



PART 70 PERMIT TO OPERATE

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to operate the air contaminant source(s) described below, in accordance with the laws, rules, and conditions set forth here in.

Operating Permit Number: OP2007-004
Expiration Date: JAN 24 2012
Installation ID: 229-0001
Project Number: 2003-10-032

Installation Name and Address

Hutchens Industries, Inc.
898 East Commercial
Mansfield, MO 65704
Wright County

Parent Company's Name and Address

Hutchens Industries, Inc.
PO Box 1427
Springfield, MO 65801-1427

Installation Description:

Hutchens Industries Incorporated fabricates truck trailer suspensions in Mansfield Missouri. This installation has been operating since approximately 1971. The installation consists of a steel foundry for casting of components, welding, and surface coating of metal parts.

JAN 25 2007

Effective Date



Director or Designee
Department of Natural Resources

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I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

Hutchens Industries Incorporated fabricates truck trailer suspensions in Mansfield, Missouri. This installation has been operating since approximately 1971. The installation consists of a steel foundry for casting of components, welding, and surface coating of metal parts.

Reported Air Pollutant Emissions, tons per year							
Year	Particulate Matter ≤ Ten Microns (PM-10)	Sulfur Oxides (SO _x)	Nitrogen Oxides (NO _x)	Volatile Organic Compounds (VOC)	Carbon Monoxide (CO)	Lead (Pb)	Hazardous Air Pollutants (HAPs)
2005	17.05	0.56	2.62	55.62	0.70	--	0.36
2004	22.37	0.65	2.61	67.48	0.67	--	0.54
2003	16.60	0.50	2.51	54.73	0.63	--	0.48
2002	16.76	0.49	2.03	46.65	--	--	0.46
2001	30.86	0.54	1.70	40.01	0.24	--	0.53

EMISSION UNITS WITH LIMITATIONS

The following list provides a description of the equipment at this installation which emits air pollutants and which is identified as having unit-specific emission limitations.

Emission Unit #	Description of Emission Unit	EIQ Emission Point No.
EU0010	Electric Arc Furnace	(EP-002A & B)
EU0020	Cast Cooling	(EP-004B)
EU0030	Shakeout and Tumble Cleaning	(EP-005)
EU0040	Cleaning of Molded Part #1	(EP-006)
EU0050	Gate and Riser Cut Off & Grinding	(EP-007)
EU0060	Tumble Blast Cleaning	(EP-009)
EU0070	Finish/Patch Grinding	(EP-010)
EU0080	Cleaning of Molded Part #2	(EP-015)
EU0090	Spray Paint Booth #1	(EP-013)
EU0100	Spray Paint Booth #2	(EP-013)
EU0110	Spray Paint Booth #3	(EP-013)
EU0120	Spray Paint Booth #4	(EP-027)
EU0130	Dip Paint Operation #1	(EP-028)
EU0140	Dip Paint Operation #2	(N/A)
EU0150	Curing Oven	(EP-030)
EU0160	Pyrolysis Furnace	(EP-019)
EU0170	Plasma Torch	(EP-026)
EU0180	Robotic Welding Booth 12A	(EP-012)
EU0190	Robotic Welding Booth 12B	(EP-012)
EU0200	Robotic Welding Booth 12C	(EP-012)
EU0210	Robotic Welding Booth 12D	(EP-012)

EMISSION UNITS WITHOUT LIMITATIONS

The following list provides a description of the equipment which does not have unit specific limitations at the time of permit issuance.

<u>Description of Emission Source</u>	<u>EIQ Emission Point No.</u>
Ladle and Lid Curing Burners, 6 natural gas burners, <10 MMBtu/hr each	(EP-001)
Core Machine	(EP-003)
Pouring of Molten Metal	(EP-004A)
Steel Annealing Furnace, natural gas heaters, <10 MMBtu/hr each	(EP-008)
Space Heaters, natural gas heaters, <10 MMBtu/hr each	(EP-017)
Alkaline Wash, natural gas burner, <10 MMBtu/hr	(EP-029A)
Phosphate Wash, natural gas burner, <10 MMBtu/hr	(EP-029B)
Welding Machines	(EP-014, EP-023)

DOCUMENTS INCORPORATED BY REFERENCE

These documents have been incorporated by reference into this permit.

- 1) APCP Construction Permit #0691-015
- 2) APCP Construction Permit #0596-008
- 3) APCP Construction Permit #0996-006
- 4) APCP Construction Permit #1197-002
- 5) APCP Construction Permit #0298-006
- 6) APCP Construction Permit #62003-007
- 7) APCP Construction Permit #122003-005

II. Plant Wide Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

None.

III. Emission Unit Specific Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

EU0010 Electric Arc Furnace			
Emission Unit #	General Description	Manufacturer/ Model #	EIQ Reference # (2003)
EU0010	Electric arc furnace including charging or loading of furnace; MHDR 2.5 tons metal processed; equipped with medium temperature baghouse (CD1) with 93.9% capture efficiency and 89.24% control efficiency	Whiting Corporation	EP-002A & B

¹ **Applicable Prior to April 23, 2007**

Permit Condition EU0010-001

10 CSR 10-6.220

Restriction of Emissions of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any new source any visible emissions with an opacity greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60%.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit (EU0010) using the procedures contained in USEPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- 2) The following monitoring schedule must be maintained:
 - a) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.
- 3) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Recordkeeping:

¹ No later than April 23, 2007, the permittee must meet the more restrictive emission limitation, monitoring, recordkeeping and reporting requirements of 10 CSR 10-6.075 part 63 subpart EEEEE as listed in Permit Condition EU0010-003. Prior to April 23, 2007, the permittee must meet the requirements of EU0010-001.

- 1) The permittee shall maintain records of all observation results (see Attachment B and C), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and
 - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment D)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment E)
- 4) Attachments B, C, D and E contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available immediately for inspection to Department of Natural Resources personnel upon request.
- 6) All records shall be maintained for five years.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission units exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

² Applicable Prior to April 23, 2007

**Permit Condition EU0010-002
10 CSR 10-6.400**

Control of Emission of Particulate Matter From Industrial Processes

Emission Limitation:

- 1) Particulate matter shall not be emitted from EU0010 in excess of 7.58 lb/hr.
- 2) The emission rates were calculated using the following equation:
 - a) For process weight rates of 60,000 lb/hr or less:
 - b) $E = 4.10(P)^{0.67}$
 - c) Where:
 - d) E = rate of emission in lb/hr
 - e) P = process weight rate in tons/hr
- 3) The concentration of particulate matter in the exhaust gases shall not exceed 0.30 gr/scf.

Monitoring:

- 1) Dust collector CD1 shall be maintained such that the pressure drop remains in the normal operating range of two to eight inches of water whenever the emission units are in operation. A pressure drop reading of less than two inches may be observed for a period following the installation of a new bag.
- 2) All instruments and control equipment shall be calibrated, maintained, and operated according to the manufacturer's specifications and recommendations.
- 3) Check and document the dust collector pressure drop daily, whenever the emission unit is in operation. If the pressure drop falls out of the normal operating range, corrective action shall be taken as soon as practicable but within eight hours to return the pressure drop to normal.
- 4) Check and document the cleaning sequence of the dust collector every six months.

² No later than April 23, 2007, the permittee must meet the more restrictive emission limitation, monitoring, recordkeeping and reporting requirements of 10 CSR 10-6.075 part 63 subpart EEEEE as listed in Permit Condition EU0010-003. Prior to April 23, 2007, the permittee must meet the requirements of EU0010-002.

- 5) Inspect bags for leaks and wear every six months.
- 6) Inspect all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods every six months.

Recordkeeping:

- 1) The permittee shall document all pressure drop readings. (see Attachment F)
- 2) All inspections, corrective actions, and instrument calibration shall be recorded. (see Attachment D)
- 3) Attachments F and D contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement
- 4) All records shall be maintained for five years.
- 5) Records may be kept in either written or electronic form.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined that the emission unit(s) exceeded the emission limitation(s) and/or pressure drop range listed above.
- 2) Reports of any deviations from monitoring other than the pressure drop range, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

³ Applicable No Later Than April 23, 2007

Permit Condition EU0010-003
10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63 Subpart EEEEE

National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries

40 CFR Part 63 Subpart A

General Provisions**Emission Limitation:**

- 1) You must not discharge emissions from the electric arc metal melting furnace through a conveyance to the atmosphere that exceed either the limit for particulate matter (PM) in §63.7690(a)(1)(i) or, alternatively the limit for total metal hazardous air pollutants (HAP) in §63.7690(a)(1)(ii): [§63.7690(a)(1)]
 - a) 0.005 gr/dscf of PM, or [§63.7690(a)(1)(i)]
 - b) 0.0004 gr/dscf of total metal HAP. [§63.7690(a)(1)(ii)]
- 2) For each building or structure housing any emissions source at the steel foundry, you must not discharge any fugitive emissions to the atmosphere that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity. [§63.7690(a)(7)]

Operating Limits:

- 1) If you apply a wet scrubber to emissions from the electric arc metal melting furnace, you must operate each wet scrubber such that the 3-hour average pressure drop and scrubber water flow rate does not fall below the minimum levels established during the initial or subsequent performance test. [§63.7690(b) & §63.7690(b)(2)]
- 2) If you use a control device other than a baghouse, wet scrubber, wet acid scrubber, or combustion device, you must prepare and submit a monitoring plan containing the information listed in §63.7690(c)(1) through (5). The monitoring plan is subject to approval by the Administrator. [§63.7690(c)]
 - a) A description of the device; [§63.7690(c)(1)]

³ No later than April 23, 2007, the permittee must meet the requirements of 10 CSR 10-6.075 part 63 subpart EEEEE as listed in Permit condition EU0010-003.

- b) Test results collected in accordance with §63.7732 verifying the performance of the device for reducing emissions of PM, or total metal HAP to the levels required by subpart EEEEE; [§63.7690(c)(2)]
- c) A copy of the operation and maintenance plan required by §63.7710(b); [§63.7690(c)(3)]
- d) A list of appropriate operating parameters that will be monitored to maintain continuous compliance with the applicable emissions limitation(s); and [§63.7690(c)(4)]
- e) Operating parameter limits based on monitoring data collected during the performance test. [§63.7690(c)(5)]

Work Practice Requirements:

- 1) You must comply with the certification requirements in §63.7700(b). [§63.7700(a)]
 - a) You must prepare and operate at all times according to a written certification that the foundry uses only certified-metal ingots, pig iron, slitter, or other materials that do not include post-consumer automotive body scrap, post-consumer engine blocks, oil filters, oily turnings, lead components, mercury switches, plastics, or organic liquids. [§63.7700(b)]

Compliance Demonstration:**Compliance Dates**

- 1) You must comply with each emissions limitation, work practice standard, and operation and maintenance requirement in subpart EEEEE that applies to you no later than April 23, 2007. [§63.7683(a)]
- 2) You must comply with the work practice standards in §63.7700(b), no later than April 22, 2005. [§63.7683(b)]
- 3) You must meet the notification and schedule requirements in §63.7750. [§63.7683(f)]
- 4) As required by §63.7(a)(2), you must conduct a performance test no later than 180 calendar days after April 23, 2007 to demonstrate initial compliance with each emissions limitation in §63.7690. Note that several of these notifications must be submitted before the compliance date for your affected source. [§63.7730(a)]
- 5) For each applicable work practice standard in §63.7700 and each applicable operation and maintenance requirement in §63.7710 where initial compliance is not demonstrated using a performance test, you must demonstrate initial compliance no later than April 22, 2005. [§63.7730(b)]
- 6) You must conduct subsequent performance tests to demonstrate compliance with all applicable PM or total metal HAP emissions limitations in §63.7690 for the steel foundry no less frequently than every 5 years. The requirement to conduct performance tests every 5 years does not apply to an emissions source for which a continuous emissions monitoring system (CEMS) is used to demonstrate continuous compliance. [§63.7731(a)]
- 7) For each building or structure housing any emissions source at the steel foundry, you must conduct subsequent performance tests to demonstrate compliance with the opacity limit in §63.7690(a)(7) for the steel foundry no less frequently than once every 6 months. [§63.7731(b)]

General Compliance Demonstration

- 8) You must be in compliance with the emissions limitations, work practice standards, and operation and maintenance requirements in subpart EEEEE at all times, except during periods of startup, shutdown, or malfunction. [§63.7720(a)]
- 9) During the period between the compliance date specified for the steel foundry in §63.7683 and the date when applicable operating limits have been established during the initial performance test, you must maintain a log detailing the operation and maintenance of the process and emissions control equipment. [§63.7720(b)]
- 10) You must develop and implement a written startup, shutdown, and malfunction plan according to the provisions in §63.6(e)(3). [§63.7720(c)]

Initial Compliance Demonstration

- 11) You have demonstrated initial compliance with the emissions limits in §63.7690(a) if: [§63.7734(a)]
 - a) For the electric arc metal melting furnace: [§63.7734(a)(1)]
 - i) The average PM concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(b), did not exceed 0.005 gr/dscf; or [§63.7734(a)(1)(i)]
 - ii) The average total metal HAP concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(c), did not exceed 0.0004 gr/dscf. [§63.7734(a)(1)(ii)]
 - b) For each building or structure housing any emissions source at the steel foundry, the opacity of fugitive emissions discharged to the atmosphere, determined according to the performance test procedures in §63.7732(d), did not

- exceed 20 percent (6-minute average), except for one 6- minute average per hour that did not exceed 27 percent opacity. [§63.7734(a)(7)]
- 12) You have demonstrated initial compliance with the operating limits in §63.7690(b) if: [§63.7734(b)]
- a) For each wet scrubber applied to the electric arc furnace and subject to the operating limits in §63.7690(b)(2) for pressure drop and scrubber water flow rate, you have established appropriate site-specific operating limits and have a record of the pressure drop and scrubber water flow rate measured during the performance test in accordance with §63.7733(b). [§63.7734(b)(2)]
- 13) For each steel foundry subject to the certification requirement in §63.7700(b), you have demonstrated initial compliance if you have certified in the notification of compliance status that: “At all times, your foundry will purchase and use only certified metal ingots, pig iron, slitter, or other materials that do not include post consumer automotive body scrap, post consumer engine blocks, oil filters, oily turnings, lead components, mercury switches, plastics, or organic liquids.” [§63.7735(a)]
- 14) For each capture system subject to an operating limit in §63.7690(b), you have demonstrated initial compliance if you have met the conditions in §63.7736(a)(1) and (2). [§63.7736(a)]
- a) You have certified in the notification of compliance status that: [§63.7736(a)(1)]
- i) You have submitted the capture system operation and maintenance plan to the Administrator for approval according to the requirements of §63.7710(b); and [§63.7736(a)(1)(i)]
- ii) You will inspect, operate, and maintain each capture system according to the procedures in the plan. [§63.7736(a)(1)(ii)]
- b) You have certified in the performance test report that the system operated during the test at the operating limits established in the operation and maintenance plan. [§63.7736(a)(2)]
- 15) For each control device subject to an operating limit in §63.7690(b), you have demonstrated initial compliance if you have certified in the notification of compliance status that: [§63.7736(b)]
- a) You have submitted the control device operation and maintenance plan to the Administrator for approval according to the requirements of §63.7710(b); and [§63.7736(b)(1)]
- b) You will inspect, operate, and maintain each control device according to the procedures in the plan. [§63.7736(b)(2)]
- 16) For each bag leak detection system, you have demonstrated initial compliance if you have certified in the notification of compliance status that: [§63.7736(c)]
- a) You have submitted the bag leak detection system monitoring plan to the Administrator for approval according to the requirements of §63.7710(b); [§63.7736(c)(1)]
- i) You will inspect, operate, and maintain each bag leak detection system according to the procedures in the plan; and [§63.7736(c)(1)(i)]
- ii) You will follow the corrective action procedures for bag leak detection system alarms according to the requirements in the plan. [§63.7736(c)(1)(ii)]
- 17) For each pouring area, you have demonstrated initial compliance if you have certified in the notification of compliance status report that: [§63.7736(d)]
- a) You have submitted the mold vent ignition plan to the Administrator for approval according to the requirements in §63.7710(b); and [§63.7736(d)(1)]
- b) You will follow the procedures for igniting mold vent gases according to the requirements in the plan. [§63.7736(d)(2)]

Continuous Compliance Demonstration

- 18) You must demonstrate continuous compliance by meeting the applicable conditions in §63.7743(a)(1), (7), and (12): [§63.7743(a)]
- a) For each electric arc metal melting furnace: [§63.7743(a)(1)]
- i) Maintaining the average PM concentration in the exhaust stream at or below 0.005 gr/dscf; or [§63.7743(a)(1)(i)]
- ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.0004 gr/dscf. [§63.7743(a)(1)(ii)]

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- b) For each building or structure housing any emissions source at the steel foundry, maintaining the opacity of any fugitive emissions discharged to the atmosphere at or below 20 percent opacity (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity. [§63.7743(a)(7)]
 - c) Conducting subsequent performance tests at least every 5 years for each emissions source subject to an emissions limit for PM and total metal HAP in §63.7690(a) and subsequent performance tests at least every 6 months for each building or structure subject to the opacity limit in §63.7690(a)(7). [§63.7743(a)(12)]
- 19) For each baghouse equipped with a bag leak detection system: [§63.7743(c)]
- a) Maintaining records of the times the bag leak detection system alarm sounded, and for each valid alarm, the time you initiated corrective action, the corrective action taken, and the date on which corrective action was completed; and [§63.7743(c)(1)]
 - b) Inspecting and maintaining each baghouse according to the requirements of §63.7740(b)(1) through (8) and recording all information needed to document conformance with these requirements. [§63.7743(c)(2)]
- 20) For each wet scrubber applied to the electric arc furnace that is subject to the operating limits in §63.7690(b)(2), you must demonstrate continuous compliance by: [§63.7743(d)]
- a) Maintaining the 3-hour average pressure drop and 3-hour average scrubber water flow rate at levels no lower than those established during the initial or subsequent performance test; [§63.7743(d)(1)]
 - b) Inspecting and maintaining each CPMS according to the requirements of §63.7741(c) and recording all information needed to document conformance with these requirements; and [§63.7743(d)(2)]
 - c) Collecting and reducing monitoring data for pressure drop and scrubber water flow rate according to the requirements of §63.7741(f) and recording all information needed to document conformance with these requirements. [§63.7743(d)(3)]
- 21) You must maintain records that document continuous compliance with the certification requirements in §63.7700(b). [§63.7744(a)]
- 22) For each capture system and control device for an emissions source subject to an emissions limit in §63.7690(a), you must demonstrate continuous compliance with the operation and maintenance requirements of §63.7710 by: [§63.7745(a)]
- a) Making monthly inspections of capture systems and initiating corrective action according to §63.7710(b)(1) and recording all information needed to document conformance with these requirements; [§63.7745(a)(1)]
 - b) Performing preventative maintenance for each control device according to the preventive maintenance plan required by §63.7710(b)(3) and recording all information needed to document conformance with these requirements; [§63.7745(a)(2)]
 - c) Operating and maintaining each bag leak detection system according to the site-specific monitoring plan required by §63.7710(b)(4) and recording all information needed to demonstrate conformance with these requirements; [§63.7745(a)(3)]
 - d) Initiating and completing corrective action for a bag leak detection system alarm according to the corrective action plan required by §63.7710(b)(5) and recording all information needed to document conformance with these requirements; and [§63.7745(a)(4)]
 - e) Igniting gases from mold vents according to the procedures in the plan required by §63.7710(b)(6). (Any instance where you fail to follow the procedures is a deviation that must be included in your semiannual compliance report.) [§63.7745(a)(5)]
- 23) You must maintain a current copy of the operation and maintenance plans required by §63.7710(b) onsite and available for inspection upon request. You must keep the plans for the life of the steel foundry or until the steel foundry is no longer subject to the requirements of subpart EEEEE. [§63.7745(b)]
- 24) *Deviations.* You must report each instance in which you did not meet each emissions limitation in §63.7690 (including each operating limit) that applies. This requirement includes periods of startup, shutdown, and malfunction. You also must report each instance in which you did not meet each work practice standard in §63.7700 and each operation and maintenance requirement of §63.7710 that applies. These instances are deviations from the emissions limitations, work practice standards, and operation and maintenance requirements in subpart EEEEE. These deviations must be reported according to the requirements of §63.7751. [§63.7746(a)]

