 70 Operating Permit Renewal No. T037-29558-00100

Kimball International, Inc.-15th St. Contiguous Source
1620 Cherry Street & 1650 Cherry Street,
1180 East 16th Street,
1037 East 15th Street & 1450 Cherry Street,
1038 East 15th Street,
Northwest Corner of East 16th Street & Cherry Street,
Jasper, IN 47549

40 CFR 60, Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

Source: 72 FR 32759, June 13, 2007, unless otherwise noted.

§ 60.40c Applicability and delegation of authority.

(a) Except as provided in paragraphs (d), (e), (f), and (g) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr).

(b) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, §60.48c(a)(4) shall be retained by the Administrator and not transferred to a State.

(c) Steam generating units that meet the applicability requirements in paragraph (a) of this section are not subject to the sulfur dioxide (SO_2) or particulate matter (PM) emission limits, performance testing requirements, or monitoring requirements under this subpart (§§60.42c, 60.43c, 60.44c, 60.45c, 60.46c, or 60.47c) during periods of combustion research, as defined in §60.41c.

(d) Any temporary change to an existing steam generating unit for the purpose of conducting combustion research is not considered a modification under §60.14.

(e) Heat recovery steam generators that are associated with combined cycle gas turbines and meet the applicability requirements of subpart KKKK of this part are not subject to this subpart. This subpart will continue to apply to all other heat recovery steam generators that are capable of combusting more than or equal to 2.9 MW (10 MMBtu/hr) heat input of fossil fuel but less than or equal to 29 MW (100 MMBtu/hr) heat input of fossil fuel. If the heat recovery steam generator is subject to this subpart, only emissions resulting from combustion of fuels in the steam generating unit are subject to this subpart. (The gas turbine emissions are subject to subpart GG or KKKK, as applicable, of this part).

(f) Any facility covered by subpart AAAA of this part is not subject by this subpart.

(g) Any facility covered by an EPA approved State or Federal section 111(d)/129 plan implementing subpart BBBB of this part is not subject by this subpart.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009]

§ 60.41c Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

Annual capacity factor means the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a period of 12 consecutive calendar months and the potential heat input to the

steam generating unit from all fuels had the steam generating unit been operated for 8,760 hours during that 12-month period at the maximum design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility during a period of 12 consecutive calendar months.

Coal means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see §60.17), coal refuse, and petroleum coke. Coal-derived synthetic fuels derived from coal for the purposes of creating useful heat, including but not limited to solvent refined coal, gasified coal not meeting the definition of natural gas, coal-oil mixtures, and coal-water mixtures, are also included in this definition for the purposes of this subpart.

Coal refuse means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (kJ/kg) (6,000 Btu per pound (Btu/lb) on a dry basis.

Cogeneration steam generating unit means a steam generating unit that simultaneously produces both electrical (or mechanical) and thermal energy from the same primary energy source.

Combined cycle system means a system in which a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.

Combustion research means the experimental firing of any fuel or combination of fuels in a steam generating unit for the purpose of conducting research and development of more efficient combustion or more effective prevention or control of air pollutant emissions from combustion, provided that, during these periods of research and development, the heat generated is not used for any purpose other than preheating combustion air for use by that steam generating unit (*i.e.* , the heat generated is released to the atmosphere without being used for space heating, process heating, driving pumps, preheating combustion air for other units, generating electricity, or any other purpose).

Conventional technology means wet flue gas desulfurization technology, dry flue gas desulfurization technology, atmospheric fluidized bed combustion technology, and oil hydrodesulfurization technology.

Distillate oil means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396 (incorporated by reference, see §60.17) or diesel fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D975 (incorporated by reference, see §60.17).

Dry flue gas desulfurization technology means a SO_2control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline reagent and water, whether introduced separately or as a premixed slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline reagents used in dry flue gas desulfurization systems include, but are not limited to, lime and sodium compounds.

Duct burner means a device that combusts fuel and that is placed in the exhaust duct from another source (such as a stationary gas turbine, internal combustion engine, kiln, etc.) to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a steam generating unit.

Emerging technology means any SO_2control system that is not defined as a conventional technology under this section, and for which the owner or operator of the affected facility has received approval from the Administrator to operate as an emerging technology under §60.48c(a)(4).

Federally enforceable means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 51.24.

Fluidized bed combustion technology means a device wherein fuel is distributed onto a bed (or series of beds) of limestone aggregate (or other sorbent materials) for combustion; and these materials are forced upward in the device

by the flow of combustion air and the gaseous products of combustion. Fluidized bed combustion technology includes, but is not limited to, bubbling bed units and circulating bed units.

Fuel pretreatment means a process that removes a portion of the sulfur in a fuel before combustion of the fuel in a steam generating unit.

Heat input means heat derived from combustion of fuel in a steam generating unit and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust gases from other sources (such as stationary gas turbines, internal combustion engines, and kilns).

Heat transfer medium means any material that is used to transfer heat from one point to another point.

Maximum design heat input capacity means the ability of a steam generating unit to combust a stated maximum amount of fuel (or combination of fuels) on a steady state basis as determined by the physical design and characteristics of the steam generating unit.

Natural gas means:

(1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or

(2) Liquefied petroleum (LP) gas, as defined by the American Society for Testing and Materials in ASTM D1835 (incorporated by reference, see §60.17); or

(3) A mixture of hydrocarbons that maintains a gaseous state at ISO conditions. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 34 and 43 megajoules (MJ) per dry standard cubic meter (910 and 1,150 Btu per dry standard cubic foot).

Noncontinental area means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Oil means crude oil or petroleum, or a liquid fuel derived from crude oil or petroleum, including distillate oil and residual oil.

Potential sulfur dioxide emission rate means the theoretical SO_2emissions (nanograms per joule (ng/J) or lb/MMBtu heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

Process heater means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

Residual oil means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society for Testing and Materials in ASTM D396 (incorporated by reference, see §60.17).

Steam generating unit means a device that combusts any fuel and produces steam or heats water or heats any heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart.

Steam generating unit operating day means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

Wet flue gas desulfurization technology means an SO_2control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a liquid material. This definition includes devices where the liquid material is subsequently converted to another form. Alkaline

reagents used in wet flue gas desulfurization systems include, but are not limited to, lime, limestone, and sodium compounds.

Wet scrubber system means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of PM or SO_2.

Wood means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including but not limited to sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009]

§ 60.42c Standard for sulfur dioxide (SO_2).

(a) Except as provided in paragraphs (b), (c), and (e) of this section, on and after the date on which the performance test is completed or required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility that combusts only coal shall neither: cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO_2emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2in excess of 520 ng/J (1.2 lb/MMBtu) heat input. If coal is combusted with other fuels, the affected facility shall neither: cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO_2emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2in excess of the emission limit is determined pursuant to paragraph (e)(2) of this section.

(b) Except as provided in paragraphs (c) and (e) of this section, on and after the date on which the performance test is completed or required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility that:

(1) Combusts only coal refuse alone in a fluidized bed combustion steam generating unit shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 20 percent (0.20) of the potential SO_2emission rate (80 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2in excess of SO_2in excess of 520 ng/J (1.2 lb/MMBtu) heat input. If coal is fired with coal refuse, the affected facility subject to paragraph (a) of this section. If oil or any other fuel (except coal) is fired with coal refuse, the affected facility is subject to the 87 ng/J (0.20 lb/MMBtu) heat input SO_2emissions limit or the 90 percent SO_2reduction requirement specified in paragraph (a) of this section and the emission limit is determined pursuant to paragraph (e)(2) of this section.

(2) Combusts only coal and that uses an emerging technology for the control of SO_2emissions shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2in excess of 50 percent (0.50) of the potential SO_2emission rate (50 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2in excess of 260 ng/J (0.60 lb/MMBtu) heat input. If coal is combusted with other fuels, the affected facility is subject to the 50 percent SO_2reduction requirement specified in this paragraph and the emission limit determined pursuant to paragraph (e)(2) of this section.

(c) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, alone or in combination with any other fuel, and is listed in paragraphs (c)(1), (2), (3), or (4) of this section shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2in excess of the emission limit determined pursuant to paragraph (e)(2) of this section. Percent reduction requirements are not applicable to affected facilities under paragraphs (c)(1), (2), (3), or (4).

(1) Affected facilities that have a heat input capacity of 22 MW (75 MMBtu/hr) or less.

(2) Affected facilities that have an annual capacity for coal of 55 percent (0.55) or less and are subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for coal of 55 percent (0.55) or less.

(3) Affected facilities located in a noncontinental area.

(4) Affected facilities that combust coal in a duct burner as part of a combined cycle system where 30 percent (0.30) or less of the heat entering the steam generating unit is from combustion of coal in the duct burner and 70 percent (0.70) or more of the heat entering the steam generating unit is from exhaust gases entering the duct burner.

(d) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2in excess of 215 ng/J (0.50 lb/MMBtu) heat input; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. The percent reduction requirements are not applicable to affected facilities under this paragraph.

(e) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, or coal and oil with any other fuel shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2in excess of the following:

(1) The percent of potential SO_2emission rate or numerical SO_2emission rate required under paragraph (a) or (b)(2) of this section, as applicable, for any affected facility that

(i) Combusts coal in combination with any other fuel;

(ii) Has a heat input capacity greater than 22 MW (75 MMBtu/hr); and

(iii) Has an annual capacity factor for coal greater than 55 percent (0.55); and

(2) The emission limit determined according to the following formula for any affected facility that combusts coal, oil, or coal and oil with any other fuel:

$$E_s = \frac{(K_a H_a + K_b H_b + K_c H_c)}{(H_a + H_b + H_c)}$$

Where:

E_s= SO_2emission limit, expressed in ng/J or lb/MMBtu heat input;

K_a= 520 ng/J (1.2 lb/MMBtu);

K_b= 260 ng/J (0.60 lb/MMBtu);

K_c= 215 ng/J (0.50 lb/MMBtu);

H_a= Heat input from the combustion of coal, except coal combusted in an affected facility subject to paragraph (b)(2) of this section, in Joules (J) [MMBtu];

H_b= Heat input from the combustion of coal in an affected facility subject to paragraph (b)(2) of this section, in J (MMBtu); and

H_c= Heat input from the combustion of oil, in J (MMBtu).

(f) Reduction in the potential SO_2emission rate through fuel pretreatment is not credited toward the percent reduction requirement under paragraph (b)(2) of this section unless:

(1) Fuel pretreatment results in a 50 percent (0.50) or greater reduction in the potential SO_2emission rate; and

(2) Emissions from the pretreated fuel (without either combustion or post-combustion SO_2control) are equal to or less than the emission limits specified under paragraph (b)(2) of this section.

(g) Except as provided in paragraph (h) of this section, compliance with the percent reduction requirements, fuel oil sulfur limits, and emission limits of this section shall be determined on a 30-day rolling average basis.

(h) For affected facilities listed under paragraphs (h)(1), (2), or (3) of this section, compliance with the emission limits or fuel oil sulfur limits under this section may be determined based on a certification from the fuel supplier, as described under §60.48c(f), as applicable.

(1) Distillate oil-fired affected facilities with heat input capacities between 2.9 and 29 MW (10 and 100 MMBtu/hr).

(2) Residual oil-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/hr).

(3) Coal-fired facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/hr).

(i) The SO_2emission limits, fuel oil sulfur limits, and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.

(j) For affected facilities located in noncontinental areas and affected facilities complying with the percent reduction standard, only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from wood or other fuels or for heat derived from exhaust gases from other sources, such as stationary gas turbines, internal combustion engines, and kilns.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009]

§ 60.43c Standard for particulate matter (PM).

(a) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts coal or combusts mixtures of coal with other fuels and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emission limits:

(1) 22 ng/J (0.051 lb/MMBtu) heat input if the affected facility combusts only coal, or combusts coal with other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.

(2) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility combusts coal with other fuels, has an annual capacity factor for the other fuels greater than 10 percent (0.10), and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor greater than 10 percent (0.10) for fuels other than coal.

(b) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts wood or combusts mixtures of wood with other fuels

(except coal) and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emissions limits:

(1) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility has an annual capacity factor for wood greater than 30 percent (0.30); or

(2) 130 ng/J (0.30 lb/MMBtu) heat input if the affected facility has an annual capacity factor for wood of 30 percent (0.30) or less and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for wood of 30 percent (0.30) or less.

(c) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that can combust coal, wood, or oil and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. Owners and operators of an affected facility that elect to install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring PM emissions according to the requirements of this subpart and are subject to a federally enforceable PM limit of 0.030 lb/MMBtu or less are exempt from the opacity standard specified in this paragraph.

(d) The PM and opacity standards under this section apply at all times, except during periods of startup, shutdown, or malfunction.

(e)(1) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 13 ng/J (0.030 lb/MMBtu) heat input, except as provided in paragraphs (e)(2), (e)(3), and (e)(4) of this section.

(2) As an alternative to meeting the requirements of paragraph (e)(1) of this section, the owner or operator of an affected facility for which modification commenced after February 28, 2005, may elect to meet the requirements of this paragraph. On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005 shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of both:

(i) 22 ng/J (0.051 lb/MMBtu) heat input derived from the combustion of coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels; and

(ii) 0.2 percent of the combustion concentration (99.8 percent reduction) when combusting coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels.

(3) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005, and that combusts over 30 percent wood (by heat input) on an annual basis and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 43 ng/J (0.10 lb/MMBtu) heat input.

(4) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, an owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts only oil that contains no more than 0.50 weight percent sulfur or a mixture of 0.50 weight percent sulfur oil with other fuels not subject to a PM standard under §60.43c and not using a post-combustion technology (except a wet scrubber) to reduce PM or SO_2emissions is not subject to the PM limit in this section.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

§ 60.44c Compliance and performance test methods and procedures for sulfur dioxide.

(a) Except as provided in paragraphs (g) and (h) of this section and §60.8(b), performance tests required under §60.8 shall be conducted following the procedures specified in paragraphs (b), (c), (d), (e), and (f) of this section, as applicable. Section 60.8(f) does not apply to this section. The 30-day notice required in §60.8(d) applies only to the initial performance test unless otherwise specified by the Administrator.

(b) The initial performance test required under §60.8 shall be conducted over 30 consecutive operating days of the steam generating unit. Compliance with the percent reduction requirements and SO_2emission limits under §60.42c shall be determined using a 30-day average. The first operating day included in the initial performance test shall be scheduled within 30 days after achieving the maximum production rate at which the affect facility will be operated, but not later than 180 days after the initial startup of the facility. The steam generating unit load during the 30-day period does not have to be the maximum design heat input capacity, but must be representative of future operating conditions.

(c) After the initial performance test required under paragraph (b) of this section and §60.8, compliance with the percent reduction requirements and SO_2emission limits under §60.42c is based on the average percent reduction and the average SO_2emission rates for 30 consecutive steam generating unit operating days. A separate performance test is completed at the end of each steam generating unit operating day, and a new 30-day average percent reduction and SO_2emission rate are calculated to show compliance with the standard.

(d) If only coal, only oil, or a mixture of coal and oil is combusted in an affected facility, the procedures in Method 19 of appendix A of this part are used to determine the hourly SO_2emission rate (E_{ho}) and the 30-day average SO_2emission rate (E_{ao}). The hourly averages used to compute the 30-day averages are obtained from the CEMS. Method 19 of appendix A of this part shall be used to calculate $E_{ao}$when using daily fuel sampling or Method 6B of appendix A of this part.

(e) If coal, oil, or coal and oil are combusted with other fuels:

(1) An adjusted E_{ho}(E_{ho}o) is used in Equation 19–19 of Method 19 of appendix A of this part to compute the adjusted E_{ao}(E_{ao}o). The E_{ho}o is computed using the following formula:

$$E_{ho}o = \frac{E_{ho} - E_w(1 - X_k)}{X_k}$$

Where:

E_{ho}o = Adjusted E_{ho}, ng/J (lb/MMBtu);

E_{ho}= Hourly SO_2emission rate, ng/J (lb/MMBtu);

E_w= SO_2concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 9 of appendix A of this part, ng/J (lb/MMBtu). The value $E_w$for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure $E_w$if the owner or operator elects to assume E_w= 0.

X_k= Fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.

(2) The owner or operator of an affected facility that qualifies under the provisions of §60.42c(c) or (d) (where percent reduction is not required) does not have to measure the parameters $E_w$or $X_k$if the owner or operator of the affected facility elects to measure emission rates of the coal or oil using the fuel sampling and analysis procedures under Method 19 of appendix A of this part.

(f) Affected facilities subject to the percent reduction requirements under §60.42c(a) or (b) shall determine compliance with the SO_2emission limits under §60.42c pursuant to paragraphs (d) or (e) of this section, and shall determine compliance with the percent reduction requirements using the following procedures:

(1) If only coal is combusted, the percent of potential SO_2emission rate is computed using the following formula:

$$\%P_s = 100\left(1 - \frac{\%R_g}{100}\right)\left(1 - \frac{\%R_f}{100}\right)$$

Where:

$\%P_s$= Potential SO_2emission rate, in percent;

$\%R_g$= SO_2removal efficiency of the control device as determined by Method 19 of appendix A of this part, in percent; and

$\%R_f$= SO_2removal efficiency of fuel pretreatment as determined by Method 19 of appendix A of this part, in percent.

(2) If coal, oil, or coal and oil are combusted with other fuels, the same procedures required in paragraph (f)(1) of this section are used, except as provided for in the following:

(i) To compute the $\%P_s$, an adjusted $\%R_g$($\%R_g$o) is computed from E_{ao}o from paragraph (e)(1) of this section and an adjusted average SO_2inlet rate (E_{ai}o) using the following formula:

$$\%R_g o = 100\left(1 - \frac{E^{\circ}_{ao}}{E^{\circ}_{ai}}\right)$$

Where:

$\%R_g$o = Adjusted $\%R_g$, in percent;

E_{ao}o = Adjusted E_{ao}, ng/J (lb/MMBtu); and

E_{ai}o = Adjusted average SO_2inlet rate, ng/J (lb/MMBtu).

(ii) To compute E_{ai}o, an adjusted hourly SO_2inlet rate (E_{hi}o) is used. The E_{hi}o is computed using the following formula:

$$E_{hi}o = \frac{E_{hi} - E_w(1 - X_h)}{X_h}$$

Where:

E_{hi}o = Adjusted E_{hi}, ng/J (lb/MMBtu);

E_{hi}= Hourly SO_2inlet rate, ng/J (lb/MMBtu);

E_w= SO_2concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 19 of appendix A of this part, ng/J (lb/MMBtu). The

value $E_w$for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure $E_w$if the owner or operator elects to assume E_w= 0; and

X_k= Fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.

(g) For oil-fired affected facilities where the owner or operator seeks to demonstrate compliance with the fuel oil sulfur limits under §60.42c based on shipment fuel sampling, the initial performance test shall consist of sampling and analyzing the oil in the initial tank of oil to be fired in the steam generating unit to demonstrate that the oil contains 0.5 weight percent sulfur or less. Thereafter, the owner or operator of the affected facility shall sample the oil in the fuel tank after each new shipment of oil is received, as described under §60.46c(d)(2).

(h) For affected facilities subject to §60.42c(h)(1), (2), or (3) where the owner or operator seeks to demonstrate compliance with the SO_2standards based on fuel supplier certification, the performance test shall consist of the certification from the fuel supplier, as described in §60.48c(f), as applicable.

(i) The owner or operator of an affected facility seeking to demonstrate compliance with the SO_2standards under §60.42c(c)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(j) The owner or operator of an affected facility shall use all valid SO_2emissions data in calculating $\%P_s$and E_{ho}under paragraphs (d), (e), or (f) of this section, as applicable, whether or not the minimum emissions data requirements under §60.46c(f) are achieved. All valid emissions data, including valid data collected during periods of startup, shutdown, and malfunction, shall be used in calculating $\%P_s$or E_{ho}pursuant to paragraphs (d), (e), or (f) of this section, as applicable.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

§ 60.45c Compliance and performance test methods and procedures for particulate matter.

(a) The owner or operator of an affected facility subject to the PM and/or opacity standards under §60.43c shall conduct an initial performance test as required under §60.8, and shall conduct subsequent performance tests as requested by the Administrator, to determine compliance with the standards using the following procedures and reference methods, except as specified in paragraph (c) of this section.

(1) Method 1 of appendix A of this part shall be used to select the sampling site and the number of traverse sampling points.

(2) Method 3A or 3B of appendix A–2 of this part shall be used for gas analysis when applying Method 5 or 5B of appendix A–3 of this part or 17 of appendix A–6 of this part.

(3) Method 5, 5B, or 17 of appendix A of this part shall be used to measure the concentration of PM as follows:

(i) Method 5 of appendix A of this part may be used only at affected facilities without wet scrubber systems.

(ii) Method 17 of appendix A of this part may be used at affected facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 °C (320 °F). The procedures of Sections 8.1 and 11.1 of Method 5B of appendix A of this part may be used in Method 17 of appendix A of this part only if Method 17 of appendix A of this part is used in conjunction with a wet scrubber system. Method 17 of appendix A of this part shall not be used in conjunction with a wet scrubber system if the effluent is saturated or laden with water droplets.

(iii) Method 5B of appendix A of this part may be used in conjunction with a wet scrubber system.

(4) The sampling time for each run shall be at least 120 minutes and the minimum sampling volume shall be 1.7 dry standard cubic meters (dscm) [60 dry standard cubic feet (dscf)] except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.

(5) For Method 5 or 5B of appendix A of this part, the temperature of the sample gas in the probe and filter holder shall be monitored and maintained at 160 ±14 °C (320±25 °F).

(6) For determination of PM emissions, an oxygen (O_2) or carbon dioxide (CO_2) measurement shall be obtained simultaneously with each run of Method 5, 5B, or 17 of appendix A of this part by traversing the duct at the same sampling location.

(7) For each run using Method 5, 5B, or 17 of appendix A of this part, the emission rates expressed in ng/J (lb/MMBtu) heat input shall be determined using:

(i) The O_2or CO_2measurements and PM measurements obtained under this section, (ii) The dry basis F factor, and

(iii) The dry basis emission rate calculation procedure contained in Method 19 of appendix A of this part.

(8) Method 9 of appendix A–4 of this part shall be used for determining the opacity of stack emissions.

(b) The owner or operator of an affected facility seeking to demonstrate compliance with the PM standards under §60.43c(b)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(c) In place of PM testing with Method 5 or 5B of appendix A–3 of this part or Method 17 of appendix A–6 of this part, an owner or operator may elect to install, calibrate, maintain, and operate a CEMS for monitoring PM emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility who elects to continuously monitor PM emissions instead of conducting performance testing using Method 5 or 5B of appendix A–3 of this part or Method 17 of appendix A–6 of this part shall install, calibrate, maintain, and operate a CEMS and shall comply with the requirements specified in paragraphs (c)(1) through (c)(14) of this section.

(1) Notify the Administrator 1 month before starting use of the system.

(2) Notify the Administrator 1 month before stopping use of the system.

(3) The monitor shall be installed, evaluated, and operated in accordance with §60.13 of subpart A of this part.

(4) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under §60.8 of subpart A of this part or within 180 days of notification to the Administrator of use of CEMS if the owner or operator was previously determining compliance by Method 5, 5B, or 17 of appendix A of this part performance tests, whichever is later.

(5) The owner or operator of an affected facility shall conduct an initial performance test for PM emissions as required under §60.8 of subpart A of this part. Compliance with the PM emission limit shall be determined by using the CEMS specified in paragraph (d) of this section to measure PM and calculating a 24-hour block arithmetic average emission concentration using EPA Reference Method 19 of appendix A of this part, section 4.1.

(6) Compliance with the PM emission limit shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using CEMS outlet data.

(7) At a minimum, valid CEMS hourly averages shall be obtained as specified in paragraph (c)(7)(i) of this section for 75 percent of the total operating hours per 30-day rolling average.

(i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.

(ii) [Reserved]

(8) The 1-hour arithmetic averages required under paragraph (c)(7) of this section shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the boiler operating day daily arithmetic average emission concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under §60.13(e)(2) of subpart A of this part.

(9) All valid CEMS data shall be used in calculating average emission concentrations even if the minimum CEMS data requirements of paragraph (c)(7) of this section are not met.

(10) The CEMS shall be operated according to Performance Specification 11 in appendix B of this part.

(11) During the correlation testing runs of the CEMS required by Performance Specification 11 in appendix B of this part, PM and O_2(or CO_2) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and performance tests conducted using the following test methods.

(i) For PM, Method 5 or 5B of appendix A–3 of this part or Method 17 of appendix A–6 of this part shall be used; and

(ii) After July 1, 2010 or after Method 202 of appendix M of part 51 has been revised to minimize artifact measurement and notice of that change has been published in theFederal Register,whichever is later, for condensable PM emissions, Method 202 of appendix M of part 51 shall be used; and

(iii) For O2 (or CO_2), Method 3A or 3B of appendix A–2 of this part, as applicable shall be used.

(12) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 2 in appendix F of this part. Relative Response Audit's must be performed annually and Response Correlation Audits must be performed every 3 years.

(13) When PM emissions data are not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 of appendix A of this part to provide, as necessary, valid emissions data for a minimum of 75 percent of total operating hours on a 30-day rolling average.

(14) After July 1, 2011, within 90 days after the date of completing each performance evaluation required by paragraph (c)(11) of this section, the owner or operator of the affected facility must either submit the test data to EPA by successfully entering the data electronically into EPA's WebFIRE data base available at *http://cfpub.epa.gov/oarweb/index.cfm?action=fire.main* or mail a copy to: United States Environmental Protection Agency; Energy Strategies Group; 109 TW Alexander DR; Mail Code: D243–01; RTP, NC 27711.

(d) The owner or operator of an affected facility seeking to demonstrate compliance under §60.43c(e)(4) shall follow the applicable procedures under §60.48c(f). For residual oil-fired affected facilities, fuel supplier certifications are only allowed for facilities with heat input capacities between 2.9 and 8.7 MW (10 to 30 MMBtu/hr).

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

§ 60.46c Emission monitoring for sulfur dioxide.

(a) Except as provided in paragraphs (d) and (e) of this section, the owner or operator of an affected facility subject to the SO_2emission limits under §60.42c shall install, calibrate, maintain, and operate a CEMS for measuring SO_2concentrations and either O_2or CO_2concentrations at the outlet of the SO_2control device (or the outlet of the steam generating unit if no SO_2control device is used), and shall record the output of the system. The owner or

operator of an affected facility subject to the percent reduction requirements under §60.42c shall measure SO_2concentrations and either O_2or CO_2concentrations at both the inlet and outlet of the SO_2control device.

(b) The 1-hour average SO_2emission rates measured by a CEMS shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under §60.42c. Each 1-hour average SO_2emission rate must be based on at least 30 minutes of operation, and shall be calculated using the data points required under §60.13(h)(2). Hourly SO_2emission rates are not calculated if the affected facility is operated less than 30 minutes in a 1-hour period and are not counted toward determination of a steam generating unit operating day.

(c) The procedures under §60.13 shall be followed for installation, evaluation, and operation of the CEMS.

(1) All CEMS shall be operated in accordance with the applicable procedures under Performance Specifications 1, 2, and 3 of appendix B of this part.

(2) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 of appendix F of this part.

(3) For affected facilities subject to the percent reduction requirements under §60.42c, the span value of the SO_2CEMS at the inlet to the SO_2control device shall be 125 percent of the maximum estimated hourly potential SO_2emission rate of the fuel combusted, and the span value of the SO_2CEMS at the outlet from the SO_2control device shall be 50 percent of the maximum estimated hourly potential SO_2emission rate of the fuel combusted.

(4) For affected facilities that are not subject to the percent reduction requirements of §60.42c, the span value of the SO_2CEMS at the outlet from the SO_2control device (or outlet of the steam generating unit if no SO_2control device is used) shall be 125 percent of the maximum estimated hourly potential SO_2emission rate of the fuel combusted.

(d) As an alternative to operating a CEMS at the inlet to the SO_2control device (or outlet of the steam generating unit if no SO_2control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO_2emission rate by sampling the fuel prior to combustion. As an alternative to operating a CEMS at the outlet from the SO_2control device (or outlet of the steam generating unit if no SO_2control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO_2emission rate by using Method 6B of appendix A of this part. Fuel sampling shall be conducted pursuant to either paragraph (d)(1) or (d)(2) of this section. Method 6B of appendix A of this part shall be conducted pursuant to paragraph (d)(3) of this section.

(1) For affected facilities combusting coal or oil, coal or oil samples shall be collected daily in an as-fired condition at the inlet to the steam generating unit and analyzed for sulfur content and heat content according the Method 19 of appendix A of this part. Method 19 of appendix A of this part provides procedures for converting these measurements into the format to be used in calculating the average SO_2input rate.