- 25) *Startups, shutdowns, and malfunctions.* During periods of startup, shutdown, and malfunction, you must operate in accordance with your startup, shutdown, and malfunction plan. [§63.7746(b)]
- Consistent with the requirements of §§63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with the startup, shutdown, and malfunction plan. [§63.7746(b)(1)]
 - The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations according to the provisions in §63.6(e). [§63.7746(b)(2)]

Test Methods and Calculations:

- You must conduct each performance test that applies to your steel foundry according to the requirements in §63.7(e)(1) and the conditions specified in §63.7732(b) through (h). [§63.7732(a)]
- To determine compliance with the applicable emissions limit for PM in §63.7690(a)(1) for the electric arc metal melting furnace follow the test methods and procedures in §63.7732(b)(1), (2), and (4). [§63.7732(b)]
 - Determine the concentration of PM according to the test methods in 40 CFR Part 60, appendix A that are specified in §63.7732(b)(1)(i) through (v). [§63.7732(b)(1)]
 - Method 1 or 1A to select sampling port locations and the number of traverse points in each stack or duct. Sampling sites must be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere. [§63.7732(b)(1)(i)]
 - Method 2, 2A, 2C, 2D, 2F, or 2G to determine the volumetric flow rate of the stack gas. [§63.7732(b)(1)(ii)]
 - Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas. [§63.7732(b)(1)(iii)]
 - Method 4 to determine the moisture content of the stack gas. [§63.7732(b)(1)(iv)]
 - Method 5, 5B, 5D, 5F, or 5I, as applicable, to determine the PM concentration. The PM concentration is determined using only the front-half (probe rinse and filter) of the PM catch. [§63.7732(b)(1)(v)]
 - Collect a minimum sample volume of 60 dscf of gas during each PM sampling run. A minimum of three valid test runs is needed to comprise a performance test. [§63.7732(b)(2)]
 - For electric arc melting furnaces, sample only when metal is being melted. [§63.7732(b)(4)]
- To determine compliance with the applicable emissions limit for total metal HAP in §63.7690(a)(1) for the electric arc metal melting furnace follow the test methods and procedures in §63.7732(c)(1), (2), and (4). [§63.7732(c)]
 - Determine the concentration of total metal HAP according to the test methods in 40 CFR Part 60, appendix A that are specified in §63.7732(c)(1)(i) through (v). [§63.7732(c)(1)]
 - Method 1 or 1A to select sampling port locations and the number of traverse points in each stack or duct. Sampling sites must be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere. [§63.7732(c)(1)(i)]
 - Method 2, 2A, 2C, 2D, 2F, or 2G to determine the volumetric flow rate of the stack gas. [§63.7732(c)(1)(ii)]
 - Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas. [§63.7732(c)(1)(iii)]
 - Method 4 to determine the moisture content of the stack gas. [§63.7732(c)(1)(iv)]
 - Method 29 to determine the total metal HAP concentration. [§63.7732(c)(1)(v)]
 - Collect a minimum sample volume of 60 dscf of gas during each total metal HAP sampling run. A minimum of three valid test runs is needed to comprise a performance test. [§63.7732(c)(2)]
 - For electric arc metal melting furnaces, sample only when metal is being melted. [§63.7732(c)(4)]
- To determine compliance with the opacity limit in §63.7690(a)(7) for fugitive emissions from buildings or structures housing any emissions source at the steel foundry, follow the procedures in §63.7732(d)(1) and (2). [§63.7732(d)]
 - Using a certified observer, conduct each opacity test according to the requirements in EPA Method 9 (40 CFR Part 60, appendix A) and §63.6(h)(5). [§63.7732(d)(1)]
 - Conduct each test such that the opacity observations overlap with the PM performance tests. [§63.7732(d)(2)]

Monitoring:

- 1) As required by §63.6(e)(1)(i), you must always operate and maintain the steel foundry, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by subpart EEEEE. [§63.7710(a)]
- 2) You must prepare and operate at all times according to a written operation and maintenance plan for each capture and collection system and control device for an emissions source subject to an emissions limit in §63.7690(a). The operation and maintenance plan also must include procedures for igniting gases from mold vents in pouring areas that use a sand mold system. This operation and maintenance plan is subject to approval by the Administrator. Each plan must contain the elements described in §63.7710(b)(1) and (3) through (6). [§63.7710(b)]
 - a) Monthly inspections of the equipment that is important to the performance of the total capture system (*i.e.*, pressure sensors, dampers, and damper switches). This inspection must include observations of the physical appearance of the equipment (*e.g.*, presence of holes in the ductwork or hoods, flow constrictions caused by dents or accumulated dust in the ductwork, and fan erosion). The operation and maintenance plan must also include requirements to repair the defect or deficiency as soon as practicable. [§63.7710(b)(1)]
 - b) Preventative maintenance plan for each control device, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance. [§63.7710(b)(3)]
 - c) A site-specific monitoring plan for each bag leak detection system. For each bag leak detection system that operates on the triboelectric effect, the monitoring plan must be consistent with the recommendations contained in the U.S. Environmental Protection Agency guidance document "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015). This baghouse-monitoring plan is subject to approval by the Administrator. You shall operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. The plan must address all of the items identified in §63.7710(b)(4)(i) through (v). [§63.7710(b)(4)]
 - i) Installation of the bag leak detection system. [§63.7710(b)(4)(i)]
 - ii) Initial and periodic adjustment of the bag leak detection system including how the alarm set-point will be established. [§63.7710(b)(4)(ii)]
 - iii) Operation of the bag leak detection system including quality assurance procedures. [§63.7710(b)(4)(iii)]
 - iv) How the bag leak detection system will be maintained including a routine maintenance schedule and spare parts inventory list. [§63.7710(b)(4)(iv)]
 - v) How the bag leak detection system output will be recorded and stored. [§63.7710(b)(4)(v)]
 - d) Corrective action plan for each baghouse. The plan must include the requirement that, in the event a bag leak detection system alarm is triggered, you must initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete the corrective action as soon as practicable. Corrective actions taken may include, but are not limited to: [§63.7710(b)(5)]
 - i) Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions. [§63.7710(b)(5)(i)]
 - ii) Sealing off defective bags or filter media. [§63.7710(b)(5)(ii)]
 - iii) Replacing defective bags or filter media or otherwise repairing the control device. [§63.7710(b)(5)(iii)]
 - iv) Sealing off a defective baghouse compartment. [§63.7710(b)(5)(iv)]
 - v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system. [§63.7710(b)(5)(v)]
 - vi) Making process changes. [§63.7710(b)(5)(vi)]
 - vii) Shutting down the process producing the PM emissions. [§63.7710(b)(5)(vii)]
 - e) Procedures for providing an ignition source to mold vents of sand mold systems in each pouring area unless you determine the mold vent gases either are not ignitable, ignite automatically, or cannot be ignited due to accessibility or safety issues. You must document and maintain records of this determination. The determination of ignitability, accessibility, and safety may encompass multiple casting patterns provided the castings utilize similar sand-to-metal ratios, binder formulations, and coating materials. The determination of ignitability must be based on observations of the mold vents within 5 minutes of pouring, and the flame must be present for at least 15 seconds for the mold vent to be considered ignited. For the purpose of this determination: [§63.7710(b)(6)]

- i) Mold vents that ignite more than 75 percent of the time without the presence of an auxiliary ignition source are considered to ignite automatically; and [§63.7710(b)(6)(i)]
 - ii) Mold vents that do not ignite automatically and cannot be ignited in the presence of an auxiliary ignition source more than 25 percent of the time are considered to be not ignitable. [§63.7710(b)(6)(ii)]
- 3) For each wet scrubber applied to the electric arc furnace and subject to the operating limits in §63.7690(b)(2) for pressure drop and scrubber water flow rate, you must establish site-specific operating limits according to the procedures specified in §63.7733(b)(1) and (2). [§63.7733(b)]
 - a) Using the CPMS required in §63.7740(c), measure and record the pressure drop and scrubber water flow rate in intervals of no more than 15 minutes during each PM test run. [§63.7733(b)(1)]
 - b) Compute and record the 3-hour average pressure drop and average scrubber water flow rate for each sampling run in which the applicable emissions limit is met. [§63.7733(b)(2)]
- 4) You may change the operating limits for a capture system, wet scrubber, acid wet scrubber, or combustion device if you meet the requirements in §63.7733(e)(1) through (3). [§63.7733(e)]
 - a) Submit a written notification to the Administrator of the request to conduct a new performance test to revise the operating limit. [§63.7733(e)(1)]
 - b) Conduct a performance test to demonstrate compliance with the applicable emissions limitation in §63.7690. [§63.7733(e)(2)]
 - c) Establish revised operating limits according to the applicable procedures in §63.7733(a) through (d). [§63.7733(e)(3)]
- 5) You may use a previous performance test (conducted since December 22, 2002) to establish an operating limit provided the test meets the requirements of subpart EEEEE. [§63.7733(f)]

Continuous Compliance Monitoring

- 6) For each negative pressure baghouse or positive pressure baghouse equipped with a stack that is applied to meet any PM or total metal HAP emissions limitation in subpart EEEEE, you must at all times monitor the relative change in PM loadings using a bag leak detection system according to the requirements in §63.7741(b) and conduct inspections at their specified frequencies according to the requirements specified in §63.7740(b)(1) through (8). [§63.7740(b)]
 - a) Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual. [§63.7740(b)(1)]
 - b) Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms. [§63.7740(b)(2)]
 - c) Check the compressed air supply for pulse-jet baghouses each day. [§63.7740(b)(3)]
 - d) Monitor cleaning cycles to ensure proper operation using an appropriate methodology. [§63.7740(b)(4)]
 - e) Check bag cleaning mechanisms for proper functioning through monthly visual inspection or equivalent means. [§63.7740(b)(5)]
 - f) Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (knead or bent) or lying on their sides. You do not have to make this check for shaker-type baghouses using self-tensioning (spring-loaded) devices. [§63.7740(b)(6)]
 - g) Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks. [§63.7740(b)(7)]
 - h) Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means. [§63.7740(b)(8)]
- 7) For each wet scrubber applied to the electric arc furnace and subject to the operating limits in §63.7690(b)(2), you must at all times monitor the 3-hour average pressure drop and scrubber water flow rate using CPMS according to the requirements in §63.7741(c). [§63.7740(c)]
- 8) You must install, operate, and maintain a bag leak detection system according to the requirements in §63.7741(b)(1) through (7). [§63.7741(b)]
 - a) The system must be certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less. [§63.7741(b)(1)]

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- b) The bag leak detection system sensor must provide output of relative particulate matter loadings and you shall continuously record the output from the bag leak detection system using electronic or other means (*e.g.*, using a strip chart recorder or a data logger). [§63.7741(b)(2)]
 - c) The system must be equipped with an alarm that will sound when an increase in relative particulate loadings is detected over the alarm set point established in the operation and maintenance plan, and the alarm must be located such that it can be heard by the appropriate plant personnel. [§63.7741(b)(3)]
 - d) The initial adjustment of the system must, at minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time (if applicable). [§63.7741(b)(4)]
 - e) Following the initial adjustment, do not adjust the sensitivity or range, averaging period, alarm set point, or alarm delay time without approval from the Administrator. Except, once per quarter, you may adjust the sensitivity of the bag leak detection system to account for seasonable effects including temperature and humidity according to the procedures in the operation and maintenance plan required by §63.7710(b). [§63.7741(b)(5)]
 - f) For negative pressure, induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detector sensor must be installed downstream of the baghouse and upstream of any wet scrubber. [§63.7741(b)(6)]
 - g) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors. [§63.7741(b)(7)]
- 9) For each wet scrubber applied to the electric arc furnace and subject to the operating limits in §63.7690(b)(2), you must install and maintain CPMS to measure and record the pressure drop and scrubber water flow rate according to the requirements in §63.7741(c)(1) and (2). [§63.7741(c)]
- a) For each CPMS for pressure drop you must: [§63.7741(c)(1)]
 - i) Locate the pressure sensor in or as close as possible to a position that provides a representative measurement of the pressure drop and that minimizes or eliminates pulsating pressure, vibration, and internal and external corrosion. [§63.7741(c)(1)(i)]
 - ii) Use a gauge with a minimum measurement sensitivity of 0.5 inch of water or a transducer with a minimum measurement sensitivity of 1 percent of the pressure range. [§63.7741(c)(1)(ii)]
 - iii) Check the pressure tap for pluggage daily. [§63.7741(c)(1)(iii)]
 - iv) Using a manometer, check gauge calibration quarterly and transducer calibration monthly. [§63.7741(c)(1)(iv)]
 - v) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range, or install a new pressure sensor. [§63.7741(c)(1)(v)]
 - vi) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage. [§63.7741(c)(1)(vi)]
 - b) For each CPMS for scrubber liquid flow rate, you must: [§63.7741(c)(2)]
 - i) Locate the flow sensor and other necessary equipment in a position that provides a representative flow and that reduces swirling flow or abnormal velocity distributions due to upstream and downstream disturbances. [§63.7741(c)(2)(i)]
 - ii) Use a flow sensor with a minimum measurement sensitivity of 2 percent of the flow rate. [§63.7741(c)(2)(ii)]
 - iii) Conduct a flow sensor calibration check at least semiannually according to the manufacturer's instructions. [§63.7741(c)(2)(iii)]
 - iv) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage. [§63.7741(c)(2)(iv)]
- 10) You must operate each CPMS used to meet the requirements of subpart EEEEE according to the requirements specified in §63.7741(f)(1) through (3). [§63.7741(f)]
- a) Each CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of three of the required four data points to constitute a valid hour of data. [§63.7741(f)(1)]
 - b) Each CPMS must have valid hourly data for 100 percent of every averaging period. [§63.7741(f)(2)]

- c) Each CPMS must determine and record the hourly average of all recorded readings and the 3-hour average of all recorded readings. [§63.7741(f)(3)]
- 11) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) any time a source of emissions is operating. [§63.7742(a)]
- 12) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emissions or operating levels or to fulfill a minimum data availability requirement, if applicable. You must use all the data collected during all other periods in assessing compliance. [§63.7742(b)]
- 13) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. [§63.7742(c)]

Recordkeeping:

- 1) You must keep the records specified in §63.7752(a)(1) through (4): [§63.7752(a)]
 - a) A copy of each notification and report that you submitted to comply with subpart EEEEE, including all documentation supporting any initial notification or notification of compliance status that you submitted, according to the requirements of §63.10(b)(2)(xiv). [§63.7752(a)(1)]
 - b) The records specified in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction. [§63.7752(a)(2)]
 - c) Records of performance tests and performance evaluations as required by §63.10(b)(2)(viii). [§63.7752(a)(3)]
 - d) Records of the annual quantity of each chemical binder or coating material used to make molds and cores, the Material Data Safety Sheet or other documentation that provides the chemical composition of each component, and the annual quantity of HAP used at the foundry. (see Attachment G) [§63.7752(a)(4)]
- 2) You must keep the records required by §§63.7743, 63.7744, and 63.7745 to show continuous compliance with each emissions limitation, work practice standard, and operation and maintenance requirement that applies. [§63.7752(c)]
- 3) You must keep your records in a form suitable and readily available for expeditious review, according to the requirements of §63.10(b)(1). [§63.7753(a)]
- 4) 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. [§63.7753(b)]
- 5) You must keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to the requirements in §63.10(b)(1). You can keep the records for the previous 3 years offsite. [§63.7753(c)]

Reporting:

- 1) *General.* You must submit all of the notifications required by §§63.6(h)(4) and (5), 63.7(b) and (c); 63.8(e); 63.8(f)(4) and (6); 63.9(b) through (h) that apply by the specified dates. [§63.7750(a)]
- 2) *Initial Notification.* As specified in §63.9(b)(2), you must submit the initial notification no later than August 20, 2004. [§63.7750(b)]
- 3) *Notification of Performance Test.* If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required by §63.7(b)(1). [§63.7750(d)]
- 4) *Notification of Compliance Status.* If you are required to conduct a performance test or other initial compliance demonstration, you must submit a notification of compliance status according to the requirements of §63.9(h)(2)(ii). [§63.7750(e)]
 - a) For each initial compliance demonstration that does not include a performance test, you must submit the notification of compliance status before the close of business on the 30th calendar day following completion of the initial compliance demonstration. [§63.7750(e)(1)]
 - b) For each initial compliance demonstration that does include a performance test, you must submit the notification of compliance status, including the performance test results, before the close of business on the 60th calendar day

following the completion of the performance test according to the requirement specified in §63.10(d)(2).
[§63.7750(e)(2)]

- 5) *Compliance report due dates.* Unless the Administrator has approved a different schedule, you must submit a semiannual compliance report to your permitting authority according to the requirements specified in §63.7751(a)(1) through (5). [§63.7751(a)]
- a) The first compliance report must cover the period beginning on April 23, 2007, the compliance date specified by §63.7683 and ending on June 30. [§63.7751(a)(1)]
 - b) The first compliance report must be postmarked or delivered no later than July 31 after your first compliance report is due. [§63.7751(a)(2)]
 - c) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. [§63.7751(a)(3)]
 - d) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after the end of the semiannual reporting period. [§63.7751(a)(4)]
 - e) As an affected source that is subject to permitting regulation pursuant to 40 CFR 70, you may submit the first and subsequent compliance reports according to the dates the permitting authority has established in 40 CFR 70.6(a)(3)(iii)(A) instead of the dates specified in §63.7751(a)(1) through (4). [§63.7751(a)(5)]
- 6) *Compliance report contents.* Each compliance report must include the information specified in §63.7451(b)(1) through (3), and as applicable, §63.7451(b)(4) through (8). [§63.7751(b)]
- a) Company name and address. [§63.7751(b)(1)]
 - b) Statement by a responsible official, with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. [§63.7751(b)(2)]
 - c) Date of report and beginning and ending dates of the reporting period. [§63.7751(b)(3)]
 - d) If you had a startup, shutdown, or malfunction during the reporting period and you took action consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in §63.10(d)(5)(i). [§63.7751(b)(4)]
 - e) If there were no deviations from any emissions limitations (including operating limit), work practice standards, or operation and maintenance requirements, a statement that there were no deviations from the emissions limitations, work practice standards, or operation and maintenance requirements during the reporting period. [§63.7751(b)(5)]
 - f) If there were no periods during which a continuous monitoring system (including a CPMS or CEMS) was out-of-control as specified by §63.8(c)(7), a statement that there were no periods during which the CPMS was out-of-control during the reporting period. [§63.7751(b)(6)]
 - g) For each deviation from an emissions limitation (including an operating limit) that occurs at the steel foundry for which you are not using a continuous monitoring system (including a CPMS or CEMS) to comply with an emissions limitation or work practice standard required in subpart EEEEE, the compliance report must contain the information specified in §63.7751(b)(1) through (4) and (b)(7)(i) and (ii). This requirement includes periods of startup, shutdown, and malfunction. [§63.7751(b)(7)]
 - i) The total operating time of each emissions source during the reporting period. [§63.7751(b)(7)(i)]
 - ii) Information on the number, duration, and cause of deviations (including unknown cause) as applicable and the corrective action taken. [§63.7751(b)(7)(ii)]
 - h) For each deviation from an emissions limitation (including an operating limit) or work practice standard occurring at the steel foundry where you are using a continuous monitoring system (including a CPMS or CEMS) to comply with the emissions limitation or work practice standard in subpart EEEEE, you must include the information specified in §63.7751(b)(1) through (4) and (b)(8)(i) through (xi). This requirement includes periods of startup, shutdown, and malfunction. [§63.7751(b)(8)]
 - i) The date and time that each malfunction started and stopped. [§63.7751(b)(8)(i)]
 - ii) The date and time that each continuous monitoring system was inoperative, except for zero (low-level) and high-level checks. [§63.7751(b)(8)(ii)]
 - iii) The date, time, and duration that each continuous monitoring system was out-of-control, including the information in §63.8(c)(8). [§63.7751(b)(8)(iii)]

- iv) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period. [§63.7751(b)(8)(iv)]
- v) A summary of the total duration of the deviations during the reporting period and the total duration as a percent of the total source operating time during that reporting period. [§63.7751(b)(8)(v)]
- vi) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and unknown causes. [§63.7751(b)(8)(vi)]
- vii) A summary of the total duration of continuous monitoring system downtime during the reporting period and the total duration of continuous monitoring system downtime as a percent of the total source operating time during the reporting period. [§63.7751(b)(8)(vii)]
- viii) A brief description of the process units. [§63.7751(b)(8)(viii)]
- ix) A brief description of the continuous monitoring system. [§63.7751(b)(8)(ix)]
- x) The date of the latest continuous monitoring system certification or audit. [§63.7751(b)(8)(x)]
- xi) A description of any changes in continuous monitoring systems, processes, or controls since the last reporting period. [§63.7751(a)(8)(xi)]

7) *Immediate startup, shutdown, and malfunction report.* If you had a startup, shutdown, or malfunction during the semiannual reporting period that was not consistent with the startup, shutdown, and malfunction plan, you must submit an immediate startup, shutdown, and malfunction report according to the requirements of §63.10(d)(5)(ii). [§63.7751(c)]

8) *Part 70 monitoring report.* If you submit a compliance report for an steel foundry along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A), and the compliance report includes all the required information concerning deviations from any emissions limitation or operation and maintenance requirement in subpart EEEEE, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation you may have to report deviations from permit requirements for a steel foundry to the permitting authority. [§63.7751(d)]

Permit Condition EU0010-004
10 CSR 10-6.260

Restriction of Emissions of Sulfur Compounds

Emission Limitation:

- 1) Emissions from EU0010 shall not contain more than two thousand parts per million by volume (2000 ppmv) of sulfur dioxide.
- 2) Stack gasses shall not contain more than seventy milligrams (70 mg) per cubic meter of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three hour time period.
- 3) No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010 Ambient Air Quality Standards.