(2) As an alternative fuel sampling procedure for affected facilities combusting oil, oil samples may be collected from the fuel tank for each steam generating unit immediately after the fuel tank is filled and before any oil is combusted. The owner or operator of the affected facility shall analyze the oil sample to determine the sulfur content of the oil. If a partially empty fuel tank is refilled, a new sample and analysis of the fuel in the tank would be required upon filling. Results of the fuel analysis taken after each new shipment of oil is received shall be used as the daily value when calculating the 30-day rolling average until the next shipment is received. If the fuel analysis shows that the sulfur content in the fuel tank is greater than 0.5 weight percent sulfur, the owner or operator shall ensure that the sulfur content of subsequent oil shipments is low enough to cause the 30-day rolling average sulfur content to be 0.5 weight percent sulfur or less.

(3) Method 6B of appendix A of this part may be used in lieu of CEMS to measure SO_2at the inlet or outlet of the SO_2control system. An initial stratification test is required to verify the adequacy of the Method 6B of appendix A of this part sampling location. The stratification test shall consist of three paired runs of a suitable $SO_2$and CO_2measurement train operated at the candidate location and a second similar train operated according to the procedures in §3.2 and the applicable procedures in section 7 of Performance Specification 2 of appendix B of this part. Method 6B of appendix A of this part, Method 6A of appendix A of this part, or a combination of Methods 6 and 3 of appendix A of this part or Methods 6C and 3A of appendix A of this part are suitable measurement techniques. If Method 6B of appendix A of this part is used for the second train, sampling time and timer operation may be adjusted

for the stratification test as long as an adequate sample volume is collected; however, both sampling trains are to be operated similarly. For the location to be adequate for Method 6B of appendix A of this part 24-hour tests, the mean of the absolute difference between the three paired runs must be less than 10 percent (0.10).

(e) The monitoring requirements of paragraphs (a) and (d) of this section shall not apply to affected facilities subject to §60.42c(h) (1), (2), or (3) where the owner or operator of the affected facility seeks to demonstrate compliance with the SO_2standards based on fuel supplier certification, as described under §60.48c(f), as applicable.

(f) The owner or operator of an affected facility operating a CEMS pursuant to paragraph (a) of this section, or conducting as-fired fuel sampling pursuant to paragraph (d)(1) of this section, shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive steam generating unit operating days. If this minimum data requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the Administrator.

§ 60.47c Emission monitoring for particulate matter.

(a) Except as provided in paragraphs (c), (d), (e), (f), and (g) of this section, the owner or operator of an affected facility combusting coal, oil, or wood that is subject to the opacity standards under §60.43c shall install, calibrate, maintain, and operate a continuous opacity monitoring system (COMS) for measuring the opacity of the emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility subject to an opacity standard in §60.43c(c) and that is not required to install a COMS due to paragraphs (c), (d), (e), or (f) of this section that elects not to install a COMS shall conduct a performance test using Method 9 of appendix A–4 of this part and the procedures in §60.11 to demonstrate compliance with the applicable limit in §60.43c and shall comply with either paragraphs (a)(1), (a)(2), or (a)(3) of this section. If during the initial 60 minutes of observation all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20 percent, the observation period may be reduced from 3 hours to 60 minutes.

(1) Except as provided in paragraph (a)(2) and (a)(3) of this section, the owner or operator shall conduct subsequent Method 9 of appendix A–4 of this part performance tests using the procedures in paragraph (a) of this section according to the applicable schedule in paragraphs (a)(1)(i) through (a)(1)(iv) of this section, as determined by the most recent Method 9 of appendix A–4 of this part performance test results.

(i) If no visible emissions are observed, a subsequent Method 9 of appendix A–4 of this part performance test must be completed within 12 calendar months from the date that the most recent performance test was conducted;

(ii) If visible emissions are observed but the maximum 6-minute average opacity is less than or equal to 5 percent, a subsequent Method 9 of appendix A–4 of this part performance test must be completed within 6 calendar months from the date that the most recent performance test was conducted;

(iii) If the maximum 6-minute average opacity is greater than 5 percent but less than or equal to 10 percent, a subsequent Method 9 of appendix A–4 of this part performance test must be completed within 3 calendar months from the date that the most recent performance test was conducted; or

(iv) If the maximum 6-minute average opacity is greater than 10 percent, a subsequent Method 9 of appendix A–4 of this part performance test must be completed within 30 calendar days from the date that the most recent performance test was conducted.

(2) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 of appendix A–4 of this part performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of appendix A–4 of this part performance tests, elect to perform subsequent monitoring using Method 22 of appendix A–7 of this part according to the procedures specified in paragraphs (a)(2)(i) and (ii) of this section.

(i) The owner or operator shall conduct 10 minute observations (during normal operation) each operating day the affected facility fires fuel for which an opacity standard is applicable using Method 22 of appendix A–7 of this part and demonstrate that the sum of the occurrences of any visible emissions is not in excess of 5 percent of the observation period (*i.e.* , 30 seconds per 10 minute period). If the sum of the occurrence of any visible emissions is greater than 30 seconds during the initial 10 minute observation, immediately conduct a 30 minute observation. If the sum of the

occurrence of visible emissions is greater than 5 percent of the observation period (*i.e.* , 90 seconds per 30 minute period) the owner or operator shall either document and adjust the operation of the facility and demonstrate within 24 hours that the sum of the occurrence of visible emissions is equal to or less than 5 percent during a 30 minute observation (*i.e.* , 90 seconds) or conduct a new Method 9 of appendix A–4 of this part performance test using the procedures in paragraph (a) of this section within 30 calendar days according to the requirements in §60.45c(a)(8).

(ii) If no visible emissions are observed for 30 operating days during which an opacity standard is applicable, observations can be reduced to once every 7 operating days during which an opacity standard is applicable. If any visible emissions are observed, daily observations shall be resumed.

(3) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 of appendix A–4 of this part performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of appendix A–4 performance tests, elect to perform subsequent monitoring using a digital opacity compliance system according to a site-specific monitoring plan approved by the Administrator. The observations shall be similar, but not necessarily identical, to the requirements in paragraph (a)(2) of this section. For reference purposes in preparing the monitoring plan, see OAQPS “Determination of Visible Emission Opacity from Stationary Sources Using Computer-Based Photographic Analysis Systems.” This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality and Planning Standards; Sector Policies and Programs Division; Measurement Policy Group (D243–02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Preliminary Methods.

(b) All COMS shall be operated in accordance with the applicable procedures under Performance Specification 1 of appendix B of this part. The span value of the opacity COMS shall be between 60 and 80 percent.

(c) Owners and operators of an affected facilities that burn only distillate oil that contains no more than 0.5 weight percent sulfur and/or liquid or gaseous fuels with potential sulfur dioxide emission rates of 26 ng/J (0.060 lb/MMBtu) heat input or less and that do not use a post-combustion technology to reduce SO2 or PM emissions and that are subject to an opacity standard in §60.43c(c) are not required to operate a COMS if they follow the applicable procedures in §60.48c(f).

(d) Owners or operators complying with the PM emission limit by using a PM CEMS must calibrate, maintain, operate, and record the output of the system for PM emissions discharged to the atmosphere as specified in §60.45c(c). The CEMS specified in paragraph §60.45c(c) shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

(e) Owners and operators of an affected facility that is subject to an opacity standard in §60.43c(c) and that does not use post-combustion technology (except a wet scrubber) for reducing PM, SO_2, or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.5 weight percent sulfur, and is operated such that emissions of CO discharged to the atmosphere from the affected facility are maintained at levels less than or equal to 0.15 lb/MMBtu on a boiler operating day average basis is not required to operate a COMS. Owners and operators of affected facilities electing to comply with this paragraph must demonstrate compliance according to the procedures specified in paragraphs (e)(1) through (4) of this section; or

(1) You must monitor CO emissions using a CEMS according to the procedures specified in paragraphs (e)(1)(i) through (iv) of this section.

(i) The CO CEMS must be installed, certified, maintained, and operated according to the provisions in §60.58b(i)(3) of subpart Eb of this part.

(ii) Each 1-hour CO emissions average is calculated using the data points generated by the CO CEMS expressed in parts per million by volume corrected to 3 percent oxygen (dry basis).

(iii) At a minimum, valid 1-hour CO emissions averages must be obtained for at least 90 percent of the operating hours on a 30-day rolling average basis. The 1-hour averages are calculated using the data points required in §60.13(h)(2).

(iv) Quarterly accuracy determinations and daily calibration drift tests for the CO CEMS must be performed in accordance with procedure 1 in appendix F of this part.

(2) You must calculate the 1-hour average CO emissions levels for each steam generating unit operating day by multiplying the average hourly CO output concentration measured by the CO CEMS times the corresponding average hourly flue gas flow rate and divided by the corresponding average hourly heat input to the affected source. The 24-hour average CO emission level is determined by calculating the arithmetic average of the hourly CO emission levels computed for each steam generating unit operating day.

(3) You must evaluate the preceding 24-hour average CO emission level each steam generating unit operating day excluding periods of affected source startup, shutdown, or malfunction. If the 24-hour average CO emission level is greater than 0.15 lb/MMBtu, you must initiate investigation of the relevant equipment and control systems within 24 hours of the first discovery of the high emission incident and, take the appropriate corrective action as soon as practicable to adjust control settings or repair equipment to reduce the 24-hour average CO emission level to 0.15 lb/MMBtu or less.

(4) You must record the CO measurements and calculations performed according to paragraph (e) of this section and any corrective actions taken. The record of corrective action taken must include the date and time during which the 24-hour average CO emission level was greater than 0.15 lb/MMBtu, and the date, time, and description of the corrective action.

(f) Owners and operators of an affected facility that is subject to an opacity standard in §60.43c(c) and that uses a bag leak detection system to monitor the performance of a fabric filter (baghouse) according to the most recent requirements in section §60.48Da of this part is not required to operate a COMS.

(g) Owners and operators of an affected facility that is subject to an opacity standard in §60.43c(c) and that burns only gaseous fuels or fuel oils that contain less than or equal to 0.5 weight percent sulfur and operates according to a written site-specific monitoring plan approved by the permitting authority is not required to operate a COMS. This monitoring plan must include procedures and criteria for establishing and monitoring specific parameters for the affected facility indicative of compliance with the opacity standard.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

§ 60.48c Reporting and recordkeeping requirements.

(a) The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction and actual startup, as provided by §60.7 of this part. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

(2) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §60.42c, or §60.43c.

(3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

(4) Notification if an emerging technology will be used for controlling SO_2emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of §60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

(b) The owner or operator of each affected facility subject to the SO_2emission limits of §60.42c, or the PM or opacity limits of §60.43c, shall submit to the Administrator the performance test data from the initial and any subsequent performance tests and, if applicable, the performance evaluation of the CEMS and/or COMS using the applicable performance specifications in appendix B of this part.

(c) In addition to the applicable requirements in §60.7, the owner or operator of an affected facility subject to the opacity limits in §60.43c(c) shall submit excess emission reports for any excess emissions from the affected facility that occur during the reporting period and maintain records according to the requirements specified in paragraphs (c)(1) through (3) of this section, as applicable to the visible emissions monitoring method used.

(1) For each performance test conducted using Method 9 of appendix A–4 of this part, the owner or operator shall keep the records including the information specified in paragraphs (c)(1)(i) through (iii) of this section.

(i) Dates and time intervals of all opacity observation periods;

(ii) Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and

(iii) Copies of all visible emission observer opacity field data sheets;

(2) For each performance test conducted using Method 22 of appendix A–4 of this part, the owner or operator shall keep the records including the information specified in paragraphs (c)(2)(i) through (iv) of this section.

(i) Dates and time intervals of all visible emissions observation periods;

(ii) Name and affiliation for each visible emission observer participating in the performance test;

(iii) Copies of all visible emission observer opacity field data sheets; and

(iv) Documentation of any adjustments made and the time the adjustments were completed to the affected facility operation by the owner or operator to demonstrate compliance with the applicable monitoring requirements.

(3) For each digital opacity compliance system, the owner or operator shall maintain records and submit reports according to the requirements specified in the site-specific monitoring plan approved by the Administrator

(d) The owner or operator of each affected facility subject to the SO_2emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall submit reports to the Administrator.

(e) The owner or operator of each affected facility subject to the SO_2emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall keep records and submit reports as required under paragraph (d) of this section, including the following information, as applicable.

(1) Calendar dates covered in the reporting period.

(2) Each 30-day average SO_2emission rate (ng/J or lb/MMBtu), or 30-day average sulfur content (weight percent), calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of corrective actions taken.

(3) Each 30-day average percent of potential SO_2emission rate calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of the corrective actions taken.

(4) Identification of any steam generating unit operating days for which SO_2or diluent (O_2or CO_2) data have not been obtained by an approved method for at least 75 percent of the operating hours; justification for not obtaining sufficient data; and a description of corrective actions taken.

(5) Identification of any times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and a description of corrective actions taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit.

(6) Identification of the F factor used in calculations, method of determination, and type of fuel combusted.

(7) Identification of whether averages have been obtained based on CEMS rather than manual sampling methods.

(8) If a CEMS is used, identification of any times when the pollutant concentration exceeded the full span of the CEMS.

(9) If a CEMS is used, description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specifications 2 or 3 of appendix B of this part.

(10) If a CEMS is used, results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part.

(11) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under paragraph (f)(1), (2), (3), or (4) of this section, as applicable. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

(f) Fuel supplier certification shall include the following information:

(1) For distillate oil:

(i) The name of the oil supplier;

(ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in §60.41c; and

(iii) The sulfur content or maximum sulfur content of the oil.

(2) For residual oil:

(i) The name of the oil supplier;

(ii) The location of the oil when the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the affected facility, or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility, or other location;

(iii) The sulfur content of the oil from which the shipment came (or of the shipment itself); and

(iv) The method used to determine the sulfur content of the oil.

(3) For coal:

(i) The name of the coal supplier;

(ii) The location of the coal when the sample was collected for analysis to determine the properties of the coal, specifically including whether the coal was sampled as delivered to the affected facility or whether the sample was collected from coal in storage at the mine, at a coal preparation plant, at a coal supplier's facility, or at another location. The certification shall include the name of the coal mine (and coal seam), coal storage facility, or coal preparation plant (where the sample was collected);

(iii) The results of the analysis of the coal from which the shipment came (or of the shipment itself) including the sulfur content, moisture content, ash content, and heat content; and

(iv) The methods used to determine the properties of the coal.

(4) For other fuels:

(i) The name of the supplier of the fuel;

(ii) The potential sulfur emissions rate or maximum potential sulfur emissions rate of the fuel in ng/J heat input; and

(iii) The method used to determine the potential sulfur emissions rate of the fuel.

(g)(1) Except as provided under paragraphs (g)(2) and (g)(3) of this section, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day.

(2) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in §60.48c(f) to demonstrate compliance with the SO_2standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.

(3) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to this subpart) at that property are natural gas, wood, distillate oil meeting the most current requirements in §60.42C to use fuel certification to demonstrate compliance with the SO_2standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month.

(h) The owner or operator of each affected facility subject to a federally enforceable requirement limiting the annual capacity factor for any fuel or mixture of fuels under §60.42c or §60.43c shall calculate the annual capacity factor individually for each fuel combusted. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of the calendar month.

(i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

(j) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Operating Permit Renewal

Source Background and Description

Source Name:	Kimball International, Inc.-15th Street Contiguous Source	
Source Location:	1620 Cherry Street & 1650 Cherry Street, Jasper, IN 47549 1180 East 16th Street, Jasper, IN 47549 1037 East 15th Street & 1450 Cherry Street, Jasper, IN 47549 1038 East 15th Street & Northwest corner of East 16th Street & Cherry Street, Jasper, IN 47549	
County:	Dubois	
SIC Code:	Kimball Office (K.O.) - Jasper Cherry Street:	2435, 2436
	Kimball Hospitality (K.H) - Jasper 16th Street:	2517, 2511, 2531
	Kimball Office (K.O.) - Jasper 15th Street:	2541, 2542, 2521
	Kimball Electronics, Inc.:	3714, 3577, 3679
Permit Renewal No.:	T037-29558-00100	
Permit Reviewer:	Donald McQuigg	

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Kimball International, Inc.-15th Street Contiguous Source, relating to the operation of four (4) stationary manufacturing plants in one (1) contiguous source engaged in: the laminating of hardwood veneers, softwood veneers and high pressure plastic laminates (HPL) onto particleboard and medium density fiberboard (MDF) products; manufacturing medium and high end furniture, primarily for the lodging industry; manufacturing high end wood office furniture and metal wall panels; and assembly of printed circuits and electronic devices. On August 13, 2010, Kimball International, Inc.-15th Street Contiguous Source submitted an application to the OAQ requesting to renew its operating permit. Kimball International, Inc.-15th Street Contiguous Source was issued Part 70 Operating Permit No. T037-7356-00100 on May 15, 2006. This source is a member of the Environmental Stewardship Program (ESP).

Source Definition

This Source Definition from Part 70 Operating Permit No. T037-7356-00100 was incorporated into this renewal permit as follows:

The Kimball International, Inc. - 15th Street Contiguous Source consists of the following four (4) plants:

(a) Kimball Office (K.O.) - Jasper Cherry Street is located at 1620 Cherry Street & 1650 Cherry Street, Jasper, IN 47549;

(b) Kimball Hospitality (K.H.) - Jasper 16th Street is located at 1180 East 16th Street, Jasper, IN 47549;

(c) Kimball Office (K.O.) - Jasper 15th Street is located at 1037 East 15th Street & 1450 Cherry Street, Jasper, IN 47549; and

(d) Kimball Electronics, Inc. is located at 1038 East 15th Street & Northwest corner of East 16th Street & Cherry Street, Jasper, IN 47549

However, these plants are located on one (1) or more contiguous or adjacent properties, have the same two-digit SIC code or have a support relationship, and are under common ownership. Therefore, they are considered one (1) major source, as defined by 326 IAC 2-7-1(22).

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units:

Kimball Office (K.O.) - Jasper Cherry Street:

(a) Two (2) surface coating booths, identified as SB-2A and SB-3A, constructed in 1989 and 1987, respectively, each with maximum capacities of 595 square feet of particleboard, plastic laminate or veneer per hour, using hot melt glue and rolling application methods, with particulate emissions controlled by dry filters, and exhausting at stacks SB-2 and SB-3, respectively.

Under Subpart JJ, the surface coating operations identified as SB-2A and SB-3A are each considered an existing affected facility.

(b) Two (2) boilers, consisting of the following:

(1) One (1) wood-fired (firetube) boiler, identified as B-1A, constructed in 1995, with a maximum heat input capacity of 20.5 MMBtu per hour, with a centrifugal collector (cyclone) for particulate control, and exhausting at stack S1.

(2) One (1) natural gas-fired (firetube) boiler used as back-up and equipped to burn only natural gas, identified as B-2A, constructed in 1996, rated at 16.8 MMBtu per hour, and exhausting at stack S2.

Kimball Hospitality (K.H.) - Jasper 16th Street:

(a) Thirty (30) spray booths for wood furniture and panel coating, each equipped with HVLP or air assisted airless spray guns, as described below:

Spray Booth	Unit ID	Installation Date	Type of Control	# of Stacks	Stack/Vent IDs
WOOD FINISH SPRAY BOOTH	1AB	1988	Filter	2	1AB
WOOD FINISH SPRAY BOOTH	2A	1978	Filter	1	2A
WOOD FINISH SPRAY BOOTH	3AB	1978	Water Pan	2	3AB
WOOD FINISH SPRAY BOOTH	4AB	1978	Filter	2	4AB
WOOD FINISH SPRAY BOOTH	5AB	1978	Water Pan	2	5AB
WOOD FINISH SPRAY BOOTH	6A	1978	Water Pan	1	6A
WOOD FINISH SPRAY BOOTH	7AB	1978	Filter	2	7AB
WOOD FINISH SPRAY BOOTH	8AB	1988	Filter	2	8AB
WOOD FINISH SPRAY BOOTH	9AB	1988	Filter	2	9AB
WOOD FINISH SPRAY BOOTH	10A	Modified in 2003	Filter	1	10A
WOOD FINISH SPRAY BOOTH	11AB	1977	Water Pan	2	11AB
WOOD FINISH SPRAY BOOTH	12A	1977	Filter	1	12A
WOOD FINISH SPRAY BOOTH	13A	Modified in 2003	Filter	2	13A
WOOD FINISH SPRAY BOOTH	14A	1977	Filter	1	14A
WOOD FINISH SPRAY BOOTH	15AB	1977	Filter	2	15AB
WOOD FINISH SPRAY BOOTH	16A	1977	Filter	1	16A
WOOD FINISH SPRAY BOOTH	17AB	1988	Filter	2	17AB
WOOD FINISH SPRAY BOOTH	18A	1977	Filter	1	18A
WOOD FINISH SPRAY BOOTH	19AB	1977	Filter	2	19AB
WOOD FINISH SPRAY BOOTH	20A	1977	Water Pan	1	20A
WOOD FINISH SPRAY BOOTH	21AB	1977	Water Pan	2	21AB
WOOD FINISH SPRAY BOOTH	22A	1977	Water Pan	1	22A
WOOD FINISH SPRAY BOOTH	23AB	1977	Water Pan	2	23AB
WOOD FINISH SPRAY BOOTH	24AB	1977	Filter	2	24AB
WOOD FINISH SPRAY BOOTH	25A	1977	Water Pan	1	25A
WOOD FINISH SPRAY BOOTH	26A	1977	Filter	1	26A
WOOD FINISH SPRAY BOOTH	28A	1987	Baffle (dip/drain)	1	28A
WOOD FINISH SPRAY BOOTH	29A	1988	Filter	1	29ABC
WOOD FINISH SPRAY BOOTH	29B	1988	Filter	1	
WOOD FINISH SPRAY BOOTH	29C	1988	Filter	1	

Under Subpart JJ, the surface coating operations identified as 1AB, 2A, 3AB, 4AB, 5AB, 6A, 7AB, 8AB, 9AB, 10A, 11AB, 12A, 13A, 14A, 15AB, 16A, 17AB, 18A, 19AB, 20A, 21AB, 22A, 23AB, 24AB, 25A, 26A, 28A, 29A, 29B, and 29C are each considered an existing affected facility.

(b) Two (2) boilers, consisting of the following:

(1) One (1) wood waste-fired (firetube) boiler, identified as B-1B, constructed in 1977, with a maximum heat input capacity of 25.1 MMBtu per hour, with a fly ash collector for particulate control, and exhausting to stack S1.

(2) One (1) natural gas-fired (firetube) boiler equipped to burn only natural gas, identified as B-2B, constructed in 1977, with a maximum heat input capacity of 16.7 MMBtu per hour, and exhausting at stack S2.

Kimball Office (K.O.) - Jasper 15th Street:

(a) Thirty-four (34) surface coating booths for wood furniture and metal panel coating, as described in the following table:

Spray Booth	Unit IDs	Installation Date	Type of Control	Application Method	# of Stacks	Stack/Vent IDs
WOOD SPRAY BOOTH	SB-1	1970	Water Pan	WOOD FURNITURE NESHAP COMPLIANT	1	1
WOOD SPRAY BOOTH	SB-2	1998	Filter		2	2
WOOD SPRAY BOOTH	SB-3	1970	Water Pan		2	3AB
WOOD SPRAY BOOTH	SB-4	1970	Filter		2	4AB
WOOD SPRAY BOOTH	SB-5	2004	Filter		3	5ABC
WOOD SPRAY BOOTH	SB-6	1970	Filter		1	6
WOOD SPRAY BOOTH	SB-7	1983	Filter		2	7AB
WOOD SPRAY BOOTH	SB-8	1970	Filter		1	8
WOOD SPRAY BOOTH	SB-9	2004	Filter		2	9AB
WOOD SPRAY BOOTH	SB-10AB	1970	Filter		2	10AB
WOOD SPRAY BOOTH	SB-11	1970	Filter		1	11
WOOD SPRAY BOOTH	SB-12R	Modified 2002	Water Pan		2	12R
WOOD SPRAY BOOTH	SB-13	1970	Filter		1	13
WOOD SPRAY BOOTH	SB-14R	Modified in 2002	Water Pan		2	14R
WOOD SPRAY BOOTH	SB-15	2004	Filter		1	15
WOOD SPRAY BOOTH	SB-16	1998	Filter		2	16ABC
WOOD SPRAY BOOTH	SB-17R	Modified in 2002	Water Pan		2	17R
WOOD SPRAY BOOTH	SB-18	2004	Filter		2	18AB
WOOD SPRAY BOOTH	SB-19	1998	Filter		1	19AB
WOOD SPRAY BOOTH	SB-20R	Modified in 2002	Filter		2	20R
WOOD SPRAY BOOTH	SB-21R	Modified in 2002	Filter		2	21R
WOOD SPRAY BOOTH	SB-23	1979	Filter		1	23
WOOD SPRAY BOOTH	SB-24	1979	Filter		1	24
WOOD SPRAY BOOTH	SB-26	1979	Filter		1	26
METAL PAINT BOOTH H.S. Paints	SB-27	1979	Filter	Electrostatic Airless	1	27
METAL PAINT BOOTH H.S. Paints	SB-28	1987	Filter		1	28
METAL PAINT BOOTH H.S. Paints	SB-29	1987	Filter		1	29AB
METAL PAINT BOOTH H.S. Paints	SB-30	1978	Filter	Electrostatic Disc	1	30
WOOD SPRAY BOOTH	SB-32	1989	Filter	Wood Furniture NESHAP Compliant	2	32
WOOD SPRAY BOOTH	SB-33	1989	Filter		1	33
WOOD SPRAY BOOTH	SB-37	1992	Filter		1	37
Dip Tank	DT-22	1990	Water pan	n/a	1	22
Dip Tank	DT-25	1979	Filter	n/a	1	25
Dip Tank	DT-38	1992	Filter	n/a	1	38

NOTE: One (1) additional non-spraying side draft flash tunnel, identified as SB-9SDFT, constructed in 2004, installed adjacent to and working in tandem with SB-9 and exhausting to stack 9AB.

Under Subpart JJ, the surface coating operations identified as SB-1, SB-2, SB-2A, SB-3, SB-2A, SB-4, SB-5, SB-6, SB-7, SB-8, SB-9, SB-10AB, SB-11, SB-12, SB-13, SB-14, SB-15, SB-16, SB-17, SB-18, SB-19, SB-20, SB-21, SB-23, SB-24, SB-26, SB-32, SB-33, SB-37, DT-22, DT-25, and DT-38 are considered existing affected facilities.

Under Subpart RRRR, the surface coating operations identified as SB-27, SB-28, SB-29, and SB-30 are considered existing affected facilities.

(b) Two (2) boilers, consisting of the following:

(1) One (1) wood waste-fired boiler (Brownnell HRT, firetube), identified as B-1C, constructed in 1961, with a maximum heat input capacity of 14.3 MMBtu per hour, with an 80% efficient fly ash collector for particulate control, and exhausting at stack BS-1.

(2) One (1) natural gas-fired boiler (North American Atlas, firetube), using No.2 fuel oil as emergency back-up fuel, identified as B-2C, constructed in 1971, with a maximum heat input capacity of 16.8 MMBtu per hour, and exhausting at stack BS-2.

(c) One (1) UV water-based wood coating process, approved for construction in 2008, consisting of two (2) coating lines and one (1) sanding/scuffing operation, identified as follows:

(1) One (1) enclosed flat spray coating line, identified as UV-1, with a maximum capacity of 1,000 pounds per hour of existing wood parts, with particulate controlled by a water filtration system, exhausting to stacks UV1A-A1, UV1B-A2, UV1C-A3, UV1D-A4, UV1E-A5, UV1F-A6a, UV1F-A6b, and UV1F-A6c.

This emissions unit is subject to the provisions of 40 CFR 63, Subpart JJ, the Wood Furniture Manufacturing Operations National Emission Standards for Hazardous Air Pollutants (NESHAP);

(2) One (1) roll coating line with two (2) machines, identified as UV-2, with a maximum capacity of 1,000 pounds per hour of existing wood parts, exhausting to stacks UV2B-A7, UV2B-A8, UV2E-A9a, and UV2E-A9b.

This emissions unit is subject to the provisions of 40 CFR 63, Subpart JJ, the Wood Furniture Manufacturing Operations National Emission Standards for Hazardous Air Pollutants (NESHAP); and

(3) One (1) sanding/scuffing operation, identified as UV-D1, with particulate emissions controlled by a cartridge filter with a maximum capacity of forty (40) pounds per hour, identified as UV-DC1.

Kimball Electronics, Inc.

(a) Six (6) circuit assembly stations as described in the following table:

Emission Unit	Unit ID New (Old)	Installation Date	Stack New (Old)
Wave Solder	A1 (WSU1)	3/1/1994	AS-1 (304)
Fluxer	A2 (WSU1)	8/1/1996	AS-1 (303)
Wave Solder	A3 (WSU2)	1/1/1998	AS-2 (202)
Fluxer	A4 (WSU2)	1/1/2001	AS-2 (201)
Wave Solder	A5 (WSU3)	2/1/1998	AS-3 (506)
Fluxer	A6 (WSU3)	10/18/2004	AS-3 (507)
Wave Solder	A7 (WSU4)	10/21/2000	AS-4 (711)
Fluxer	A8 (WSU4)	10/21/2000	AS-4 (711)
Wave Solder	J1 (WSU5)	1/1/1998	JS-1 (2001)
Fluxer	J2 (WSU5)	12/1/2002	JS-1 (2001)
Wave Solder	F3 (WSU6)	8/1/1994	FS-3 (2003)

Fluxer	F4 (WSU6)	12/1/2002	FS-3 (2003)
Repair Wave Solder	A9 (WSU7)	10/1/2000	AS-5 (206)
Piller House Solder	E1 (WSU8)	7/1/2001	ES-1 (505)

(b) Three (3) Selective Solder Systems, as described in the following table:

Emission Unit	Unit ID New (Old)	Installation Date	Stack New (Old)
Selective Solder/Fluxer	F1 (SSU1)	12/31/2004	FS-1 (710)
Selective Solder/Fluxer	F2 (SSU2)	12/31/2004	FS-2 (709)
Selective Solder/Fluxer	G3 (SSU3)	12/14/2005	Gs-3 (305)

(c) Four (4) Conformal Coater Systems, as described in the following table:

Emission Unit	Unit ID New (Old)	Installation Date	Stack New (Old)
Coater	C1 (CCU1)	12/30/1997	CS-1 (2012)
Coater	E12 (CCU2)	2/1/2000	ES-9 (508)
Coater	E6 (CCU3)	12/30/2003	ES-3 (712)
Coater	E7 (CCU4)	12/30/2003	ES-3 (713)

(d) One (1) surface coating line for printed circuit boards, approved for construction in 2006, with a maximum coating capacity of 60 units per hour, identified as CCU5, consists of the following:

(1) two (2) coaters; and

Emission Unit	Unit ID New (Old)	Installation Date	Stack New (Old)
Coater	E2 (CCU5 #1)	2005	ES-2 (EF-14)
Coater	E3 (CCU5 #2)	2005	ES-2 (EF-14)

(2) two (2) electric cure ovens.

Emission Unit	Unit ID New (Old)	Installation Date	Stack New (Old)
Cure Oven	E10 (CCU5 #1)	12/30/1997	ES-5 (EF-14)
Cure Oven	E11 (CCU5 #2)	2/1/2000	ES-5 (EF-14)

Emission Units and Pollution Control Equipment Removed From the Source

The source has removed the following emission units:

(a) **Kimball Electronics**
One (1) Test Chamber, identified as CU1, constructed in March 2005, and exhausting to stack 2015.

(b) **Kimball Electronics**
Two (2) wave solder/fluxer circuit assembly stations, identified as WSU9 and WSU10, both installed in 1988, and exhausting to stacks 1-2008 and 2-2008, respectively.

(c) **Kimball Electronics**
One (1) coater cleaner, identified as CCU5, installed in 2008, and exhausting to stack 3-2008.

(d) **Kimball Electronics**
One (1) thermal cycle oven, identified as OVU23, installed in 1999, and exhausting to stack 2015.

(e) **Kimball Hospitality (K.H.) - Jasper 16th Street**
One (1) enclosed powder coating booth, identified as PB#1, constructed in 2003, with a maximum capacity of forty (40) pounds of powder per hour, using dry filters for particulate control, and exhausting to stack PB#1.

The source has moved the following emission unit within the source:

(a) **Kimball Office (K.O.) - Jasper Cherry Street**
One (1) baghouse, identified as TD6, was moved from Kimball Office (K.O.) - Jasper Cherry Street to Kimball Hospitality (K.H.) - Jasper 16th Street.

Insignificant Activities

The source also consists of the following insignificant activities:

Kimball Office (K.O.) – Jasper Cherry Street

(a) Insignificant woodworking operations, identified as TD1, TD2, TD3, TD4, and TD5, meeting the definition of "insignificant woodworking operation" specified in 326 IAC 2-7-1(21)(G)(xxix), with a maximum capacity of 2.54 tons per hour of wood, laminate and veneer, controlled by six (6) baghouses, as follows:

Baghouse/Stack ID	Max. Flow Rate (scfm)	Outlet Grain Loading (gr/scf)
TD1 (formerly MR1A)	70,000	Less than 0.001
TD2	50,000	Less than 0.001
TD3 (formerly MR1B)	14,500	Less than 0.001
TD4	63,000	Less than 0.001
TD5	62,970	Less than 0.001

Each baghouse exhausts either through a stack or into the building, depending upon seasonal heating requirements. [326 IAC 2-7-1(21)(G)(xxix)] [326 IAC 6.5-4]

Under 40 CFR 63, Subpart JJ, the woodworking operations identified as TD1, TD2, TD3, TD4, and TD5 are each considered an existing affected facility.

Kimball Hospitality (K.H.) – Jasper 16th Street

(a) One (1) insignificant woodworking operation, identified as MV, meeting the definition of "insignificant woodworking operation" specified in 326 IAC 2-7-1(21)(G)(xxix), controlled by one (1) baghouse, identified as MV having an exhaust rate of 78,385 scfm and an outlet grain loading of less than 0.001 grain per dry standard cubic foot or TD6 having exhaust rate of 70,000 scfm and an outlet grain loading of less than 0.001 grain per dry standard cubic foot , and exhausting at stack MV. [326 IAC 2-7-1(21)(G)(xxix)] [326 IAC 6.5-1-2]

Under 40 CFR 63, Subpart JJ, the woodworking operation identified as MV is considered an existing affected facility.

(b) One (1) research and development booth, identified as RD1, equipped with HVLP and air assisted airless spray guns, using dry filters to control particulate emissions, and exhausting to stack RD1. [326 IAC 6.5-1-2]

(b) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, consisting of:

(1) Seven (7) natural gas-fired air make up units, identified as AMU-1 through AMU-7, constructed in 1998, rated at 3, 3, 4, 4, 5, 5, and 6 MMBtu per hour, respectively, with each unit venting inside the building.

(2) Two (2) 1.075 MMBTU/hr natural gas-fired air makeup units, used in conjunction with spray booths 10A and 13A, with each unit venting inside the building

(c) One (1) dip tank, constructed in 2003, with a maximum capacity of 135 gallons of water-based dip per year.

(d) One (1) electric oven for drying finish, constructed in 2005.

Kimball Office (K.O.) - Jasper 15th Street:

(a) Three (3) insignificant woodworking operations, meeting the definition of "insignificant woodworking operation" specified in 326 IAC 2-7-1(21)(G)(xxix), as follows:

(1) One (1) insignificant woodworking operation, identified as MD, constructed prior to 1980, with a maximum process weight rate of 993 pounds of wood per hour, controlled by a baghouse (MD) with a maximum air flow rate of 76,800 scfm and a outlet grain loading of less than 0.001 grain per dry standard cubic foot, and exhausting to stack MD. [326 IAC 2-7-1(21)(G)(xxix)] [326 IAC 6.5-1-2]

(2) One (1) insignificant woodworking operation, identified as CD-1, constructed prior to 1980, with a maximum process weight rate of 993 pounds of wood per hour, controlled by a baghouse (CD-1) with a maximum air flow rate of 45,000 scfm and a outlet grain loading of less than 0.001 grain per dry standard cubic foot, and exhausting to stack CD-1. [326 IAC 2-7-1(21)(G)(xxix)] [326 IAC 6.5-1-2]

(3) One (1) insignificant woodworking operation, identified as T-1, constructed prior to 1980, with a maximum process weight rate of 834 pounds of wood per hour, controlled by a baghouse (T-1) with a maximum air flow rate of 61,000 scfm and a outlet grain loading of less than 0.001 grain per dry standard cubic foot, and exhausting to stack T-1. [326 IAC 2-7-1(21)(G)(xxix)] [326 IAC 6.5-1-2]

Under 40 CFR 63, Subpart JJ, the woodworking operations identified as CD1, MD, and T-1 are each considered an existing affected facility.

(b) Activities with VOC emissions less than 3 lb/hr or 15 lb/day, consisting of one (1) pyrolysis furnace rated at 0.4 MMBtu per hour, identified as BO-3, constructed in 2003, using an afterburner for control and exhausting to stack BO-3.

(c) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, consisting of the following:

(1) Thirteen (13) air make-up units, identified as AMU-1 through AMU-13, with a maximum heat input capacity of approximately 1.5 MMBtu/hr per unit average, with emissions exhausting inside the building and then to general ventilation.

(2) Two (2) natural gas-fired air make-up units, identified as AMU-15 and AMU-16, constructed in 1998, each with a maximum heat input capacity of 2.81 MMBtu/hr, with emissions exhausting inside the building and then to general ventilation.

(3) Two (2) natural gas-fired air make-up units, constructed in 2004, each with a maximum heat input capacity of 1.3 MMBtu/hr, with emissions exhausting inside the building and then to general ventilation.

(4) Two (2) natural gas-fired air make-up units, constructed in 2004, each with a maximum heat input capacity of 4.4 MMBtu/hr, with emissions exhausting inside the building and then to general ventilation.

(5) Two (2) natural gas-fired curing ovens, identified as PCO #1 and PCO #2, constructed in 2003, each with a maximum heat input capacity of 1.0 MMBtu/hr, and exhausting through stacks DO #1 and DO #2, respectively.

(6) Three (3) natural gas-fired drying ovens (Eclipse) equipped to burn only natural gas, identified as ECLIPSE 1, ECLIPSE 2, and ECLIPSE 3, constructed in 1998, each with a maximum heat input capacity of 1.5 MMBtu per hour, and exhausting at heat stack.

(d) Operations using aqueous solutions containing less than or equal to one percent (1%) by weight of VOCs excluding HAPs, with VOC emissions less than 3 lb/hr or 15 lb/day VOC, including:

(1) One (1) water-based metal wash booth, identified as WB #1, constructed in 2003, with a capacity of 1000 miscellaneous metal parts per hour, having no particulate, VOC or HAP emissions, exhausting to stacks PCO #3 and PCO #4.

(2) One (1) portable metal parts cleaning dip tank used in a variety of booths, constructed in 1992, using water-based solvents, and exhausting to the booth stack where it is in use.

(3) Two (2) industrial washers, identified as IW-1, and IW-2, which have no particulate, VOC or HAP emissions.

Kimball Electronics, Inc.

(a) One (1) composite milling operation used for milling metal and plastic, with particulate emissions controlled by a cyclone (DC-1), and exhausting to stack 401. [326 IAC 6.5-1-2]

(b) Twenty-four (24) ovens, as described in the following table:

Insignificant Unit	Unit ID New (Old)	Installation Date	Stack New (Old)
Thermal Cycle Oven	F9 (OVU1)	1/1/1992	FS-7 (306)
Heat Curing Oven	E13 (OVU2)	6/1/1997	ES-4 (215)
Reflow Oven	A11 (OVU3)	9/1/1994	AS-7 (216)
Reflow Oven	A12 (OVU4)	7/1/1996	AS-8 (218)
Heat Curing Oven	D1 (OVU5)	6/1/1999	DS-1 (501)
Heat Curing Oven	D2 (OVU6)	6/1/1999	DS-2 (502)
Reflow Oven	A13 (OVU7)	12/1/1998	AS-9 (503)
Reflow Oven	A14 (OVU8)	12/1/1998	AS-10 (504)
Heat Curing Oven	E4 (OVU9)	2/1/2000	ES-7 (511)
Heat Curing Oven	E5 (OVU10)	2/1/2000	ES-8 (511)
Heat Curing Oven	D3 (OVU11)	12/1/2000	DS-3 (903)
Reflow Oven	F6 (OVU12)	12/31/2004	FS-4 (715)
Reflow Oven	F7 (OVU13)	12/31/2004	FS-5 (716)
IHT Hot test Oven	F8 (OVU14)	6/30/2005	FS-6 (749)
Heat Curing Oven	E8 (OVU15)	6/1/2003	ES-3 (720)
Heat Curing Oven	F5 (OVU16)	12/1/1993	FS-7 (721)
Heat Curing Oven	C3 (OVU17)	1/31/2004	CS-3 (736)
Heat Curing Oven	C4 (OVU18)	1/31/2004	CS-2 (737)
Reflow Oven	G2 (OVU19)	10/1/2000	GS-2 (738)
Reflow Oven	G1 (OVU20)	11/1/1999	GS-1 (741)
Reflow Oven	A15 (OVU21)	1/1/1998	AS-11 (2002)
Reflow Oven	E14 (OVU22)	11/1/1995	ES-10 (2004)
Heat Curing Oven	E9 (OVU24)	11/30/2000	ES-6 (509)

(c) Three (3) washers, as described in the following table:

Insignificant Unit	Unit ID New (Old)	Installation Date	Stack New (Old)
Aqueous Cleaner	H1 (ACU1)	3/1/1994	HS-1 (801)
Aqueous Cleaner	J3 (ACU2)	8/1/1993	JS-2 (2010)
Aqueous Cleaner	A10 (ACU3)	12/1/1999	AS-6 (2011)

(d) One (1) evaporator, identified as EU1, constructed in December 1998, and exhausting to stack 2006.

(e) One (1) Evaporator, identified as B1, constructed in 2005, and exhausting odor and steam from evaporating water to stack BS-1. A trivial activity pursuant to 326 IAC 2-7-1-(40)(A).

(f) One (1) Dip Tank, identified as C5, with a maximum capacity of five (5) gallons of acetone/IPA mix, constructed in 2009, and exhausting to stack CS-3. VOC emissions less than or equal to three (3) lbs/hr or fifteen (15) lbs/day.

(g) One (1) Conformal Coating Touch-Up Booth, identified as C6, constructed in 2009, and exhausting fumes from coating touch-up materials to stack CS-3. VOC emissions less than or equal to three (3) lbs/hr or fifteen (15) lbs/day.

(h) One (1) Wash Bay, identified as H2, constructed in 2005, and exhausting fumes from dirty water prior to discharge to sanitary sewer to stack HS-2. A trivial activity pursuant to 326 IAC 2-7-1-(40)(D).

(i) One (1) Exhaust Booth, identified as H3, constructed in 2007, used for mixing conformal coating materials, and exhausting to stack HS-3. A trivial activity pursuant to 326 IAC 2-7-1-(40)(A).

(j) One (1) Inspection Booth, identified as E15, constructed in 2006, and exhausting fumes and odors from finished products to stack ES-11. VOC emissions less than or equal to three (3) lbs/hr or fifteen (15) lbs/day.

(k) One (1) Quality Booth, identified as E16, constructed in 2006, and exhausting fumes and odors from finished products to stack ES-12. VOC emissions less than or equal to three (3) lbs/hr or fifteen (15) lbs/day.

Existing Approvals

Since the issuance of Part 70 Operating Permit No. T037-7356-00100 on May 15, 2006, the source has constructed or has been operating under the following additional approvals:

(a) Administrative Amendment No. 037-23097-00100, issued on August 15, 2006;

(b) Minor Source Modification No. 037-23384-00100, issued on August 25, 2006;

(c) Minor Permit Modification No. 037-23406-00100, issued on October 5, 2006**;**

(d) Administrative Amendment No. 037-24831-00100, issued on July 31, 2007;

(e) Minor Source Modification No. 037-25952-00100, issued on March 26, 2008; and

(f) Significant Permit Modification No. 037-25958-00100, issued on May 23, 2008.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the State Implementation Plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

The following terms and conditions from previous approvals have been determined no longer applicable; therefore, were not incorporated into this Part 70 Operating Permit Renewal:

(a) The requirements of the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, (40 CFR 63, Subpart DDDDD) are not included for the 20.5 MMBtu per hour wood-fired boiler (B-1A: Cherry St.), the 16.8 MMBtu per hour natural gas-fired boiler (B-2A: Cherry St.), the 25.1 MMBtu per hour wood waste boiler (B-1: 16th St.), the 16.7 MMBtu per hour natural gas-fired boiler (B-2B: 16th St.), the 14.3 MMBtu per hour

wood waste boiler (B-1C: 15th St.), and the 16.8 MMBtu per hour natural gas-fired boiler (B-2C: 15th St.).

Reason not incorporated: On June 8, 2007, the United States Court of appeals for the District of Columbia Circuit (in NRDC v. EPA, no. 04-1386) vacated in its entirety the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD. Additionally, since the state rule at 326 IAC 20-95 incorporated the requirements of the NESHAP 40 CFR 63, Subpart DDDDD by reference, the requirements of 326 IAC 20-95 are no longer effective. Therefore, the requirements of 40 CFR 63, Subpart DDDDD and 326 IAC 20-95 have been removed from the permit.

(b) Methyl ethyl ketone (MEK) was not included as a HAP.

Reason not incorporated: The U.S. EPA delisted the compound methyl ethyl ketone (MEK) (2-Butanone) (CAS No. 78-93-3) from the list of hazardous air pollutants (HAP) contained in the Clean Air Act (section 112), effective December 19, 2005.

Air Pollution Control Justification as an Integral Part of the Process

In October 1993 a Final Order Granting Summary Judgment was signed by Administrative Law Judge ("ALJ") Garrettson resolving an appeal filed by Kimball Hospitality Furniture Inc. (Cause Nos. 92-A-J-730 and 92-A-J-833) related to the method by which IDEM calculated potential emissions from woodworking operations. In his findings, the ALJ determined that particulate controls are necessary for the facility to produce its normal product and are integral to the normal operation of the facility, and therefore, potential emissions should be calculated after controls. Based on this ruling, potential emissions for particulate matter were calculated after consideration of the controls for determining operating permit level purposes.

IDEM, OAQ has evaluated the justifications and agreed that the baghouse will be considered as an integral part of the woodworking facilitiy, identified as MV, located at Kimball Hospitality (K.H.) – Jasper 16th Street. Therefore, the permitting level will be determined using the potential to emit after the baghouse. Operating conditions in the proposed permit will specify that this baghouse shall operate at all times when the woodworking facilitiy is in operation.

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in Dubois County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Unclassifiable or attainment effective June 15, 2004, for the 8-hour standard.[1]
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Not designated.

[1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.
Basic nonattainment designation effective federally April 5, 2005, for $PM_{2.5}$.

(a) Ozone Standards

Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Dubois County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) $PM_{2.5}$
Dubois County has been classified as nonattainment for $PM_{2.5}$ in 70 FR 943, dated January 5, 2005. On May 8, 2008, U.S. EPA promulgated specific New Source Review rules for $PM_{2.5}$ emissions. These rules became effective on July 15, 2008. Therefore, direct $PM_{2.5}$ and SO_2 emissions were reviewed pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5. See the State Rule Applicability – Entire Source section.

(c) Other Criteria Pollutants
Dubois County has been classified as attainment or unclassifiable in Indiana for PM_{10}, SO_2, NO_2, CO, and O_3. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

This type of operation is not one (1) of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-7, however, there is an applicable New Source Performance Standard that was in effect on August 7, 1980; therefore, fugitive emissions, from the affected facilities to which the New Source Performance Standard is applicable, are counted toward the determination of PSD and Part 70 Permit applicability.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Unrestricted Potential Emissions	
Pollutant	Tons/year
PM	greater than 250
PM_{10}	greater than 250
$PM_{2.5}$	greater than 250
SO_2	greater than 250
VOC	greater than 250
CO	greater than 100
NO_x	greater than 100
Single HAP	greater than 10
Total HAP	greater than 25

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM_{10}, $PM_{2.5}$, SO_2, VOC, CO, and NO_x is equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7 and will be issued a Part 70 Operating Permit Renewal.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is equal to or greater than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is equal to or greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, because the source met the following:

(a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.

(b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 permit renewal, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

		Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)								
Process/emission unit		PM	PM_{10}	$PM_{2.5}$	SO_2	VOC	CO	NO_X	Total HAPs	Worst Single HAP
Cherry Street	Surface Coating Booths SB2A and SB3A	-	-	-	-	Less than 50 [c]	-	-	2.0	
	Wood Boiler B-1A	6.9 [d]	6.9 [d]	6.9 [d]	2.2	1.5	53.9	44.0	3.45	
	Nat. Gas Boiler B-2A	0.2	0.2	0.2	negl	0.4	6.2	7.4	negl	
	Insig. Woodworking TD1–TD6	28.4 [a]	28.4 [a]	28.4 [a]	-	-	-	-	-	
16th Street	30 Surface Coating Booths 1AB-29C	[b]	[b]	[b]	-	Greater than 250	-	-	Greater than 25	Greater than 10
	Wood Boiler B-1B	45.8	41.4	41.4	2.7	1.9	66.0	53.9	4.2	
	Nat. Gas Boiler B-2B	0.6	0.6	0.6	-	0.4	6.1	7.3	-	
	Insig. Woodworking MV	8.8 [a]	8.8 [a]	8.8 [a]	-	-	-	-	-	
15th Street	30 Wood Surface Coating Booths, 4 Metal Coating Dip Tanks	[b]	[b]	[b]	-	Less than 248	-	-	Greater than 25	Greater than 10
	Wood Boiler B-1C	26.1 [d]	23.6 [d]	23.6 [d]	1.6	1.1	37.6	30.7	2.4	
	Nat. Gas Boiler B-2C	0.6	0.6	0.6	-	0.4	6.2	7.4	negl	
	Insig. Woodworking MD, CD-1, T-1	20.6 [a]	20.6 [a]	20.6 [a]	-	-	-	-	-	
	Insig. Kimball Labs: 2 Spray Booths and 1 Dip Tank	[b]	[b]	[b]	-	-	-	-	-	
Kimball Electronics	8 Soldering Stations	0	0	0	-	Less than 100 [e]	0	0	Less than 25	Less than 10
	6 Conformal Coating Stations	0	0	0	-		0	0		
	Milling	1.7 [a]	1.7 [a]	1.7 [a]	-		0	0		
	Insignificant Activities	-	-	-	-		-	-		
All	Insig. Nat. Gas Combustion Units	2.8	2.8	2.8	0.2	2.0	30.7	36.6	negl	
Total PTE of Entire Source		**Greater than 150**	**Greater than 144**	**Greater than 144**	**6.7**	**Greater than 250**	**207**	**187**	**Greater than 25**	**Greater than 10**
Title V Major Source Thresholds		NA	100	NA	100	100	100	100	25	10
PSD Major Source Thresholds		250	250	NA	250	250	250	250	NA	NA
Nonattainment NSR Major Source Thresholds		NA	NA	100	NA	NA	NA	NA	NA	NA

	Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)								
Process/emission unit	PM	PM_{10}	$PM_{2.5}$	SO_2	VOC	CO	NO_X	Total HAPs	Worst Single HAP

negl. = negligible emissions, less than 0.1 tons per year. NA = not applicable
"-" denotes emission unit does not emit the designated pollutant
*Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM_{10}), not particulate matter (PM), is considered as a "regulated air pollutant".
[a] Particulate emissions for insignificant woodworking, router and milling represent allowable emissions under 326 IAC 6.5-1-2.
[b] Particulate emissions from surface coating booths are limited by 326 IAC 6.5-1-2.
[c] VOC emissions from SB2A and SB3A at Cherry Street are each limited to less than F25 tons per year by a Registration letter issued October 14, 1987 and Exemption 037-2309-00042, issued on December 18, 1991.
[d] Particulate emissions from the wood-fired boiler at Cherry Street are limited by 326 IAC 6.5-4-17. Particulate emissions from the wood-fired boiler at 15th Street are limited by 326 IAC 6.5-4-2.
[e] VOC emissions from the emission units at Kimball Electronics are limited by Registrations and Exemptions issued to this plant.

(a) This existing stationary source is major for PSD because the emissions of at least one (1) attainment pollutant are greater than two hundred fifty (>250) tons per year, and it is not in one (1) of the twenty-eight (28) listed source categories.

(b) This existing stationary source is major for Nonattainment NSR because the emissions of the nonattainment pollutant, $PM_{2.5}$, are greater than one hundred (>100) tons per year.

Federal Rule Applicability

(a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to each existing pollutant-specific emission unit that meets the following criteria:

(1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;

(2) is subject to an emission limitation or standard for that pollutant; and

(3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each existing emission unit and specified pollutant subject to CAM:

Emission Unit / Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
30 spray booths at Jasper 15th Street/PM/PM_{10}	dry filters	Y	89.5	-	100	N	N
29 spray booths at Jasper 16th Street/PM/PM_{10}	dry filters	Y	6.53	-	100	N	N
woodworking baghouse TD1/ PM/PM_{10}	baghouse	Y	>100	2.63	100	Y	N
woodworking baghouse TD2/ PM/PM_{10}	baghouse	Y	>100	1.88	100	Y	N
woodworking baghouse TD4/ PM/PM_{10}	baghouse	Y	>100	2.37	100	Y	N

Emission Unit / Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
woodworking baghouse TD5/ PM/PM_{10}	baghouse	Y	>100	2.36	100	Y	N
woodworking baghouse TD6/ PM/PM_{10}	baghouse	Y	>100	2.36	100	Y	N
woodworking baghouse BH1/ PM/PM_{10}	baghouse	Y	>100	2.94	100	Y	N
woodworking baghouse MD/ PM/PM_{10}	baghouse	Y	>100	2.88	100	Y	N
woodworking baghouse CD-1/ PM/PM_{10}	baghouse	Y	>100	1.69	100	Y	N
woodworking baghouse T-1/ PM/PM_{10}	baghouse	Y	>100	2.29	100	Y	N
insignificant sander UV-DC-1/ PM/PM_{10}	cartidge filter	Y	>100	1.75	100	Y	N

There is no control device for the spray booth VOC emissions; therefore, the requirements of CAM are not applicable to the spray booths for VOC. The total uncontrolled PM/PM_{10} emissions from all the Kimball Office (K.O.) – Jasper 15th Street spray booths are less than the major source threshold; therefore, the requirements of CAM are not applicable to the spray booths for PM/PM_{10}. The total uncontrolled PM/PM_{10} emissions from all the Kimball Office (K.O.) – Jasper 16th Street spray booths are less than the major source threshold; therefore, the requirements of CAM are not applicable to the spray booths for PM/PM_{10}.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to baghouses TD1, TD2, TD4, TD5, TD6, BH-1, MD, CD-1, T-1 and sander UV-DC-1 for PM/PM_{10} as part of this Part 70 permit renewal.

NSPS:

(b) The requirements of the New Source Performance Standards for Fossil-Fuel-Fired Steam Generators (40 CFR 60, Subpart D) are not included in this permit for the 20.5 MMBtu/hr wood-fired boiler (B-1A: Cherry Street), the 16.8 MMBtu/hr natural gas-fired boiler (B-2A: Cherry Street), the 25.1 MMBtu/hr wood waste boiler (B-1B: 16th Street), the 16.7 MMBtu/hr natural gas-fired boiler (B-2B:16th Street), the 14.3 MMBtu/hr wood waste boiler (B-1C:15th Street), and the 16.8 MMBtu/hr natural gas-fired boiler (B-2C:15th Street), because the maximum heat input capacity of these boilers is each less than 250 MMBtu/hr.

(c) The requirements of the New Source Performance Standards for Electric Utility Steam Generating Units (40 CFR 60, Subpart Da) are not included in this permit for the 20.5 MMBtu/hr wood-fired boiler (B-1A: Cherry Street), the 16.8 MMBtu/hr natural gas-fired boiler (B-2A: Cherry Street), the 25.1 MMBtu/hr wood waste boiler (B-1B: 16th Street), the 16.7 MMBtu/hr natural gas-fired boiler (B-2B:16th Street), the 14.3 MMBtu/hr wood waste boiler (B-1C:15th Street), and the 16.8 MMBtu/hr natural gas-fired boiler (B-2C:15th Street), because these boilers are not electric utility steam generating units.

(d) The requirements of the New Source Performance Standards for Industrial-Commercial-Institutional Steam Generating Units (40 CFR 60, Subpart Db) are not included in this permit for the 20.5 MMBtu/hr wood-fired boiler (B-1A: Cherry Street), the 16.8 MMBtu/hr natural gas-fired boiler (B-2A: Cherry Street), the 25.1 MMBtu/hr wood waste boiler (B-1B: 16th Street), the 16.7 MMBtu/hr natural

gas-fired boiler (B-2B:16th Street), the 14.3 MMBtu/hr wood waste boiler (B-1C:15th Street), and the 16.8 MMBtu/hr natural gas-fired boiler (B-2C:15th Street), because the maximum heat input capacity of these boilers is each less than 100 MMBtu/hr.