Pollutant	Concentration by Volume	Remarks
Sulfur Dioxide (SO ₂)	0.03 parts per million (ppm) (80 micrograms per cubic meter (µg/m ³))	Annual arithmetic mean
	0.14 ppm (365 µg/m ³)	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 µg/m ³)	3-hour average not to be exceeded more than once per year
Hydrogen Sulfide (H ₂ S)	0.05 ppm (70 µg/m ³)	½-hour average not to be exceeded over 2 times per year
	0.03 ppm (42 µg/m ³)	½-hour average not to be exceeded over 2 times in any 5 consecutive days
Sulfuric Acid (H ₂ SO ₄)	10 µg/m ³	24-hour average not to be exceeded more than once in any 90 consecutive days

Monitoring/Recordkeeping:

- 1) The permittee shall retain the potential to emit calculations in Attachment H, which demonstrate that the above emission limitations will not be exceeded.
- 2) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 3) All records shall be maintained for five years.

Reporting:

Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

EU0020 Cast Cooling			
Emission Unit #	General Description	Manufacturer/ Model #	EIQ Reference # (2003)
EU0020	Cast cooling; eight (8) hoods covering cooling molds; MHDR 2.5 tons metal processed	In-house	EP-004B

⁴ **Applicable Prior to April 23, 2007**

Permit Condition EU0020-001
10 CSR 10-6.220

Restriction of Emissions of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any new source visible emissions with an opacity greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60%.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit (EU0020) using the procedures contained in USEPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- 2) The following monitoring schedule must be maintained:
 - a) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.

⁴ No later than April 23, 2007, for each building or structure housing any emissions source at the steel foundry, the permittee must meet the more restrictive opacity, monitoring, recordkeeping and reporting requirements of 10 CSR 10-6.075 part 63 subpart EEEEE as listed in Permit Condition EU0010-003. Prior to April 23, 2007, the permittee must meet the requirements of EU0020-001.

- 3) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Recordkeeping:

- 1) The permittee shall maintain records of all observation results (see Attachment B and C), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and
 - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment D)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment E)
- 4) Attachments B, C, D and E contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available immediately for inspection to Department of Natural Resources personnel upon request.
- 6) All records shall be maintained for five years.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission units exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

Permit Condition EU0020-002

10 CSR 10-6.400

Control of Emission of Particulate Matter From Industrial Processes

Emission Limitation:

- 1) Particulate matter shall not be emitted from EU0020 in excess of 7.58 lb/hr.
- 2) The emission rates were calculated using the following equation:
 - a) For process weight rates of 60,000 lb/hr or less:
 - b) $E = 4.10(P)^{0.67}$
 - c) Where:
 - d) E = rate of emission in lb/hr
 - e) P = process weight rate in tons/hr
- 3) The concentration of particulate matter in the exhaust gases shall not exceed 0.30 gr/scf.

Monitoring/Recordkeeping:

- 1) The permittee shall retain the potential to emit calculations in Attachment I, which demonstrate that the above emission limitations will not be exceeded.
- 2) The calculation shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 3) All records shall be kept for a period of five years.

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

EU0030			
Shakeout and Tumble Cleaning			
Emission Unit #	General Description	Manufacturer/ Model #	EIQ Reference # (2003)
EU0030	Casting shakeout machine, rotary cleaning machine, sand is separated from part and returned to silo; MHDR 19.185 tons sand; equipped with baghouse with 100% capture efficiency and 89.2% control efficiency	Didion/MD-50	EP-005

Permit Condition EU0030-001**10 CSR 10-6.220****Restriction of Emissions of Visible Air Contaminants****Emission Limitation:**

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any new source visible emissions with an opacity greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60%.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit (EU0030) using the procedures contained in USEPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- 2) The following monitoring schedule must be maintained:
 - a) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.
- 3) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Recordkeeping:

- 1) The permittee shall maintain records of all observation results (see Attachment B and C), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and
 - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment D)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment E)
- 4) Attachments B, C, D and E contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available immediately for inspection to Department of Natural Resources personnel upon request.
- 6) All records shall be maintained for five years.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission units exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

Permit Condition EU0030-002**10 CSR 10-6.400****Control of Emission of Particulate Matter From Industrial Processes****Emission Limitation:**

- 1) Particulate matter shall not be emitted from EU0030 in excess of 29.67 lb/hr.
- 2) These emission rates were calculated using the following equation:
 - a) For process weight rates of 60,000 lb/hr or less:
$$E = 4.10(P)^{0.67}$$

Where:
E = rate of emission in lb/hr
P = process weight rate in tons/hr
- 3) The concentration of particulate matter in the exhaust gases shall not exceed 0.30 gr/scf.

Monitoring:

- 1) The dust collector shall be maintained such that the pressure drop remains in the normal operating range of two to eight inches of water whenever the emission units are in operation. A pressure drop reading of less than two inches may be observed for a period following the installation of a new bag.
- 2) All instruments and control equipment shall be calibrated, maintained, and operated according to the manufacturer's specifications and recommendations.
- 3) Check and document the dust collector pressure drop daily, whenever the emission unit is in operation. If the pressure drop falls out of the normal operating range, corrective action shall be taken as soon as practicable but within eight hours to return the pressure drop to normal.
- 4) Check and document the cleaning sequence of the dust collector every six months.
- 5) Inspect bags for leaks and wear every six months.
- 6) Inspect all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods every six months.

Recordkeeping:

- 1) The permittee shall document all pressure drop readings. (see Attachment F)
- 2) All inspections, corrective actions, and instrument calibration shall be recorded. (see Attachment D)
- 3) Attachments D and F contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement
- 4) All records shall be maintained for five years.
- 5) Records may be kept in either written or electronic form.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined that the emission unit(s) exceeded the emission limitation(s) and/or pressure drop range listed above.

- 2) Reports of any deviations from monitoring other than the pressure drop range, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

EU0040

Cleaning of Molded Part #1

Emission Unit #	General Description	Manufacturer/ Model #	EIQ Reference # (2003)
EU0040	Cleaning of molded part; MHDR 2.5 tons metal processed; equipped with baghouse with 95% capture efficiency and 89.24% control efficiency; installed 1980	In-house	EP-006

Permit Condition EU0040-001

10 CSR 10-6.220

Restriction of Emissions of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any new source any visible emissions with an opacity greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60%.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit (EU0040) using the procedures contained in USEPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- 2) The following monitoring schedule must be maintained:
 - a) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.
- 3) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Recordkeeping:

- 1) The permittee shall maintain records of all observation results (see Attachment B and C), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and
 - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment D)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment E)
- 4) Attachments B, C, D and E contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.

- 5) These records shall be made available immediately for inspection to Department of Natural Resources personnel upon request.
- 6) All records shall be maintained for five years.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission units exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

**Permit Condition EU0040-002
10 CSR 10-6.400**

Control of Emission of Particulate Matter From Industrial Processes

Emission Limitation:

- 1) Particulate matter shall not be emitted from EU0040 in excess of 7.58 lb/hr.
- 2) The emission rates were calculated using the following equation:
 - a) For process weight rates of 60,000 lb/hr or less:
$$E = 4.10(P)^{0.67}$$
Where:
E = rate of emission in lb/hr
P = process weight rate in tons/hr
- 3) The concentration of particulate matter in the exhaust gases shall not exceed 0.30 gr/scf.

Monitoring:

- 1) The dust collector shall be maintained such that the pressure drop remains in the normal operating range of two to eight inches of water whenever the emission units are in operation. A pressure drop reading of less than two inches may be observed for a period following the installation of a new bag.
- 2) All instruments and control equipment shall be calibrated, maintained, and operated according to the manufacturer's specifications and recommendations.
- 3) Check and document the dust collector pressure drop daily, whenever the emission unit is in operation. If the pressure drop falls out of the normal operating range, corrective action shall be taken as soon as practicable but within eight hours to return the pressure drop to normal.
- 4) Check and document the cleaning sequence of the dust collector every six months.
- 5) Inspect bags for leaks and wear every six months.
- 6) Inspect all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods every six months.

Recordkeeping:

- 1) The permittee shall document all pressure drop readings. (see Attachment F)
- 2) All inspections, corrective actions, and instrument calibration shall be recorded. (see Attachment D)
- 3) Attachments D and F contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement
- 4) All records shall be maintained for five years.
- 5) Records may be kept in either written or electronic form.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined that the emission unit(s) exceeded the emission limitation(s) and/or pressure drop range listed above.
- 2) Reports of any deviations from monitoring other than the pressure drop range, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

EU0050			
Gate and Riser Cut Off & Grinding			
Emission Unit #	General Description	Manufacturer/ Model #	EIQ Reference # (2003)
EU0050	Five (5) cutting and grinding stations connected to a single stack; total MHDR 2.5 ton/hr metal processed, equipped with medium temperature baghouse, CD4, with 100% capture efficiency and 89.23% control efficiency; installed 1974	Various	EP-007

Permit Condition EU0050-001
10 CSR 10-6.220

Restriction of Emissions of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any new source any visible emissions with an opacity greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60%.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit (EU0050) using the procedures contained in USEPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- 2) The following monitoring schedule must be maintained:
 - a) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.
- 3) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Recordkeeping:

- 1) The permittee shall maintain records of all observation results (see Attachment B and C), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and

- c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment D)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment E)
- 4) Attachments B, C, D and E contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available immediately for inspection to Department of Natural Resources personnel upon request.
- 6) All records shall be maintained for five years.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission units exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

Permit Condition EU0050-002**10 CSR 10-6.400****Control of Emission of Particulate Matter From Industrial Processes****Emission Limitation:**

- 1) Particulate matter shall not be emitted from EU0050 in excess of 7.58 lb/hr.
- 2) The emission rate was calculated using the following equation:
 - a) For process weight rates of 60,000 lb/hr or less:
$$E = 4.10(P)^{0.67}$$

Where:
E = rate of emission in lb/hr
P = process weight rate in tons/hr
- 3) The concentration of particulate matter in the exhaust gases shall not exceed 0.30 gr/scf.

Monitoring:

- 1) The dust collector, CD4, shall be maintained such that the pressure drop remains in the normal operating range of two to eight inches of water whenever the emission units are in operation. A pressure drop reading of less than two inches may be observed for a period following the installation of a new bag.
- 2) All instruments and control equipment shall be calibrated, maintained, and operated according to the manufacturer's specifications and recommendations.
- 3) Check and document the dust collector pressure drop daily, whenever the emission unit is in operation. If the pressure drop falls out of the normal operating range, corrective action shall be taken as soon as practicable but within eight hours to return the pressure drop to normal.
- 4) Check and document the cleaning sequence of the dust collector every six months.
- 5) Inspect bags for leaks and wear every six months.
- 6) Inspect all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods every six months.

Recordkeeping:

- 1) The permittee shall document all pressure drop readings. (see Attachment F)
- 2) All inspections, corrective actions, and instrument calibration shall be recorded. (see Attachment D)

- 3) Attachments D and F contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement
- 4) All records shall be maintained for five years.
- 5) Records may be kept in either written or electronic form.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined that the emission unit(s) exceeded the emission limitation(s) and/or pressure drop range listed above.
- 2) Reports of any deviations from monitoring other than the pressure drop range, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

EU0060 Tumble Blast Cleaning			
Emission Unit #	General Description	Manufacturer/ Model #	EIQ Reference # (2003)
EU0060	Tumble blast cleaning of steel parts; MHDR 1.5 tons metal; equipped with low temperature fabric filter, CD9, with 95% capture efficiency and 89.2% control efficiency	Wheelabrator/N/A	EP-009

Permit Condition EU0060-001

10 CSR 10-6.220

Restriction of Emissions of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any new source visible emissions with an opacity greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60%.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit (EU0060) using the procedures contained in USEPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- 2) The following monitoring schedule must be maintained:
 - a) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.
- 3) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Recordkeeping:

- 1) The permittee shall maintain records of all observation results (see Attachment B and C), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and
 - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment F)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment E)
- 4) Attachments B, C, D and E contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available immediately for inspection to Department of Natural Resources personnel upon request.
- 6) All records shall be maintained for five years.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission units exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

Permit Condition EU0060-002**10 CSR 10-6.400****Control of Emission of Particulate Matter From Industrial Processes****Emission Limitation:**

- 1) Particulate matter shall not be emitted from EU0060 in excess of 5.38 lb/hr.
- 2) The emission rate was calculated using the following equation:
 - a) For process weight rates of 60,000 lb/hr or less:
$$E = 4.10(P)^{0.67}$$

Where:
E = rate of emission in lb/hr
P = process weight rate in tons/hr
- 3) The concentration of particulate matter in the exhaust gases shall not exceed 0.30 gr/scf.

Monitoring/Recordkeeping:

- 1) The permittee shall retain the potential to emit calculations in Attachment I, which demonstrate that the above emission limitations will not be exceeded.
- 2) The calculation shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 3) All records shall be kept for a period of five years.

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

EU0070			
Finish/Patch Grinding			
Emission Unit #	General Description	Manufacturer/ Model #	EIQ Reference # (2003)
EU0070	Grinding and handling of molded parts; MHDR 1.5 tons metal; equipped with medium temperature fabric filter, CD5, with 95% capture efficiency and 89.24% control efficiency	N/A	EP-010

Permit Condition EU0070-001**10 CSR 10-6.220****Restriction of Emissions of Visible Air Contaminants****Emission Limitation:**

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any new source any visible emissions with an opacity greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60%.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit (EU0070) using the procedures contained in USEPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- 2) The following monitoring schedule must be maintained:
 - a) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.
- 3) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Recordkeeping:

- 1) The permittee shall maintain records of all observation results (see Attachment B and C), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and
 - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment D)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment E)
- 4) Attachments B, C, D and E contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available immediately for inspection to Department of Natural Resources personnel upon request.
- 6) All records shall be maintained for five years.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission units exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

Permit Condition EU0070-002**10 CSR 10-6.400****Control of Emission of Particulate Matter From Industrial Processes****Emission Limitation:**

- 1) Particulate matter shall not be emitted from EU0070 in excess of 5.38 lb/hr.
- 2) The emission rate was calculated using the following equation:
 - a) For process weight rates of 60,000 lb/hr or less:
$$E = 4.10(P)^{0.67}$$
Where:
E = rate of emission in lb/hr
P = process weight rate in tons/hr
- 3) The concentration of particulate matter in the exhaust gases shall not exceed 0.30 gr/scf.

Monitoring:

- 1) The dust collector, CD5, shall be maintained such that the pressure drop remains in the normal operating range of two to eight inches of water whenever the emission units are in operation. A pressure drop reading of less than two inches may be observed for a period following the installation of a new bag.
- 2) All instruments and control equipment shall be calibrated, maintained, and operated according to the manufacturer's specifications and recommendations.
- 3) Check and document the dust collector pressure drop daily, whenever the emission unit is in operation. If the pressure drop falls out of the normal operating range, corrective action shall be taken as soon as practicable but within eight hours to return the pressure drop to normal.
- 4) Check and document the cleaning sequence of the dust collector every six months.
- 5) Inspect bags for leaks and wear every six months.
- 6) Inspect all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods every six months.

Recordkeeping:

- 1) The permittee shall document all pressure drop readings. (see Attachment F)
- 2) All inspections, corrective actions, and instrument calibration shall be recorded. (see Attachment D)
- 3) Attachments D and F contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement
- 4) All records shall be maintained for five years.
- 5) Records may be kept in either written or electronic form.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined that the emission unit(s) exceeded the emission limitation(s) and/or pressure drop range listed above.

- 2) Reports of any deviations from monitoring other than the pressure drop range, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

EU0080

Cleaning of Molded Part #2

Emission Unit #	General Description	Manufacturer/ Model #	EIQ Reference # (2003)
EU0080	Cleaning of molded part; MHDR 1.5 tons metal processed; equipped with baghouse with 95% capture efficiency and 89.5% control efficiency	Wheelabrator	EP-015

Permit Condition EU0080-001

10 CSR 10-6.220

Restriction of Emissions of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any new source any visible emissions with an opacity greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60%.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit (EU0080) using the procedures contained in USEPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- 2) The following monitoring schedule must be maintained:
 - a) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.
- 3) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Recordkeeping:

- 1) The permittee shall maintain records of all observation results (see Attachment B and C), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and
 - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment D)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment E)
- 4) Attachments B, C, D and E contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.

- 5) These records shall be made available immediately for inspection to Department of Natural Resources personnel upon request.
- 6) All records shall be maintained for five years.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission units exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

Permit Condition EU0080-002**10 CSR 10-6.400****Control of Emission of Particulate Matter From Industrial Processes****Emission Limitation:**

- 1) Particulate matter shall not be emitted from EU0080 in excess of 5.38 lb/hr.
- 2) The emission rates were calculated using the following equation:
 - a) For process weight rates of 60,000 lb/hr or less:

$$E = 4.10(P)^{0.67}$$
 Where:
 E = rate of emission in lb/hr
 P = process weight rate in tons/hr
- 3) The concentration of particulate matter in the exhaust gases shall not exceed 0.30 gr/scf.

Monitoring/Recordkeeping:

- 1) The permittee shall retain the potential to emit calculations in Attachment I, which demonstrate that the above emission limitations will not be exceeded.
- 2) The calculation shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 3) All records shall be kept for a period of five years.

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

EU0090 through EU0150

Spray Paint Booth #1
 Spray Paint Booth #2
 Spray Paint Booth #3
 Spray Paint Booth #4
 Dip Paint Operation #1
 Dip Paint Operation #2
 Curing Oven

Emission Unit #	General Description	Manufacturer/ Model #	EIQ Reference # (2003)
EU0090	Spray paint booth #1; painting of metal parts and products; MHDR 17.5 gal/hr; equipped with nonwoven synthetic filter with 99.76% capture efficiency and 80% control efficiency; installed pre-1996	In-house	EP-013
EU0100	Spray paint booth #2; painting of metal parts and products; MHDR 8.75 gal/hr; equipped with nonwoven synthetic filter with 99.76% capture efficiency and 80% control efficiency; installed pre-1996	In-house	EP-013
EU0110	Spray paint booth #3; painting of metal parts and products; MHDR 8.75 gal/hr; equipped with nonwoven synthetic filter with 99.76% capture efficiency and 80% control efficiency; installed pre-1996	In-house	EP-013
EU0120	Spray paint booth #4; painting of metal parts and products with one high pressure low volume spray gun; MHDR 2.45 gal/hr; equipped with nonwoven synthetic filter; installed 1998	In-house	EP-027
EU0130	Dip paint operation #1; MHDR 34.3 gal/hr; installed 2001	In-house	EP-028
EU0140	Dip paint operation #2; MHDR 0.935 gal/hr; installed 2003	In-house	N/A
EU0150	Curing oven; MHDR 2.6 MMBtu/hr; pipeline grade natural gas; installed 2000	In-house	EP-030

⁵NESHAP Compliance Option A - Compliant Materials

<p>Permit Condition (EU0090 through EU0150)-001 10 CSR 10-6.075 Maximum Achievable Control Technology Regulations 40 CFR Part 63 Subpart M National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products 40 CFR Part 63 Subpart A General Provisions</p>
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Emission Limitation:

- 1) The permittee must limit organic HAP emissions to the atmosphere from the affected source to no more than 0.31 kg (2.6 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period determined according to the requirements in §§63.3941, 63.3951, or 63.3961. [§63.3890(b) and §63.3890(b)(1)]
- 2) Any coating operation(s) for which you use the compliant material option as specified in §63.3891(a), must be in compliance with the applicable emission limit in §63.3890 at all times. [§63.3900(a)(1)]

Compliance Demonstration:

⁵ NESHAP Compliance Options - The facility may apply any of the three allowed compliance options: **Option A - Compliance Material, Option B - Emission Rate without Add-On Controls** and **Option C - Emission Rate with Add-On Controls.**

Compliance Date

- 1) The date by which you must comply with subpart MMMM is called the compliance date. The compliance date is January 2, 2007. The compliance date begins the initial compliance period during which you conduct the initial compliance demonstration described in §63.3940. [§63.3883 and §63.3883(b)]
- 2) The permit must meet the notification requirements in §63.3910 according to the dates specified in that section and in subpart A of part 63. [§63.3883(d)]

Initial Compliance Demonstration

- 1) You must complete the initial compliance demonstration for the initial compliance period according to the requirements in §63.3941. The initial compliance period begins on January 2, 2007 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through that month plus the next 12 months. The initial compliance demonstration includes the calculations according to §63.3941 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 §63.3890, and that you used no thinners and/or other additives, or cleaning materials that contained organic HAP as determined according to §63.3941(a). [§63.3940]
- 2) 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 initial compliance using the compliant material option, the coating operation or group of coating operations must use no coating with an organic HAP content that exceeds the applicable emission limits in §63.3890 and must use no thinner and/or other additive, or cleaning material that contains organic HAP as determined according to §63.3941. Any coating operating for which you use the compliant material option is not required to meet the operating limits or work practice standards required in §§63.3892 and 63.3893, respectively. [§63.3941]
- 3) You must meet all the requirements of §63.3941. Use the procedures in §63.3941 on each coating, thinner and/or other additive, 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 coatings, thinners and/or other additives, and cleaning materials that are reclaimed on-site (or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site) and reused in the coating operation for which you use the compliant material option, provided these materials in their condition as received were demonstrated to comply with the compliant material option. [§63.3941]
- 4) *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 §63.3890; and each thinner and/or other additive, and cleaning material used during the initial compliance period must contain no organic HAP, determined according to §63.3941(a). You must keep all records required by §§63.3930 and 63.3931. As part of the notification of compliance status required in §63.3910, you must identify the coating operation(s) for which you used the compliant material option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because you used no coatings for which the organic HAP content exceeded the applicable emission limit in §63.3890, and you used no thinners and/or other additives, or cleaning materials that contained organic HAP, determined according to the procedures in §63.3941(a). [§63.3941(e)]

Continuous Compliance Demonstration

- 1) For each compliance period to demonstrate continuous compliance, you must use no coating for which the organic HAP content (determined using Equation 2 of §63.3941) exceeds the applicable emission limit in §63.3890, and use no thinner and/or other additive, or cleaning material that contains organic HAP, determined according to §63.3941(a). A compliance period consists of 12 months. Each month, after the end of the initial compliance period described in §63.3940, is the end of a compliance period consisting of that month and the preceding 11 months. [§63.3942(a)]
- 2) The use of any coating, thinner and/or other additive, or cleaning material that does not meet the criteria specified in §63.3942(a) is a deviation from the emission limitations that must be reported as specified in §§63.3910(c)(6) and 63.3920(a)(5). [§63.3942(b)]

- 3) As part of each semiannual compliance report required by §63.3920, you must identify the coating operation(s) for which you used the compliant material option. If there were no deviations from the applicable emission limit in §63.3890, submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the reporting period because you used no coatings for which the organic HAP content exceeded the applicable emission limit in §63.3890, and you used no thinner and/or other additive, or cleaning material that contained organic HAP, determined according to §63.3941(a). [§63.3942(c)]
- 4) You must maintain records as specified in §§63.3930 and 63.3931. [§63.3942(d)]

Test Methods and Calculations:

- 1) *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/or other additive, and cleaning material used during the compliance period by using one of the options in §63.3941(a)(1) through (5). [§63.3941(a)]
 - a) *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 §63.3941(a)(1)(i) and (ii) when performing a Method 311 test. [§63.3941(a)(1)]
 - 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 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 (*e.g.*, 0.3791). [§63.3941(a)(1)(i)]
 - 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 (*e.g.*, 0.763). [§63.3941(a)(1)(ii)]
 - b) *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. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, you may use the alternative method contained in Appendix A to 40 CFR Part 63, subpart PPPP, rather than Method 24. You may use the volatile fraction that is emitted, as measured by the alternative method in Appendix A to 40 CFR Part 63, subpart PPPP, as a substitute for the mass fraction of organic HAP. [§63.3941(a)(2)]
 - c) *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. [§63.3941(a)(3)]
 - d) *Information from the supplier or manufacturer of the material.* You may rely on information other than that generated by the test methods specified in §63.3941(a)(1) through (3), 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 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. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, you may rely on manufacturer's data that expressly states the organic HAP or volatile matter mass fraction emitted. If there is a disagreement between such information and results of a test conducted according to §63.3941(a)(1) through (3), then the test method results will take precedence unless, after consultation, you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct. [§63.3941(a)(4)]
 - e) *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 40 CFR Part 63, subpart MMMM. (see Attachments M and N) If you use the tables, you must use the values in Table 3 for all solvent blends that match Table 3 entries according to the instructions for Table 3, and you may use Table 4 only if the solvent blends in the materials you use do not match any of the solvent

blends in Table 3 and you know only whether the blend is aliphatic or aromatic. However, if the results of a Method 311 (Appendix A to 40 CFR Part 63) test indicate higher values than those listed on Table 3 or 4 to 40 CFR Part 63, subpart MMMM (see Attachments M and N), the Method 311 results will take precedence unless, after consultation, you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct. [§63.3941(a)(5)]

- 2) *Determine the volume fraction of coating solids for each coating.* You must determine the volume fraction of coating solids (liters (gal) of coating solids per liter (gal) of coating) for each coating used during the compliance period by a test, by information provided by the supplier or the manufacturer of the material, or by calculation, as specified in §63.3941(b)(1) through (4). If test results obtained according to §63.3941(b)(1) do not agree with the information obtained under §63.3941(b)(3) or (4), the test results will take precedence unless, after consultation, you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct. [§63.3941(b)]
- a) *ASTM Method D2697-86 (Reapproved 1998) or ASTM Method D6093-97 (Reapproved 2003).* 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 ASTM Method D6093-97 (Reapproved 2003), “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. [§63.3941(b)(1)]
- b) *Alternative method.* You may use an alternative test method for determining the solids content of each coating once the Administrator has approved it. You must follow the procedure in §63.7(f) to submit an alternative test method for approval. [§63.3941(b)(2)]
- c) *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. [§63.3941(b)(3)]
- d) *Calculation of volume fraction of coating solids.* You may determine the volume fraction of coating solids using Equation 1 of §63.3941: [§63.3941(b)(4)]

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

Where:

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

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

D_{avg} = Average density of volatile matter in the coating, grams volatile matter per liter volatile matter, determined from test results using ASTM Method D1475-98, “Standard Test Method for Density of Liquid Coatings, Inks, and Related Products” (incorporated by reference, see §63.14), 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 D1475-98 test results and other information sources, the test results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

- 3) *Determine the density of each coating.* Determine the density of each coating used during the compliance period from test results using ASTM Method D1475-98, “Standard Test Method for Density of Liquid Coatings, Inks, and Related Products” (incorporated by reference, see §63.14), information from the supplier or manufacturer of the material, or specific gravity data for pure chemicals. If there is disagreement between ASTM Method D1475-98 test results and the supplier's or manufacturer's information, the test results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct. [§63.3941(c)]
- 4) *Determine the organic HAP content of each coating.* Calculate the organic HAP content, kg (lb) of organic HAP emitted per liter (gal) coating solids used, of each coating used during the compliance period using Equation 2 of §63.3941: [§63.3941(d)]

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

Where:

H_c = Organic HAP content of the coating, kg organic HAP emitted per liter (gal) coating solids used.

D_c = Density of coating, kg coating per liter (gal) coating, determined according to §63.3941(c).

W_c = Mass fraction of organic HAP in the coating, kg organic HAP per kg coating, determined according to §63.3941(a).

V_s = Volume fraction of coating solids, liter (gal) coating solids per liter (gal) coating, determined according to §63.3941(b).

Monitoring:

You must always operate and maintain your affected source, according to the provisions in §63.6(e)(1)(i). [§63.3900(b)]

Recordkeeping:

- 1) You must collect and keep records of the data and information specified in §63.3930. Failure to collect and keep these records is a deviation from the applicable standard. [§63.3930]
- 2) A copy of each notification and report that you submitted to comply with 40 CFR Part 63, subpart M, and the documentation supporting each notification and report. [§63.3930(a)]
- 3) A current copy of information provided by materials suppliers or manufacturers, such as manufacturer's formulation data, or test data used to determine the mass fraction of organic HAP and density for each coating, thinner and/or other additive, 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. [§63.3930(b)]
- 4) For each compliance period, the records specified in §63.3930(c)(1) and (2). [§63.3930(c)]
 - a) A record of the coating operations on which you used each compliance option and the time periods (beginning and ending dates and times) for each option you used. (see Attachment J) [§63.3930(c)(1)]
 - b) For the compliant material option, a record of the calculation of the organic HAP content for each coating, using Equation 2 of §63.3941. [§63.3930(c)(2)]
- 5) A record of the name and volume of each coating, thinner and/or other additive, and cleaning material used during each compliance period shall be kept. If you are using the compliant material option for all coatings at the source, you may maintain purchase records for each material used rather than a record of the volume used. (see Attachment K) [§63.3930(d)]
- 6) A record of the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during each compliance period unless the material is tracked by weight. (see Attachment K) [§63.3930(e)]
- 7) A record of the volume fraction of coating solids for each coating used during each compliance period. (see Attachment K) [§63.3930(f)]
- 8) You must keep records of the date, time, and duration of each deviation. [§63.3930(j)]
- 9) 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. [§63.3931(a)]
- 10) 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. [§63.3931(b)]
- 11) 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 the records off-site for the remaining 3 years. [§63.3931(c)]

Reporting:

- 1) *General.* You must submit the notifications in §§63.7(b) and (c), 63.8(f)(4), and 63.9(b) through (e) and (h) that apply to you by the dates specified in those sections, except as provided in §63.3910(b) and (c). [§63.3910(a)]
- 2) *Initial Notification.* You must submit the initial notification no later than 1 year after January 2, 2004. [§63.3910(b)]
- 3) *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 §63.3940 that applies to your affected source. The notification of compliance status must contain the information specified in §63.3910(c)(1) through (8) and in §63.9(h). [§63.3910(c)]
 - a) Company name and address. [§63.3910(c)(1)]
 - b) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. [§63.3910(c)(2)]
 - c) Date of the report and beginning and ending dates of the reporting period. The reporting period is the initial compliance period described in §63.3940 that applies to your affected source. [§63.3910(c)(3)]
 - d) Identification of the compliance option or options specified in §63.3891 that you used on each coating operation in the affected source during the initial compliance period. [§63.3910(c)(4)]
 - e) Statement of whether or not the affected source achieved the emission limitations for the initial compliance period. [§63.3910(c)(5)]
 - f) If you had a deviation, include the information in §63.3910(c)(6)(i) and (ii). [§63.3910(c)(6)]
 - i) A description and statement of the cause of the deviation. [§63.3910(c)(6)(i)]
 - ii) If you failed to meet the applicable emission limit in §63.3890, include all the calculations you used to determine the kg (lb) of organic HAP emitted per liter (gal) coating solids used. You do not need to submit information provided by the materials' suppliers or manufacturers, or test reports. [§63.3910(c)(6)(ii)]
 - g) For each of the data items listed in §63.3910(c)(7)(i) through (iii) 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 may 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 §63.3941(a), (b), or (c). You do not need to submit copies of any test reports. [§63.3910(c)(7)]
 - i) Mass fraction of organic HAP for one coating, for one thinner and/or other additive, and for one cleaning material. [§63.3910(c)(7)(i)]
 - ii) Volume fraction of coating solids for one coating. [§63.3910(c)(7)(ii)]
 - iii) Example coating density. [§63.3910(c)(7)(iii)]
 - h) The calculation of kg (lb) of organic HAP emitted per liter (gal) coating solids used for the compliance option(s) you used, as specified in §63.3910(c)(8)(i). [§63.3910(c)(8)]
 - i) Provide an example calculation of the organic HAP content for one coating, using Equation 2 of §63.3941. [§63.3910(c)(8)(i)]
- 4) *Semiannual compliance reports.* You must submit semiannual compliance reports for each affected source according to the requirements of §63.3920(a)(1) through (5). The semiannual compliance reporting requirements may be satisfied by reports required under other parts of the Clean Air Act (CAA), as specified in §63.3920(a)(2). [§63.3920(a)]
 - a) *Dates.* Unless the Administrator has approved or agreed to 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 §63.3920(a)(1)(i) through (iv). Note that the information reported for each of the months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation. [§63.3920(a)(1)]
 - 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 §63.3940 that applies to your affected source and ends on June 30 or December 31, whichever date is the first date following the end of the initial compliance period. [§63.3920(a)(1)(i)]

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- 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. [§63.3920(a)(1)(ii)]
 - 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. [§63.3920(a)(1)(iii)]
 - 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 semiannual 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 compliance reports according to the dates the permitting authority has established instead of according to the date specified in §63.3920(a)(1)(iii). [§63.3920(a)(1)(iv)]
- b) *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 40 CFR Part 63, subpart Mmmm in the semiannual 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 along with, or as part of, the semiannual 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 required information concerning deviations from any emission limitation in 40 CFR Part 63, subpart Mmmm, its submission will be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, 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. [§63.3920(a)(2)]
- c) *General Requirements.* The semiannual compliance report must contain the information specified in §63.3920(a)(3)(i) through (iv), and the information specified in §63.3920(a)(4) and (5) that is applicable to your affected source. [§63.3920(a)(3)]
- i) Company name and address. [§63.3920(a)(3)(i)]
 - ii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. [§63.3920(a)(3)(ii)]
 - 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. Note that the information reported for each of the 6 months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation. [§63.3920(a)(3)(iii)]
 - iv) Identification of the compliance option or options specified in §63.3891 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 for each option you used. [§63.3920(a)(3)(iv)]
- d) *No Deviations.* If there were no deviations from the emission limitations in §63.3890, that apply to you, the semiannual compliance report must include a statement that there were no deviations from the emission limitations during the reporting period. [§63.3920(a)(4)]
- e) *Deviations:* If there was a deviation from the applicable organic HAP content requirements in §63.3890, the semiannual compliance report must contain the information in §63.3920(a)(5)(i) through (iv). [§63.3920(a)(5)]
- i) Identification of each coating used that deviated from the applicable emission limit, and each thinner and/or other additive, and cleaning material used that contained organic HAP, and the dates and time periods each was used. [§63.3920(a)(5)(i)]
 - ii) The calculation of the organic HAP content (using Equation 2 of §63.3941) for each coating identified in §63.3920(a)(5)(i). You do not need to submit background data supporting this calculation (e.g., information provided by coating suppliers or manufacturers, or test reports). [§63.3920(a)(5)(ii)]
 - iii) The determination of mass fraction of organic HAP for each thinner and/or other additive, and cleaning material identified in §63.3920(a)(5)(i). You do not need to submit background data supporting this calculation (e.g., information provided by material suppliers or manufacturers, or test reports). [§63.3920(a)(5)(iii)]
 - iv) A statement of the cause of each deviation. [§63.3920(a)(5)(iv)]

⁶NESHAP Compliance Option B - Emission Rate without Add-On Controls

**Permit Condition (EU0090 through EU0150)-001
10 CSR 10-6.075**

Maximum Achievable Control Technology Regulations

40 CFR Part 63 Subpart M

National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products

40 CFR Part 63 Subpart A

General Provisions

Emission Limitation:

- 1) The permittee must limit organic HAP emissions to the atmosphere from the affected source to no more than 0.31 kg (2.6 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period determined according to the requirements in §§63.3941, 63.3951, or 63.3961. [§63.3890(b) and §63.3890(b)(1)]
- 2) Any coating operation(s) for which you use the emission rate without add-on control option, as specified in §63.3891(b), must be in compliance with the applicable emission limit in §63.3890 at all times. [§63.3900(a)(1)]

Compliance Demonstration:

Compliance Date

- 1) The date by which you must comply with subpart M is called the compliance date. The compliance date is January 2, 2007. The compliance date begins the initial compliance period during which you conduct the initial compliance demonstration described in §63.3950. [§63.3883 and §63.3883(b)]
- 2) The permit must meet the notification requirements in §63.3910 according to the dates specified in that section and in subpart A of part 63. [§63.3883(d)]

Initial Compliance Demonstration

- 3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of §63.3951. The initial compliance period begins on January 2, 2007 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. You must determine the mass of organic HAP emissions and volume of coating solids used each month and then calculate an organic HAP emission rate at the end of the initial compliance period. The initial compliance demonstration includes the calculations according to §63.3951 and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the applicable emission limit in §63.3890. [§63.3950]
- 4) 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. 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 meet the applicable emission limit in §63.3890, but is not required to meet the operating limits or work practice standards in §§63.3892 and 63.3893, respectively. [§63.3951]
- 5) You must meet all the requirements of §63.3951. When calculating the organic HAP emission rate according to §63.3951, do not include any coatings, thinners and/or other additives, 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 redetermine the mass of organic HAP in coatings, thinners and/or other additives, or cleaning materials

⁶ NESHAP Compliance Options - The facility may apply any of the three allowed compliance options: **Option A - Compliance Material and Option B - Emission Rate without Add-On Controls**

that have been reclaimed on-site (or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site) and reused in the coating operation for which you use the emission rate without add-on controls option. If you use coatings, thinners and/or other additives, or cleaning materials that have been reclaimed on-site, the amount of each used in a month may be reduced by the amount of each that is reclaimed. That is, the amount used may be calculated as the amount consumed to account for materials that are reclaimed.