(e) The requirements of the New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units (40 CFR 60, Subpart Dc) are not included in this permit for the 25.1 MMBtu/hr wood waste boiler (B-1B: 16th Street), the 16.7 MMBtu/hr natural gas-fired boiler (B-2B:16th Street), the 14.3 MMBtu/hr wood waste boiler (B-1C:15th Street), and the 16.8 MMBtu/hr natural gas-fired boiler (B-2C:15th Street). These boilers were constructed prior to the applicability date of June 9, 1989.

(f) The requirements of the New Source Performance Standards for Small Municipal Waste Combustion Units for which Construction is Commenced after August 30, 1999 or for which Modification or Reconstruction is Commenced after June 6, 2001 (40 CFR 60, Subpart AAAA) are not included in this permit for the 25.1 MMBtu/hr wood waste boiler (B-1B: 16th Street), the 20.5 MMBtu/hr wood-fired boiler (B-1A: Cherry Street), and the 14.3 MMBtu/hr wood waste boiler (B-1C:15th Street). These boilers were constructed prior to the applicability date of August 30, 1999 and were not subsequently modified or reconstructed.

(g) The requirements of the New Source Performance Standards for other Solid Waste Incineration Units for which Construction is Commenced after December 9, 2004 or for which Modification or Reconstruction is Commenced after June 16, 2006 (40 CFR 60, Subpart EEEE) are not included in this permit for the 20.5 MMBtu/hr wood-fired boiler (B-1A: Cherry Street), the 25.1 MMBtu/hr wood waste boiler (B-1B: 16th Street), and the 14.3 MMBtu/hr wood waste boiler (B-1C:15th Street). These boilers were constructed prior to the applicability date of August 30, 1999 and were not subsequently modified or reconstructed.

(h) The 20.5 MMBtu/hr wood-fired boiler (B-1A: Cherry Street) and the 16.8 MMBtu/hr natural gas-fired boiler (B-2A: Cherry Street) are subject to the requirements of the New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units (40 CFR 60.40c, Subpart Dc), which is incorporated by reference as 326 IAC 12. The 20.5 MMBtu/hr wood-fired boiler (B-1A: Cherry Street) and the 16.8 MMBtu/hr natural gas-fired boiler (B-2A: Cherry Street) are not subject to the PM and opacity limits specified in 40 CFR 60.43c because the maximum heat input capacity of each boiler is less than 30 MMBtu/hr. Each boiler was constructed after June 9, 1989, and each has a maximum heat input capacity that is less than one hundred (100) mmBtu/hr and greater than ten (10) mmBtu/hr.

The 20.5 MMBtu/hr wood-fired boiler (B-1A: Cherry Street) and the 16.8 MMBtu/hr natural gas-fired boiler (B-2A: Cherry Street) are subject to the following portions of Subpart Dc:

(1) 40 CFR 60.40c(a), (c)
(2) 40 CFR 60.41c
(3) 40 CFR 60.48c(g), (i)

The provisions of 40 CFR 60 Subpart A – General Provisions, which are incorporated as 326 IAC 12-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 60, Subpart Dc.

(i) The metal furniture surface coating operations located at the Kimball Office (K.O.) – Jasper 15th Street plant, identified as SB-28 and SB-29, are subject to the requirements of the New Source Performance Standards for Surface Coating of Metal Furniture (40 CFR 60.310, Subpart EE), which is incorporated by reference as 326 IAC 12. These facilities apply surface coatings containing VOC to metal furniture, were constructed after November 28, 1980, and apply greater than 3,842 liters (1,014 gallons) of coating per year.

The metal furniture surface coating operations located at the Kimball Office (K.O.) – Jasper 15th Street plant, identified as SB-28 and SB-29, are subject to the following portions of Subpart EE:

(1) 40 CFR 60.311
(2) 40 CFR 60.312(a)
(3) 40 CFR 60.313(b)
(4) 40 CFR 60.313(c)(1)(i)
(5) 40 CFR 60.313(c)(1)(ii)
(6) 40 CFR 60.313(c)(1)(iii)
(7) 40 CFR 60.315(b)

The provisions of 40 CFR 60 Subpart A – General Provisions, which are incorporated as 326 IAC 12-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 60, Subpart EE.

NESHAP:

(j) The requirements of the National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products (40 CFR 63, Subpart DDDD) are not included in this permit for the wood and plastic veneer laminating operations located at the Kimball Office (K.O.) – Jasper Cherry Street plant. The facilities at Kimball Office (K.O.) – Jasper Cherry Street apply hardwood veneer, softwood veneer or plastic laminate to preexisting structural wood panels. These facilities are not PCWP manufacturing facilities as defined in 40 CFR 63.2231(a) because these facilities do not manufacture plywood and/or composite wood products by bonding wood material (fibers, particles, strands, veneers, etc.) or agricultural fiber, generally with resin under heat and pressure, to form a structural panel or engineered wood product.

(k) The requirements of the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products (40 CFR 63, Subpart MMMM) are not included in this permit for the metal panel surface coating operations located at the Kimball Office (K.O.) – Jasper 15th Street plant. These metal panel surface coating facilities are already subject to the requirements of 40 CFR 63, Subpart RRRR.

(l) The requirements of the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products (40 CFR 63, Subpart MMMM) are not included in this permit for the surface coating of any metal components of wood furniture that may occur during surface coating of wood furniture at the wood furniture surface coating operations located at the Kimball Hospitality (K.H.) – Jasper 16th Street plant and the Kimball Office (K.O.) – Jasper 15th Street plant. These wood furniture surface coating operations are exempt from the requirements of 40 CFR 63, Subpart MMMM, because, pursuant to 40 CFR 63.3881(c)(6), these facilities apply surface coatings to metal components of wood furniture at an operation that is subject to the wood furniture manufacturing NESHAP (40 CFR 63, Subpart JJ).

(m) The requirements of the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products (40 CFR 63, Subpart MMMM) are not included in this permit for the electronics assembly operations located at the Kimball Electronics, Inc. plant. The operations do not apply surface coatings to metal parts or products, as defined in 40 CFR 63.3881.

(n) The requirements of the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products (40 CFR 63, Subpart PPPP) are not included in this permit for the surface coating operations at this contiguous source. This contiguous source does not apply surface coatings to plastic parts or products.

(o) The requirements of the National Emission Standards for Hazardous Air Pollutants for Semiconductor Manufacturing (40 CFR 63, Subpart BBBBB) are not included in this permit for the electronics assembly operations at the Kimball Electronics, Inc. plant. This plant does not manufacture semiconductors.

(p) The wood furniture manufacturing and surface coating operations at this contiguous source are subject to the National Emission Standards for Hazardous Air Pollutants for Wood Furniture Manufacturing Operations (40 CFR 63, Subpart JJ), which is incorporated by reference as 326 IAC 20-14. The affected source to which this subpart applies is each facility that is engaged, either in part

or in whole, in the manufacture of wood furniture or wood furniture components and that is located at a major source of HAP. Facilities at Kimball Office (K.O.) – Jasper Cherry Street, Kimball Hospitality (K.H.) – Jasper 16th Street, and Kimball Office (K.O.) – Jasper 15th Street manufacture wood furniture or wood furniture components. Kimball International, Inc. – 15th Street Contiguous Source is a major source of HAPs.

However, the facilities at Kimball Office (K.O.) – Jasper Cherry Street, identified as SB2A and SB3A, have no applicable requirements under this rule because (a) they do not apply finishes to wood furniture, (b) they do not apply contact adhesives to wood furniture or foam upholstery, (c) they do not apply strippable spray booth coatings, (d) they do not apply materials with spray guns, and (e) they do not perform wash-off operations, as defined in 40 CFR 63.801 and 40 CFR 63, Subpart JJ. The facilities at Kimball Office (K.O.) – Jasper Cherry Street, identified as SB-2A and SB-3A, currently applies a low-HAP hot melt glue mixture (0.2% HAP by weight) to a single surface using roll application methods and then bind veneers and laminates to that surface with the use of a heated press.

Pursuant to 40 CFR 63, Subpart JJ, the wood furniture manufacturing and surface coating operations identified as 1AB, 2A, 3AB, 4AB, 5AB, 6A, 7AB, 8AB, 9AB, 10A, 11AB, 12A, 13A, 14A, 15AB, 16A, 17AB, 18A, 19AB, 20A, 21AB, 22A, 23AB, 24AB, 25A, 26A, 28A, 29A, 29B, 29C, CD-1, MD, MV, T-1, SB-1, SB-2, SB-2A, SB-3, SB-2A, SB-4, SB-5, SB-6, SB-7, SB-8, SB-9, SB-10AB, SB-11, SB-12, SB-13, SB-14, SB-15, SB-16, SB-17, SB-18, SB-19, SB-20, SB-21, SB-23, SB-24, SB-26, SB-32, SB-33, SB-37, DT-22, DT-25, and DT-38 shall comply with the following conditions:

(1) 40 CFR 63.802(a)
(2) 40 CFR 63.803
(3) 40 CFR 63.804(a)
(4) 40 CFR 63.804(b)
(5) 40 CFR 63.804(c)
(6) 40 CFR 63.804(f)
(7) 40 CFR 63.804(g)
(8) 40 CFR 63.805
(9) 40 CFR 63.806
(10) 40 CFR 63.807
(11) Tables 3, 4, and 6 (to Subpart JJ of Part 63)

The provisions of 40 CFR 63, Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63, Subpart JJ.

(q) The metal furniture surface coating operations located at the Kimball Office (K.O.) – Jasper 15th Street plant are subject to the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Metal Furniture (40 CFR 63, Subpart RRRR), promulgated on May 23, 2003. The affected source to which this subpart applies is each facility that applies surface coatings to metal furniture and that is located at a plant site that is a major source of HAP. The Kimball International, Inc. - 15th Street Contiguous Source is a major source of HAP. Spray booths SB-27, SB-28, SB-29, and SB-30 located at Kimball Office (K.O.) – Jasper 15th Street apply surface coatings to metal furniture, and therefore, are part of the “affected source” for this NESHAP. Since these units were constructed prior to April 24, 2002 and were not reconstructed after April 24, 2002, these facilities meet the definition of “an existing affected source” as defined in 40 CFR 63.4882.

Pursuant to 40 CFR 63, Subpart RRRR , the spray booths SB-27, SB-28, SB-29, and SB-30 located at Kimball Office (K.O.) – Jasper 15th Street plant shall comply with the following conditions:

(1) 40 CFR 63.4882
(2) 40 CFR 63.4883(b) and (d)
(3) 40 CFR 63.4890(c)
(4) 40 CFR 63.4891(a)
(5) 40 CFR 63.4900(a) and (b)

(6) 40 CFR 63.4910(c)
(7) 40 CFR 63.4920(a)
(8) 40 CFR 63.4930(a) through (g) and (j)
(9) 40 CFR 63.4931(e)
(10) 40 CFR 63.4940
(11) 40 CFR 63.4941(e)
(12) 40 CFR 63.4942(a)
(13) 40 CFR 63.5764
(14) Tables 3 and 4 (to Subpart RRRR of Part 63)

The provisions of 40 CFR 63 Subpart A - General Provisions apply to the affected source described in this section except when otherwise specified in 40 CFR 63, Subpart RRRR.

(r) The requirements of the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products (40 CFR 63, Subpart MMMM) are not included in this permit for the electronics assembly operations located at the Kimball Electronics, Inc. plant. The operations do not apply surface coatings to metal parts or products, as defined in 40 CFR 63.3881.

(s) The requirements of the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products (40 CFR 63, Subpart PPPP) are not included in this permit for the surface coating operations at this contiguous source. This contiguous source does not apply surface coatings to plastic parts or products.

(t) The requirements of the National Emission Standards for Hazardous Air Pollutants for Semiconductor Manufacturing (40 CFR 63, Subpart BBBBB) are not included in this permit for the electronics assembly operations at the Kimball Electronics, Inc. plant. This plant does not manufacture semiconductors.

State Rule Applicability - Entire Source

326 IAC 1-6-3 (Preventive Maintenance Plan)
The source is subject to 326 IAC 1-6-3.

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))
The four (4) stationary manufacturing plants that comprise this contiguous source were originally issued separate construction and operating permits and were treated as four separate sources for the permits that were issued prior to 1996. In 1996, the four (4) manufacturing plants were determined to be one (1) contiguous source. Permits issued subsequent to the contiguous source determination in 1996 were treated as a modification to this contiguous source.

(a) Pursuant to Part 70 Operating Permit No. T037-7356-00100, issued May 15, 2006, the VOC usage in all surface coating facilities at Kimball Office (K.O.) – Jasper 15th Street plant shall be limited to less than 248 tons per twelve consecutive month period, with compliance determined at the end of each month.

(b) Including limits on fuel inputs to the wood-fired boilers at Kimball Office (K.O.) – Jasper 15th Street, the total source wide emissions of VOC from the facilities at Jasper 15th Street are limited to less than 250 tons per twelve consecutive month period.

(c) Pursuant to Minor Source Modification 037-17478-00100, issued on October 8, 2003, 326 IAC 2-7-10.5(d)(5)(C) (Minor Source Modifications), and 326 IAC 2-2 (Prevention of Significant Deterioration), the woodworking operations baghouse TD4 at Kimball Office (K.O.) – Jasper Cherry Street shall comply with the following limits when the woodworking operation is in operation:

(1) Emissions of PM shall be limited to less than 5.7 pounds per hour;

(2) Emissions of PM_{10} shall be limited to less than 3.42 pounds per hour;

(3) At least 99% control efficiency; and

(4) No visible emissions.

Compliance with these limits render the requirements of 326 IAC 2-2 (PSD) not applicable.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

(a) The surface coating booths located at Kimball Office (K.O.) – Jasper Cherry Street, identified as SB-2A and SB-3A, were constructed prior to 1997. Therefore, 326 IAC 2-4.1 does not apply to these units.

(b) The surface coating booths located at Kimball Hospitality (K.H.) – Jasper 16th Street, identified as 1AB, 2A, 3AB, 4AB, 5AB, 6A, 7AB, 8AB, 9AB, 11AB, 12A, 14A, 15AB, 16A, 17AB, 18A, 19AB, 20A, 21AB, 22A, 23AB, 24AB, 25A, 26A, 27A, 28A, 29A, 29B, and 29C, were constructed prior to 1997. Therefore, 326 IAC 2-4.1 does not apply to these units.

(c) The surface coating booths located at Kimball Hospitality (K.H.) – Jasper 16th Street, identified as emission units 10A and 13A, were constructed after 1997 and their potential to emit HAP is less than ten (10) tons per year of a single HAP or twenty-five (25) tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply to these units.

(d) The surface coating booths located at Kimball Office (K.O.) – Jasper 15th Street, identified as SB-1, SB-3, SB-4, SB-6, SB-7, SB-8, SB-10AB, SB-13, SB-23, SB-24, SB-26, SB-27, SB-28, SB-29, SB-30, SB-32, SB-33, SB-37, DT-22, DT-23, and DT-38, were constructed prior to July 27, 1997. Therefore, 326 IAC 2-4.1 does not apply to these units.

(e) The surface coating booths located at Kimball Office (K.O.) – Jasper 15th Street, identified as SB-2, SB-5, SB-9, SB-12, SB-14, SB-15, SB-16, SB-17, SB-18, SB-19, SB-20, and SB-21, were modified after July 27, 1997, but these modifications do not meet the definition of “Reconstruct a Major Source” in 40 CFR 63.41. Therefore, 326 IAC 2-4.1 does not apply to these units.

(f) The facilities located at Kimball Electronics, Inc., identified as emission units WSU6, WSU7, WSU8, CC2, SS1, SS2, and Econopak I SMT Wavesoldering systems, were constructed prior to July 27, 1997. Therefore, 326 IAC 2-4.1 does not apply to these units.

(g) The facilities located at Kimball Electronics, Inc., identified as emission units CC3, PVA-7, PVA-8, were constructed after July 27, 1997, but their potential to emit HAP is less than ten (10) tons per year of a single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply to these units.

(h) The two (2) PVA 2000 selective conformal coating systems located at Kimball Electronics, Inc., identified as emission units PVA-S-05 and PVA-S-06, were constructed after July 27, 1997, and their potential to emit of a single HAP before limits is greater than ten (10) tons per year. However, pursuant to Minor Source Modification 037-17162-00100, issued on May 28, 2003, the total usage of a single HAP (Toluene) in the two (2) PVA 2000 selective conformal coating systems is limited to less than ten (10) tons per twelve consecutive month period. Therefore, the requirements of 326 IAC 2-4.1 do not apply to these units.

(i) The UV water-based surface coating line located at Kimball Electronics, Inc.,identified as UV-1 and UV-2, were constructed after July 27, 1997, but their potential to emit HAP is less than ten (10) tons per year of a single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply to these units.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit pursuant to 326 IAC 2-7 (Part 70). The potential to emit of VOC is greater than 250 tons per year. Therefore, pursuant to 326 IAC 2-6-3(a)(1), annual reporting is required. An emission statement shall be submitted by

July 1, 2011 and every year thereafter. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 5-1 (Opacity Limitations)
This source is located in Dubois County, Bainbridge Township. This source is subject to the opacity limitations as specified in 326 IAC 5-1-2(2).

326 IAC 6-4 (Fugitive Dust Emissions)
The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
This source is located in Dubois County, Bainbridge Township. There are no facilities located at this source that have the potential to emit greater than twenty-five (25) tons per year of fugitive particulate matter. This source has not added a facility with the potential to emit fugitive particulate matter greater than twenty-five (25) tons per year, which requires a permit as set forth in 326 IAC 2, after December 13, 1985. Therefore, pursuant to 326 IAC 6-5-1, this source is not subject to the requirements of 326 IAC 6-5.

State Rule Applicability – Individual Facilities

State Rule Applicability – Kimball Office (K.O.) – Jasper Cherry Street: Surface Coating

326 IAC 6.5-1-2 (Particulate Emission Limitations)
The source is located in Dubois County and the PTE for particulate matter (PM) for the entire source exceeds one hundred (100) tons per year. Pursuant to 326 IAC 6.5-1-2(a), the allowable PM emission rate from each of the surface coating operations (SB-2A and SB-3A) shall not exceed three-hundredths (0.03) grain per dry standard cubic foot. The dry filters shall be in operation at all times that the surface coating operations are in operation in order to comply with this limit.

326 IAC 6.5-4-17 (County Specific Particulate Emission Limitations: Dubois County)
The surface coating operations located at the Kimball Office (K.O.) – Jasper Cherry Street plant are located in Dubois County but are not specifically listed in 326 IAC 6.5-4-17. Therefore, 326 IAC 6.5-4-17 is not applicable to the surface coating facilities.

326 IAC 6-3 (Particulate Emissions Limitations for Manufacturing Processes)
Since particulate emissions from the surface coating operations are subject to the requirements of 326 IAC 6.5-1, these emission units are exempt from the requirements of 326 IAC 6-3-2, pursuant to 326 IAC 6-3-1(c)(3).

326 IAC 8-1-6 (General Reduction Requirements for VOC Emissions)

(a) The surface coating facility SB-2A, located at Kimball Office (K.O.) – Jasper Cherry Street, was constructed in 1989. The potential to emit for VOC for this facility is less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-1-6 are not applicable.

(b) The surface coating facility SB-3A, located at Kimball Office (K.O.) – Jasper Cherry Street, was constructed in 1987. The potential to emit for VOC for this facility is limited to less than 24.9 tons per year. Therefore, the requirements of 326 IAC 8-1-6 are not applicable.

326 IAC 8-2-12 (Wood Furniture and Cabinet Coating)
The surface coating operations at Kimball Office (K.O.) – Jasper Cherry Street, located in Dubois County, apply functional surface coatings to wood furniture or cabinets. These facilities bond hardwood veneers, softwood veneers and plastic laminates to structural wood panels using hot melt glues and rolling application methods. The facilities were constructed prior to the July 1, 1990 applicability date. Therefore, the requirements of 326 IAC 8-2-12 are not applicable.

326 IAC 8-11 (Wood Furniture Coatings)
Pursuant to 326 IAC 8-11-1, this source is not subject to the requirements of 326 IAC 8-11 because the source is located in Dubois County.

State Rule Applicability – Kimball Office (K.O.) – Jasper Cherry Street: Insignificant Woodworking Operations

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))
Pursuant to Minor Source Modification 037-17478-00100, issued on October 8, 2003, and 326 IAC 2-2 (Prevention of Significant Deterioration), the baghouse located at Kimball Office (K.O.) – Jasper Cherry Street, identified as TD4, shall comply with the following limits when the woodworking operation is in operation:

(a) PM emissions shall be limited to less than 5.7 pounds per hour;

(b) PM_{10} emissions shall be limited to less than 3.42 pounds per hour;

(c) At least 99% control efficiency; and

(d) No visible emissions.

Compliance with these limits makes the requirements of 326 IAC 2-2 (PSD) not applicable to the modifications performed under MSM 037-17478-00100.

326 IAC 2-7-1(21)(G)(xxix) (Insignificant Activities)
Pursuant to 326 IAC 2-7-1(21)(G)(xxix), the woodworking operations located at Kimball Office (K.O.) – Jasper Cherry Street, identified as TD1, TD2, TD3, TD4, TD5, and TD6, and controlled by a baghouse, shall be considered insignificant woodworking operations provided that the baghouse does not exhaust to the atmosphere greater than one hundred twenty-five thousand (125,000) cubic feet per minute, the baghouse does not emit particulate matter with a diameter less than ten (10) microns in excess of three-thousandths (0.003) grain per dry standard cubic feet of outlet air, the opacity from the baghouse does not exceed ten percent (10%), and, the baghouse is in operation at all times that the woodworking equipment is in use.

326 IAC 6.5-1-2 (Particulate Emission Limitations)
(a) The woodworking operations identified as TD1 and TD3, located at Kimball Office (K.O.) – Jasper Cherry Street, are subject to a particulate matter limitation established in 326 IAC 6.5-4-17, concerning nonattainment area particulate limitations. Therefore, the requirements of 326 IAC 6.5-1-2 do not apply to these units.

(b) The woodworking operations located at Kimball Office (K.O.) – Jasper Cherry Street, identified as emission units TD2, TD4, and TD5, are located in Dubois County. Pursuant to 326 IAC 6.5-1-2(a), the allowable PM emission rate from each of the woodworking operations shall not exceed three-hundredths (0.03) grain per dry standard cubic foot of outlet air. The baghouses shall be in operation at all times that the woodworking operations are in operation, in order to comply with this limit.

326 IAC 6.5-4-17 (County Specific Particulate Emission Limitations)
The woodworking operations located at Kimball Office (K.O.) – Jasper Cherry Street, identified as emission units TD1 and TD3, are located in Dubois County and are specifically identified in 326 IAC 6.5-4-17. Pursuant to 326 IAC 6.5-4-17, the particulate matter emissions from the woodworking operations located at Kimball Office (K.O.) – Jasper Cherry Street, identified as emission units TD1 and TD3, shall be limited to a total of two (2) tons per year. The baghouses (TD1 and TD3) shall be in operation at all times that the respective woodworking operations that they control are in operation, in order to comply with this limit.

The woodworking facilities identified as TD2, TD4, TD5, and TD6 are not listed in 326 IAC 6.5-4-17 and are therefore not subject to this rule.

326 IAC 6-3 (Particulate Emissions Limitations for Manufacturing Processes)

(a) The particulate emissions from the woodworking operations, identified as TD1 and TD3, are subject to the requirements of 326 IAC 6.5-4-17. Therefore, these emission units are exempt from the requirements of 326 IAC 6-3-2, pursuant to 326 IAC 6-3-1(c)(3).

(b) The particulate emissions from the woodworking operations, identified as TD2, TD5, and TD6, are subject to 326 IAC 6.5-1-2(a). Therefore, these emissions units are exempt from the requirements of 326 IAC 6-3-2, pursuant to 326 IAC 6-3-1(c)(3).

State Rule Applicability – Kimball Office (K.O.) – Jasper Cherry Street: Boilers

326 IAC 6.5-1-2 (Particulate Emission Limitations)
The 20.5 MMBtu wood-fired boiler (B-1A) and the 16.8 MMBtu/hr natural gas-fired boiler (B-2A) at the Kimball Office (K.O.) – Jasper Cherry Street plant are not subject to the requirements of 326 IAC 6.5-1-2 because these boilers are already regulated under emissions limitations and standards set forth in 326 IAC 6.5-4-17.

326 IAC 6.5-4-17 (County Specific Particulate Emission Limitations: Dubois County)

(a) Pursuant to 326 IAC 6.5-4-17, the particulate matter emissions from the 20.5 MMBtu/hr wood-fired boiler (B-1A) shall not exceed 0.60 pounds per million British thermal units and 6.9 tons per year.

(b) Pursuant to 326 IAC 6.5-4-17, the particulate matter emissions from the 16.8 MMBtu/hr natural gas-fired boiler (B-2A) shall not exceed 0.003 pounds per million British thermal units, 0.01 grains per dry standard cubic foot, and 0.2 tons per year.

326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)
The 20.5 MMBtu wood-fired boiler (B-1A) and the 16.8 MMBtu/hr natural gas-fired boiler (B-2A) at the Kimball Office (K.O.) – Jasper Cherry Street plant are not subject to the requirements of 326 IAC 6-2 because these boilers are already regulated under emissions limitations and standards set forth in 326 IAC 6.5-4-17. These emission units are exempt from 326 IAC 6-2, pursuant to 326 IAC 6-2-1(e).

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)
The 20.5 MMBtu/hr wood-fired boiler and the 16.8 MMBtu/hr natural gas-fired boiler are not subject to the requirements of 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations) because they each have the potential to emit less than twenty-five (25) tons per year of SO_2.

State Rule Applicability – Kimball Hospitality (K.H.) – Jasper 16th Street: Surface Coating

326 IAC 6.5-1-2 (Particulate Emission Limitations)
The source is located in Dubois County and the PTE for particulate matter (PM) for the entire source exceeds one hundred (100) tons per year. Pursuant to 326 IAC 6.5-1-2(a), the allowable PM emission rate from each of the surface coating operations located at the Kimball Hospitality (K.H.) – Jasper 16th Street plant shall not exceed three-hundredths (0.03) grain per dry standard cubic foot. The dry filters, water pans and baffles shall be in operation at all times that the surface coating operations are in operation, in order to comply with this limit.

326 IAC 6.5-4 (County Specific Particulate Emission Limitations: Dubois County)
The surface coating operations located at the Kimball Hospitality (K.H.) – Jasper 16th Street plant are located in Dubois County but are not specifically listed in 326 IAC 6.5-4. This is therefore not applicable to these units.

326 IAC 6-3 (Particulate Emissions Limitations for Manufacturing Processes)
The surface coating operations are subject to a particulate matter limitation established in 326 IAC 6.5-1-2. Therefore, these surface coating operations are exempt from the requirements of 326 IAC 6-3-2, pursuant to 326 IAC 6-3-1(c)(3).

326 IAC 8-1-6 (General Reduction Requirements for VOC Emissions)

(a) The surface coating booths located at Kimball Hospitality (K.H.) – Jasper 16th Street, identified as 2A, 3AB, 4AB, 5AB, 6A, 7AB, 11AB, 12A, 14A, 15AB, 16A, 18A, 19AB, 20A, 21AB, 22A, 23AB, 24AB, 25A, and 26A, were constructed prior to January 1, 1980. Therefore, the requirements of 326 IAC 8-1-6 are not applicable.

(b) The surface coating booths located at Kimball Hospitality (K.H.) – Jasper 16th Street, identified as 10A and 13A, were constructed after July 1, 1990, and are regulated by requirements of 326 IAC 8-2-12. Therefore, the requirements of 326 IAC 8-1-6 are not applicable.

(c) The surface coating booths located at Kimball Hospitality (K.H.) – Jasper 16th Street, identified as 1AB, 8AB, 9AB, 17AB, 28A, 29A, 29B, and 29C, were either constructed or reconstructed after January 1, 1980 and before July 1, 1990, have a potential to emit VOC greater than twenty-five (25) tons per year and are not regulated under another Article 8 rule. Therefore, these spray booths are subject to the requirements of 326 IAC 8-1-6.

All of the spray booths at Kimball Hospitality (K.H.) - Jasper 16th Street are equipped with HVLP guns which, pursuant to 8-2-12, are an acceptable alternative method of application for Air Assisted Airless Spray Application. Pursuant to Part 70 Operating Permit No. T037-7356-00100, issued on May 15, 2006, IDEM determined that compliance with 326 IAC 8-2-12 will serve as BACT for the surface coating operations identified as 1AB, 8AB, 9AB, 17AB, 28A, 29A, 29B, and 29C and located at Kimball Hospitality (K.H.) - Jasper 16th Street. Therefore, utilization of the 326 IAC 8-2-12 compliant methods of application will satisfy the requirements of 326 IAC 8-1-6.