[§63.3951]

- 6) *Compliance demonstration.* The organic HAP emission rate for the initial compliance period calculated using Equation 3 of §63.3951 must be less than or equal to the applicable emission limit in §63.3890. You must keep all records as required by §§63.3930 and 63.3931. As part of the notification of compliance status required by §63.3910, you must identify the coating operation(s) for which you used the emission rate without add-on controls option and submit a statement that the coating operation(s) was (were) 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 §63.3890, determined according to the procedures in §63.3951. [§63.3951(h)]

Continuous Compliance Demonstration

- 7) To demonstrate continuous compliance, the organic HAP emission rate for each compliance period, determined according to §63.3951(a) through (g), must be less than or equal to the applicable emission limit in §63.3890. A compliance period consists of 12 months. Each month after the end of the initial compliance period described in §63.3950 is the end of a compliance period consisting of that month and the preceding 11 months. You must perform the calculations in §63.3951(a) through (g) on a monthly basis using data from the previous 12 months of operation. [§63.3952(a)]
- 8) If the organic HAP emission rate for any 12-month compliance period exceeded the applicable emission limit in §63.3890, this is a deviation from the emission limitation for that compliance period and must be reported as specified in §§63.3910(c)(6) and 63.3920(a)(6). [§63.3952(b)]
- 9) As part of each semiannual compliance report required by §63.3920, you must identify the coating operation(s) for which you used the emission rate without add-on controls option. If there were no deviations from the emission limitations, you must submit a statement that the coating operation(s) was (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 §63.3890, determined according to §63.3951(a) through (g). [§63.3952(c)]
- 10) You must maintain records as specified in §§63.3930 and 63.3931. [§63.3952(d)]

Test Methods and Calculations:

- 1) *Determine the mass fraction of organic HAP for each material used.* Determine the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during each month according to the requirements in §63.3941(a). [§63.3951(a)]
- 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/or other additive, and cleaning material used during the compliance period by using one of the options in §63.3941(a)(1) through (5). [§63.3941(a)]
- i) *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 §63.3941(a)(1)(i) and (ii) when performing a Method 311 test. [§63.3941(a)(1)]
- (1) 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 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 (*e.g.*, 0.3791). [§63.3941(a)(1)(i)]
- (2) 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 (*e.g.*, 0.763). [§63.3941(a)(1)(ii)]

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- ii) *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. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, you may use the alternative method contained in Appendix A to 40 CFR Part 63, subpart PPPP, rather than Method 24. You may use the volatile fraction that is emitted, as measured by the alternative method in Appendix A to 40 CFR Part 63, subpart PPPP, as a substitute for the mass fraction of organic HAP. [§63.3941(a)(2)]
 - iii) *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. [§63.3941(a)(3)]
 - iv) *Information from the supplier or manufacturer of the material*. You may rely on information other than that generated by the test methods specified in §63.3941(a)(1) through (3), 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 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. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, you may rely on manufacturer's data that expressly states the organic HAP or volatile matter mass fraction emitted. If there is a disagreement between such information and results of a test conducted according to §63.3941(a)(1) through (3), then the test method results will take precedence unless, after consultation, you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct. [§63.3941(a)(4)]
 - v) *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 40 CFR Part 63, subpart MMMM. (see Attachments M and N) If you use the tables, you must use the values in Table 3 for all solvent blends that match Table 3 entries according to the instructions for Table 3, and you may use Table 4 only if the solvent blends in the materials you use do not match any of the solvent blends in Table 3 and you know only whether the blend is aliphatic or aromatic. However, if the results of a Method 311 (Appendix A to 40 CFR Part 63) test indicate higher values than those listed on Table 3 or 4 to 40 CFR Part 63, subpart MMMM (see Attachments M and N), the Method 311 results will take precedence unless, after consultation, you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct. [§63.3941(a)(5)]
- 2) *Determine the volume fraction of coating solids for each coating*. Determine the volume fraction of coating solids (liters (gal) of coating solids per liter (gal) of coating) for each month according to the requirements in §63.3941(b). [§63.3951(b)]
- a) *Determine the volume fraction of coating solids for each coating*. You must determine the volume fraction of coating solids (liters (gal) of coating solids per liter (gal) of coating) for each coating used during the compliance period by a test, by information provided by the supplier or the manufacturer of the material, or by calculation, as specified in §63.3941(b)(1) through (4). If test results obtained according to §63.3941(b)(1) do not agree with the information obtained under §63.3941(b)(3) or (4), the test results will take precedence unless, after consultation, you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct. [§63.3941(b)]
 - i) *ASTM Method D2697-86 (Reapproved 1998) or ASTM Method D6093-97 (Reapproved 2003)*. 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 ASTM Method D6093-97 (Reapproved 2003), "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. [§63.3941(b)(1)]

- ii) *Alternative method.* You may use an alternative test method for determining the solids content of each coating once the Administrator has approved it. You must follow the procedure in §63.7(f) to submit an alternative test method for approval. [§63.3941(b)(2)]
- iii) *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. [§63.3941(b)(3)]
- iv) *Calculation of volume fraction of coating solids.* You may determine the volume fraction of coating solids using Equation 1 of §63.3941: [§63.3941(b)(4)]

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

Where:

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

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

D_{avg} = Average density of volatile matter in the coating, grams volatile matter per liter volatile matter, determined from test results using ASTM Method D1475-98, "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products" (incorporated by reference, see §63.14), 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 D1475-98 test results and other information sources, the test results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

- 3) *Determine the density of each coating.* Determine the density of each liquid coating, thinner and/or other additive, and cleaning material used during each month from test results using ASTM Method D1475-98, "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products" (incorporated by reference, see §63.14), information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If you are including powder coatings in the compliance determination, determine the density of powder coatings, using ASTM Method D5965-02, "Standard Test Methods for Specific Gravity of Coating Powders" (incorporated by reference, see §63.14), or information from the supplier. If there is disagreement between ASTM Method D1475-98 or ASTM Method D5965-02 test results and other such information sources, the test results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct. If you purchase materials or monitor consumption by weight instead of volume, you do not need to determine material density. Instead, you may use the material weight in place of the combined terms for density and volume in Equations 1A, 1B, 1C, and 2 of §63.3951. [§63.3951(c)]
- 4) *Determine the volume of each material used.* Determine the volume (liters) of each coating, thinner and/or other additive, and cleaning material used during each month by measurement or usage records. If you purchase materials or monitor consumption by weight instead of volume, you do not need to determine the volume of each material used. Instead, you may use the material weight in place of the combined terms for density and volume in Equations 1A, 1B, and 1C of §63.3951. [§63.3951(d)]
- 5) *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/or other additives, and cleaning materials used during each month minus the organic HAP in certain waste materials. Calculate the mass of organic HAP emissions using Equation 1 of §63.3951. [§63.3951(e)]

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

Where:

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

A = Total mass of organic HAP in the coatings used during the month, kg, as calculated in Equation 1A of §63.3951

B = Total mass of organic HAP in the thinners and/or other additives used during the month, kg, as calculated in Equation 1B of §63.3951.

C = Total mass of organic HAP in the cleaning materials used during the month, kg, as calculated in Equation 1C of §63.3951.

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 month, kg, determined according to §63.3951(e)(4). (You may assign a value of zero to R_w if you do not wish to use this allowance.)

- a) Calculate the kg organic HAP in the coatings used during the month using Equation 1A of §63.3951: [§63.3951(e)(1)]

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

Where:

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

$\text{Vol}_{c,i}$ = Total volume of coating, i, used during the month, 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. For reactive adhesives as defined in §63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in Appendix A to subpart PPPP of part 63.

m = Number of different coatings used during the month.

- b) Calculate the kg of organic HAP in the thinners and/or other additives used during the month using Equation 1B of §63.3951: [§63.3951(e)(2)]

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

Where:

B = Total mass of organic HAP in the thinners and/or other additives used during the month, kg.

$\text{Vol}_{t,j}$ = Total volume of thinner and/or other additive, j, used during the month, liters.

$D_{t,j}$ = Density of thinner and/or other additive, j, kg per liter.

$W_{t,j}$ = Mass fraction of organic HAP in thinner and/or other additive, j, kg organic HAP per kg thinner and/or other additive. For reactive adhesives as defined in §63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in Appendix A to subpart PPPP of part 63.

n = Number of different thinners and/or other additives used during the month.

- c) Calculate the kg organic HAP in the cleaning materials used during the month using Equation 1C of §63.3951: [§63.3951(e)(3)]

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

Where:

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

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

- d) 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 Equation 1 of §63.3951, then you must determine the mass according to §63.3951(e)(4)(i) through (iv). [§63.3951(e)(4)]
- i) You may only include waste materials in the determination that are generated by coating operations in the affected source for which you use Equation 1 of §63.3951 and that will be treated or disposed of by a facility that is 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 organic HAP contained in wastewater. [§63.3951(e)(4)(i)]
 - ii) You must determine either the amount of the waste materials sent to a TSDF during the month or the amount collected and stored during the month and designated for future transport to a TSDF. Do not include in your determination any waste materials sent to a TSDF during a month if you have already included them in the amount collected and stored during that month or a previous month. [§63.3951(e)(4)(ii)]
 - iii) Determine the total mass of organic HAP contained in the waste materials specified in §63.3951(e)(4)(ii). [§63.3951(e)(4)(iii)]
 - iv) You must document the methodology you use to determine the amount of waste materials and the total mass of organic HAP they contain, as required in §63.3930(h). If 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. [§63.3951(e)(4)(iv)]
- 6) *Calculate the total volume of coating solids used.* Determine the total volume of coating solids used, liters, which is the combined volume of coating solids for all the coatings used during each month, using Equation 2 of §63.3951: [§63.3951(f)]

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

Where:

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

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

$V_{s,i}$ = Volume fraction of coating solids for coating, i, liter solids per liter coating, determined according to §63.3941(b).

m = Number of coatings used during the month.

- 7) *Calculate the organic HAP emission rate.* Calculate the organic HAP emission rate for the compliance period, kg (lb) organic HAP emitted per liter (gal) coating solids used, using Equation 3 of §63.3951: [§63.3951(g)]

$$H_{yr} = \frac{\sum_{y=1}^n H_e}{\sum_{y=1}^n V_{st}} \quad (\text{Eq. 3})$$

Where:

H_{yr} = Average organic HAP emission rate for the compliance period, kg organic HAP emitted per liter coating solids used.

H_e = Total mass of organic HAP emissions from all materials used during month, y, kg, as calculated by Equation 1 of §63.3951.

V_{st} = Total volume of coating solids used during month, y, liters, as calculated by Equation 2 of §63.3951.

y = Identifier for months.

n = Number of full or partial months in the compliance period (for the initial compliance period, n equals 12 if the compliance date falls on the first day of a month; otherwise n equals 13; for all following compliance periods, n equals 12).

Monitoring:

You must always operate and maintain your affected source, according to the provisions in §63.6(e)(1)(i). [§63.3900(b)]

Recordkeeping:

- 1) You must collect and keep records of the data and information specified in §63.3930. Failure to collect and keep these records is a deviation from the applicable standard. [§63.3930]
- 2) A copy of each notification and report that you submitted to comply with 40 CFR Part 63, subpart M, and the documentation supporting each notification and report. [§63.3930(a)]
- 3) A current copy of information provided by materials suppliers or manufacturers, such as manufacturer's formulation data, or test data used to determine the mass fraction of organic HAP and density for each coating, thinner and/or other additive, 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. [§63.3930(b)]
- 4) For each compliance period, the records specified in §63.3930(c)(1) and (c)(3). [§63.3930(c)]
 - a) A record of the coating operations on which you used each compliance option and the time periods (beginning and ending dates and times) for each option you used. (see Attachment J) [§63.3930(c)(1)]
 - b) A record of the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month using Equations 1, 1A through 1C, and 2 of §63.3951; and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to §63.3951(e)(4); the calculation of the total volume of coating solids used each month using Equation 2 of §63.3951; and the calculation of each 12-month organic HAP emission rate using Equation 3 of §63.3951. [§63.3930(c)(3)]
- 5) A record of the name and volume of each coating, thinner and/or other additive, and cleaning material used during each compliance period shall be kept. (see Attachment K) [§63.3930(d)]
- 6) A record of the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during each compliance period unless the material is tracked by weight. (see Attachment K) [§63.3930(e)]
- 7) A record of the volume fraction of coating solids for each coating used during each compliance period. (see Attachment K) [§63.3930(f)]
- 8) The density for each coating, thinner and/or other additive, and cleaning material used during each compliance period. (see Attachment K) [§63.3930(g)]
- 9) If you use an allowance in Equation 1 of §63.3951 for organic HAP contained in waste materials sent to or designated for shipment to a treatment, storage, and disposal facility (TSDF) according to §63.3951(e)(4), you must keep records of the information specified in §63.3930(h)(1) through (3). [§63.3930(h)]
 - a) The name and address of each TSDF to which you sent waste materials for which you use an allowance in Equation 1 of §63.3951; a statement of which subparts under 40 CFR Parts 262, 264, 265, and 266 apply to the facility; and the date of each shipment. [§63.3930(h)(1)]
 - b) 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 §63.3951. [§63.3930(h)(2)]
 - c) The methodology used in accordance with §63.3951(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. [§63.3930(h)(3)]
- 10) You must keep records of the date, time, and duration of each deviation. [§63.3930(j)]
- 11) 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. [§63.3931(a)]

- 12) 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. [§63.3931(b)]
- 13) 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 the records off-site for the remaining 3 years. [§63.3931(c)]

Reporting:

- 1) *General.* You must submit the notifications in §§63.7(b) and (c), 63.8(f)(4), and 63.9(b) through (e) and (h) that apply to you by the dates specified in those sections, except as provided in §63.3910(b) and (c). [§63.3910(a)]
- 2) *Initial Notification.* You must submit the initial notification no later than 1 year after January 2, 2004. [§63.3910(b)]
- 3) *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 §63.3950 that applies to your affected source. The notification of compliance status must contain the information specified in §63.3910(c)(1) through (11) and in §63.9(h). [§63.3910(c)]
 - a) Company name and address. [§63.3910(c)(1)]
 - b) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. [§63.3910(c)(2)]
 - c) Date of the report and beginning and ending dates of the reporting period. The reporting period is the initial compliance period described in §63.3950 that applies to your affected source. [§63.3910(c)(3)]
 - d) Identification of the compliance option or options specified in §63.3891 that you used on each coating operation in the affected source during the initial compliance period [§63.3910(c)(4)]
 - e) Statement of whether or not the affected source achieved the emission limitations for the initial compliance period. [§63.3910(c)(5)]
 - f) If you had a deviation, include the information in §63.3910(c)(6)(i) and (ii). [§63.3910(c)(6)]
 - i) A description and statement of the cause of the deviation. [§63.3910(c)(6)(i)]
 - ii) If you failed to meet the applicable emission limit in §63.3890, include all the calculations you used to determine the kg (lb) of organic HAP emitted per liter (gal) coating solids used. You do not need to submit information provided by the materials' suppliers or manufacturers, or test reports. [§63.3910(c)(1)(ii)]
 - g) For each of the data items listed in §63.3910(c)(7)(i) through (iv) 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 may 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 §63.3941(a), (b), or (c). You do not need to submit copies of any test reports. [§63.3910(c)(7)]
 - i) Mass fraction of organic HAP for one coating, for one thinner and/or other additive, and for one cleaning material. [§63.3910(c)(7)(i)]
 - ii) Volume fraction of coating solids for one coating. [§63.3910(c)(7)(ii)]
 - iii) Density for one coating, one thinner and/or other additive, and one cleaning material. [§63.3910(c)(7)(iii)]
 - 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 §63.3951. [§63.3910(c)(7)(iv)]
 - h) The calculation of kg (lb) of organic HAP emitted per liter (gal) coating solids used for the compliance option(s) you used, as specified in §63.3910(c)(8)(ii). [§63.3910(c)(8)]
 - i) Provide the calculation of the total mass of organic HAP emissions for each month; the calculation of the total volume of coating solids used each month; and the calculation of the 12-month organic HAP emission rate using Equations 1 and 1A through 1C, 2, and 3, respectively, of §63.3951. [§63.3910(c)(8)(ii)]
- 4) *Semiannual compliance reports.* You must submit semiannual compliance reports for each affected source according to the requirements of §63.3920(a)(1) through (4) and (6). The semiannual compliance reporting requirements may

be satisfied by reports required under other parts of the Clean Air Act (CAA), as specified in §63.3920(a)(2).
[§63.3920(a)]

- a) *Dates.* Unless the Administrator has approved or agreed to 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 §63.3920(a)(1)(i) through (iv). Note that the information reported for each of the months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation. [§63.3920(a)(1)]
- 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 §63.3950 that applies to your affected source and ends on June 30 or December 31, whichever date is the first date following the end of the initial compliance period. [§63.3920(a)(1)(i)]
 - 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. [§63.3920(a)(1)(ii)]
 - 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. [§63.3920(a)(1)(iii)]
 - 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 semiannual 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 compliance reports according to the dates the permitting authority has established instead of according to the date specified in §63.3920(a)(1)(iii). [§63.3920(a)(1)(iv)]
- b) *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 40 CFR Part 63, subpart MMMM in the semiannual 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 along with, or as part of, the semiannual 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 required information concerning deviations from any emission limitation in 40 CFR Part 63, subpart MMMM, its submission will be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, 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. [§63.3920(a)(2)]
- c) *General Requirements.* The semiannual compliance report must contain the information specified in §63.3920(a)(3)(i) through (v), and the information specified in §63.3920(a)(4) and (6) and (c)(1) that is applicable to your affected source. [§63.3920(a)(3)]
- i) Company name and address. [§63.3920(a)(3)(i)]
 - ii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. [§63.3920(a)(3)(ii)]
 - 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. Note that the information reported for each of the 6 months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation. [§63.3920(a)(3)(iii)]
 - iv) Identification of the compliance option or options specified in §63.3891 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 for each option you used. [§63.3920(a)(3)(iv)]
 - v) The calculation results for each rolling 12-month organic HAP emission rate during the 6-month reporting period. [§63.3920(a)(3)(v)]
- d) *No Deviations.* If there were no deviations from the emission limitations in §63.3890, the semiannual compliance report must include a statement that there were no deviations from the emission limitations during the reporting period. [§63.3920(a)(4)]

- e) *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 the applicable emission limit in §63.3890, the semiannual compliance report must contain the information in §63.3920(a)(6)(i) through (iii). [§63.3920(a)(6)]
- i) The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable emission limit in §63.3890. [§63.3920(a)(6)(i)]
 - ii) The calculations used to determine the 12-month organic HAP emission rate for the compliance period in which the deviation occurred. You must submit the calculations for Equations 1, 1A through 1C, 2, and 3 of §63.3951; and if applicable, the calculation used to determine mass of organic HAP in waste materials according to §63.3951(e)(4). You do not need to submit background data supporting these calculations (e.g., information provided by materials suppliers or manufacturers, or test reports). [§63.3920(a)(6)(ii)]
 - iii) A statement of the cause of each deviation. [§63.3920(a)(6)(iii)]

Permit Condition (EU0090 through EU0120)-002

10 CSR 10-6.220

Restriction of Emissions of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any new source any visible emissions with an opacity greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60%.