326 IAC 8-2-12 (Wood Furniture and Cabinet Coating)

(a) The surface coating booths located at Kimball Hospitality (K.H.) – Jasper 16th Street, identified as 1AB, 2A, 3AB, 4AB, 5AB, 6A, 7AB, 8AB, 9AB, 11AB, 12A, 14A, 15AB, 16A, 17AB, 18A, 19AB, 20A, 21AB, 22A, 23AB, 24AB, 25A, 26A, 27A, 28A, 29A, 29B, and 29C, are located in Dubois County, apply surface coatings to wood furniture and cabinets and were constructed prior to July 1, 1990. Therefore, pursuant to 326 IAC 8-2-1(a)(3), the requirements of 326 IAC 8-2-12 do not apply.

(b) The surface coating booths located at Kimball Hospitality (K.H.) – Jasper 16th Street, identified as 10A and 13A, are located in Dubois County, apply surface coatings to wood furniture and cabinets, were constructed after July 1, 1990, and have actual emissions of greater than fifteen (15) pounds of VOC per day before add-on controls. Therefore, they are subject to 326 IAC 8-2-12. Pursuant to 326 IAC 8-2-12, with the exception of no more than ten (10) gallons of coating per day used for touch-up and repair operations, the surface coating applied to wood furniture and cabinets shall utilize one (1) of the following application methods:

Airless Spray Application
Air Assisted Airless Spray Application
Electrostatic Spray Application
Electrostatic Bell or Disc Application
Heated Airless Spray Application
Roller Coating
Brush or Wipe Application
Dip-and-Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

326 IAC 8-11 (Wood Furniture Coatings)

Pursuant to 326 IAC 8-11-1, this source is not subject to the requirements of 326 IAC 8-11 because the source is located in Dubois County.

State Rule Applicability – Kimball Hospitality (K.H.) – Jasper 16th Street: Insignificant Woodworking Operations and R&D Booth

326 IAC 2-7-1(21)(G)(xxix) (Insignificant Activities)
Pursuant to 326 IAC 2-7-1(21)(G)(xxix), the woodworking operations located at Kimball Hospitality (K.H.) – Jasper 16th Street, identified as MV, and controlled by a baghouse, shall be considered insignificant woodworking operations provided that: the baghouse does not exhaust to the atmosphere greater than one hundred twenty-five thousand (125,000) cubic feet per minute; the baghouse does not emit particulate matter with a diameter less than ten (10) microns in excess of three-thousandths (0.003) grain per dry standard cubic feet of outlet air; the opacity from the baghouse does not exceed ten percent (10%), and; the baghouse is in operation at all times that the woodworking equipment is in use.

326 IAC 6.5-1-2 (Particulate Emission Limitations)
The woodworking operations located at Kimball Hospitality (K.H.) – Jasper 16th Street are located in Dubois County and the PTE for particulate matter for the entire source exceeds one hundred (100) tons per year.

(a) Pursuant to 326 IAC 6.5-1-2(a), the allowable particulate matter emission rate from the woodworking operations shall not exceed three-hundredths (0.03) grain per dry standard cubic foot of outlet air. The baghouse shall be in operation at all times that the woodworking operations are in operation, in order to comply with this limit.

(b) Pursuant to 326 IAC 6.5-1-2(a), the allowable particulate matter emission rate from the research and development booth (RD1) shall not exceed three-hundredths (0.03) grain per dry standard cubic foot of outlet air. The baghouse shall be in operation at all times that the woodworking operations are in operation, in order to comply with this limit.

326 IAC 6.5-4 (County Specific Particulate Emission Limitations)
The woodworking operations and research and development booth (RD1) located at Kimball Hospitality (K.H.) – Jasper 16th Street are located in Dubois County but are not specifically identified in 326 IAC 6.5-4. Therefore, these facilities are not subject to this rule.

326 IAC 6-3 (Particulate Emissions Limitations for Manufacturing Processes)
The insignificant woodworking operations research and development booth (RD1) are subject to the requirements of 326 IAC 6.5-1-2. Therefore, these operations are exempt from the requirements of 326 IAC 6-3-2, pursuant to 326 IAC 6-3-1(c)(3).

State Rule Applicability – Kimball Hospitality (K.H.) – Jasper 16th Street: Boilers

326 IAC 6.5-1-2 (Particulate Emission Limitations)
(a) The source is located in Dubois County, but the 25.1 MMBtu wood-fired boiler (B-1B) is not listed in 326 IAC 6.5-4. The potential to emit for particulate matter for this entire source is greater than 100 tons per year. The maximum heat input capacity of this boiler is greater than or equal to twenty-five (25) MMBtu/hr but less than or equal to 250 MMBtu/hr. Pursuant to 326 IAC 6.5-1-2(b)(1)(B), the particulate matter emissions from this boiler shall not exceed thirty five hundredths (0.35) pounds per MMBtu of heat input.

(b) The 16.7 MMBtu/hr natural gas-fired boiler (B-2B) is located in Dubois County, but this emission unit is not specifically identified in 326 IAC 6.5-4. This boiler is equipped to burn only natural gas. Pursuant to 326 IAC 6.5-1-2(b)(3), particulate matter emissions from the 16.7 MMBtu per hour boiler (identified as B-2B) shall not exceed 0.01 grain per dry standard cubic foot.

326 IAC 6.5-4 (County Specific Particulate Emission Limitations: Dubois County)
The 25.1 MMBtu per hour wood-fired boiler (B-1B) and the 16.7 MMBtu/hr natural gas-fired boiler (B-2B) located at the Kimball Hospitality (K.H.) – Jasper 16th Street plant are located in Dubois County but are not specifically listed in 326 IAC 6.5-4. Therefore, the requirements of 326 IAC 6.5-4 do not apply.

326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)
The 25.1 MMBtu per hour (B-1B) and 10.7 MMBtu per hour (B-2B) are subject to the requirements of 326 IAC 6.5-1-2. Therefore, these boilers are exempt from 326 IAC 6-2, pursuant to 326 IAC 6-2-1(e).

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)
The 25.1 MMBtu/hr wood-fired boiler and the 16.7 MMBtu/hr natural gas-fired boiler are not subject to the requirements of 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations) because they each have the potential to emit less than twenty-five (25) tons per year of SO_2.

State Rule Applicability - Kimball Office (K.O.) – Jasper 15th Street: Surface Coating

326 IAC 6.5-1-2 (Particulate Emission Limitations)
The source is located in Dubois County and the PTE for particulate matter for the entire source exceeds one hundred (100) tons per year. Pursuant to 326 IAC 6.5-1-2(a) (Particulate Emission Limitations), the allowable PM emission rate from each of the surface coating operations located at the Kimball Office (K.O.) – Jasper 15th Street plant shall not exceed three-hundredths (0.03) grain per dry standard cubic foot. The dry filters, water pans and baffles, and water filtration system shall be in operation at all times that the surface coating operations are in operation, in order to comply with this limit.

326 IAC 6.5-4 (County Specific Particulate Emission Limitations: Dubois County)
The surface coating operations located at the Kimball Office (K.O.) – Jasper 15th Street plant are located in Dubois County but are not specifically listed in 326 IAC 6.5-4. Therefore, 326 IAC 6.5-4 is not applicable to these units.

326 IAC 6-3 (Particulate Emissions Limitations for Manufacturing Processes)
The surface coating operations are subject to a particulate matter limitation established in 326 IAC 6.5-1-2. Therefore, these units are exempt from 326 IAC 6-3-2, pursuant to 326 IAC 6-3-1(c)(3).

326 IAC 8-1-6 (General Reduction Requirements for VOC Emissions)

(a) The surface coating booths located at Kimball Office (K.O.) – Jasper 15th Street, identified as SB-1, SB-3, SB-4, SB-6, SB-8, SB-10AB, SB-11, SB-13, SB-23, SB-24, SB-26, SB-27, SB-30, and DT-25, were constructed prior to January 1, 1980. Therefore, the requirements of 326 IAC 8-1-6 are not applicable.

(b) The surface coating booths located at Kimball Office (K.O.) – Jasper 15th Street, identified as SB-2, SB-5, SB-9, SB-12, SB-14, SB-15, SB-16, SB-17, SB-18, SB-19, SB-20, SB-21, SB-37, DT-22, and DT-38, are regulated by the requirements of 326 IAC 8-2-12. Therefore, the requirements of 326 IAC 8-1-6 are not applicable.

(c) The surface coating booths located at Kimball Office (K.O.) - Jasper 15th Street, identified as SB-28 and SB-29, are regulated by the requirements of 326 IAC 8-2-6. Therefore, the requirements of 326 IAC 8-1-6 are not applicable.

(d) The surface coating booths located at Kimball Office (K.O.) – Jasper 15th Street, identified as SB-7, SB-32, and SB-33, were either constructed or reconstructed after January 1, 1980 and before July 1, 1990 and have a potential to emit VOC greater than twenty-five (25) tons per year. Therefore, these spray booths are subject to the requirements of 326 IAC 8-1-6. The spray booths located at Kimball Office (K.O.) - Jasper 15th Street and identified as SB-7, SB-32, and SB-33 are equipped with HVLP guns which, pursuant to 8-2-12, are an acceptable alternative method of application for Air Assisted Airless Spray Application. Pursuant to Part 70 Operating Permit No. T037-7356-00100, issued on May 15, 2006, IDEM determined that compliance with 326 IAC 8-2-12 will serve as BACT for these surface coating operations. Therefore, utilization of the 326 IAC 8-2-12 compliant methods of application will satisfy the requirements of 326 IAC 8-1-6.

(e) The UV water-based surface coating line located at Kimball Electronics, Inc.,identified as UV-1 and UV-2, was constructed in 2008 and is subject to 326 IAC 8-2-12. The potential to emit VOC is less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-1-6 are not applicable.

326 IAC 8-2-6 (Metal Furniture Coating)

(a) The surface coating booths located at Kimball Office (K.O.) - Jasper 15th Street, identified as SB-27 and SB-30, are located in Dubois County, were constructed prior to January 1, 1980 and apply coatings to metal furniture. Pursuant to 326 IAC 8-2-1(a)(1), the requirements of 326 IAC 8-2-6 do not apply to these facilities.

(b) The surface coating booths located at Kimball Office (K.O.) - Jasper 15th Street, identified as SB-28 and SB-29, are located in Dubois County, were constructed after January 1, 1980, apply coatings to metal furniture and have potential emissions of greater than twenty-five (25) tons per year of VOC. Pursuant to 326 IAC 8-2-6, the Permittee shall not allow the discharge into the atmosphere of any volatile organic compounds (VOC) in excess of three (3) pounds per gallon, excluding water, delivered to the applicator at booths SB-28 and SB-29.

326 IAC 8-2-12 (Wood Furniture and Cabinet Coating)

(a) The surface coating booths located at Kimball Office (K.O.) – Jasper 15th Street, identified as SB-1, SB-3, SB-4, SB-6, SB-7, SB-8, SB-10AB, SB-11, SB-13, SB-23, SB-24, SB-26, SB-32, SB-33, and DT-25, are located in Dubois County, apply surface coatings to wood furniture and cabinets and were constructed prior to July 1, 1990. Therefore, the requirements of 326 IAC 8-2-12 do not apply.

(b) The surface coating booths located at Kimball Office (K.O.) – Jasper 15th Street, identified as SB-2, SB-5, SB-9, SB-12, SB-14, SB-15, SB-16, SB-17, SB-18, SB-19, SB-20, SB-21, SB-37, DT-22, DT-38, UV-1, and UV-2 are located in Dubois County, apply surface coatings to wood furniture and cabinets, were constructed after July 1, 1990, and have actual emissions of greater than fifteen (15) pounds of VOC per day before add-on controls. Therefore, they are subject to 326 IAC 8-2-12. Pursuant to 326 IAC 8-2-12, with the exception of no more than ten (10) gallons of coating per day used for touch-up and repair operations, the surface coating applied to wood furniture and cabinets shall utilize one (1) of the following application methods:

Airless Spray Application
Air Assisted Airless Spray Application
Electrostatic Spray Application
Electrostatic Bell or Disc Application
Heated Airless Spray Application
Roller Coating
Brush or Wipe Application
Dip-and-Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

326 IAC 8-11 (Wood Furniture Coatings)
Pursuant to 326 IAC 8-11-1, this source is not subject to the requirements of 326 IAC 8-11 because the source is located in Dubois County.

State Rule Applicability – Kimball Office (K.O.) – Jasper 15th Street: Insignificant Woodworking Operations

326 IAC 2-7-1(21)(G)(xxix) (Insignificant Activities)
Pursuant to 326 IAC 2-7-1(21)(G)(xxix), the three (3) woodworking operations located at Kimball Office (K.O.) – Jasper 15th Street, identified as MD, CD-1 and T-1, and controlled by a baghouse shall be considered insignificant woodworking operations provided that: the baghouses do not exhaust to the atmosphere greater than one hundred twenty-five thousand (125,000) cubic feet per minute; the baghouses do not emit particulate matter with a diameter less than ten (10) microns in excess of three-thousandths (0.003) grain per dry standard cubic feet of outlet air; the opacity from the baghouses does not exceed ten percent (10%); and, the baghouses are in operation at all times that the woodworking equipment is in use.

326 IAC 6.5-1-2 (Particulate Emission Limitations)
The woodworking operations located at Kimball Office (K.O.) – Jasper 15th Street are located in Dubois County and the PTE for particulate matter for the entire source exceeds one hundred (100) tons per year. Pursuant to 326 IAC 6.5-1-2(a), the allowable PM emission rate from each of the woodworking operations shall not exceed three-hundredths (0.03) grain per dry standard cubic foot of outlet air. The baghouses shall be in operation at all times that the woodworking operations are in operation, in order to comply with this limit.

326 IAC 6.5-4 (County Specific Particulate Emission Limitations)
The woodworking operations located at Kimball Office (K.O.) – Jasper 15th Street are located in Dubois County but are not specifically identified in 326 IAC 6.5-4. These facilities are therefore not subject to the requirements of 326 IAC 6.5-4.

326 IAC 6-3 (Particulate Emissions Limitations for Manufacturing Processes)
The woodworking operations are subject to 326 IAC 6.5-1-2. Therefore, these emission units are exempt from 326 IAC 6-2-2, pursuant to 326 IAC 6-3-1(c)(3).

State Rule Applicability - Kimball Hospitality (K.H.) – Jasper 16th Street: Boilers

326 IAC 6.5-1-2 (County Specific Particulate Emissions Limitations)

(a) The Kimball Hospitality (K.H.) – Jasper 16th Street plant is located in Dubois County, but the 14.3 MMBtu wood-fired boiler (B-1C) is not listed in 326 IAC 6.5-4. The potential to emit for particulate matter for this entire source is greater than one hundred (100) tons per year. The maximum heat input capacity of this boiler is less than twenty-five (25) MMBtu/hr. Pursuant to 326 IAC 6.5-1-2(b)(1)(C), the particulate matter emissions from this boiler shall not exceed six-tenths (0.6) pound per MMBtu of heat input.

(b) The Kimball Hospitality (K.H.) – Jasper 16th Street plant is located in Dubois County, but the 16.8 MMBtu natural gas-fired boiler (B-2C) burning No. 2 fuel oil as emergency backup fuel is not listed in 326 IAC 6.5-4. The potential to emit for particulate matter for this entire source is greater than one hundred (100) tons per year. Pursuant to 326 IAC 6.5-1-2(b)(3), the particulate matter emissions from this boiler shall not exceed one-hundredth (0.01) grain per dry standard cubic feet when burning natural gas. Pursuant to 326 IAC 6.5-1-2(b)(2), the particulate matter emissions from this boiler shall not exceed fifteen-hundredths (0.15) pound per MMBtu heat input when burning No. 2 fuel oil.

326 IAC 6.5-4 (County Specific Particulate Emission Limitations: Dubois County)
The 14.3 MMBtu wood-fired boiler (B-1C) and the 16.8 MMBtu/hr natural gas-fired boiler (B-2C) located at the Kimball Hospitality (K.H.) – Jasper 16th Street plant are located in Dubois County but are not specifically listed in 326 IAC 6.5-4. Therefore, 326 IAC 6.5-4 does not apply to these units.

326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)
The 14.3 MMBtu wood-fired boiler (B-1C) and the 16.8 MMBtu/hr natural gas-fired boiler (B-2C) located at the Kimball Hospitality (K.H.) – Jasper 16th Street plant are subject to the requirements of 326 IAC 6.5-1-2. Therefore, pursuant to 326 IAC 6-2-1(e), these boilers are not subject to the requirements of 326 IAC 6-2.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

(a) The 14.3 MMBtu/hr wood-fired boiler (B-1C) located at the Kimball Hospitality (K.H.) – Jasper 16th Street plant is not subject to the requirements of 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations) because this boiler has the potential to emit less than twenty-five (25) tons per year of SO_2.

(b) The 16.8 MMBtu/hr natural gas-fired boiler (B-2C) located at the Kimball Hospitality (K.H.) – Jasper 16th Street plant is not subject to the requirements of 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations) when burning only natural gas because this boiler has the potential to emit less than twenty-five (25) tons per year of SO_2 when burning only natural gas.

(c) The 16.8 MMBtu/hr natural gas-fired boiler (B-2C) located at the Kimball Hospitality (K.H.) – Jasper 16th Street plant is subject to the requirements of 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

when burning No. 2 fuel oil as emergency backup fuel, because this boiler has the potential to emit greater than twenty-five (25) tons per year of SO_2. Pursuant to 326 IAC 7-1.1 (SO_2 Emissions Limitations), the SO_2 emissions from the 16.8 MMBtu per hour boiler shall not exceed five tenths (0.5) pound per MMBtu heat input when burning No. 2 fuel oil as emergency backup fuel. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

State Rule Applicability - Kimball Hospitality (K.H.) – Jasper 16th Street: Insignificant Activities

326 IAC 4-2 (Incinerators)
Pursuant to 326 IAC 4-2-2, the pyrolysis cleaning furnace BO-3 (an incinerator), shall:

(a) Consist of primary and secondary chambers or the equivalent.

(b) Be equipped with a primary burner unless burning wood products.

(c) Comply with 326 IAC 5-1 and 326 IAC 2.

(d) Be maintained properly as specified by the manufacturer and approved by the commissioner.

(e) Be operated according to the manufacturer's recommendations and only burn waste approved by the commissioner.

(f) Comply with other state and/or local rules or ordinances regarding installation and operation of incinerators.

(g) Be operated so that emissions of hazardous material including, but not limited to, viable pathogenic bacteria, dangerous chemicals or gases, or noxious odors are prevented.

(h) Not emit particulate matter in excess of five-tenths (0.5) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas at standard conditions corrected to fifty percent (50%) excess air.

(i) Not create a nuisance or a fire hazard.

If any of the above result, the burning shall be terminated immediately.

326 IAC 6.5-1-2 (Particulate Emission Limitations)
The source is located in Dubois County, but the individual facilities are not listed in 326 IAC 6.5-4. The potential to emit for particulate matter for this entire source is greater than one hundred (100) tons per year.

(a) Pursuant to 326 IAC 6.5-1-2(c) (Particulate Emissions Limitations), the allowable PM emission rate from the natural gas-fired boiler, identified as UV boiler, shall not exceed one-hundredths (0.01) grain per dry standard cubic foot of outlet air.

326 IAC 6.5-4 (County Specific Particulate Emission Limitations: Dubois County)
The one (1) UV boiler is located in Dubois County but are not specifically listed in 326 IAC 6.5-4. Therefore, 326 IAC 6.5-4 does not apply.

326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Operations)
The UV boiler is subject to the requirements of 326 IAC 6.5-1-2. The UV boiler is exempt from the requirements of 326 IAC 6-3-2, pursuant to 326 IAC 6-3-1(c)(3).

State Rule Applicability - Kimball Electronics, Inc.: Individual Facilities

326 IAC 6.5-1-2 (Particulate Emission Limitations)
The source is located in Dubois County, but the individual facilities are not listed in 326 IAC 6.5-4. The potential to emit for particulate matter for this entire source is greater than one hundred (100) tons per year. Pursuant to 326 IAC 6.5-1-2(a), the particulate matter emissions from the individual facilities located at

Kimball Electronics, Inc., identified as WSU6, WSU7, WSU8, WSU9, CC2, CC3, PVA-S-05, PVA-S-06, PVA-7, PVA-8, SS1, SS2, Milling, PWB, CCU5 and Econopak I SMT Wavesoldering system, shall each not exceed three-hundredths (0.03) grain per dry standard cubic feet.

326 IAC 6.5-4 (County Specific Particulate Emission Limitations: Dubois County)
The individual facilities located at the Kimball Electronics, Inc. plant are located in Dubois County but are not specifically listed in 326 IAC 6.5-4. Therefore, 326 IAC 6.5-4 does not apply.

326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
The emission units identified as WSU6, WSU7, WSU8, WSU9, CC2, CC3, PVA-S-05, PVA-S-06, PVA-7, PVA-8, SS1, SS2, Milling, PWB, CCU5, and Econopak 1 SMT Wavesoldering System are subject to the requirements of 326 IAC 6.5-1-2. Therefore, these emissions units are exempt from the requirements of 326 IAC 6-3-2, pursuant to 326 IAC 6-3-1(c)(3).

326 IAC 8-1-6 (General Reduction Requirements for VOC Emissions)

(a) The facilities located at Kimball Electronics, Inc., identified as WSU6 and WSU7, were constructed prior to January 1, 1980. Therefore, the requirements of 326 IAC 8-1-6 are not applicable.

(b) The facilities located at Kimball Electronics, Inc., identified as WSU8, WSU9, SS1, SS2, SMT Wavesoldering, AQW1, AQW2, AQW3, Meter Mix Dispensing, Pillarhouse 2, RSO1 through RSO9, and EPS, were constructed after January 1, 1980. The potential to emit VOC for each facility is less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-1-6 are not applicable.

(c) The surface coating line located at Kimball Electronics, Inc., identified as CCU5, has potential VOC emissions less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-1-6 are not applicable.

326 IAC 8-2-9 (Miscellaneous Metal and Plastic Parts Coating Operations)

(a) The surface coating line located at Kimball Electronics, Inc., identified as CCU5, located in Dubois County, was constructed after July 1, 1990 and apply coatings to miscellaneous metal and plastic parts. The actual emissions of VOC for each of this facility is less than fifteen (15) pounds per day before add-on controls. Therefore, pursuant to 326 IAC 8-2-1(a)(4), the requirements of 326 IAC 8-2-9 do not apply.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

1. The insignificant woodworking operations have applicable compliance monitoring conditions as specified below:

    (a) Visible emissions from the baghouses shall be observed daily using procedures in accordance with Method 22 and normal or abnormal emissions are recorded. For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut

down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. In the event abnormal emissions are observed for greater than six (6) minutes in duration, the baghouse shall be inspected and corrective actions, such as replacing or reseating bags, shall be initiated, when necessary.

(b) The baghouses for particulate control shall be in operation at all times when the woodworking facilities are in operation.

(c) An inspection shall be performed each calendar quarter of all bags controlling the woodworking operations when venting to the atmosphere. A baghouse inspection shall be performed within three (3) months of redirecting vents to the atmosphere and every three (3) months thereafter. Inspections are optional when venting to the indoors. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

(d) In the event that bag failure has been observed:

(1) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(2) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(3) Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

These monitoring conditions are necessary because the baghouses for the woodworking operations must operate properly to ensure compliance with 326 IAC 2-7-1(21)(G)(xxix) (Insignificant Activities), 326 IAC 6.5-1-2 (Particulate Emission Limitations), 326 IAC 6.5-4-17 (County Specific Particulate Emission Limitations; Dubois County), 326 IAC 2-7 (Part 70), and 40 CFR 64.2 (Compliance Assurance Monitoring (CAM)).

2. The surface coating operations have applicable compliance monitoring conditions as specified below:

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. Daily inspections shall be performed to verify that the water level of the water pans meet the manufacturer’s recommended level. To monitor the performance of the water pans, the water level of the pans shall be maintained weekly at a level where surface agitation indicates impact of the air flow. Water shall be kept free of solids and floating material that reduces the capture efficiency of the water pan. To monitor the performance of the baffles, weekly inspections of the baffle panels shall be conducted to verify placement and configuration meet recommendations of the manufacturer. To monitor the performance of the dry filters, water pans and baffles, weekly observations shall be made of the overspray from the surface coating booth stacks while one (1) or more of the booths are in operation. If a condition exists which should result in a response step, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains

the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stacks and the presence of overspray on the rooftops and the nearby ground. When there is a noticeable change in overspray emissions, or when evidence of overspray emissions is observed, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

These monitoring conditions are necessary because the filters, water pans and baffles for the surface coating operations must operate properly to ensure compliance with 326 IAC 6.5-1-2 (Particulate Emission Limitations) and 326 IAC 2-7 (Part 70).

3. The wood-fired boilers (B-1A, B-1B, B-1C) and the natural gas-fired boiler using No. 2 fuel oil as emergency backup fuel (B-2C) have applicable compliance monitoring conditions as specified below:

(a) Visible emission notations of each wood-fired boiler's stack exhaust shall be performed once per day during normal daylight operations while combusting wood. Visible emission notations of the natural gas-fired boiler (B-2C) stack exhaust shall be performed once per day during normal daylight operations while combusting fuel oil. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

These monitoring conditions are necessary because the boilers must operate properly to ensure compliance with 326 IAC 6.5-1-2 (Particulate Emission Limitations), 326 IAC 6.5-4-17 (County Specific Particulate Emission Limitations; Dubois County), 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), and 326 IAC 2-7 (Part 70).

Recommendation

The staff recommends to the Commissioner that the Part 70 Operating Permit Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on August 13, 2010. Additional information was received on October 28, 2010.

Conclusion

The operation of the four (4) stationary manufacturing plants in a contiguous source, collectively identified as Kimball International, Inc., - 15th Street Contiguous Source, shall be subject to the conditions of the attached Part 70 Operating Permit Renewal No. T037-29558-00100.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Donald McQuigg at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-4240 or toll free at 1-800-451-6027, extension 4-4240.

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/.

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov.

Appendix A: Emission Calculations
Source Wide Emissions Summary

Company Name: Kimball International, Inc. - 15th St. Contiguous Source
Address: 1620 Cherry Street, 1180 East 16th Street, 1037 East 15th Street, and 1038 East 15th Street, Jasper, IN 47549
Part 70 Permit No.: T037-29558-00100
Permit Reviewer: Donald McQuigg
Date: October 1, 2010

Uncontrolled PTE

Process ID/facility	PM	PM_{10}	$PM_{2.5}$	SO_2	NOx	CO	VOC	HAPs	Single HAP	
Woodworking	2240	2240	2240	-	-	-	-	0	0	0
15th Street Metal Coating	83.2	83.2	83.2	-	-	-	88.7	-	-	-
Cherry Street	6.36	6.36	6.36	-	-	-	8.31	2.02	negl	-
15th Street Wood Coating	89.95	89.95	89.95	-	-	-	659.16	-	-	-
Conformal Coating	1.08	1.08	1.08	-	-	-	14.96	-	-	-
16th Street Wood Coating	6.53	6.53	6.53	-	-	-	31.82	-	-	-
UV Coating Process	53.13	53.13	53.13	-	-	-	17.95	3.376	2.06	Butyl Carbitol
Insig sander	173.45	173.45	173.45	-	-	-	-	0	0	0
Insig electronic parts	1.01	1.01	1.01	-	-	-	6.06	0	0	0
Gas Boilers	4.84	4.84	4.84	37.56	51.4	37	2.43	0.78	negl	-
Wood Boilers	109	98.9	85.8	6.56	129	157	4.46	10.06	4.98	HCl
Nat Gas Comb	2.78	2.78	2.78	0.22	36.6	30.7	2.01	0.69	negl	-
Total	2771.33	2761.23	2748.13	44.34	217	224.7	835.86	16.926	7.04	

Controlled/limited PTE

Process ID/facility	PM	PM_{10}	$PM_{2.5}$	SO_2	NOx	CO	VOC	HAPs	Single HAP	
Woodworking	5.39	23.6	23.6	-	-	-	-	0	0	0
15th Street Metal Coating	16.6	16.6	16.6	-	-	-	88.7	-	-	-
Cherry Street	1.27	1.27	1.27	-	-	-	-	2.02	negl	
15th Street Wood Coating	17.99	17.99	17.99	-	-	-	659.16	-	-	-
Conformal Coating	1.08	1.08	1.08	-	-	-	14.96	-	-	-
16th Street Wood Coating	0.19	0.19	0.19	-	-	-	31.82	-	-	-
UV Coating Process	0.53	0.53	0.53	-	-	-	19.95	3.376	2.06	Butyl Carbitol
Insig sander	1.75	1.75	1.75	-	-	-	-	0	0	0
Insig electronic parts	1.01	1.01	1.01	-	-	-	6.06	0	0	-
Gas Boilers	4.84	4.84	4.84	37.56	51.4	37	2.43	0.78	negl	-
Wood Boilers	109	98.9	85.9	6.56	129	157	4.46	10.06	4.98	HCl
Nat Gas Comb	2.78	2.78	2.78	0.22	36.6	30.7	2.01	0.69	negl	-
Total	162.43	170.54	157.54	44.34	217	224.7	829.55	16.926	7.04	

Appendix A: Emission Calculations
Particulate Emissions - Insignificant Woodworking & Milling Operations

Company Name: Kimball International, Inc. - 15th St. Contiguous Source
Address: 1620 Cherry Street, 1180 East 16th Street, 1037 East 15th Street, and 1038 East 15th Street, Jasper, IN 47549
Part 70 Permit No.: T037-29558-00100
Permit Reviewer: Donald McQuigg
Date: October 1, 2010

Location	Control Device ID	Outlet Grain Loading (gr/dscf)	Maximum Air Flow Rate (scfm)	Control Efficiency (%)	PTE of PM/PM_{10} After Control (lbs/hr)	PTE of PM/PM_{10} After Control (tons/yr)	PTE of $PM_{2.5}$ After Control (tons/yr)	PTE of PM/PM_{10} Before Control (lbs/hr)	PTE of PM/PM_{10} Before Control (tons/yr)	PTE of $PM_{2.5}$ Before Control (tons/yr)
Cherry Street	TD1	0.001	70,000	99.0%	0.60	2.63	2.63	60.0	262.8	262.8
Cherry Street	TD2	0.001	50,000	99.0%	0.43	1.88	1.88	42.9	187.7	187.7
Cherry Street	TD3	0.001	14,500	99.0%	0.12	0.54	0.54	12.4	54.4	54.4
Cherry Street	TD4	0.001	63,000	99.0%	0.54	2.37	2.37	54.0	236.5	236.5
Cherry Street	TD5	0.001	62,970	99.0%	0.54	2.36	2.36	54.0	236.4	236.4
16th Street	TD6	0.001	62,970	99.0%	0.54	2.36	2.36	54.0	236.4	236.4
16th Street	BH1(MV)	0.001	78,385	99.0%	0.67	2.94	2.94	67.2	294.3	294.3
15th Street	MD	0.001	76,800	99.0%	0.66	2.88	2.88	65.8	288.3	288.3
15th Street	CD-1	0.001	45,000	99.0%	0.39	1.69	1.69	38.6	168.9	168.9
15th Street	T-1	0.001	61,000	99.0%	0.52	2.29	2.29	52.3	229.0	229.0
Electronics	DC-1	0.010	4,000	95.0%	0.34	1.50	1.50	6.86	30.0	30.0
Electronics	DC-2	0.001	4,000	99.0%	0.03	0.15	0.15	3.43	15.0	15.0
Total					**5.39**	**23.6**	**23.6**	**511**	**2240**	**2,240**

Assume all PM emissions equal PM_{10} emissions.
All control devices are bagouses except for DC-1 (cyclone) and DC-2 (filter cartridge).

Methodology
PTE of PM/PM10 After Control (lbs/hr) = Grain Loading (gr/dscf) x Max. Air Flow Rate (scfm) x 60 (mins/hr) x 1/7000 (lb/gr)
PTE of PM/PM10 After Control (tons/yr) = Grain Loading (gr/dscf) x Max. Air Flow Rate (scfm) x 60 (mins/hr) x 1/7000 (lb/gr) x 8760 (hrs/yr) x 1 ton/2000 lbs
PTE of PM/PM10 Before Control (lbs/hr) = PTE of PM/PM10 After Control (lbs/hr) / (1-Control Efficiency%)
PTE of PM/PM10 Before Control (tons/yr) = PTE of PM/PM10 After Control (tons/yr) / (1-Control Efficiency%)

Appendix A: Emission Calculations
Combustion Emissions from the Natural Gas-fired Space Heaters, Air Makeup Units, Ovens and Water Heaters

Company Name: Kimball International, Inc. - 15th St. Contiguous Source
Address: 1620 Cherry Street, 1180 East 16th Street, 1037 East 15th Street, and 1038 East 15th Street, Jasper, IN 47549
Part 70 Permit No.: T037-29558-00100
Permit Reviewer: Donald McQuigg
Date: October 1, 2010

Description	Total Heat Input Capacity (MMBtu/hr)	Total Max. Potential Throughput (MMCF/yr)
Heaters, Air Make-up Units, Ovens and Water Heaters (39 units)	83.6	732

Pollutant Emission Factors (lbs/MMCF)							
PM*	**PM_{10}***	**$PM_{2.5}$***	**SO_2**	**NO_X****	**CO**	**VOC**	**HAPs**
7.6	7.6	7.6	0.6	100	84.0	5.5	1.89

	Potential To Emit (tons/yr)							
Emission Unit ID	**PM**	**PM_{10}**	**$PM_{2.5}$**	**SO_2**	**NO_X**	**CO**	**VOC**	**HAPs**
Heaters, Air Make-up Units, Ovens and Water Heaters (39 units)	2.78	2.78	2.78	0.22	36.6	30.7	2.01	0.691

*PM and PM_{10} emission factor are for condensable and filterable PM and PM_{10} combined.
**Emission Factors for NOx: Uncontrolled = 100 lbs/MMCF
Emission Factors from AP-42, Chapter 1.4 - Natural Gas Combustion, Tables 1.4-1, 1.4-2, 1.4-3 and 1.4-4. SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03. (AP-42 Supplement D 7/98)

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF - 1,000,000 Cubic Feet of Gas
1000 Btu per cubic foot of natural gas

Methodology
Max. Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 (hrs/yr) x 1 MMCF/1,000 MMBtu
PTE (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF) x 1ton/2000 lbs

Appendix A: Emission Calculations
Combustion Emissions for Wood Fired Boilers

Company Name: Kimball International, Inc. - 15th St. Contiguous Source
Address: 1620 Cherry Street, 1180 East 16th Street, 1037 East 15th Street, and 1038 East 15th Street, Jasper, IN 47549
Part 70 Permit No.: T037-29558-00100
Permit Reviewer: Donald McQuigg
Date: October 1, 2010

Emission Unit Description	Emission Unit ID	Max. Heat Input Capacity (MMBtu/hr
Wood-Fired Boiler (Cherry St.)	B-1A	20.5
Wood-Fired Boiler (16th St.)	B-1B	25.1
Wood-Fired Boiler (15th St.)	B-1C	14.3

Pollutant Emission Factors (lbs/MMBtu)									
PM *	PM_{10} *	$PM_{2.5}$ *	SO_2	NOx	CO	VOC	HAP (metals)	HAP (hydrogen chloride)	HAP (other)
0.417	0.377	0.327	0.025	0.49	0.60	0.017	1.76E-03	1.90E-02	1.76E-02

Potential To Emit (tons/yr)										
Emission Unit ID	PM	PM_{10}	$PM_{2.5}$	SO_2	NO_X	CO	VOC	HAP (metals)	HAP (hydrogen chloride)	HAP (other)
B-1A	37.4	33.9	29.4	2.24	44.0	53.9	1.53	0.16	1.71	1.58
B-1B	45.8	41.4	35.9	2.75	53.9	66.0	1.87	0.19	2.09	1.93
B-1C	26.1	23.6	20.5	1.57	30.7	37.6	1.06	0.11	1.19	1.10
TOTALS	**109**	**98.9**	**85.8**	**6.56**	**129**	**157**	**4.46**	**0.46**	**4.98**	**4.62**
									Total HAPs	**10.06**

* PM and PM10 emission factors are for condensable and filterable PM and PM10 combined.
Emission Factors are from AP-42, Chapter 1.6 - Wood Residue Combustion in Boilers, Tables 1.6-1, 1.6-2, 1.6-3 and 1.6-4 (dry wood)(9/03).
Dry wood has a heat value of 8,000 Btu/lb or 16 MMBtu/ton. (AP-42, Chapter 1.6 - Wood Residue Combustion in Boilers, Page 1.6-1 (9/03)).
HAP emissions from the wood-fired boilers include acetaldehyde, acrolien, arsenic, benzene, chlorine, chromium, formaldehyde,

Methodology
PTE (tons/yr) = Max. Heat Input Capacity (MMBtu/hr) x Emission Factor (lb/MMBtu) x 8760 (hrs/yr) x 1 ton/2000 lbs.

Appendix A: Emission Calculations
Combustion Emissions for Natural Gas Fired Boilers

Company Name: Kimball International, Inc. - 15th St. Contiguous Source
Address: 1620 Cherry St., 1180 East 16th St., 1037 East 15th St., and 1038 East 15th St., Jasper, IN 47549
Part 70 Permit No.: T037-29558-00100
Permit Reviewer: Donald McQuigg
Date: October 1, 2010

Emission Unit Description	Emission Unit ID	Heat Input Capacity (MMBtu/hr	Max. Potential Throughput (MMCF/yr)
Natural Gas-Fired Boiler	B-1A	20.5	180
Natural Gas-Fired Boiler	B-2A	16.8	147
Natural Gas-Fired Boiler	B-1B	25.1	220
Natural Gas-Fired Boiler	B-2B	16.7	146
Natural Gas-Fired Boiler	B-1C	14.3	125
Natural Gas-Fired Boiler	B-2C	16.8	147

Pollutant Emission Factors (lbs/MMCF)							
PM*	**PM_{10}***	$PM_{2.5}$	**SO_2**	**NO_X****	**CO**	**VOC**	**HAPs**
7.6	7.6	7.6	0.6	100	84.0	5.5	1.89

Potential To Emit (tons/yr)								
Emission Unit ID	**PM**	**PM_{10}**	**$PM_{2.5}$**	**SO_2**	**NO_X**	**CO**	**VOC**	**HAPs**
B-1A	0.68	0.68	0.68	0.05	8.98	7.54	0.49	0.17
B-2A	0.56	0.56	0.56	0.04	7.36	6.18	0.40	0.14
B-1B	0.84	0.84	0.84	0.07	10.99	9.23	0.60	0.21
B-2B	0.56	0.56	0.56	0.04	7.31	6.14	0.40	0.14
B-1C	0.48	0.48	0.48	0.04	6.26	5.26	0.34	0.12
B-2C (#2 F.O.)***	1.73	1.73	1.73	37.32	10.51	2.63	0.18	0.003
B-2C (Nat Gas)	0.56	0.56	0.56	0.04	7.36	6.18	0.40	0.14
TOTALS	**4.84**	**4.84**	**4.84**	**37.56**	**51.4**	**37.0**	**2.43**	**0.78**

* PM and PM10 emission factor are for condensable and filterable PM and PM10 combined.
**Emission factors for NOx: Uncontrolled = 100 lb/MMCF
*** Emissions from burning #2 F.O. is worst case and are included instead of emissions from burning natural gas.
Emission factors are from AP-42, Chapter 1.4 - Natural Gas Combustion, Tables 1.4-1, 1.4-2, 1.4-3 and 1.4-4. SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03. (AP-42 Supplement D 7/98)
1 MMBtu = 1,000,000 Btu 1 MMCF = 1,000,000 cubic feet of gas All emission factors are based on normal firing.

Methodology
Max. Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 (hrs/yr) x 1 MMCF/1,000 MMBtu
PTE (tons/yr) = Max. Potential Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2,000 lbs

Appendix A: Emissions Calculations
Potential Emissions from burning #2 Fuel Oil in Boiler B-2C

Company Name: **Kimball International, Inc. - 15th Street Contigious Source**
Address, City IN Zip: **1038 East 15th Street Jasper IN 47549**
Part 70 Permit No.: **T037-29558-00100**
Permit Reviewer: **Donald McQuigg**
Date: **October 28, 2010**

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur
16.8	1051.2	0.5

	Pollutant				
	PM*	SO2	NOx	VOC	CO
Emission Factor in lb/kgal	3.3	71 *(142.0S)*	20.0	0.34	5.0
Potential Emission in tons/yr	1.73	37.32	10.51	0.18	2.63

Methodology

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MMBtu
Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see
*PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.
Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton
See page 2 for HAPs emission calculations.

Appendix A: Emissions Calculations
Potential Emissions from burning #2 Fuel Oil in Boiler B-2C
HAPs Emissions

Company Name: Kimball International, Inc. - 15th Street Contigious Source
Address, City IN Zip: 1038 East 15th Street Jasper IN 47549
Part 70 Permit No.: T037-29558-00100
Permit Reviewer: Donald McQuigg
Date: October 28, 2010

	HAPs - Metals				
	Arsenic	Beryllium	Cadmium	Chromium	Lead
Emission Factor in lb/mmBtu	4.0E-06	3.0E-06	3.0E-06	3.0E-06	9.0E-06
Potential Emission in tons/yr	2.94E-04	2.21E-04	2.21E-04	2.21E-04	6.62E-04
				HAPs	1.62E-03

	HAPs - Metals (continued)				
	Mercury	Manganese	Nickel	Selenium	
Emission Factor in lb/mmBtu	3.0E-06	6.0E-06	3.0E-06	1.5E-05	
Potential Emission in tons/yr	2.21E-04	4.42E-04	2.21E-04	1.10E-03	
				HAPs	1.62E-03
			Total HAPs		3.24E-03

Methodology

No data was available in AP-42 for organic HAPs.
Potential Emissions(tons/year)=Throughput (mmBtu/hr)*Emission Factor (lb/mmBtu)*8,760 hrs/yr/2,000 lb/ton

Appendix A: Emission Calculations

VOC and PM/PM_{10}/$PM_{2.5}$ Emissions: Metal Coating Booths SB-27, SB-28, SB-29, and SB-30

Company Name: Kimball International, Inc. - 15th St. Contiguous Source
Address: 1620 Cherry Street, 1180 East 16th Street, 1037 East 15th Street, and 1038 East 15th Street, Jasper, IN 47549
Part 70 Permit No.: T037-29558-00100
Permit Reviewer: Donald McQuigg
Date: October 1, 2010

							Potential to Emit				
Coating Material	**Density (lbs/gal)**	**Weight % VOC**	**Weight % Solids**	**Actual Usage * (gals/yr)**	**Maximum Usage * (gals/yr)**	**VOC (lbs/gal) Less Water**	**PTE of VOC (tons/yr)**	**PTE of PM/PM_{10} Before Controls (tons/yr)**	**PTE of PM/PM_{10} After Controls (tons/yr)**	**PTE of $PM_{2.5}$ Before Controls (tons/yr)**	**PTE of $PM_{2.5}$ After Controls (tons/yr)**
50-8747 White HSE 401	12.92	21.0%	79.0%	52	97	2.7	0.13	0.12	0.02	0.12	0.02
52-0824 Chamois HSE 403	12.00	19.0%	81.0%	260	487	2.3	0.55	0.59	0.12	0.59	0.12
52-0681 Wallaby HSE 419	13.31	17.0%	83.0%	7228	13529	2.3	15.3	18.68	3.74	18.68	3.74
52-0829 Sandstone HSE 420	12.02	19.3%	80.7%	4576	8565	2.3	9.92	10.39	2.08	10.39	2.08
52-0830 Shadow HSE 425	10.57	25.0%	75.0%	364	681	2.6	0.90	0.68	0.14	0.68	0.14
52-0682 Barley HSE 427	13.31	17.0%	83.0%	9048	16936	2.3	19.2	23.39	4.68	23.39	4.68
52-0680 Tantalum HSE 429	13.31	17.0%	83.0%	156	292	2.3	0.33	0.40	0.08	0.40	0.08
52-0827 Fog HSE 450	11.55	23.0%	77.0%	260	487	2.7	0.65	0.54	0.11	0.54	0.11
18-3249 Environ Gray HSE453	10.64	26.2%	73.8%	156	292	2.8	0.41	0.29	0.06	0.29	0.06
52-0683 Featherstone HSE 459	13.31	17.0%	83.0%	52	97	2.3	0.11	0.13	0.03	0.13	0.03
52-0831 Storm 460	10.87	25.0%	75.0%	104	195	2.7	0.26	0.20	0.04	0.20	0.04
52-0828 Graphite HSE 461	10.07	28.0%	72.0%	1092	2044	2.8	2.88	1.85	0.37	1.85	0.37
52-0825 Cinder HSE 462	9.81	30.0%	70.0%	3900	7300	2.9	10.7	6.27	1.25	6.27	1.25
52-0713 Antique White HSE 480	13.48	17.0%	83.0%	104	195	2.3	0.22	0.27	0.05	0.27	0.05
52-0709 Dark Chocolate HSE 485	13.28	17.0%	83.0%	1456	2725	2.3	3.08	3.75	0.75	3.75	0.75
52-0497B Platinum HSE 501	9.54	29.3%	70.8%	3432	6424	2.8	8.96	5.42	1.08	5.42	1.08
52-0734 Taupe Metallic HSE 504	9.91	26.0%	74.0%	468	876	2.6	1.13	0.80	0.16	0.80	0.16
52-0761 Satin Bronze HSE 505	10.00	27.5%	72.5%	4108	7689	2.8	10.6	6.97	1.39	6.97	1.39
52-0733 Patina Metallic HSE 507	9.91	26.0%	74.0%	1404	2628	2.6	3.39	2.41	0.48	2.41	0.48
						Totals	**88.7**	**83.2**	**16.6**	**83.2**	**16.6**

* Actual Usage as reported by source, based on 4,680 hours of operation per year. Maximum usage scaled up to reflect 8,760 hours of operation per year.
Assume all PM = PM_{10} = $PM_{2.5}$
Assume transfer efficiency of 75% for HVLP spray guns and control efficiency of 80% for dry filters.
Assume all VOC is emitted.

METHODOLOGY

Maximum Usage (gals/yr) = Actual Usage (gals/yr) x 8760 (hrs/yr)/4680 (actual hrs/yr)
VOC (lbs/gal) = Density (lbs/gal) x Weight % VOC (%)
PTE of VOC (tons/yr) = Density (lbs/gal) x Weight % VOC x Maximum Usage (gals/yr) x 1 ton /2000 lbs
PTE of PM/PM_{10}/$PM_{2.5}$ Before Controls (tons/yr)=Density (lbs/gal) x Weight % Solids x Maximum Usage (gals/yr) x 1 ton/2000 lbs x (1-Transfer Efficiency)
PTE of PM/PM_{10}/$PM_{2.5}$ After Controls (tons/yr) = PTE PM/PM_{10} Before Controls (tons/yr) x (1- Control Efficiency)

Appendix A: Emission Calculations
VOC and HAP Emissions: SB-2A and SB-3A Cherry Street

Company Name: Kimball International, Inc. - 15th St. Contiguous Source
Address: 1620 Cherry Street, 1180 East 16th Street, 1037 East 15th Street, and 1038 East 15th Street, Jasper, IN 47549
Part 70 Permit No.: T037-29558-00100
Permit Reviewer: Donald McQuigg
Date: October 1, 2010

Material	Density (lbs/gal)	Weight % Water	Weight % VOC	Weight % Solids	Weight % HAPs	Actual Usage * (gals/yr)	Maximum Usage * (gals/yr)	VOC (lbs/gal)	PTE of VOC (tons/yr)	PTE of HAPs (tons/yr)	PTE of PM/PM_{10} Before Controls (tons/yr)	PTE of PM/PM_{10} After Controls (tons/yr)	PTE of $PM_{2.5}$ Before Controls (tons/yr)	PTE of $PM_{2.5}$ After Controls (tons/yr)
Synteko 1203 Resin	10.83	39.1%	0.22%	60.7%	0.20%	46591	163255	0.02	1.91	1.77	5.37	1.07	5.37	1.07
1441 Improver	9.00	46.0%	4.00%	50.0%	2.00%	808	2832	0.36	0.51	0.25	0.06	0.01	0.06	0.01
Hardener 9519	9.16	39.7%	2.95%	57.3%	0.00%	3629	12715	0.27	1.72	0.00	0.33	0.07	0.33	0.07
Hardener 9524	9.23	43.9%	3.68%	52.6%	0.00%	6995	24512	0.34	4.16	0.00	0.60	0.12	0.60	0.12
								Totals	**8.31**	**2.02**	**6.36**	**1.27**	**6.36**	**1.27**

* Actual Usage as reported by source, based on 2,500 hours of operation per year. Actual usage is scaled up to reflect maximum PTE for 8,760 hours of operation per year.
Assume transfer efficiency of 99% for rolling application and control efficiency of 80% for dry filters.
Assume all VOC is emitted.
Assume all PM = PM_{10} = $PM_{2.5}$

METHODOLOGY
Maximum Usage (gals/yr) = Actual Usage (gals/yr) x 8760 (hrs/yr)/2500 (actual hrs/yr)
VOC (lbs/gal) = Density (lbs/gal) x Weight % VOC (%)
PTE of VOC (tons/yr) = Density (lbs/gal) x Weight % VOC x Maximum Usage (gals/yr) x 1 ton /2000 lbs
PTE of PM/PM10 Before Controls (tons/yr) = Density (lbs/gal) x Weight % Solids x Maximum Usage (gals/yr) x 1 ton/2000 lbs x (1-Transfer Efficiency)
PTE of PM/PM10 After Controls (tons/yr) = PTE PM/PM10 Before Controls (tons/yr) x (1- Control Efficiency)

Appendix A: Emissions Calculations
Potential VOC and Particulate Emissions
From Surface Coating Operations: thirty (30) spray booths at Kimball Office (K.O.)-Jasper 15th St.

Company Name: Kimball International, Inc.- 15th Street Contiguous Source
Address City IN Zip: 1620 Cherry Street, 1180 East 16th Street, 1037 East 15th Street, and 1038 East 15th Street, Jasper, IN 47549
Part 70 Permit No.: T037-29558-00100
Permit Reviewer: Donald McQuigg
Date: October 28, 2010

Product Number	Product Description	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water or Acetone	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
SOLVENT COATINGS & STAINS																
370-C5V-1811A	VINYL WASH COAT	7.4	66.00%	31.70%	34.3%	0.0%	34.00%	0.057	2.53	2.53	0.14	3.46	1.26	0.48	7.44	60%
371-D5V-777	WALNUT SHADE	6.9	97.67%	27.94%	69.7%	0.0%	2.33%	0.117	4.80	4.80	0.56	13.48	4.92	0.43	206.20	60%
371-D5V-779	CORDOVAN STAIN	6.9	98.25%	28.46%	69.8%	0.0%	1.75%	0.549	4.79	4.79	2.63	63.17	23.06	2.00	273.98	60%
373-L5V-2474	VINYL EDGE FILLER	8.1	83.00%	17.64%	65.4%	0.0%	17.00%	0.062	5.31	5.31	0.33	7.87	2.87	0.30	31.22	60%
400-L5V-1095	Wash Coat	7.0	88.48%	0.00%	88.5%	0.0%	11.52%	0.043	6.22	6.22	0.27	6.42	2.34	0.06	53.99	60%
400-L5V-1187	9% Wash Coat	7.0	91.01%	0.00%	91.0%	0.0%	8.99%	2.420	6.38	6.38	15.44	370.46	135.22	2.67	70.97	60%
432-X5V-2329	Rel Stain Reducer	6.7	99.40%	0.27%	99.1%	0.0%	0.60%	0.028	6.59	6.59	0.18	4.35	1.59	0.00	1098.69	60%
434-D5V-1916	Mocha Toner	6.8	96.61%	0.54%	96.1%	0.0%	3.39%	0.277	6.51	6.51	1.80	43.22	15.78	0.13	192.14	60%
434-D5V-2056	Toffee Blackout Toner	6.6	98.50%	32.36%	66.1%	0.0%	1.50%	0.028	4.34	4.34	0.12	2.89	1.05	0.11	289.25	60%
434-D5V-2091	Mocha Cherry Toner	6.8	97.33%	0.30%	97.0%	0.0%	2.67%	0.375	6.55	6.55	2.46	58.95	21.52	0.13	245.30	60%
505-D5V-355	SHADE STAIN	6.6	99.00%	31.93%	67.1%	0.0%	1.00%	0.035	4.44	4.44	0.16	3.73	1.36	0.13	444.00	60%
505-D5V-356A	SHADE STAIN	6.6	99.00%	32.20%	66.8%	0.0%	1.00%	0.117	4.42	4.42	0.52	12.36	4.51	0.45	442.22	60%
505-D5V-361A	SHADE STAIN	6.8	98.21%	2.19%	96.0%	0.0%	1.79%	0.068	6.51	6.51	0.44	10.59	3.86	0.03	363.70	60%
505-D5V-366	Red Shade	6.6	99.24%	29.30%	69.9%	0.0%	0.76%	0.068	4.62	4.62	0.31	7.49	2.73	0.23	608.29	60%
506-D5-17A	M.F. SAP	6.6	99.20%	0.00%	99.2%	0.0%	0.80%	0.020	6.54	6.54	0.13	3.06	1.12	0.00	817.16	60%
506-D5-24	M-12 SAP STAIN	6.7	97.00%	0.00%	97.0%	0.0%	3.00%	0.028	6.47	6.47	0.18	4.27	1.56	0.01	215.66	60%
506-D5-264	VHC WALNUT SAP	6.7	96.56%	0.00%	96.6%	0.0%	3.44%	0.117	6.46	6.46	0.75	18.06	6.59	0.05	187.79	60%
506-D5-314A	VHC CAMBRIDGE SAP STAIN	6.8	93.30%	0.00%	93.3%	0.0%	6.70%	0.040	6.34	6.34	0.25	6.01	2.19	0.03	94.55	60%
506-D5-40B	VHC AMERICAN WALNUT NGR	6.6	98.19%	0.00%	98.2%	0.0%	1.81%	0.167	6.50	6.50	1.09	26.07	9.52	0.04	359.13	60%
506-D5V-1065	DARK WALNUT NGR	6.8	96.60%	0.00%	96.6%	0.0%	3.40%	0.064	6.55	6.55	0.42	10.06	3.67	0.03	192.63	60%
506-D5V-1389	W67 W97 NGR	6.8	95.88%	5.72%	90.2%	0.0%	4.12%	0.150	6.14	6.14	0.92	22.03	8.04	0.18	149.03	60%
506-D5V-2887A	Espresso NGR	6.7	96.14%	0.00%	96.1%	0.0%	3.86%	0.038	6.47	6.47	0.24	5.82	2.13	0.02	167.62	60%
506-D5V-3319	STAIN	6.7	98.00%	0.00%	98.0%	0.0%	2.00%	0.035	6.54	6.54	0.23	5.49	2.00	0.01	326.83	60%
506-D5V-3323A	SAP	6.6	99.00%	0.00%	99.0%	0.0%	1.00%	0.238	6.53	6.53	1.56	37.32	13.62	0.03	653.40	60%
506-D5V-3325	NGR STAIN	6.6	99.00%	0.00%	99.0%	0.0%	1.00%	0.393	6.53	6.53	2.56	61.55	22.47	0.05	653.40	60%
506-D5V-3326	NGR	6.6	98.00%	0.00%	98.0%	0.0%	2.00%	0.326	6.51	6.51	2.12	50.97	18.60	0.08	325.36	60%
506-D5V-3331	STAIN	6.7	67.00%	0.00%	67.0%	0.0%	33.00%	0.097	4.50	4.50	0.43	10.41	3.80	0.37	13.62	60%
506-D5V-3422	CHO2738 Sap Stain	6.6	99.39%	0.00%	99.4%	0.0%	0.61%	0.034	6.57	6.57	0.22	5.36	1.96	0.00	1077.00	60%
506-D5V-3488	A.C. NGR Stain	6.7	98.06%	0.00%	98.1%	0.0%	1.94%	0.466	6.57	6.57	3.06	73.40	26.79	0.11	338.66	60%
506-D5V-3588	M.C. NGR	6.7	97.16%	0.00%	97.2%	0.0%	2.84%	0.487	6.50	6.50	3.17	75.99	27.74	0.16	228.87	60%
506-D5V-3590	M.C. Sap Stain	6.6	98.19%	15.85%	82.3%	0.0%	1.81%	0.556	5.47	5.47	3.04	72.99	26.64	1.14	302.06	60%
506-D5V-3867	Toffee NGR Stain	6.6	98.49%	0.00%	98.5%	0.0%	1.51%	0.314	6.54	6.54	2.05	49.28	17.99	0.06	433.10	60%
506-D5V-3884	C.L. Sap Stain	6.6	99.10%	0.00%	99.1%	0.0%	0.90%	0.434	6.57	6.57	2.85	68.38	24.96	0.05	730.04	60%
506-D5V-3897	G.G. NGR STAIN	6.7	98.35%	0.00%	98.4%	0.0%	1.65%	0.226	6.54	6.54	1.48	35.45	12.94	0.04	396.38	60%
506-D5V-3898	G.G. SAP STAIN	6.7	98.35%	0.00%	98.4%	0.0%	1.65%	0.131	6.54	6.54	0.86	20.52	7.49	0.03	396.38	60%
506-D5V-3900	Toffee Cherry Sap Stain	6.6	98.94%	16.22%	82.7%	0.0%	1.06%	0.563	5.47	5.47	3.08	73.91	26.98	1.13	515.83	60%
506-D5V-3917	Cambridge C.B. NGR Stain	6.8	94.98%	0.00%	95.0%	0.0%	5.02%	0.028	6.43	6.43	0.18	4.38	1.60	0.02	128.09	60%
506-D5V-3957	MAO3019 NGR	6.6	99.24%	0.00%	99.2%	0.0%	0.76%	0.025	6.52	6.52	0.16	3.91	1.43	0.00	857.90	60%
506-D5V-3958	MAO3019 Sap	6.6	99.70%	0.00%	99.7%	0.0%	0.30%	0.039	6.58	6.58	0.25	6.08	2.22	0.00	2193.40	60%
506-D5V-4182	Toffee Cherry Sap	6.6	99.54%	0.00%	99.5%	0.0%	0.46%	0.017	6.56	6.56	0.11	2.60	0.95	0.00	1426.02	60%
506-D5V-4185	XF NGR Stain	6.7	97.31%	0.00%	97.3%	0.0%	2.69%	0.107	6.52	6.52	0.69	16.66	6.08	0.03	242.37	60%
506-D5V-4242	Mocha Cherry Sap Stain	6.6	98.64%	0.00%	98.6%	0.0%	1.36%	0.256	6.55	6.55	1.67	40.16	14.66	0.04	481.60	60%
506-D5V-4246	Mocha Oak Sap Stain	6.7	98.20%	0.00%	98.2%	0.0%	1.80%	0.015	6.54	6.54	0.10	2.39	0.87	0.00	363.34	60%
506-D5V-4295	CL Sap	6.6	99.55%	0.00%	99.6%	0.0%	0.45%	0.028	6.58	6.58	0.18	4.34	1.59	0.00	1462.28	60%

Continued

Appendix A: Emissions Calculations
Potential VOC and Particulate Emissions
From Surface Coating Operations: thirty (30) spray booths at Kimball Office (K.O.)-Jasper 15th St.