Monitoring:

- 1) The permittee shall conduct opacity readings on these emission units (EU0090 through EU0120) using the procedures contained in USEPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- 2) The following monitoring schedule must be maintained:
 - a) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.
- 3) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Recordkeeping:

- 1) The permittee shall maintain records of all observation results (see Attachment B and C), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and
 - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment D)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment E)

- 4) Attachments B, C, D and E contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available immediately for inspection to Department of Natural Resources personnel upon request.
- 6) All records shall be maintained for five years.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission units exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

Permit Condition (EU0090 through EU0120)-003**10 CSR 10-6.400****Control of Emission of Particulate Matter From Industrial Processes****Emission Limit:**

- 1) The permittee shall not emit particulate matter from EU0090 in a concentration in excess of 0.0625 grain per standard cubic feet of exhaust gases.
- 2) The permittee shall not emit particulate matter from EU0100 in a concentration in excess of 0.0716 grain per standard cubic feet of exhaust gases.
- 3) The permittee shall not emit particulate matter from EU0110 in a concentration in excess of 0.0787 grain per standard cubic feet of exhaust gases.
- 4) The permittee shall not emit particulate matter from EU0120 in a concentration in excess of 0.0875 grain per standard cubic feet of exhaust gases.
- 5) The emissions limitations area based on the concentrations specified in 10 CSR 10-6.400(3)(A)2. Table 1 for the given source gas volume.

Monitoring:

- 1) Booths operated with mat/panel filters (EU0090 through EU0120) shall not be operated without a filter in place.
- 2) The filters shall be inspected for holes, imperfections, proper installation, or other problems that could hinder the effectiveness of the filter.
- 3) The filters shall be inspected each shift before spraying begins in a booth and after installation of a new filter.
- 4) The manufacturer's recommendations shall be followed with regard to installation and frequency of replacement of the filters.

Recordkeeping:

- 1) The permittee shall maintain records of the inspections of fabric filters when they occur.
 - a) All inspections, corrective actions, and instrument calibrations shall be recorded.
 - b) Attachment D contains a log including these recordkeeping requirements. This log, or an equivalent form created by the permittee, must be used to certify compliance with this permit condition.
- 2) All records shall be kept on-site for a minimum of five years and made available to Missouri Department of Natural Resources' personnel upon request.

Reporting:

Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

EU0160 Pyrolysis Furnace			
Emission Unit #	General Description	Manufacturer/ Model #	EIQ Reference # (2003)
EU0160	Controlled pyrolysis cleaning furnace which cleans nonhazardous paint from paint line hooks; fired with pipeline grade natural gas; MHDR 0.3 MMBtu; installed 1993	Pollution Control Products/Model PTR-88	EP-019

**Permit Condition EU0160-001
10 CSR 10-6.060**

Construction Permit Required

APCP Construction Permit #0691-015

Emission Limitation:

- 1) No plastic or teflon materials shall be processed in the EU0160, the controlled pyrolysis cleaning furnace. A permit modification shall be obtained from the Missouri Department of Natural Resources prior to any change in the type or quantities of materials processed in EU0160, the pyrolysis furnace, other than what is contained in the original construction permit application. [Construction Permit #0691-015, Special Condition 1]
- 2) Operating personnel must have adequate training and knowledge of the operation of EU0160, the pyrolysis furnace. Training shall include the manufacturer's standard operating procedures. [Construction Permit #0691-015, Special Condition 2]
- 3) EU0160, the pyrolysis furnace, shall be operated in accordance with the manufacturer instruction and guidelines of operation. [Construction Permit #0691-015, Special Condition 3]
- 4) The manufacturer instructions and guidelines of operation shall be immediately available upon request by the Department of Natural Resources personnel. [Construction Permit #0691-015, Special Condition 4]

Recordkeeping:

A copy of Construction Permit #0691-015 shall be kept at the facility and shall be made available to Department of Natural Resources personnel upon request. [Construction Permit #0691-015, Special Condition 5]

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

EU0170 Plasma Torch			
Emission Unit #	General Description	Manufacturer/ Model #	EIQ Reference # (2003)
EU0170	Dry plasma metal cutting torch used to cut 0.375 inch thick sheets of cold rolled steel; MHDR 0.96 ton steel/hr; permitted 1997	N/A	EP-026

Permit Condition EU0170-001

10 CSR 10-6.220

Restriction of Emissions of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any new source any visible emissions with an opacity greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60%.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit (EU0170) using the procedures contained in USEPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- 2) The following monitoring schedule must be maintained:
 - a) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.
- 3) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Recordkeeping:

- 1) The permittee shall maintain records of all observation results (see Attachment B and C), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and
 - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment D)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment E)
- 4) Attachments B, C, D and E contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available immediately for inspection to Department of Natural Resources personnel upon request.
- 6) All records shall be maintained for five years.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission units exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

Permit Condition EU0170-002
10 CSR 10-6.400

Control of Emission of Particulate Matter From Industrial Processes

- 1) Particulate matter shall not be emitted from EU0170 in excess of 3.98 lb/hr.
- 2) The emission rates were calculated using the following equation:
 - a) For process weight rates of 60,000 lb/hr or less:
 $E = 4.10(P)^{0.67}$
 Where:
 E = rate of emission in lb/hr
 P = process weight rate in tons/hr
- 3) The concentration of particulate matter in the exhaust gases shall not exceed 0.30 gr/scf.

Monitoring/Recordkeeping:

- 1) The permittee shall retain the potential to emit calculations in Attachment I, which demonstrate that the above emission limitations will not be exceeded.
- 2) The calculation shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 3) All records shall be kept for a period of five years.

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

EU0180 through EU0210			
Robotic Welding Booth 12A			
Robotic Welding Booth 12B			
Robotic Welding Booth 12C			
Robotic Welding Booth 12D			
Emission Unit #	General Description	Manufacturer/ Model #	EIQ Reference # (2003)
EU0180	Robotic welding booth 12A; E70S electrode; 2 robotic welding arms/booth; MHDR 0.125 1000 lb electrode/booth	NA	EP-012
EU0190	Robotic welding booth 12B; E70S electrode; 2 robotic welding arms/booth; MHDR 0.125 1000 lb electrode/booth	NA	EP-012
EU0200	Robotic welding booth 12C; E70S electrode; 2 robotic welding arms/booth; MHDR 0.125 1000 lb electrode/booth	NA	EP-012
EU0210	Robotic welding booth 12D; E70S electrode; 2 robotic welding arms/booth; MHDR 0.125 1000 lb electrode/booth	NA	EP-012

Permit Condition (EU0180-through EU0210)-001

10 CSR 10-6.220

Restriction of Emissions of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any new source any visible emissions with an opacity greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60%.

Monitoring:

- 1) The permittee shall conduct opacity readings on these emission units (EU0180 through EU0210) using the procedures contained in USEPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- 2) The following monitoring schedule must be maintained:
 - a) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.
- 3) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Recordkeeping:

- 1) The permittee shall maintain records of all observation results (see Attachment B and C), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and
 - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment D)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment E)
- 4) Attachments B, C, D and E contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available immediately for inspection to Department of Natural Resources personnel upon request.
- 6) All records shall be maintained for five years.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission units exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

Permit Condition (EU0180-through EU0210)-002

10 CSR 10-6.400

Control of Emission of Particulate Matter From Industrial Processes

- 1) The permittee shall not emit particulate matter from EU0180 in a concentration in excess of 0.100 grain per standard cubic feet of exhaust gases.
- 2) The permittee shall not emit particulate matter from EU0190 in a concentration in excess of 0.100 grain per standard cubic feet of exhaust gases.
- 3) The permittee shall not emit particulate matter from EU0200 in a concentration in excess of 0.100 grain per standard cubic feet of exhaust gases.
- 4) The permittee shall not emit particulate matter from EU0210 in a concentration in excess of 0.100 grain per standard cubic feet of exhaust gases.
- 5) The emissions limitations area based on the concentrations specified in 10 CSR 10-6.400(3)(A)2. Table 1 for the given source gas volume.

Monitoring/Recordkeeping:

- 1) The permittee shall retain the potential to emit calculations in Attachment O, which demonstrate that the above emission limitations will not be exceeded.
- 2) The calculation shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 3) All records shall be kept for a period of five years.

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

IV. Core Permit Requirements

The installation shall comply with each of the following requirements. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

10 CSR 10-6.050 Start-up, Shutdown and Malfunction Conditions

- 1) In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the director within two business days, in writing, the following information:
 - a) Name and location of installation;
 - b) Name and telephone number of person responsible for the installation;
 - c) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
 - d) Identity of the equipment causing the excess emissions;
 - e) Time and duration of the period of excess emissions;
 - f) Cause of the excess emissions;
 - g) Air pollutants involved;
 - h) Best estimate of the magnitude of the excess emissions expressed in the units of the applicable requirement and the operating data and calculations used in estimating the magnitude;
 - i) Measures taken to mitigate the extent and duration of the excess emissions; and
 - j) Measures taken to remedy the situation that caused the excess emissions and the measures taken or planned to prevent the recurrence of these situations.
- 2) The permittee shall submit the paragraph 1 information list to the director in writing at least ten days prior to any maintenance, start-up or shutdown, which is expected to cause an excessive release of emissions that exceed one hour. If notice of the event cannot be given ten days prior to the planned occurrence, it shall be given as soon as practicable prior to the release. If an unplanned excess release of emissions exceeding one hour occurs during maintenance, start-up or shutdown, the director shall be notified verbally as soon as practical during normal working hours and no later than the close of business of the following working day. A written notice shall follow within ten working days.
- 3) Upon receipt of a notice of excess emissions issued by an agency holding a certificate of authority under section 643.140, RSMo, the permittee may provide information showing that the excess emissions were the consequence of a malfunction, start-up or shutdown. The information, at a minimum, should be the paragraph 1 list and shall be submitted not later than 15 days after receipt of the notice of excess emissions. Based upon information submitted by the permittee or any other pertinent information available, the director or the commission shall make a determination whether the excess emissions constitute a malfunction, start-up or shutdown and whether the nature, extent and duration of the excess emissions warrant enforcement action under section 643.080 or 643.151, RSMo.
- 4) Nothing in this rule shall be construed to limit the authority of the director or commission to take appropriate action, under sections 643.080, 643.090 and 643.151, RSMo to enforce the provisions of the Air Conservation Law and the corresponding rule.
- 5) Compliance with this rule does not automatically absolve the permittee of liability for the excess emissions reported.

10 CSR 10-6.060 Construction Permits Required

The permittee shall not commence construction, modification, or major modification of any installation subject to this rule, begin operation after that construction, modification, or major modification, or begin operation of any installation which has been shut down longer than five years without first obtaining a permit from the permitting authority.

10 CSR 10-6.065 Operating Permits

The permittee shall file a complete application for renewal of this operating permit at least six months before the date of permit expiration. In no event shall this time be greater than eighteen months. [10 CSR 10-6.065(6)(B)1.A(V)] The permittee shall retain the most current operating permit issued to this installation on-site. [10 CSR 10-6.065(6)(C)1.C(II)] The permittee shall immediately make such permit available to any Missouri Department of Natural Resources personnel upon request. [10 CSR 10-6.065(6)(C)3.B]

10 CSR 10-6.110 Submission of Emission Data, Emission Fees and Process Information

- 1) The permittee shall complete and submit an Emission Inventory Questionnaire (EIQ) in accordance with the requirements outlined in this rule.
- 2) The permittee shall pay an annual emission fee per ton of regulated air pollutant emitted according to the schedule in the rule. This fee is an emission fee assessed under authority of RSMo. 643.079 to satisfy the requirements of the Federal Clean Air Act, Title V.
- 3) The fees shall be due April 1 each year for emissions produced during the previous calendar year. The fees shall be payable to the Department of Natural Resources and shall be accompanied by the Emissions Inventory Questionnaire (EIQ) form or equivalent approved by the director.

10 CSR 10-6.130 Controlling Emissions During Episodes of High Air Pollution Potential

This rule specifies the conditions that establish an air pollution alert (yellow/orange/red/purple), or emergency (maroon) and the associated procedures and emission reduction objectives for dealing with each. The permittee shall submit an appropriate emergency plan if required by the Director.

10 CSR 10-6.150 Circumvention

The permittee shall not cause or permit the installation or use of any device or any other means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission or air contaminant which violates a rule of the Missouri Air Conservation Commission.

10 CSR 10-6.170 Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin

- 1) The permittee shall not cause or allow to occur any handling, transporting or storing of any material; construction, repair, cleaning or demolition of a building or its appurtenances; construction or use of a road, driveway or open area; or operation of a commercial or industrial installation without applying reasonable measures as may be required to prevent, or in a manner which allows or may allow, fugitive particulate matter emissions to go beyond the premises of origin in quantities that the particulate matter may be found on surfaces beyond the property line of origin. The nature or origin of the particulate matter shall be determined to a reasonable degree of certainty by a technique proven to be accurate and approved by the director.
- 2) The permittee shall not cause nor allow to occur any fugitive particulate matter emissions to remain visible in the ambient air beyond the property line of origin.

- 3) Should it be determined that noncompliance has occurred, the director may require reasonable control measures as may be necessary. These measures may include, but are not limited to, the following:
 - a) Revision of procedures involving construction, repair, cleaning and demolition of buildings and their appurtenances that produce particulate matter emissions;
 - b) Paving or frequent cleaning of roads, driveways and parking lots;
 - c) Application of dust-free surfaces;
 - d) Application of water; and
 - e) Planting and maintenance of vegetative ground cover.

10 CSR 10-6.180 Measurement of Emissions of Air Contaminants

- 1) The director may require any person responsible for the source of emission of air contaminants to make or have made tests to determine the quantity or nature, or both, of emission of air contaminants from the source. The director may specify testing methods to be used in accordance with good professional practice. The director may observe the testing. All tests shall be performed by qualified personnel.
- 2) The director may conduct tests of emissions of air contaminants from any source. Upon request of the director, the person responsible for the source to be tested shall provide necessary ports in stacks or ducts and other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices as may be necessary for proper determination of the emission of air contaminants.
- 3) The director shall be given a copy of the test results in writing and signed by the person responsible for the tests.

10 CSR 10-3.030 Open Burning Restrictions

- 1) The permittee shall not conduct, cause, permit or allow a salvage operation, the disposal of trade wastes or burning of refuse by open burning.
- 2) Exception - Open burning of trade waste or vegetation may be permitted only when it can be shown that open burning is the only feasible method of disposal or an emergency exists which requires open burning.
- 3) Any person intending to engage in open burning shall file a request to do so with the director. The request shall include the following:
 - a) The name, address and telephone number of the person submitting the application; The type of business or activity involved; A description of the proposed equipment and operating practices, the type, quantity and composition of trade wastes and expected composition and amount of air contaminants to be released to the atmosphere where known;
 - b) The schedule of burning operations;
 - c) The exact location where open burning will be used to dispose of the trade wastes;
 - d) Reasons why no method other than open burning is feasible; and
 - e) Evidence that the proposed open burning has been approved by the fire control authority which has jurisdiction.
- 4) Upon approval of the open burning permit application by the director, the person may proceed with the operation under the terms of the open burning permit. Be aware that such approval shall not exempt Hutchens Industries, Inc. from the provisions of any other law, ordinance or regulation.
- 5) The permittee shall maintain files with letters from the director approving the open burning operation and previous DNR inspection reports.

10 CSR 10-3.090 Restriction of Emission of Odors

No person may cause, permit or allow the emission of odorous matter in concentrations and frequencies or for durations that odor can be perceived when one volume of odorous air is diluted with seven volumes of odor-free air for two separate trials not less than 15 minutes apart within the period of one hour.

This requirement is not federally enforceable.

**10 CSR 10-6.080 Emission Standards for Hazardous Air Pollutants and 40 CFR Part 61
Subpart M National Emission Standard for Asbestos**

- 1) The permittee shall follow the procedures and requirements of 40 CFR Part 61, Subpart M for any activities occurring at this installation which would be subject to provisions for 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos.
- 2) The permittee shall conduct monitoring to demonstrate compliance with registration, certification, notification, and Abatement Procedures and Practices standards as specified in 40 CFR Part 61, Subpart M.

**10 CSR 10-6.250 Asbestos Abatement Projects – Certification, Accreditation, and Business
Exemption Requirements**

The permittee shall conduct all asbestos abatement projects within the procedures established for certification and accreditation by 10 CSR 10-6.250. This rule requires individuals who work in asbestos abatement projects to be certified by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires training providers who offer training for asbestos abatement occupations to be accredited by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires persons who hold exemption status from certain requirements of this rule to allow the department to monitor training provided to employees. Each individual who works in asbestos abatement projects must first obtain certification for the appropriate occupation from the department. Each person who offers training for asbestos abatement occupations must first obtain accreditation from the department. Certain business entities that meet the requirements for state-approved exemption status must allow the department to monitor training classes provided to employees who perform asbestos abatement.

Title VI – 40 CFR Part 82 Protection of Stratospheric Ozone

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

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

The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *Federal Only - 40 CFR part 82*

10 CSR 10-6.280 Compliance Monitoring Usage

- 1) The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates:
 - a) Monitoring methods outlined in 40 CFR Part 64;
 - b) Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - c) Any other monitoring methods approved by the director.
- 2) Any credible evidence may be used for the purpose of establishing whether a permittee has violated or is in violation of any such plan or other applicable requirement. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred by a permittee:
 - a) Monitoring methods outlined in 40 CFR Part 64;
 - b) A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - c) Compliance test methods specified in the rule cited as the authority for the emission limitations.
- 3) The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
 - a) Applicable monitoring or testing methods, cited in:
 - i) 10 CSR 10-6.030, "Sampling Methods for Air Pollution Sources";
 - ii) 10 CSR 10-6.040, "Reference Methods";
 - iii) 10 CSR 10-6.070, "New Source Performance Standards";
 - iv) 10 CSR 10-6.080, "Emission Standards for Hazardous Air Pollutants"; or
 - b) Other testing, monitoring, or information gathering methods, if approved by the director, that produce information comparable to that produced by any method listed above.

V. General Permit Requirements

The installation shall comply with each of the following requirements. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued,

10 CSR 10-6.065(6)(C)1.B Permit Duration

This permit is issued for a term of five years, commencing on the date of issuance. This permit will expire at the end of this period unless renewed.

10 CSR 10-6.065(6)(C)1.C General Recordkeeping and Reporting Requirements

1) Recordkeeping

- a) All required monitoring data and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application.
- b) Copies of all current operating and construction permits issued to this installation shall be kept on-site for as long as the permits are in effect. Copies of these permits shall be made immediately available to any Missouri Department of Natural Resources' personnel upon request.

2) Reporting

- a) All reports shall be submitted to the Air Pollution Control Program, Enforcement Section, P. O. Box 176, Jefferson City, MO 65102.
- b) The permittee shall submit a report of all required monitoring by:
 - i) October 1st for monitoring which covers the January through June time period, and
 - ii) April 1st for monitoring which covers the July through December time period.
 - iii) Exception. Monitoring requirements which require reporting more frequently than semi annually shall report no later than 30 days after the end of the calendar quarter in which the measurements were taken.
- c) Each report shall identify any deviations from emission limitations, monitoring, recordkeeping, reporting, or any other requirements of the permit, this includes deviations or Part 64 exceedances.
- d) Submit supplemental reports as required or as needed. Supplemental reports are required no later than ten days after any exceedance of any applicable rule, regulation or other restriction. All reports of deviations shall identify the cause or probable cause of the deviations and any corrective actions or preventative measures taken.
 - i) Notice of any deviation resulting from an emergency (or upset) condition as defined in paragraph (6)(C)7.A of 10 CSR 10-6.065 (Emergency Provisions) shall be submitted to the permitting authority either verbally or in writing within two working days after the date on which the emission limitation is exceeded due to the emergency, if the permittee wishes to assert an affirmative defense. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that indicate an emergency occurred and the permittee can identify the cause(s) of the emergency. The permitted installation must show that it was operated properly at the time and that during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or requirements in the permit. The notice must contain a description of the emergency, the steps taken to mitigate emissions, and the corrective actions taken.
 - ii) Any deviation that poses an imminent and substantial danger to public health, safety or the environment shall be reported as soon as practicable.