Company Name: Kimball International, Inc.- 15th Street Contiguous Source
Address City IN Zip: 1620 Cherry Street, 1180 East 16th Street, 1037 East 15th Street, and 1038 East 15th Street, Jasper, IN 47549
Part 70 Permit No.: T037-29558-00100
Permit Reviewer: Donald McQuigg
Date: October 28, 2010

Product Number	Product Description	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water or Acetone	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
506-D5V-627	WHEAT NGR	6.6	99.00%	0.00%	99.0%	0.0%	1.00%	0.016	6.54	6.54	0.10	2.43	0.89	0.00	654.39	60%
506-G5V-3423	Green Bleach Stain	6.6	99.85%	0.00%	99.9%	0.0%	0.15%	0.032	6.59	6.59	0.21	4.98	1.82	0.00	4393.40	60%
508-D5V-801	SHADE	6.6	99.00%	30.97%	68.0%	0.0%	1.00%	0.176	4.51	4.51	0.79	19.03	6.95	0.65	451.04	60%
542-C5-1439	542 CLEAR WIPE STAIN	7.0	82.47%	0.00%	82.5%	0.0%	17.53%	0.519	5.79	5.79	3.00	72.11	26.32	1.12	33.03	60%
542-D5-1337A	VHC M-73 STAIN	7.1	80.03%	0.00%	80.0%	0.0%	19.97%	0.022	5.65	5.65	0.12	2.98	1.09	0.05	28.29	60%
542-D5-1354A	HC W-97 & W-67 STAIN	7.3	74.11%	0.00%	74.1%	0.0%	25.89%	0.148	5.44	5.44	0.80	19.26	7.03	0.49	21.01	60%
542-D5-1506	VIENNA CHERRY WIPE STAIN	7.2	80.00%	0.00%	80.0%	0.0%	20.00%	0.043	5.73	5.73	0.25	5.91	2.16	0.11	28.64	60%
542-D5V-1339B	STAIN	7.3	78.00%	0.00%	78.0%	0.0%	22.00%	0.432	5.66	5.66	2.44	58.66	21.41	1.21	25.70	60%
542-D5V-1360B	M-12 Stain	7.5	71.24%	0.00%	71.2%	0.0%	28.76%	0.101	5.35	5.35	0.54	12.97	4.73	0.38	18.60	60%
542-D5V-1827A	FORMAL WALNUT GLAZE	7.7	67.00%	0.00%	67.0%	0.0%	33.00%	0.022	5.17	5.17	0.11	2.73	1.00	0.10	15.65	60%
542-D5V-1975	GLAZE	7.5	69.28%	0.00%	69.3%	0.0%	30.72%	0.055	5.21	5.21	0.29	6.88	2.51	0.22	16.96	60%
542-D5V-2345	WIPE STAIN	7.5	74.00%	0.00%	74.0%	0.0%	26.00%	0.457	5.52	5.52	2.52	60.55	22.10	1.55	21.23	60%
542-D5V-2355	STAIN	7.6	70.00%	0.00%	70.0%	0.0%	30.00%	0.055	5.29	5.29	0.29	6.99	2.55	0.22	17.64	60%
542-D5V-2458A	Mocha Wipe Stain	7.9	63.04%	0.00%	63.0%	0.0%	36.96%	0.157	4.98	4.98	0.78	18.71	6.83	0.80	13.47	60%
542-D5V-2543	Toffee Wipe Stain	7.3	76.43%	0.00%	76.4%	0.0%	23.57%	0.181	5.61	5.61	1.02	24.37	8.89	0.55	23.80	60%
542-D5V-2554	G.G. Wipe Stain	7.6	71.05%	0.00%	71.1%	0.0%	28.95%	0.127	5.40	5.40	0.68	16.43	6.00	0.49	18.65	60%
542-D5V-2558	Expresso Walnut Wipe Stain	8.0	64.28%	0.00%	64.3%	0.0%	35.72%	0.026	5.11	5.11	0.13	3.22	1.18	0.13	14.31	60%
542-D5V-2559	Cambridge C.B. Wipe Stain	7.8	67.10%	0.00%	67.1%	0.0%	32.90%	0.101	5.20	5.20	0.52	12.57	4.59	0.45	15.81	60%
542-D5V-2770	Mocha Cherry Wipe Stain	7.5	71.98%	0.00%	72.0%	0.0%	28.02%	0.221	5.37	5.37	1.19	28.45	10.38	0.81	19.16	60%
830-68P5V-1842	REL PLAZ	7.8	69.40%	0.00%	69.4%	0.0%	30.60%	0.459	5.43	5.43	2.49	59.74	21.80	1.92	17.74	60%
830-P5V-2024	Modified Cat. Rel-Plaz Sealer	7.7	66.36%	7.00%	59.4%	0.0%	33.64%	0.359	4.57	4.57	1.64	39.40	14.38	1.97	13.59	60%
830-PJ5-1240	CATALYST	9.1	39.95%	0.00%	40.0%	0.0%	60.05%	0.203	3.62	3.62	0.73	17.63	6.44	1.93	6.03	60%
831-C5V-207	Cat. LF Rel-Viron Tiecoat	7.4	74.42%	0.00%	74.4%	0.0%	25.58%	5.405	5.50	5.50	29.73	713.41	260.40	17.90	21.50	60%
HIGH SOLIDS PAINTS																
18-0090	BLACK HIGH SOLIDS ENAMEL	11.0	19.00%	0.00%	19.0%	0.0%	81.00%	0.821	2.09	2.09	1.72	41.27	15.06	12.84	2.58	60%
52-1531	510 Silver Frost Metallic	9.3	34.12%	0.00%	34.1%	0.0%	65.88%	0.089	3.18	3.18	0.28	6.78	2.48	0.96	4.83	60%
50-8747	401 White H.S.E.	12.8	23.32%	0.00%	23.3%	0.0%	76.68%	0.021	2.99	2.99	0.06	1.49	0.54	0.36	3.90	60%
52-0829	P420 SANDSTONE HS	12.0	19.28%	0.00%	19.3%	0.0%	80.72%	0.602	2.32	2.32	1.40	33.48	12.22	10.23	2.87	60%
52-0825	P462 CINDER	9.8	30.00%	0.00%	30.0%	0.0%	70.00%	0.371	2.94	2.94	1.09	26.19	9.56	4.46	4.20	60%
52-0828	P461	10.1	28.00%	0.00%	28.0%	0.0%	72.00%	0.017	2.82	2.82	0.05	1.15	0.42	0.22	3.92	60%
WATER BASED COATINGS																
941041	427 Barley Waterbase	9.5	59.86%	43.52%	16.3%	50.0%	40.14%	0.020	3.10	1.55	0.03	0.74	0.27	0.28	3.86	60%
941058	405 Designer White Waterbase	10.8	49.99%	36.49%	13.5%	50.0%	50.01%	0.078	2.91	1.45	0.11	2.70	0.99	1.26	2.90	60%
941050	419 Wallaby Waterborne	10.1	54.61%	39.37%	15.2%	50.0%	45.39%	0.035	3.08	1.54	0.05	1.29	0.47	0.53	3.39	60%
941047	488 Frosty White Waterborne	10.0	55.74%	40.55%	15.2%	50.0%	44.26%	0.015	3.03	1.52	0.02	0.55	0.20	0.22	3.43	60%
941043	403 Chamois Waterbase	9.8	57.38%	41.70%	15.7%	50.0%	42.62%	0.015	3.06	1.53	0.02	0.55	0.20	0.22	3.59	60%
941059M	503 Satin Nickel Waterbase	8.7	67.24%	48.66%	18.6%	50.0%	32.76%	0.020	3.22	1.61	0.03	0.77	0.28	0.25	4.91	60%
941038M	501 Platinum Waterbase	8.7	67.44%	47.64%	19.8%	50.0%	32.56%	0.040	3.43	1.71	0.07	1.65	0.60	0.49	5.27	60%
941039	480 Antique White Waterbase	10.5	51.85%	37.77%	14.1%	50.0%	48.15%	0.022	2.95	1.48	0.03	0.78	0.28	0.35	3.07	60%
941037	425 Shadow Waterbase	9.6	59.13%	42.98%	16.2%	50.0%	40.87%	0.039	3.09	1.54	0.06	1.45	0.53	0.55	3.78	60%
941035	420 Sandstone Waterbase	9.7	57.74%	42.02%	15.7%	50.0%	42.26%	0.029	3.06	1.53	0.04	1.05	0.38	0.41	3.62	60%
941034	461 Graphite Waterbase	8.8	65.87%	47.85%	18.0%	50.0%	34.13%	0.028	3.18	1.59	0.04	1.05	0.38	0.35	4.65	60%
941033	462 Cinder Watebase	8.7	67.64%	48.87%	18.8%	50.0%	32.36%	0.022	3.25	1.62	0.04	0.86	0.31	0.27	5.02	60%
941032M	505 Satin Bronze Waterbase	8.7	66.12%	49.11%	17.0%	50.0%	33.88%	0.026	2.97	1.49	0.04	0.91	0.33	0.32	4.39	60%

Continued

Appendix A: Emissions Calculations
Potential VOC and Particulate Emissions
From Surface Coating Operations: thirty (30) spray booths at Kimball Office (K.O.)-Jasper 15th St.

Company Name: Kimball International, Inc.- 15th Street Contiguous Source
Address City IN Zip: 1620 Cherry Street, 1180 East 16th Street, 1037 East 15th Street, and 1038 East 15th Street, Jas
Part 70 Permit No.: T037-29558-00100
Permit Reviewer: Donald McQuigg
Date: October 28, 2010

Product Number	Product Description	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water or Acetone	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
SOLVENTS																
506-X65VT-2	LOW GRAIN BASE	6.5	100.00%	0.00%	100.0%	0.0%	0.00%	0.248	6.54	6.54	1.62	38.85	14.18	0.00	0.00	0%
ACETONE	Acetone	6.7	100.00%	100.00%	0.0%	0.0%	0.00%	0.884	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%
MINERAL SPIRITS	Mineral Spirits	6.5	100.00%	0.00%	100.0%	0.0%	0.00%	0.078	6.54	6.54	0.51	12.24	4.47	0.00	0.00	0%
VM&P NAPHTHA	VM & P Naphtha	6.3	100.00%	0.00%	100.0%	0.0%	0.00%	0.116	6.26	6.26	0.72	17.35	6.33	0.00	0.00	0%
UV COATINGS																
601-D5V-567	Universal W/B Pre-Filler	13.3	0.67%	50.0%	0.7%	50.0%	99.33%	0.075	0.18	0.09	0.01	0.16	0.06	0.00	0.09	100%
680-50L5W-727C	50 Sheen W/B UV Topcoat	8.8	4.46%	50.0%	4.5%	50.0%	95.54%	2.848	0.78	0.39	1.11	26.67	9.74	10.43	0.41	90%
680-50L5W-783A	Hand Spray 50 Sheen W/B UV	8.7	4.70%	50.0%	4.7%	50.0%	95.30%	0.062	0.82	0.41	0.03	0.61	0.22	0.23	0.43	90%
680-F5W-769	Flat W/B UV Topcoat	8.8	4.64%	50.0%	4.6%	50.0%	95.36%	0.135	0.82	0.41	0.06	1.33	0.48	0.50	0.43	90%
680-HL5W-768	Full Gloss W/B UV Topcoat	8.7	4.59%	50.0%	4.6%	50.0%	95.41%	0.092	0.80	0.40	0.04	0.88	0.32	0.34	0.42	90%
972-30C5W-1033A	30 Sheen RC Topcoat	9.3	0.65%	0.00%	0.7%	0.0%	99.35%	0.078	0.06	0.06	0.00	0.11	0.04	0.00	0.06	100%
972-30C5W-1048	30 Sheen UV Edge Coat	9.4	0.74%	0.00%	0.7%	0.0%	99.26%	0.038	0.07	0.07	0.00	0.06	0.02	0.00	0.07	100%
972-30C5W-1111	30 Sheen RC Topcoat	9.3	0.65%	0.00%	0.7%	0.0%	99.35%	0.061	0.06	0.06	0.00	0.09	0.03	0.00	0.06	100%

Note: The calculation was based on the calendar year 2009 usage of each type of material.
Actual 2009 hours of operation were 8 hours per day x 5 days per week X 50 weeks per year = 2000 hours per year
Panel filters for particulate overspray control have 80.0% control efficiency.

Potential Emissions

Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)
118.93	**2854.40**	**1041.86**	**89.47**
	Controlled Particulate Emissi		**2.59**

METHODOLOGY
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Appendix A: Emissions Calculations
Potential VOC and Particulate Emissions
From Surface Coating Operations: twenty-nine (29) spray booths at Kimball Hospitality (K.H.)-Jasper 16th St.

Company Name: Kimball International, Inc.- 15th Street Contiguous Source
Address City IN Zip: 1180 E. 16th Street, Jasper, IN 47549
Part 70 Permit No.: T037-29558-00100
Permit Reviewer: Donald McQuigg
Date: February 22, 2011

Product Number	Product Description	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water or Acetone	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
SOLVENT COATINGS & STAINS																
422-C5V-1171	High Solids Lacquer Sealer	7.7	72.51%	0.00%	72.51%	0.0%	27.49%	0.0005	5.56	5.56	0.00	0.06	0.01	0.00	20.23	60%
B50WZ1	Off White Metal Primer	12.9	25.50%	0.00%	25.50%	0.0%	74.50%	0.0009	3.28	3.28	0.00	0.07	0.01	0.02	4.41	60%
B54W101-SW1233	Elite Gray Enamel	8.9	41.60%	0.00%	41.60%	0.0%	58.40%	0.0005	3.68	3.68	0.00	0.04	0.01	0.00	6.30	60%
B54W101-SW4026	Slate Gray Enamel	8.9	41.53%	0.00%	41.53%	0.0%	58.47%	0.0014	3.68	3.68	0.00	0.12	0.02	0.01	6.29	60%
B54Y37	Industrial Enamel, S. Yellow	8.6	43.10%	0.00%	43.10%	0.0%	56.90%	0.0090	3.72	3.72	0.03	0.80	0.15	0.08	6.53	60%
CL2536	SPRAY BOOTH PEEL COAT	7.5	74.25%	53.50%	20.75%	0.0%	79.25%	0.0248	1.56	1.56	0.04	0.93	0.17	0.26	1.97	60%
CRESTLITE#44	Rich Pale Gold Powder Coat	22.5	0.00%	0.00%	0.00%	0.0%	100.00%	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%
CRESTLITE#623	Aluminum Powder Coat	22.5	0.00%	0.00%	0.00%	0.0%	100.00%	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%
D64BC24	SHADING BASE	8.3	45.00%	0.00%	45.00%	0.0%	55.00%	0.0005	3.74	3.74	0.00	0.04	0.01	0.00	6.80	60%
D64NC34	BURNT SIENNA SHADE	11.2	28.60%	0.00%	28.60%	0.0%	71.40%	0.0001	3.19	3.19	0.00	0.00	0.00	0.00	4.47	60%
D64NC36	shading base	11.2	29.00%	0.00%	29.00%	0.0%	71.00%	0.0001	3.23	3.23	0.00	0.01	0.00	0.00	4.55	60%
D80 N H61	Sher-Wood filler, safford	14.6	17.50%	0.00%	17.50%	0.0%	82.50%	0.0018	2.56	2.56	0.00	0.11	0.02	0.04	3.10	60%
D80 T H14	transparent filler	13.7	20.40%	0.00%	20.40%	0.0%	79.60%	0.0351	2.79	2.79	0.10	2.35	0.43	0.67	3.51	60%
D80TH500	WATERBASED FILLER	14.1	3.00%	0.00%	3.00%	0.0%	97.00%	0.0009	0.42	0.42	0.00	0.01	0.00	0.02	0.44	60%
E63XXW6178-1286	Surface Primer	10.2	44.70%	3.00%	41.70%	0.0%	58.30%	0.0014	4.24	4.24	0.01	0.14	0.03	0.01	7.27	60%
P63B1	VINYL BASECOAT	7.3	87.31%	3.00%	84.31%	0.0%	15.69%	0.0113	6.11	6.11	0.07	1.65	0.30	0.02	38.96	60%
P63BXN1438-1286	Brown Vinyl Basecoat	7.0	97.30%	0.00%	97.30%	0.0%	2.70%	0.0086	6.81	6.81	0.06	1.40	0.26	0.00	252.26	60%
P63BXN1440-1286	Brown Vinyl Basecoat	7.0	97.80%	0.00%	97.80%	0.0%	2.20%	0.0009	6.81	6.81	0.01	0.15	0.03	0.00	309.40	60%
P63BXN1943-1286	TONER	7.5	84.00%	8.00%	76.00%	0.0%	24.00%	0.0009	5.73	5.73	0.01	0.12	0.02	0.00	23.88	60%
P63BXN2045-1286	Brown Vinyl Basecoat	6.9	99.20%	13.80%	85.40%	0.0%	14.60%	0.0005	5.86	5.86	0.00	0.06	0.01	0.00	40.13	60%
P63BXN2161-1286	Brown Basecoat	7.7	81.50%	6.30%	75.20%	0.0%	24.80%	0.0014	5.80	5.80	0.01	0.19	0.03	0.00	23.38	60%
P63BXN2258-1286	Brown Basecoat	7.0	96.80%	12.50%	84.30%	0.0%	15.70%	0.0063	5.87	5.87	0.04	0.89	0.16	0.01	37.37	60%
P63BXN2268-1286	BASECOAT	7.9	75.30%	0.30%	75.00%	0.0%	25.00%	0.0014	5.96	5.96	0.01	0.19	0.04	0.00	23.82	60%
P63BXN2297-1286	40653-CL1 Toner	6.9	97.50%	0.00%	97.50%	0.0%	2.50%	0.0099	6.77	6.77	0.07	1.61	0.29	0.00	270.66	60%
P63BXN2393-1286	40663	6.9	97.60%	13.00%	84.60%	0.0%	15.40%	0.0032	5.87	5.87	0.02	0.44	0.08	0.01	38.12	60%
P63BXN2537-1286	21079-CL1 Blockout	6.9	98.10%	13.40%	84.70%	0.0%	15.30%	0.0009	5.85	5.85	0.01	0.13	0.02	0.00	38.25	60%
P63BXN2617-1286	Vinyl Basecoat Toner	7.0	96.30%	0.00%	96.30%	0.0%	3.70%	0.0045	6.75	6.75	0.03	0.73	0.13	0.00	182.45	60%
P63BXN5115-1286	Vinyl Basecoat	7.1	94.30%	11.40%	82.90%	0.0%	17.10%	0.0162	5.89	5.89	0.10	2.29	0.42	0.03	34.42	60%
P63BXY2260-1286	BASECOAT	8.4	68.25%	0.00%	68.25%	0.0%	31.75%	0.0005	5.74	5.74	0.00	0.06	0.01	0.00	18.08	60%
P63BXY2261-1286	BASECOAT	8.3	69.20%	0.00%	69.20%	0.0%	30.80%	0.0005	5.74	5.74	0.00	0.06	0.01	0.00	18.65	60%
P63E2	BASECOAT ORANGE	7.6	74.57%	0.00%	74.57%	0.0%	25.43%	0.0005	5.69	5.69	0.00	0.06	0.01	0.00	22.37	60%
P63N1738-1286	NO WIPE	6.9	97.80%	13.00%	84.80%	0.0%	15.20%	0.0077	5.89	5.89	0.05	1.08	0.20	0.01	38.72	60%
P63N2185-1286	BLOCKOUT	7.3	88.00%	9.00%	79.00%	0.0%	21.00%	0.0063	5.80	5.80	0.04	0.88	0.16	0.02	27.61	60%
P63N5	BASECOAT BURNT UMBER	7.6	77.85%	0.00%	77.85%	0.0%	22.15%	0.0144	5.94	5.94	0.09	2.05	0.38	0.04	26.82	60%
P63R2263-1286	BASECOAT	7.9	72.00%	0.00%	72.00%	0.0%	28.00%	0.0009	5.71	5.71	0.01	0.12	0.02	0.00	20.39	60%
P63R2264-1286	BASECOAT	7.6	77.30%	2.00%	75.30%	0.0%	24.70%	0.0005	5.69	5.69	0.00	0.06	0.01	0.00	23.02	60%
P63R6	BASECOAT SCARLET	7.4	80.54%	0.00%	80.54%	0.0%	19.46%	0.0005	5.96	5.96	0.00	0.06	0.01	0.00	30.63	60%
P63R7	VINYL BASECOAT	7.5	75.43%	0.00%	75.43%	0.0%	24.57%	0.0005	5.68	5.68	0.00	0.06	0.01	0.00	23.12	60%
P63R8	RED OXIDE BASECOAT	8.4	68.45%	0.00%	68.45%	0.0%	31.55%	0.0005	5.75	5.75	0.00	0.06	0.01	0.00	18.22	60%
P63W2300-1286	BLOCKOUT	7.2	88.00%	39.00%	49.00%	0.0%	51.00%	0.0014	3.52	3.52	0.00	0.11	0.02	0.01	6.90	60%
P63W9	VINYL BASECOAT	9.0	63.89%	0.00%	63.89%	0.0%	36.11%	0.0158	5.77	5.77	0.09	2.18	0.40	0.09	15.98	60%
P63Y10	BASECOAT	7.3	82.90%	0.00%	82.90%	0.0%	17.10%	0.0009	6.06	6.06	0.01	0.13	0.02	0.00	35.44	60%
P63Y11	BASECOAT	8.5	67.00%	0.00%	67.00%	0.0%	33.00%	0.0014	5.70	5.70	0.01	0.18	0.03	0.01	17.28	60%
P65TXN1719-1286	EDGE FILLER	7.6	70.79%	12.00%	58.79%	0.0%	41.21%	0.0032	4.47	4.47	0.01	0.34	0.06	0.02	10.84	60%
PERENOL E-2	PERENOL E-2 (1898234)	7.7	6.00%	0.00%	6.00%	0.0%	94.00%	0.0014	0.46	0.46	0.00	0.01	0.00	0.02	0.49	60%
S61B500	UNIVERSAL DYE STAIN	9.0	72.96%	0.00%	72.96%	0.0%	27.04%	0.0002	6.56	6.56	0.00	0.04	0.01	0.00	24.26	60%

continued

Note: The calculation was based on the calendar year 2010 usage of each type of material.
Actual 2010 hours of operation were 2,220 hours per year
Panel filters for particulate overspray control have 80.0% control efficiency.

Potential Emissions

Assume all PM = PM_{10} = $PM_{2.5}$

Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)
0.92	**22.06**	**4.03**	**1.45**
	Controlled Particulate Emissions =		**0.04**

Appendix A: Emissions Calculations
Potential VOC and Particulate Emissions
From Surface Coating Operations: twenty-nine (29) spray booths at Kimball Hospitality (K.H.)-Jasper 16th St.