- iii) Any other deviations identified in the permit as requiring more frequent reporting than the permittee's semiannual report shall be reported on the schedule specified in this permit, and no later than ten days after any exceedance of any applicable rule, regulation, or other restriction.
- e) Every report submitted shall be certified by the responsible official, except that, if a report of a deviation must be submitted within ten days after the deviation, the report may be submitted without a certification if the report is resubmitted with an appropriate certification within ten days after that, together with any corrected or supplemental information required concerning the deviation.
- f) The permittee may request confidential treatment of information submitted in any report of deviation.

10 CSR 10-6.065(6)(C)1.D Risk Management Plan Under Section 112(r)

The permittee shall comply with the requirements of 40 CFR Part 68, Accidental Release Prevention Requirements. If the permittee has more than a threshold quantity of a regulated substance in process, as determined by 40 CFR Section 68.115, the permittee shall submit a Risk Management Plan in accordance with 40 CFR Part 68 no later than the latest of the following dates:

- 1) June 21, 1999;
- 2) Three years after the date on which a regulated substance is first listed under 40 CFR Section 68.130; or
- 3) The date on which a regulated substance is first present above a threshold quantity in a process.

10 CSR 10-6.065(6)(C)1.F Severability Clause

In the event of a successful challenge to any part of this permit, all uncontested permit conditions shall continue to be in force. All terms and conditions of this permit remain in effect pending any administrative or judicial challenge to any portion of the permit. If any provision of this permit is invalidated, the permittee shall comply with all other provisions of the permit.

10 CSR 10-6.065(6)(C)1.G General Requirements

- 1) The permittee must comply with all of the terms and conditions of this permit. Any noncompliance with a permit condition constitutes a violation and is grounds for enforcement action, permit termination, permit revocation and re-issuance, permit modification or denial of a permit renewal application.
- 2) The permittee may not use as a defense in an enforcement action that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit
- 3) The permit may be modified, revoked, reopened, reissued or terminated for cause. Except as provided for minor permit modifications, the filing of an application or request for a permit modification, revocation and reissuance, or termination, or the filing of a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- 4) This permit does not convey any property rights of any sort, nor grant any exclusive privilege.
- 5) The permittee shall furnish to the Air Pollution Control Program, upon receipt of a written request and within a reasonable time, any information that the Air Pollution Control Program reasonably may require to determine whether cause exists for modifying, reopening, reissuing or revoking the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the Air Pollution Control Program copies of records required to be kept by the permittee. The permittee may make a claim of confidentiality for any information or records submitted pursuant to 10 CSR 10-6.065(6)(C)1.

10 CSR 10-6.065(6)(C)1.H Incentive Programs Not Requiring Permit Revisions

No permit revision will be required for any installation changes made under any approved economic incentive, marketable permit, emissions trading, or other similar programs or processes provided for in this permit.

10 CSR 10-6.065(6)(C)1.I Reasonably Anticipated Operating Scenarios

None,

10 CSR 10-6.065(6)(C)1.J Emissions Trading

None.

10 CSR 10-6.065(6)(C)3 Compliance Requirements

- 1) Any document (including reports) required to be submitted under this permit shall contain a certification signed by the responsible official.
- 2) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized officials of the Missouri Department of Natural Resources, or their authorized agents, to perform the following (subject to the installation's right to seek confidential treatment of information submitted to, or obtained by, the Air Pollution Control Program):
 - a) Enter upon the premises where a permitted installation is located or an emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
 - b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c) Inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - d) As authorized by the Missouri Air Conservation Law, Chapter 643, RSMo or the Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the terms of this permit, and all applicable requirements as outlined in this permit.
- 3) All progress reports required under an applicable schedule of compliance shall be submitted semiannually (or more frequently if specified in the applicable requirement). These progress reports shall contain the following:
 - a) Dates for achieving the activities, milestones or compliance required in the schedule of compliance, and dates when these activities, milestones or compliance were achieved, and
 - b) An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measures adopted.
- 4) The permittee shall submit an annual certification that it is in compliance with all of the federally enforceable terms and conditions contained in this permit, including emissions limitations, standards, or work practices. These certifications shall be submitted annually by April 1st, unless the applicable requirement specifies more frequent submission. These certifications shall be submitted to EPA Region VII, 901 North 5th Street, Kansas City, Kansas 66101, as well as the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. All deviations and Part 64 exceedances and excursions must be included in the compliance certifications. The compliance certification shall include the following:
 - a) The identification of each term or condition of the permit that is the basis of the certification;
 - b) The current compliance status, as shown by monitoring data and other information reasonably available to the installation;
 - c) Whether compliance was continuous or intermittent;
 - d) The method(s) used for determining the compliance status of the installation, both currently and over the reporting period; and

- e) Such other facts as the Air Pollution Control Program will require in order to determine the compliance status of this installation.

10 CSR 10-6.065(6)(C)6 Permit Shield

- 1) Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements as of the date that this permit is issued, provided that:
 - a) The application requirements are included and specifically identified in this permit, or
 - b) The permitting authority, in acting on the permit revision or permit application, determines in writing that other requirements, as specifically identified in the permit, are not applicable to the installation, and this permit expressly includes that determination or a concise summary of it.
- 2) Be aware that there are exceptions to this permit protection. The permit shield does not affect the following:
 - a) The provisions of section 303 of the Act or section 643.090, RSMo concerning emergency orders,
 - b) Liability for any violation of an applicable requirement which occurred prior to, or was existing at, the time of permit issuance,
 - c) The applicable requirements of the acid rain program,
 - d) The authority of the Environmental Protection Agency and the Air Pollution Control Program of the Missouri Department of Natural Resources to obtain information, or
 - e) Any other permit or extra-permit provisions, terms or conditions expressly excluded from the permit shield provisions.

10 CSR 10-6.065(6)(C)7 Emergency Provisions

- 1) An emergency or upset as defined in 10 CSR 10-6.065(6)(C)7.A shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emissions limitations. To establish an emergency- or upset-based defense, the permittee must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, the following:
 - a) That an emergency or upset occurred and that the permittee can identify the source of the emergency or upset,
 - b) That the installation was being operated properly,
 - c) That the permittee took all reasonable steps to minimize emissions that exceeded technology-based emissions limitations or requirements in this permit, and
 - d) That the permittee submitted notice of the emergency to the Air Pollution Control Program within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.
- 2) Be aware that an emergency or upset shall not include noncompliance caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

10 CSR 10-6.065(6)(C)8 Operational Flexibility

An installation that has been issued a Part 70 operating permit is not required to apply for or obtain a permit revision in order to make any of the changes to the permitted installation described below if the changes are not Title I modifications, the changes do not cause emissions to exceed emissions allowable under the permit, and the changes do not result in the emission of any air contaminant not previously emitted. The permittee shall notify the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, Kansas 66101, at least seven days in advance of these changes, except as allowed for emergency or upset conditions. Emissions allowable under the permit

means a federally enforceable permit term or condition determined at issuance to be required by an applicable requirement that establishes an emissions limit (including a work practice standard) or a federally enforceable emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject.

- 1) Section 502(b)(10) changes. Changes that, under section 502(b)(10) of the Act, contravene an express permit term may be made without a permit revision, except for changes that would violate applicable requirements of the Act or contravene federally enforceable monitoring (including test methods), recordkeeping, reporting or compliance requirements of the permit.
 - a) Before making a change under this provision, The permittee shall provide advance written notice to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, Kansas 66101, describing the changes to be made, the date on which the change will occur, and any changes in emission and any permit terms and conditions that are affected. The permittee shall maintain a copy of the notice with the permit, and the APCP shall place a copy with the permit in the public file. Written notice shall be provided to the EPA and the APCP as above at least seven days before the change is to be made. If less than seven days notice is provided because of a need to respond more quickly to these unanticipated conditions, the permittee shall provide notice to the EPA and the APCP as soon as possible after learning of the need to make the change.
 - b) The permit shield shall not apply to these changes.

10 CSR 10-6.065(6)(C)9 Off-Permit Changes

- 1) Except as noted below, the permittee may make any change in its permitted operations, activities or emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a permit revision. Insignificant activities listed in the application, but not otherwise addressed in or prohibited by this permit, shall not be considered to be constrained by this permit for purposes of the off-permit provisions of this section. Off-permit changes shall be subject to the following requirements and restrictions:
 - a) The change must meet all applicable requirements of the Act and may not violate any existing permit term or condition; the permittee may not change a permitted installation without a permit revision if this change is subject to any requirements under Title IV of the Act or is a Title I modification;
 - b) The permittee must provide written notice of the change to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, Kansas 66101, no later than the next annual emissions report. This notice shall not be required for changes that are insignificant activities under 10 CSR 10-6.065(6)(B)3. This written notice shall describe each change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply as a result of the change.
 - c) The permittee shall keep a record describing all changes made at the installation that result in emissions of a regulated air pollutant subject to an applicable requirement and the emissions resulting from these changes; and
 - d) The permit shield shall not apply to these changes.

10 CSR 10-6.020(2)(R)12 Responsible Official

The application utilized in the preparation of this permit was signed by Gary K. Norell, Environmental/Safety Director. If this person terminates employment, or is reassigned different duties such that a different person becomes the responsible person to represent and bind the installation in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Director of the Air Pollution Control Program

of the change. Said notification shall be in writing and shall be submitted within 30 days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the installation in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the installation until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

10 CSR 10-6.065(6)(E)6 Reopening-Permit for Cause

This permit may be reopened for cause if:

- 1) The Missouri Department of Natural Resources (MDNR) receives notice from the Environmental Protection Agency (EPA) that a petition for disapproval of a permit pursuant to 40 CFR § 70.8(d) has been granted, provided that the reopening may be stayed pending judicial review of that determination,
- 2) MDNR or EPA determines that the permit contains a material mistake or that inaccurate statements were made which resulted in establishing the emissions limitation standards or other terms of the permit,
- 3) Additional applicable requirements under the Act become applicable to the installation; however, reopening on this ground is not required if—:
 - a) The permit has a remaining term of less than three years;
 - b) The effective date of the requirement is later than the date on which the permit is due to expire; or
 - c) The additional applicable requirements are implemented in a general permit that is applicable to the installation and the installation receives authorization for coverage under that general permit,
- 4) The installation is an affected source under the acid rain program and additional requirements (including excess emissions requirements), become applicable to that source, provided that, upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the permit; or
- 5) MDNR or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.

10 CSR 10-6.065(6)(E)1.C Statement of Basis

This permit is accompanied by a statement setting forth the legal and factual basis for the draft permit conditions (including references to applicable statutory or regulatory provisions). This Statement of Basis, while referenced by the permit, is not an actual part of the permit.

VI. Attachments

Attachments follow.

Attachment B
Method 22 (Outdoor) Observation Log

This attachment or an equivalent may be used for the recordkeeping requirements of 10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*.

Method 22 (Outdoor) Observation Log		
Emission Unit		
Observer	Date	
Sky Conditions		
Precipitation		
Wind Direction	Wind Speed	
Sketch process unit: Indicate the position relative to the source and sun; mark the potential emission points and/or the observing emission points.		
Observation Clock Time	Observation Period Duration (minute: second)	Accumulative Emission Time (minute: second)
Begin Observation		
End Observation		

Attachment E
Method 9 Opacity Emissions Observations

This attachment or an equivalent may be used for the recordkeeping requirements of 10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*.

Method 9 Opacity Emissions Observations								
Company					Observer			
Location					Observer Certification Date			
Date					Emission Unit			
Time					Control Device			
Hour	Minute	Seconds				Steam Plume (check if applicable)		Comments
		0	15	30	45	Attached	Detached	
	0							
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
SUMMARY OF AVERAGE OPACITY								
Set Number	Time				Opacity			
	Start	End		Sum	Average			

Readings ranged from _____ to _____ % opacity.

Was the emission unit in compliance at the time of evaluation?

_____ YES _____ NO _____ Signature of Observer

Attachment H

This attachment demonstrates that the Electric Arc Furnace (EU0010) is in compliance with the limitations of 10 CSR 10-6.260 *Restriction of Emissions of Sulfur Compounds*

Calculation of SO₂ emission rate:

Given: MHDR (ton/hr) = 2.5

Emission Factor (lb SO₂/ton) = 0.24

FIRE SCC#30400701

SO₂ emission rate = (MHDR)(Emission Factor)

$$\text{SO}_2 \text{ emission rate} = \left(\frac{2.5 \text{ tons}}{\text{hr}} \right) \left(\frac{0.24 \text{ lb}}{\text{tons}} \right)$$

SO₂ emission rate = 0.6 lb/hr

Calculation of Standard Stack Flow:

Given: Actual Stack Flow Rate (acfm) = 40,000

Temperature (°F) = 100

$$\text{Standard Stack Flow Rate} = SCFM = \frac{ACFM \times 528^\circ R}{Temp^\circ F + 460}$$

$$\text{Standard Stack Flow Rate} = SCFM = \frac{40,000 \times 528^\circ R}{100^\circ F + 460}$$

Standard Stack Flow Rate = 37,714 scfm

To convert SO₂ emission rate lb/hr to ppmv:

Given: Molecular weight air (lb) = 29.95

Molecular weight SO₂ (lb) = 64

Density of air @ 70°F (lb/ft³) = 0.0749

$$\text{PPMV} = (\text{SO}_2 \text{ emission rate}) \left(\frac{1}{\text{density of air}} \right) \left(\frac{1}{\text{scfm}} \right) \left(\frac{\text{hr}}{60 \text{ min}} \right) \left(\frac{\text{MW air}}{\text{MW SO}_2} \right) \left(\frac{10^6 \text{ parts}}{\text{ppm}} \right)$$

$$\text{PPMV} = \left(\frac{0.60 \text{ lb}}{\text{hr}} \right) \left(\frac{\text{ft}^3}{0.0749 \text{ lb}} \right) \left(\frac{\text{min}}{37,714 \text{ ft}^3} \right) \left(\frac{\text{hr}}{60 \text{ min}} \right) \left(\frac{29.95 \text{ lb}}{64 \text{ lb}} \right) \left(\frac{10^6 \text{ parts}}{\text{ppm}} \right)$$

PPMV = 1.66 ppmv < 2000 ppmv

Attachment I

This attachment demonstrates compliance determinations for 10 CSR 10-6.400 *Restriction of Emission of Particulate Matter from Industrial Processes* for the emission units listed.

PM Emission Rate Compliance

Emission Unit ID	Associated Equip.	Process Weight Rate (ton/hr)	PM Emission Factor (lb/ton)	Emission Factor Reference	Potential Uncontrolled Emission Rate (lb/hr)	Emission Rate Limit (lb/hr)
EU0020	Cast Cooling	2.5	1.40	FIRE SCC#30400713	3.50	7.58
EU0060	¹ Tumble Blast Cleaning	1.5	3.4	FIRE SCC#30400711	5.10	5.38
EU0080	¹ Cleaning of Molded Part #2	1.5	3.4	FIRE SCC#30400711	5.10	5.38
EU0170	² Plasma Torch	0.96	1.99	Mass balance	1.90	3.98

Notes:

1. PM emission factors were not available in FIRE or AP-42, assumed emission factor for PM = 2 x emission factor for PM₁₀
2. Process weight rate and emission factor supplied by Gary Norell, Hutchens Environmental/Safety Director

Sample Calculation

Emission Rate Limit:

$$E = 4.10(P)^{0.67}$$

P is process weight rate in tons/hour

E is emission rate limit in lb/hour

$$E = 4.10(2.5)^{0.67} = 7.58 \frac{lb PM}{hour}$$

PM Concentration Compliance

Emission Unit ID	Associated Equip.	Potential Uncontrolled Emission Rate (lb/hr)	Stack Temp °F	Stack Flow Rate		Potential Emission Rate (gr/scf)	Emission Rate Limit (gr/scf)
				ACFM	SCFM		
EU0020	Cast Cooling	3.50	90	76,000	72,960	0.006	0.3
EU0060	Tumble Blast Cleaning	5.10	77	4,200	4,130	0.144	0.3
EU0080	Cleaning of Molded Part #2	5.10	77	4,200	4,130	0.144	0.3
EU0170	Plasma Torch	1.90	77	10,000	9,832	0.023	0.3

Sample Calculation

$$\text{Potential PM Concentration} = \frac{3.50 \text{ lb PM}}{\text{hr}} \times \frac{7000 \text{ gr}}{\text{lb}} \times \frac{\text{min}}{72,960 \text{ scf}} \times \frac{1 \text{ hr}}{60 \text{ min}} = 0.006 \frac{\text{gr PM}}{\text{scf}} < 0.30 \frac{\text{gr PM}}{\text{scf}}$$

Attachment M
Table 3 to Subpart M MMM
Default Organic HAP Mass Fraction for Solvents and Solvent Blends.

You may use the mass fraction values in the following 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
Toluene	108-88-3	1	Toluene
Xylene(s)	1330-20-7	1	Xylenes, ethylbenzene
Hexane	110-54-3	0.5	n-hexane
n-Hexane	110-54-3	1	n-hexane
Ethylbenzene	100-41-4	1	Ethylbenzene
Aliphatic 140		0	None
Aromatic 100		0.02	1% xylene, 1% cumene
Aromatic 150		0.09	Naphthalene
Aromatic naphtha	64742-95-6	0.02	1% xylene, 1% cumene
Aromatic solvent	64742-94-5	0.1	Naphthalene
Exempt mineral spirits	8032-32-4	0	None
Ligroines (VM & P)	8032-32-4	0	None
Lactol spirits	64742-89-6	0.15	Toluene
Low aromatic white spirit	64742-82-1	0	None
Mineral spirits	64742-88-7	0.01	Xylenes
Hydrotreated naphtha	64742-48-9	0	None
Hydrotreated light distillate	64742-47-8	0.001	Toluene
Stoddard solvent	8052-41-3	0.01	Xylenes
Super high-flash naphtha	64742-95-6	0.05	Xylenes
Varsol® solvent	8052-49-3	0.01	0.5% xylenes, 0.5% ethylbenzene
VM & P naphtha	64742-89-8	0.06	3% toluene, 3% xylene
Petroleum distillate mixture	68477-31-6	0.08	4% naphthalene, 4% biphenyl

Attachment N
Table 4 to Subpart M MMM
Default Organic HAP Mass Fraction for Petroleum Solvent Groups^a

You may use the mass fraction values in the following 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 HAP, Percent by Mass
Aliphatic ^b	0.03	1% Xylene, 1% Toluene, and 1% Ethylbenzene
Aromatic ^c	0.06	4% Xylene, 1% Toluene, and 1% Ethylbenzene

Footnotes to Table 4

a - Use this table only if the solvent blend does not match any of the solvent blends in Table 3 to this subpart by either solvent blend name or CAS number and the permittee only knows whether the blend is aliphatic or aromatic.

b - 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.

c - Medium-flash Naphtha, High-flash Naphtha, Aromatic Naphtha, Light Aromatic Naphtha, Light Aromatic Hydrocarbons, Aromatic Hydrocarbons, Light Aromatic Solvent.

Attachment O

This attachment demonstrates compliance determinations for 10 CSR 10-6.400 *Restriction of Emission of Particulate Matter from Industrial Processes* for the emission units listed.

PM Emission Rate Compliance

Emission Unit ID	Associated Equip.	Process Weight Rate (1000 lb/hr)	PM Emission Factor (lb/1000 lb)	Emission Factor Reference	Potential Uncontrolled Emission Rate (lb/hr)	Emission Rate Limit (lb/hr)
EU0180	Welding of Metal Parts	0.125	5.2	FIRE SCC# 30905254	0.65	0.64
EU0190	Welding of Metal Parts	0.125	5.2	FIRE SCC# 30905254	0.65	0.64
EU0200	Welding of Metal Parts	0.125	5.2	FIRE SCC# 30905254	0.65	0.64
EU0210	Welding of Metal Parts	0.125	5.2	FIRE SCC# 30905254	0.65	0.64

Notes:

1. According to AP-42 Section 12.19, most of the PM produced by welding is submicron in size and is considered to be all PM₁₀

Sample Calculation

Emission Rate Limit:

$$E = 4.10(P)^{0.67}$$

P is process weight rate in tons/hour

E is emission rate limit in lb/hour

$$E = 4.10(0.63)^{0.67} = 0.64 \frac{lb PM}{hour}$$

PM Concentration Compliance

Emission Unit ID	Associated Equip.	Potential Uncontrolled Emission Rate (lb/hr)	Stack Temp °F	Stack Flow Rate		Potential Emission Rate (gr/scf)	Emission Rate Limit (gr/scf)
				ACFM	SCFM		
EU0180	Welding of Metal Parts	0.65	77	1,500	1,475	0.051	0.100
EU0190	Welding of Metal Parts	0.65	77	1,500	1,475	0.051	0.100
EU0200	Welding of Metal Parts	0.65	77	1,500	1,475	0.051	0.100
EU0210	Welding of Metal Parts	0.65	77	1,500	1,475	0.051	0.100

Sample Calculation

$$\text{Potential PM Concentration} = \frac{0.65 lb PM}{hr} \times \frac{7000 gr}{lb} \times \frac{min}{1,475 scf} \times \frac{1 hr}{60 min} = 0.051 \frac{gr PM}{scf} < 0.100 \frac{gr PM}{scf}$$

STATEMENT OF BASIS

Permit Reference Documents

These documents were relied upon in the preparation of the operating permit. Because they are not incorporated by reference, they are not an official part of the operating permit.

- 1) Part 70 Operating Permit Application, received 10/2/03;
- 2) 2003 Emissions Inventory Questionnaire, received 2/17/04; and
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition.

Applicable Requirements Included in the Operating Permit but Not in the Application or Previous Operating Permits

In the operating permit application, the installation indicated they were not subject to the following regulation(s). However, in the review of the application, the agency has determined that the installation is subject to the following regulation(s) for the reasons stated.

10 CSR 10-6.100, *Alternate Emissions Limits*

This rule has been included in the operating permit because the rule is a core permit requirement.

Other Air Regulations Determined Not to Apply to the Operating Permit

The Air Pollution Control Program (APCP) has determined the following requirements to not be applicable to this installation at this time for the reasons stated.

10 CSR 10-3.060, *Maximum Allowable Emissions of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating*

The Pyrolysis Furnace (EU0160) is a direct heating source and therefore is not subject to this regulation. The Curing Oven (EU0150) is an indirect heating source. However it is highly unlikely that emissions from this 2.6 MMBtu/hr natural gas burning unit will result in an exceedance of 10 CSR 10-3.060. Therefore, this rule was not applied to this unit.

Construction Permit Revisions

The following revisions were made to construction permits for this installation:

- 1) APCP Construction Permit #0691-015
This construction permit authorized the installation of four spray paint booths and two pyrolysis furnaces. The four spray paint booths were not installed. Therefore, Special Conditions #6 through #8 are not included in the Operating Permit. In addition, only one of the two authorized pyrolysis furnaces was installed. Special Conditions #1 through #3 were reworded to reference only one pyrolysis furnace.
- 2) APCP Construction Permit #0596-008
This construction permit authorized the conversion of two existing solvent-based primer spray booths to water-based systems, the installation of a liquefied petroleum gas (LPG) 0.8 MMBtu/hr burner, and the installation of a fifth spray booth and associated equipment. According to Gary Norell, Hutchens Industries' Environmental/Safety Director, the LPG burner and spray booth were not installed. In addition, the solvent-based primer spray booths were not converted to water-based systems. Therefore, the equipment and Special Conditions associated with this construction permit were not included in the Operating Permit.

3) APCP Construction Permit #0996-006

This construction permit authorized the modification of sawdust handling equipment and the installation of a propane-fired lumber drying kiln and a robotic welding line. In a December 31, 2003, David Gray of Hutchens Industries notified the MDNR that the facility discontinued the lumber mill operations and sold the related equipment. In addition, according to Gary Norell, Hutchens Industries' Environmental/Safety Director, the robotic welding line was removed from the installation.

4) APCP Construction Permit #1197-002

This construction permit authorized the installation of a plasma metal cutting torch (EU0170). The calculations shown in the construction permit to determine the particulate matter emission rate contained errors. The correct emission factor is 1.99 lb PM/ton steel. The correct MHDR is 0.96 ton/hr. These values were used in determining compliance with 10 CSR 10-6.400.

New Source Performance Standards (NSPS) Applicability

10 CSR 10-6.070, *New Source Performance Regulations*

40 CFR Part 60, Subpart AA, *Standards of Performance for Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and on or Before August 17, 1983*

40 CFR Part 60, Subpart AAa, *Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983*

The Electric Arc Furnace (EU0010) was constructed prior to October 21, 1974 and is not subject to these rules.

Maximum Available Control Technology (MACT) Applicability

10 CSR 10-6.075, *Maximum Achievable Control Technology Regulations*

40 CFR Part 63, Subpart M MMM, *National Emission Standards for Hazardous Air Pollutants: Surface Coating of Miscellaneous Metal Parts and Production*

Hutchens Industries' metal surface coating operations (EU0090 through EU0150) are subject to this subpart. Hutchens Industries' metal surface coating operations do not include high performance coating, wire magnet coating, rubber-to-metal coating, or extreme performance fluoropolymer coating. Therefore, the sections of subpart M MMM that apply to these operations were not included in the Operating Permit. The facility has requested that each of the three compliance methods be including in the Operating Permit to allow for production flexibility.

40 CFR Part 63, Subpart D D D D D, *Emission Standards for Hazardous Air Pollutants: Industrial, Commercial, and Institutional Boilers and Process Heaters*

According to §63.7505(c)(4), existing small gaseous fuel boilers and process heaters are not subject to the initial notification requirements in §63.9(b) and are not subject to any requirements in subpart D D D D D or in subpart A of part 63. Small gaseous fuel subcategory includes any boiler or process heater that burns gaseous fuels not combined with any solid fuels, burns liquid fuel only during periods of gas curtailment or gas supply emergencies, and has a rated capacity of less than or equal to 10 MMBtu per hour heat input.

All process heaters at Hutchens Industries meet the definition of small gaseous fuel category and are therefore not subject to any requirements in subpart D D D D D or in subpart A of part 63.

The Electric Arc Furnace (EU0010) is not subject to subpart D D D D D because the equipment does not meet the definition of boiler or process heater.

40 CFR Part 63, Subpart EEEEE, *National Emission Standards for Hazardous Air Pollutant: Iron and Steel Foundries*

Hutchens Industries' steel foundry is subject to subpart EEEEE. Hutchens Industries' steel foundry does not purchase scrap metal or use a scrap preheater. In addition, the facility does not operate a triethylamine (TEA) cold box mold or core making line, a Furan warm box mold or core making line, or a pouring station. Therefore, the sections of subpart EEEEE that apply to these operations were not included in the Operating Permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

10 CSR 10-6.080, *Emission Standards for Hazardous Air Pollutants*

40 CFR Part 61, Subpart M, *National Emission Standard for Asbestos*

This rule applies to the installation because of the renovation and demolition parts of the subpart, which make the subpart applicable to all sources. It is included as a core permit requirement.

Compliance Assurance Monitoring (CAM) Applicability

40 CFR Part 64, *Compliance Assurance Monitoring (CAM)*

The CAM rule applies to each pollutant specific emission unit that meets all of the following:

- Be subject to an emission limitation or standard, and
 - Use a control device to achieve compliance, and
 - Have pre-control emissions that exceed or are equivalent to the major source threshold.
- 40 CFR Part 64 is not applicable because none of the pollutant-specific emission units uses a control device to achieve compliance with a relevant standard.

Other Regulatory Determinations

10 CSR 10-6.260, *Restriction of Emission of Sulfur Compounds*

Combustion units that use exclusively pipeline grade natural gas, as defined in 40 CFR 72.2, are exempt from this rule. Therefore, the Curing Oven (EU0150) and the Pyrolysis Furnace (EU0160) are not subject to this rule.

10 CSR 10-6.220, *Restriction of Visible Air Contaminants*

10 CSR 10-6.400, *Restriction of Emission of Particulate Matter From Industrial Process*

Prior to April 23, 2007, the Electric Arc Furnace (EU0010) is subject to these rules and the limits established in Permit Conditions EU0010-001 and EU0010-002. However, no later than April 23, 2007, the permittee must meet the more restrictive emissions limitation, and operation and maintenance requirement in 40 CFR Part 63, subpart EEEEE. In addition, the permittee must comply with the work practice standards in §63.7700(b), as applicable, no later than April 22, 2005.

10 CSR 10-6.400, *Restriction of Emission of Particulate Matter From Industrial Process*

This rule applies to the following equipment, and the calculations below verify compliance for both the PM Emission Rate and PM Concentration for the listed emission units provided that the required control devices are in operation and working properly:

PM Emission Rate Compliance

Emission Rate (lb/hr) = Process Weight Rate (ton/hr) * PM Emission Factor (lb/ton) * (1- Control Eff./100)

Emission Unit ID	Associated Equip.	Process Weight Rate (ton/hr)	PM Emission Factor	Emission Factor Reference	Overall Control Efficiency (%)	Potential Controlled Emission Rate (lb/hr)	Allowable Emission Rate (lb/hr)
EU0010	Electric Arc Furnace ¹	2.5	13.72	FIRE SCC# 30400701 & 30400712	83.80	5.56	7.58
EU0030	Shakeout & Tumble Cleaning ²	19.185	3.20	FIRE SCC# 30400331	89.20	6.63	29.67
EU0040	Cleaning of Molded Part #1 ¹	2.5	3.4	FIRE SCC# 30400711	84.78	1.29	7.58
EU0050	Gate & Riser Cut Off & Cleaning ¹	2.5	12.0	FIRE SCC# 30400716	89.23	3.23	7.58
EU0070	Finish/Patch Grinding ¹	1.5	12.0	FIRE SCC# 30400716	84.78	2.74	5.38

Notes:

1. PM emission factors were not available in FIRE or AP-42 for these units, assumed emission factor for PM = 2 x emission factor for PM₁₀
2. PM emission factor was not available in FIRE or AP-42 for casting shakeout at a steel foundry, used PM emission factor listed for casting shakeout at a grey iron foundry

PM Concentration Compliance

Emission rate (gr/dscf) = Emission Rate (lb/hr)*7000 (grains/lb)/Stack flow rate (SCFM)/60(min/hr)
Flow rates converted from actual to standard conditions using the ideal gas law.

Emission Unit ID	Associated Equip.	Potential Controlled Emission Rate (lb/hr)	Stack Temp °F	Stack Flow Rate		Potential Emission Rate (gr/scf)	Emission Rate Limit (gr/scf)
				ACFM	SCFM		
EU0010	Electric Arc Furnace	5.56	100	40,000	37,714	0.017	0.3
EU0030	Shakeout & Tumble Cleaning	6.63	85	7,500	7,266	0.107	0.3
EU0040	Cleaning of Molded Part #1	1.29	77	7,500	7,374	0.021	0.3
EU0050	Gate & Riser Cut Off & Cleaning	3.23	77	25,000	24,581	0.015	0.3
EU0070	Finish/Patch Grinding	2.74	77	25,000	24,581	0.013	0.3

10 CSR 10-6.400, Restriction of Emission of Particulate Matter From Industrial Process

This rule applies to the Paint Spray Booths (EU0090 through EU0120). As an alternative to the PM emission rate limitations established by 10 CSR 10-6.400(3)(A)1., the permittee has demonstrated compliance to a PM concentration limit, based on source gas volume, as specified in 10 CSR 10-6.400(3)(A)2., Table I.

PM Emission Rate Compliance

$$\text{MHDR (ton/hr)} = \text{MHDR (gal/hr)} * \text{Density (lb/gal)} * (\text{ton}/2000 \text{ lb})$$

$$\text{Emission Rate (lb/hr)} = \text{MHDR (ton/hr)} * (\% \text{ solids}/100 * 2000 \text{ lb/ton}) * (1 - \text{Transfer Eff}/100) * (1 - (\text{Overall Control Eff}/100))$$

Emission Unit ID	Assoc. Equip.	MHDR (gal/hr)	Density (lb/gal)	MHDR (ton/hr)	% solids	Overall Control Efficiency (%)	Transfer (%)	Potential Controlled Emission Rate (lb/hr)	Allowable Emission Rate (lb/hr)
EU0090	Booth #1	17.5	11.488	0.10	65.96	79.81	65	9.37	0.88
EU0100	Booth #2	8.75	11.488	0.05	65.96	79.81	65	4.69	0.55
EU0110	Booth #3	8.75	11.488	0.05	65.96	79.81	65	4.69	0.55
EU0120	Booth #4	2.45	11.488	0.01	65.96	79.81	65	1.31	0.24

PM Concentration Compliance

$$\text{Emission rate (gr/dscf)} = \text{Emission Rate (lb/hr)} * 7000 \text{ (grains/lb)} / \text{Stack flow rate (SCFM)} / 60 \text{ (min/hr)}$$

Flow rates converted from actual to standard conditions using the ideal gas law.

Emission Unit ID	Assoc. Equip.	Potential Controlled PM Emission Rate (lb/hr)	Stack Temp °F	Stack Flow Rate		Potential Concentration (gr/scf)	Allowable Concentration (gr/scf)
				ACFM	SCFM		
EU0090	Booth #1	9.37	77	30,000	29,497	0.0371	0.0625
EU0100	Booth #2	4.69	77	20,000	19,665	0.0278	0.0716
EU0110	Booth #3	4.69	77	16,000	15,732	0.0347	0.0787
EU0120	Booth #4	1.31	77	10,995	10,811	0.0142	0.0875

10 CSR 10-6.220, *Restriction of Visible Air Contaminants*

10 CSR 10-6.400, *Restriction of Emission of Particulate Matter From Industrial Process*

10 CSR 10-6.400 was not applied to the Pyrolysis Furnace (EU0160) since the unit has the uncontrolled potential to emit less than 0.5 lbs/hr of particulate matter and is therefore exempt according to §(1)(B)11. 10 CSR 10-6.220 was not applied since it is highly unlikely that equipment that has the uncontrolled potential to emit less than 0.5 lbs/hr of particulate matter would ever exceed the 20% opacity threshold required by this rule.

Emission Unit ID	Associated Equip.	Process Weight Rate	PM Emission Factor	Emission Factor Reference	Potential Uncontrolled Emission Rate (lb/hr)
EU0160	Pyrolysis Furnace	0.3 MMBtu/hr	0.12 ton/8760 hr	¹ Performance Test	0.03

Notes:

1. PM emission factor from Performance Test reported in Construction Permit #0691-015

10 CSR 10-6.220, *Restriction of Visible Air Contaminants*

10 CSR 10-6.400, *Restriction of Emission of Particulate Matter From Industrial Process*

The Curing Oven (EU0150) may emit air contaminants from the associated operation in addition to the products of combustion. However, it is highly unlikely that emissions will result in an

exceedance of 10 CSR 10-6.220 or 10 CSR 10-6.400. Therefore, these rules were not applied to this unit.

The Dip Paint Operations (EU0130 and EU0140) are highly unlikely to exceed the limits of 10-6.220 or 10-6.400. Therefore, these rules were not applied to these units.

Core Machines

The core machines were classified as emission units without limitations because each unit has the uncontrolled potential to emit less than 0.5 lbs/hr of particulate matter and are exempt from 10 CSR 10-6.400 according to §(1)(B)11.

10 CSR 10-6.220 was not applied since it is highly unlikely that equipment that has the uncontrolled potential to emit less than 0.5 lbs/hr of particulate matter would ever exceed the 20% opacity threshold required by this rule.

Emission Unit ID	Associated Equip.	Process Weight Rate	PM Emission Factor	Emission Factor Reference	Potential Uncontrolled Emission Rate (lb/hr)
EP-003	Core Machine #1	0.2555 ton/hr	1.08 lb/hr	¹ FIRE SCC #30400706	0.28
	Core Machine #2	0.2555 ton/hr	1.08 lb/hr	¹ FIRE SCC #30400706	0.28
	Core Machine #3	0.2555 ton/hr	1.08 lb/hr	¹ FIRE SCC #30400706	0.28
	Core Machine #4	0.2555 ton/hr	1.08 lb/hr	¹ FIRE SCC #30400706	0.28

Notes:

1. PM emission factor was not available in FIRE or AP-42, assumed emission factor for PM = 2 x emission factor for PM₁₀

Welding Machines

In 2003, Hutchens Industries was issued Construction Permit #122003-005 which authorized the installation of a new welding assembly area. In Permit #122003-005, the facility reported that there will be a total of 360 welding machines installed at the facility. These machines are located in 3 buildings and are moved from building to building, as needed, for production. With the exception of the 4 welding booths EU0180 through EU0210, the welding machines exhaust into the buildings. Their exhaust then exits through the buildings' ventilation system. Therefore, with the exception of EU0180 through EU0210, the welding machines are considered fugitive sources. And as fugitive sources, the machines are exempt from 10 CSR 10-6.400 by §(1)(B)(7). In addition, the welding machines do not have the potential to exceed the limitation of 10 CSR 10-6.220. These units were classified as emission units without limitations.

Pouring of Molten Metal

Casting molds are rolled into a pouring area on a cart. The molten metal is then poured into a pouring ladle. This pouring ladle is then moved back and forth on a track and workers pour the molten metal into the casting molds. There are no stacks and/or vents located in the pouring area. Any emissions would ventilate into the building and are fugitive emissions. Therefore, pouring of molten metal was classified as an emission unit without limitations.

10 CSR 10-6.065, Operating Permits

The following units are fueled by natural gas and do not have the potential to exceed the limitation of 10 CSR 10-5.030, 10 CSR 10-6.220, 10 CSR 10-6.260 and 10 CSR 10-6.400, therefore these units were classified as emission units without limitations.

Ladle and Lid Curing Burners, natural gas, 2.1 MMBtu/hr	(EP-001)
Steel Annealing Furnace, natural gas, 6 MMBtu/hr	(EP-008)
Space Heaters, natural gas heaters, <10 MMBtu/hr each	(EP-017)
Alkaline Wash	(EP-29A)
Phosphate Wash	(EP-029B)

Other Regulations Not Cited in the Operating Permit or the Above Statement of Basis

Any regulation which is not specifically listed in either the Operating Permit or in the above Statement of Basis does not appear, based on this review, to be an applicable requirement for this installation for one or more of the following reasons:

- 1) The specific pollutant regulated by that rule is not emitted by the installation;
- 2) The installation is not in the source category regulated by that rule;
- 3) The installation is not in the county or specific area that is regulated under the authority of that rule;
- 4) The installation does not contain the type of emission unit which is regulated by that rule;
- 5) The rule is only for administrative purposes.

Should a later determination conclude that the installation is subject to one or more of the regulations cited in this Statement of Basis or other regulations which were not cited, the installation shall determine and demonstrate, to the APCP's satisfaction, the installation's compliance with that regulation(s). If the installation is not in compliance with a regulation which was not previously cited, the installation shall submit to the APCP a schedule for achieving compliance for that regulation(s).

Prepared by:

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