Company Name: Kimball International, Inc.- 15th Street Contiguous Source
Address City IN Zip: 1180 E. 16th Street, Jasper, IN 47549
Part 70 Permit No.: T037-29558-00100
Permit Reviewer: Donald McQuigg
Date: February 22, 2011

Product Number	Product Description	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water or Acetone	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
S61E501	UNIVERSAL DYE STAIN	8.7	58.00%	0.00%	58.00%	0.0%	42.00%	0.0005	5.02	5.02	0.00	0.05	0.01	0.00	11.95	60%
S61EH47	Light Cherry NGR Stain	6.7	98.60%	0.00%	98.60%	0.0%	1.40%	0.0041	6.60	6.60	0.03	0.64	0.12	0.00	471.17	60%
S61N2302-1286	NGR	7.0	98.27%	12.00%	86.27%	0.0%	13.73%	0.0288	6.01	6.01	0.17	4.16	0.76	0.05	43.79	60%
S61N502	UNIVERSAL DYE STAIN	8.7	58.00%	0.00%	58.00%	0.0%	42.00%	0.0005	5.02	5.02	0.00	0.05	0.01	0.00	11.95	60%
S61R503	UNIVERSAL DYE STAIN	8.7	70.00%	0.00%	70.00%	0.0%	30.00%	0.0005	6.09	6.09	0.00	0.07	0.01	0.00	20.30	60%
S61XXB500-1286	Black Dye Stain	9.0	73.00%	0.00%	73.00%	0.0%	27.00%	0.0009	6.56	6.56	0.01	0.14	0.03	0.00	24.31	60%
S61XXG2636-1286	Green Dye Stain	6.6	99.80%	0.00%	99.80%	0.0%	0.20%	0.0273	6.60	6.60	0.18	4.31	0.79	0.00	3298.39	60%
S61XXN1130-1286	Dye Stain	6.7	99.00%	0.00%	99.00%	0.0%	1.00%	0.0009	6.58	6.58	0.01	0.14	0.03	0.00	658.35	60%
S61XXN1139-1286	Dye Stain	6.7	98.00%	0.00%	98.00%	0.0%	2.00%	0.0426	6.58	6.58	0.28	6.72	1.23	0.01	328.79	60%
S61XXN2340-1286	DYE STAIN	6.8	98.00%	0.00%	98.00%	0.0%	2.00%	0.0108	6.64	6.64	0.07	1.72	0.31	0.00	332.22	60%
S61XXN2352-1286	Brown Dye Stain	6.7	98.30%	0.00%	98.30%	0.0%	1.70%	0.0045	6.61	6.61	0.03	0.71	0.13	0.00	388.57	60%
S61XXN2457-1286	NGR	6.7	99.00%	0.00%	99.00%	0.0%	1.00%	0.0014	6.63	6.63	0.01	0.22	0.04	0.00	663.30	60%
S61XXN2482-1286	NGR	6.8	98.00%	0.00%	98.00%	0.0%	2.00%	0.0041	6.62	6.62	0.03	0.64	0.12	0.00	331.24	60%
S61XXN2530-1286	7701-CL1 NGR, flexcel	6.7	98.60%	0.00%	98.60%	0.0%	1.40%	0.0234	6.63	6.63	0.16	3.72	0.68	0.00	473.28	60%
S61XXN2575-1286	40695-CL1 NGR	6.6	99.70%	0.00%	99.70%	0.0%	0.30%	0.0036	6.59	6.59	0.02	0.57	0.10	0.00	2196.72	60%
S61XXN2590-1286	NGR	6.8	99.00%	0.00%	99.00%	0.0%	1.00%	0.0032	6.70	6.70	0.02	0.51	0.09	0.00	670.23	60%
S61XXN2593-1286	NGR	6.7	99.00%	0.00%	99.00%	0.0%	1.00%	0.0009	6.60	6.60	0.01	0.14	0.03	0.00	660.33	60%
S61XXN2597-1286	DYE STAIN	6.6	99.00%	0.00%	99.00%	0.0%	1.00%	0.0005	6.55	6.55	0.00	0.07	0.01	0.00	655.38	60%
S61XXN2601-1286	Dye Stain	6.6	99.20%	0.00%	99.20%	0.0%	0.80%	0.0014	6.59	6.59	0.01	0.21	0.04	0.00	823.36	60%
S61XXN2635-1286	Brown Dye Stain	6.6	99.70%	0.00%	99.70%	0.0%	0.30%	0.0009	6.60	6.60	0.01	0.14	0.03	0.00	2200.05	60%
S61XXN2640-1286	NGR	6.7	99.00%	0.00%	99.00%	0.0%	1.00%	0.0027	6.60	6.60	0.02	0.43	0.08	0.00	660.33	60%
S61XXN2641-1286	7703 SAP	6.7	99.00%	0.00%	99.00%	0.0%	1.00%	0.0041	6.62	6.62	0.03	0.64	0.12	0.00	662.31	60%
S61XXN2653-1286	NGR	6.8	97.00%	0.00%	97.00%	0.0%	3.00%	0.0140	6.57	6.57	0.09	2.20	0.40	0.00	218.90	60%
S61XXN2689-1286	Brown Dye Stain	6.9	96.80%	0.00%	96.80%	0.0%	3.20%	0.0032	6.66	6.66	0.02	0.50	0.09	0.00	208.12	60%
S61XXN2728-1286	DYE STAIN	6.7	99.00%	45.00%	54.00%	0.0%	46.00%	0.0005	3.63	3.63	0.00	0.04	0.01	0.00	7.89	60%
S61XXN2772-1286	Dye Stain	6.7	98.70%	0.00%	98.70%	0.0%	1.30%	0.0005	6.61	6.61	0.00	0.07	0.01	0.00	508.68	60%
S61XXN4684-1286	NGR Stain	6.6	99.30%	0.00%	99.30%	0.0%	0.70%	0.0027	6.59	6.59	0.02	0.43	0.08	0.00	941.93	60%
S61XXN6145-1286	WALNUT	6.7	98.30%	0.00%	98.30%	0.0%	1.70%	0.0054	6.58	6.58	0.04	0.85	0.16	0.00	386.84	60%
S61Y504	UNIVERSAL DYE STAIN	8.5	70.00%	0.00%	70.00%	0.0%	30.00%	0.0016	5.95	5.95	0.01	0.22	0.04	0.01	19.83	60%
S64N1170-1286	1310002246	7.4	75.00%	0.00%	75.00%	0.0%	25.00%	0.0099	5.54	5.54	0.05	1.32	0.24	0.03	22.17	60%
S64N1171-1286	WIPE STAIN	7.7	56.90%	0.00%	56.90%	0.0%	43.10%	0.0014	4.36	4.36	0.01	0.14	0.03	0.01	10.11	60%
S64N1663-1286	DARK CHERRY	7.4	73.70%	0.00%	73.70%	0.0%	26.30%	0.0095	5.48	5.48	0.05	1.24	0.23	0.03	20.82	60%
S64N1701-1286	WIPE STAIN	8.5	55.00%	0.00%	55.00%	0.0%	45.00%	0.0027	4.68	4.68	0.01	0.30	0.06	0.02	10.39	60%
S64N1739-1286	WIPE STAIN	7.2	79.00%	0.00%	79.00%	0.0%	21.00%	0.0023	5.70	5.70	0.01	0.31	0.06	0.01	27.12	60%
S64N1888-1286	WIPE STAIN	7.7	59.20%	0.00%	59.20%	0.0%	40.80%	0.0009	4.55	4.55	0.00	0.10	0.02	0.00	11.14	60%
S64XXN1681-1286	Brown Wiping Stain	7.8	66.70%	7.10%	59.60%	0.0%	40.40%	0.0009	4.62	4.62	0.00	0.10	0.02	0.00	11.43	60%
S64XXN1888-1286	3429-CL1 Wipestain	7.4	65.86%	0.00%	65.86%	0.0%	34.14%	0.0000	4.90	4.90	0.00	0.00	0.00	0.00	14.35	60%
S64XXN1977-1286	Wipe Stain	8.5	55.00%	1.30%	53.70%	0.0%	46.30%	0.0023	4.56	4.56	0.01	0.25	0.05	0.02	9.86	60%
S64XXN2013-1286	SUMMIT	6.7	90.50%	0.00%	90.50%	0.0%	9.50%	0.0063	6.10	6.10	0.04	0.92	0.17	0.01	64.21	60%
S64XXN2036-1286	Brown Wiping Stain	7.1	81.70%	0.90%	80.80%	0.0%	19.20%	0.0009	5.71	5.71	0.01	0.12	0.02	0.00	29.75	60%
S64XXN2155-1286	WIPE STAIN	7.3	78.10%	0.00%	78.10%	0.0%	21.90%	0.0054	5.69	5.69	0.03	0.74	0.13	0.02	26.00	60%
S64XXN2572-1286	WIPE STAIN	7.0	77.00%	0.00%	77.00%	0.0%	23.00%	0.0018	5.40	5.40	0.01	0.23	0.04	0.01	23.47	60%
S64XXN2584-1286	Brown Wiping Stain	7.0	83.60%	0.00%	83.60%	0.0%	16.40%	0.0279	5.84	5.84	0.16	3.92	0.71	0.06	35.63	60%
S64XXN2715-1286	WIPESTAIN	7.0	85.90%	2.00%	83.90%	0.0%	16.10%	0.0000	5.85	5.85	0.00	0.00	0.00	0.00	36.32	60%
S64XXN4080-1286	WIPE	7.0	82.60%	0.00%	82.60%	0.0%	17.40%	0.0018	5.81	5.81	0.01	0.25	0.05	0.00	33.37	60%
S65N1812-1286	FLEXCEL SHADE	6.9	96.00%	16.00%	80.00%	0.0%	20.00%	0.0689	5.55	5.55	0.38	9.18	1.68	0.17	27.76	60%
S65R1798-1286	SHADE	7.1	89.00%	31.00%	58.00%	0.0%	42.00%	0.0090	4.09	4.09	0.04	0.88	0.16	0.05	9.74	60%

continued

Note: The calculation was based on the calendar year 2010 usage of each type of material.
Actual 2010 hours of operation were 2,220 hours per year
Panel filters for particulate overspray control have 80.0% control efficiency.

Potential Emissions

Assume all PM = PM_{10} = $PM_{2.5}$

Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)
2.10	**50.37**	**9.19**	**0.52**
	Controlled Particulate Emissions =		**0.02**

Appendix A: Emissions Calculations
Potential VOC and Particulate Emissions
From Surface Coating Operations: twenty-nine (29) spray booths at Kimball Hospitality (K.H.)-Jasper 16th St.

Company Name: Kimball International, Inc.- 15th Street Contiguous Source
Address City IN Zip: 1180 E. 16th Street, Jasper, IN 47549
Part 70 Permit No.: T037-29558-00100
Permit Reviewer: Donald McQuigg
Date: February 22, 2011

Product Number	Product Description	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water or Acetone	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
S65R1800-1286	SHADE	6.9	93.90%	31.00%	62.90%	0.0%	37.10%	0.0086	4.34	4.34	0.04	0.89	0.16	0.04	11.70	60%
S66T30	Kemvar Natural Glaze	7.4	65.60%	0.00%	65.60%	0.0%	34.40%	0.0140	4.84	4.84	0.07	1.62	0.30	0.06	14.07	60%
S66XXB2188-1286	Black Routline Glaze	6.9	79.90%	0.00%	79.90%	0.0%	20.10%	0.0005	5.50	5.50	0.00	0.06	0.01	0.00	27.35	60%
S66XXN2224-1286	POWDER GLAZE	8.7	61.00%	0.00%	61.00%	0.0%	39.00%	0.0027	5.31	5.31	0.01	0.34	0.06	0.02	13.61	60%
S66XXW2189-1286	Routline Glaze	8.3	61.30%	0.00%	61.30%	0.0%	38.70%	0.0006	5.06	5.06	0.00	0.07	0.01	0.00	13.08	60%
T67F3	VINYL SEALER	7.4	75.77%	0.00%	75.77%	0.0%	24.23%	0.0068	5.63	5.63	0.04	0.91	0.17	0.02	23.23	60%
T67FH46	SEALER	7.5	65.40%	6.00%	59.40%	0.0%	40.60%	0.1703	4.47	4.47	0.76	18.25	3.33	0.91	11.00	60%
T69CH16	Vinyl Washcoat	7.1	87.90%	18.20%	69.70%	0.0%	30.30%	0.1486	4.93	4.93	0.73	17.61	3.21	0.56	16.29	60%
T77F36	BRIGHT CAT LACQUER	7.7	70.35%	6.00%	64.35%	0.0%	35.65%	0.0023	4.94	4.94	0.01	0.27	0.05	0.01	13.84	60%
T77FH104	Catalyzed Lacquer, 70 Sheen	7.7	65.00%	12.80%	52.20%	0.0%	47.80%	0.0000	4.04	4.04	0.00	0.00	0.00	0.00	8.44	60%
T77XXC5625-1286	Acrylic Top Coat	7.6	71.80%	0.00%	71.80%	0.0%	28.20%	0.0338	5.48	5.48	0.19	4.44	0.81	0.13	19.43	60%
V66 V 21	Sher-Wood Kemvar catalyst	8.0	63.80%	0.00%	63.80%	0.0%	36.20%	0.0135	5.11	5.11	0.07	1.66	0.30	0.07	14.12	60%
V66V22	PRE CAT CATALYST	8.8	50.00%	0.00%	50.00%	0.0%	50.00%	0.0009	4.38	4.38	0.00	0.09	0.02	0.01	8.75	60%
V81FH9	WHITE VARNISH	7.8	58.00%	0.00%	58.00%	0.0%	42.00%	0.0207	4.50	4.50	0.09	2.24	0.41	0.12	10.72	60%
V84F86	WHITE VARNISH	7.8	56.64%	0.00%	56.64%	0.0%	43.36%	0.1689	4.43	4.43	0.75	17.96	3.28	1.00	10.22	60%
V84FH112	WHITE VARNISH	7.9	57.28%	0.00%	57.28%	0.0%	42.72%	0.0063	4.52	4.52	0.03	0.68	0.12	0.04	10.58	60%
V84FH113	WHITE VARNISH	8.0	57.00%	45.00%	12.00%	0.0%	88.00%	0.0270	0.96	0.96	0.03	0.63	0.11	0.33	1.10	60%
V84V80	VARNISH	7.9	56.45%	0.00%	56.45%	0.0%	43.55%	0.0658	4.46	4.46	0.29	7.04	1.28	0.40	10.24	60%
V84VH18	VARNISH	7.9	57.00%	0.00%	57.00%	0.0%	43.00%	0.0045	4.49	4.49	0.02	0.48	0.09	0.03	10.43	60%
V84XXC2527-1286	TOPCOAT	8.0	58.40%	0.00%	58.40%	0.0%	41.60%	0.0032	4.64	4.64	0.01	0.35	0.06	0.02	11.16	60%
V84XXC2528-1286	TOPCOAT	8.0	58.00%	0.00%	58.00%	0.0%	42.00%	0.0027	4.64	4.64	0.01	0.30	0.05	0.02	11.05	60%
V84XXC2626-1286	TOPCOAT	8.0	58.00%	5.00%	53.00%	0.0%	47.00%	0.0032	4.22	4.22	0.01	0.32	0.06	0.02	8.99	60%
V84XXC2649-1286	TOPCOAT	8.0	58.00%	5.00%	53.00%	0.0%	47.00%	0.0014	4.22	4.22	0.01	0.14	0.03	0.01	8.99	60%
V84XXC2671-1286	TOPCOAT	8.0	58.00%	5.00%	53.00%	0.0%	47.00%	0.0063	4.21	4.21	0.03	0.64	0.12	0.04	8.96	60%
V84XXC2691-1286	TOPCOAT	8.0	64.00%	5.00%	59.00%	0.0%	41.00%	0.0034	4.70	4.70	0.02	0.38	0.07	0.02	11.45	60%
V84XXC2699-1286	TOPCOAT	8.0	58.00%	5.00%	53.00%	0.0%	47.00%	0.0032	4.21	4.21	0.01	0.32	0.06	0.02	8.96	60%
V84XXC2726-1286	flexcel Top Coat	7.9	59.90%	0.00%	59.90%	0.0%	40.10%	0.0018	4.76	4.76	0.01	0.21	0.04	0.01	11.86	60%
SOLVENTS																
ACETONE	Acetone	6.7	100.00%	100.00%	0.00%	0.0%	0.00%	0.4971	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
HC-508	Lacquer Thinner	6.7	100.00%	34.50%	65.50%	0.0%	0.00%	0.0653	4.38	4.38	0.29	6.87	1.25	0.66	0.00	N/A
R1K4	MINERAL SPIRITS	6.4	100.00%	0.00%	100.00%	0.0%	0.00%	0.0577	6.35	6.35	0.37	8.79	1.60	0.00	0.00	N/A
R1KA2	140 FLASH NAPHTHA	6.5	100.00%	0.00%	100.00%	0.0%	0.00%	0.0108	6.50	6.50	0.07	1.69	0.31	0.00	0.00	N/A
R6K21	HAPS COMP DYE STAIN REDUCER	6.6	100.00%	0.00%	100.00%	0.0%	0.00%	0.0248	6.60	6.60	0.16	3.92	0.72	0.00	0.00	N/A
R6KH18	Butyl Acetate	7.3	100.00%	0.00%	100.00%	0.0%	0.00%	0.0158	7.31	7.31	0.12	2.77	0.50	0.00	0.00	N/A

Note: The calculation was based on the calendar year 2010 usage of each type of material.
Actual 2010 hours of operation were 2,220 hours per year
Panel filters for particulate overspray control have 80.0% control efficiency.

Potential Emissions

Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)
4.25	**101.93**	**18.60**	**4.56**
	Controlled Particulate Emissions =		**0.13**

Assume all PM = PM_{10} = $PM_{2.5}$

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Appendix A: Emissions Calculations

VOC and Particulate Emissions

From P.V.A. Coaters #1 and #2 Kimball Electronics, Inc. Surface Coating Operations (CCU5)

Company Name: **Kimball International, Inc. - 15th Street Contigious Source**

Address City IN Zip: **1038 East 15th Street Jasper IN 47549**

Part 70 Permit No.: **T037-29558-00100**

Permit Reviewer: **Donald McQuigg**

Date: **October 28, 2010**

POTENTIAL TO EMIT FROM COATERS OF LINE # 104

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Humiseal 1B73	7.67	70.00%	0.0%	70.0%	0.0%	30.00%	0.00445	60.000	5.37	5.37	1.43	34.40	6.28	1.08	17.90	60%
Humiseal Thinner	7.34	100.00%	0.0%	100.0%	0.0%	0.00%	0.00450	60.000	7.34	7.34	1.98	47.56	8.68	0.00	-	60%
Potential Emissions			**Add worst case coating to all solvents**								**3.42**	**81.97**	**14.96**	**1.08**		

Assume all PM = PM_{10} = $PM_{2.5}$

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

Appendix A: Emissions Calculations
VOC and Particulate Emissions
From UV Process Surface Coating Operations (UV-1 and UV-2)

Company Name: Kimball International, Inc. - 15th Street Contigious Source
Address City IN Zip: 1038 East 15th Street Jasper IN 47549
Part 70 Permit No.: T037-29558-00100
Permit Reviewer: Donald McQuigg
Date: October 28, 2010

UV PROCESS VOC PTE

UNIT ID	PRODUCT NUMBER	PRODUCT DESCRIPTION	Max Usage gal/hr	Density lb/gal	VOC wt %	VOC lb/hr	VOC ton/yr	HAPs wt %	HAPs lb/hr	HAPs ton/yr
UV-1	680-50L5W-642	50 Sheen W/B UV T/C	3.81	8.76	12.00	4.01	17.54	2.203	0.74	3.220
UV-1	680-50L5W643	70 Sheen W/B UV T/C	0.13	8.74	3.98	0.05	0.20	2.217	0.03	0.110
UV-2	972-30C5W-1033	30 Sheen UV RC T/C	0.38	9.28	0.62	0.02	0.10	0.030	0.00	0.005
UV-2	972-C5W-1007	W/W RC UV Sealer	0.13	9.46	1.20	0.01	0.06	0.710	0.01	0.038
UV-2	972-30C5W-1048	UV Edge Top Coat	0.13	9.43	0.74	0.01	0.04	0.035	0.00	0.002
					TOTAL	4.10	17.94	**TOTAL**	0.77	3.376

UV PROCESS PM PTE

					PM BEFORE CONTROL				PM AFTER CONTROL		
UNIT ID	PRODUCT NUMBER	PRODUCT DESCRIPTION	Max Usage gal/hr	Density lb/gal	Solids wt %	PM lb/hr	PM ton/yr	$PM_{2.5}$ ton/yr	Control Efficiency*	PM lb/hr	PM ton/yr
UV-1	680-50L5W-642	50 Sheen W/B UV T/C	3.81	8.76	35.16	11.7349	51.3987	51.3987	99.00	0.1173	0.5140
UV-1	680-50L5W643	70 Sheen W/B UV T/C	0.13	8.74	34.83	0.3957	1.7333	1.7333	99.00	0.0040	0.0173
UV-2	972-30C5W-1033	30 Sheen UV RC T/C	0.38	9.28	99.38	0.0000	0.0000	0.0000	100.00	0.0000	0.0000
UV-2	972-C5W-1007	W/W RC UV Sealer	0.13	9.46	98.71	0.0000	0.0000	0.0000	100.00	0.0000	0.0000
UV-2	972-30C5W-1048	UV Edge Top Coat	0.13	9.43	99.26	0.0000	0.0000	0.0000	100.00	0.0000	0.0000
					Total	12.1306	53.1320	53.1320	**Total**	0.1213	0.5313

* Kimball Office indicated that the spray system filters for the UV-1 Coating Line are 99% efficient for PM and the roll coaters for the UV-2 coating line are 100% efficient

Assume all PM = PM_{10} = $PM_{2.5}$

METHODOLOGY

Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)

Appendix A: Emissions Calculations

HAPs Emissions from UV Process Surface Coating Operations (UV-1 and UV-2)

Company Name: Kimball International, Inc. - 15th Street Contigious Source
Address City IN Zip: 1038 East 15th Street Jasper IN 47549
Part 70 Permit No.: T037-29558-00100
Permit Reviewer: Donald McQuigg
Date: October 28, 2010

Individual HAPs PTE

Unit ID	PRODUCT DESCRIPTION	Max gal/hr	Density lb/gal	Xylene wt %	Xylene lb/hr	Xylene ton/yr	Cumene wt %	Cumene lb/hr	Cumene ton/yr	Toluene wt %	Toluene lb/hr	Toluene ton/yr
UV-1	50 Sheen W/B UV T/C	3.81	8.76	0.000	0.0000	0.0000	0.000	0.0000	0.0000	0.000	0.0000	0.0000
UV-1	70 Sheen W/B UV T/C	0.13	8.74	0.000	0.0000	0.0000	0.000	0.0000	0.0000	0.000	0.0000	0.0000
UV-2	30 Sheen UV RC T/C	0.38	9.28	0.017	0.0006	0.0026	0.007	0.0002	0.0011	0.005	0.0002	0.0008
UV-2	W/W RC UV Sealer	0.13	9.46	0.027	0.0003	0.0015	0.011	0.0001	0.0006	0.031	0.0004	0.0017
UV-2	UV Edge Top Coat	0.13	9.43	0.020	0.0002	0.0011	0.008	0.0001	0.0004	0.005	0.0001	0.0003
				TOTAL	0.0012	0.0052	**TOTAL**	0.0005	0.0021	**TOTAL**	0.0006	0.0027

Unit ID	PRODUCT DESCRIPTION	Max Use lb/hr	Density lb/gal	Ethyl Benzene wt%	Ethyl Benzene lb/hr	Ethyl Benzene ton/yr	Triethyl amine wt%	Triethyl amine lb/hr	Triethyl amine ton/yr	Butyl Carbitol wt%	Butyl Carbitol lb/hr	Butyl Carbitol ton/yr
UV-1	50 Sheen W/B UV T/C	3.81	8.76	0.000	0.0000	0.0000	0.843	0.2814	1.2323	1.361	0.4542	1.9896
UV-1	70 Sheen W/B UV T/C	0.13	8.74	0.000	0.0000	0.0000	0.852	0.0097	0.0424	1.365	0.0155	0.0679
UV-2	30 Sheen UV RC T/C	0.38	9.28	0.001	0.0000	0.0002	0.000	0.0000	0.0000	0.000	0.0000	0.0000
UV-2	W/W RC UV Sealer	0.13	9.46	0.002	0.0000	0.0001	0.000	0.0000	0.0000	0.000	0.0000	0.0000
UV-2	UV Edge Top Coat	0.13	9.43	0.002	0.0000	0.0001	0.000	0.0000	0.0000	0.000	0.0000	0.0000
				TOTAL	0.0001	0.0004	**TOTAL**	0.2910	1.2747	**TOTAL**	0.4698	2.0575

Total HAPs PTE

UNIT ID	PRODUCT DESCRIPTION	Max Use lb/hr	Density lb/gal	Xylene ton/yr	Cumene ton/yr	Toluene ton/yr	Ethyl Benzene ton/yr	Triethyl amine ton/yr	Butyl Carbitol ton/yr	TOTAL HAPs	
UV-1	50 Sheen W/B UV T/C	3.81	8.76	0.0000	0.0000	0.0000	0.0000	1.2323	1.9896	3.2219	
UV-1	70 Sheen W/B UV T/C	0.13	8.74	0.0000	0.0000	0.0000	0.0000	0.0424	0.0679	0.1103	
UV-2	30 Sheen UV RC T/C	0.38	9.28	0.0026	0.0011	0.0008	0.0002	0.0000	0.0000	0.0046	
UV-2	W/W RC UV Sealer	0.13	9.46	0.0015	0.0006	0.0017	0.0001	0.0000	0.0000	0.0038	
UV-2	UV Edge Top Coat	0.13	9.43	0.0011	0.0004	0.0003	0.0001	0.0000	0.0000	0.0019	
				0.0052	0.0021	0.0027	0.0004	1.2747	2.0575	**3.3426**	**TOTAL**

METHODOLOGY

Potential HAP Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential HAP Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/
Potential HAP Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Appendix A: Emissions Calculations

PM and VOC Emissions from Kimball Electronics Insignificant Operations

Company Name: Kimball International, Inc. - 15th Street Contigious Source
Address City IN Zip: 1038 East 15th Street Jasper IN 47549
Part 70 Permit No.: T037-29558-00100
Permit Reviewer: Donald McQuigg
Date: October 28, 2010

Insignificant Activity: Electronic Parts Processing

					PM PTE			VOC PTE			HAPs PTE		
Unit ID	**Product #**	**Product Description**	**Max gal/hr**	**Density lb/gal**	**Solids wt %**	**PM lbs/hr**	**PM tons/yr**	**Wt % VOC**	**VOC lbs/hr**	**VOC tons/yr**	**Wt % HAPs**	**HAPs lbs/hr**	**HAPs tons/yr**
WSU9	WF9942	Lead free wave solder and fluxer	0.11	6.95	10.0%	0.0765	0.335	90.0%	0.688	3.014	0.0%	0.0	0.0
WSU10	WF9942	Lead free wave solder and fluxer	0.11	6.95	10.0%	0.0765	0.335	90.0%	0.688	3.014	0.0%	0.0	0.0
CCU5	Dow 31953	Conformal Coating	0.01	8.26	95.0%	0.0785	0.344	4.5%	0.004	0.016	0.0%	0.0	0.0
CCU5	OS-30	Cleaner for conformal coating	0.0004	7.10	0.0%	0.0000	0.000	100.0%	0.003	0.012	0.0%	0.0	0.0
					Total PM PTE		**1.013**	**Total VOC PTE**		**6.056**	**Total HAPs PTE**		**0.0**

Assume all PM = PM_{10} = $PM_{2.5}$

METHODOLOGY

PM emissions (tons/yr) = Max Rate (gal/hr)* Density (lb/gal)* Solids content (wt%)*(8760 hrs/yr)/(2000 lbs/ton)
VOC emissions (tons/yr) = Max Rate (gal/hr)* Density (lb/gal)* VOC content (wt%)*(8760 hrs/yr)/(2000 lbs/ton)

Appendix A: Emissions Calculations

PM Emissions from Sanding/Scuffing Operations (UV-DC-1)

Company Name: Kimball International, Inc. - 15th Street Contigious Source
Address City IN Zip: 1038 East 15th Street Jasper IN 47549
Part 70 Permit No.: T037-29558-00100
Permit Reviewer: Donald McQuigg
Date: October 28, 2010

Unit ID	Unit Name	Process Controlled UV-D1	Max. Use lb/hr	*Control Efficiency	PTE PM Captured lb/hr	PTE PM Emitted lb/hr	PTE PM Captured lb/yr	PTE PM Emitted lb/yr	PTE PM Captured ton/yr	PTE PM Emitted ton/yr
UV-DC-1	Torit DFO 360	Sanding & Scuffing	40.00	99.00%	39.60	0.40	346,896	3,504.00	173.45	**1.75**

METHODOLOGY

uncontrolled emissions (lb/hr) = (amount collected lbs/hr)/(controll efficiency)
controlled emissions (lb/hr) = (uncontrolled emissions lb/hr)*(1-control efficiency)
uncontrolled emissions (tons/yr) = uncontrolled emissions (lb/hr)*(8760 hrs/yr)/(2000 lbs/ton)
controlled emissions (tons/yr) = controlled emissions (lb/hr)*(8760 hrs/yr)/(2000 lbs/ton)

Appendix A: Emissions Calculations
Potential Emissions from Pyrolysis Furnance

Company Name: **Kimball International, Inc. - 15th Street Contigious Source**
Address City IN Zip: **1038 East 15th Street Jasper IN 47549**
Part 70 Permit No.: **T037-29558-00100**
Permit Reviewer: **Donald McQuigg**
Date: **October 28, 2010**

Throughput lbs/hr	Potential Throughput tons/yr
10.0	43.8

	Pollutant						
	PM*	PM_{10}*	$PM_{2.5}$*	SO2	NOx	VOC	CO
Emission Factor in lb/ton	7.0	7.0	7.0	2.5	3.0	3.0	10
Potential Emission in t	0.2	0.2	0.2	0.1	0.1	0.1	0.2

* PM = PM_{10} = $PM_{2.5}$

Methodology

MMBtu = 1,000,000 Bt
MMCF = 1,000,000 Cubic Feet of
Emission Factors are from AP 42, Chapter 2.1, Table 2.1-12, Uncontrolled emission factors for industrial/ commercial refuse combustors, multiple chambers
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Keith Masterson
Kimball International, Inc. – 15th Street Contiguous Source
1600 Royal St
Jasper, IN 47549

DATE: June 28, 2011

FROM: Matt Stuckey, Branch Chief
Permits Branch
Office of Air Quality

SUBJECT: Final Decision
Part 70 Operating Permit Renewal
037-29558-00100

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
Kathy Stigler – Director of Operations
Shawn Ouderkirk – Kimball Electronics General Manager
Chad Wilkey – Kimball Hospitality Director of Operations
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 11/30/07

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

June 28, 2011

TO: Jasper County Public Library

From: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: Kimball International, Inc. – 15th St Contiguous Source
Permit Number: 037-29558-00100

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 11/30/07

Mail Code 61-53

IDEM Staff	GHOTOPP 6/28/2011 Kimball Intl, Inc-15th St Contiguous Source 037-29558-00100 Final			AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender	▶	Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee Remarks
1		Keith Masterson Kimball Intl, Inc-15th St Contiguous Source 1600 Royal St Jasper IN 47549 (Source CAATS) via confirmed delivery									
2		Kathy Stigler Director of Operations Kimball Intl, Inc-15th St Contiguous Source 1600 Royal St Jasper IN 47549 *(RO CAATS)*									
3		Mr. Wendell Hibdon Plumbers & Steam Fitters Union, Local 136 2300 St. Joe Industrial Park Dr Evansville IN 47720 *(Affected Party)*									
4		Dubois County Commissioners One Courthouse Square Jasper IN 47546 *(Local Official)*									
5		Jasper Dubois County Public Library 1116 Main St Jasper IN 47546-2899 *(Library)*									
6		Jasper City Council and Mayors Office PO Box 29, 610 Main Jasper IN 47546 *(Local Official)*									
7		DuBois County Health Department 1187 S St. Charles Street Jasper IN 47546 *(Health Department)*									
8		Mr. Keith Masterson Kimball Internationsl, Inc. 1600 Royal Street Jasper IN 47549 *(Source ? addl contact)*									
9		Mr. John Blair 800 Adams Ave Evansville IN 47713 *(Affected Party)*									
10		Shawn Ouderkirk Kimball International, Inc. 1600 Royal Street Jasper IN 47549 *(Source – addl contact)*									
11		Chad Wilkey Kimball International, Inc. 1600 Royal Street Jasper IN 47549 *(Source – addl contact)*									
12											
13											
14											
15											

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