



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 herein.

Operating Permit Number: OP2014-009
Expiration Date: JUL 10 2019
Installation ID: 095-0046
Project Number: 2008-05-039

Installation Name and Address

Alliant Techsystems Inc. Lake City Ammunition Division
Intersection of Missouri Highways 7 and 78
Independence, MO 64057
Jackson County
S6, T44N, R30W

Parent Company's Name and Address

Department of the Army
Lake City Army Ammunition Plant
P.O. Box 1000
Independence, MO 64501-1000

Installation Description:

Alliant Lake City Small Caliber Ammunition Company manufactures small caliber ammunition in Jackson County. Operations at the installation include: boilers, emergency diesel engines, cold solvent process cleaning, Trinitroresorcinol (TNR) manufacturing, explosive waste incinerating, printing operations, spray painting/sealing systems, hard chromium electroplating, a sanitary landfill, a neutralized explosives wastewater treatment plant, and above and underground VOC storage tanks. The installation is an existing major source of Volatile Organic Compounds (VOC), Sulfur Oxides (SO_x), Nitrogen Oxides (NO_x), Hazardous Air Pollutants (HAP), Greenhouse Gases (GHG) and Carbon Monoxide (CO).

JUL 11 2014

Effective Date

Director or Designee

Department of Natural Resources

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I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

Alliant Lake City Small Caliber Ammunition Company manufactures small caliber ammunition in Jackson County. The installation is an existing major source of Volatile Organic Compounds (VOC), Sulfur Oxides (SO_x), Nitrogen Oxides (NO_x), Hazardous Air Pollutants (HAP), Greenhouse Gases (GHG) and Carbon Monoxide (CO). Operations at the installation include: boilers, emergency diesel engines, cold solvent process cleaning, Trinitroresorcinol (TNR) manufacturing, explosive waste incinerating, printing operations, spray painting/sealing systems, hard chromium electroplating, a sanitary landfill, a neutralized explosives wastewater treatment plant, and above and underground VOC storage tanks.

Reported Air Pollutant Emissions, tons per year					
Pollutants	2012	2011	2010	2009	2008
Particulate Matter ≤ Ten Microns (PM ₁₀)	10.51	10.64	11.20	11.02	10.02
Particulate Matter ≤ 2.5 Microns (PM _{2.5})	2.28	2.09	2.70	2.65	2.89
Sulfur Oxides (SO _x)	1.79	1.51	2.02	1.75	1.50
Nitrogen Oxides (NO _x)	45.88	46.92	46.26	45.27	49.94
Volatile Organic Compounds(VOC)	107.47	97.12	97.17	92.76	101.90
Carbon Monoxide (CO)	19.67	18.05	21.79	24.71	26.59
Lead (Pb)	0.41	0.41	0.42	0.41	0.35
Hazardous Air Pollutants (HAPs)	15.67	16.49	14.86	13.58	13.60
Ammonia (NH ₃)	0.93	0.858	1.177	1.112	1.24

EMISSION UNITS WITH LIMITATIONS

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

Description of Emission Unit	EIQ Reference #
Boiler No. 1 - 90 MMBtu/hr Dual Fired (Natural Gas & Fuel Oil) (1941)	EP01
Boiler No. 2 - 90 MMBtu/hr Dual Fired (Natural Gas & Fuel Oil) (1941)	EP02
Boiler No. 3 - 90 MMBtu/hr Dual Fired (Natural Gas & Fuel Oil) (1941)	EP03
Boiler No. 4 - 96 MMBtu/hr Dual Fired (Natural Gas & Fuel Oil) (1975)	EP04
Emergency Generators/Fire Water pumps (33 units)	EP05A-E
15,000 gallon Gasoline UST - Bldg 14	EP06A
Can and Crate Printing lines	EP-13A-C
Cartridge ID/Sealing Operations	EP14A-D
Cartridge Sealing Operations	EP15A
Thinners Used For Cartridge Tip Id And Sealing Operations	EP-16
Cold Solvent Degreasing Tanks	EP-19A
Explosive Waste Incinerator	EP24B
Hard Chromium Electroplating Tanks With Mesh Pad	EP-25
Air Stripper for Drinking Water	EP-26
Boiler No. 5 - Building 15A - 16.8 MMBtu Natural Gas Fired (2000)	EP44

Boiler No. 6 - Building 15A - 16.8 MMBtu Natural Gas Fired (2000)	EP44
Boiler No. 7 - Building 1 - 12.1 MMBtu Natural Gas Fired (2001)	EP44
Boiler No. 8 - Building 3 - 12.1 MMBtu Natural Gas Fired (2001)	EP44
Boiler No. 9- Building 2 – 4.2 MMBtu Natural Gas Fired (2001)	EP44
Boiler No. 10 - Building 11 – 2.1 MMBtu Natural Gas Fired (2001)	EP44
Boiler 15B (#5 Package Boiler) - 33.5 MMBtu Dual Fired (2005)	EP48
M27/M13 High Speed Link Presses (Lube Usage)	EP45
Tie Bar Cutting Machines	EP46
M16/M14A2N Links Welders	EP47
Five High Speed Case Manufacturing Lines (located in Building 1)	EP51

EMISSION UNITS WITHOUT LIMITATIONS

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

Description of Emission Source	EIQ Reference #
Diesel # 2 UST Bldg 14	EP06B
Diesel #2 Storage Bldg. 97 & 93 & 50	EP07
Haul Road Landfill	EP08
Haul Road Flashing (Burning) Grounds	EP09
Diesel Fuel Storage Bldg. 15 Underground 2 Tanks	EP10
Fuel Oil#2 Storage Tank For B-15 Tank 79C	EP11B
Sand Pile	EP12
Calcium Resinate Mixing	EP17A
I-136n Igniter Fuel Mixing	EP17B
Ignitor Production	EP17C
Trinitroresourcinol Manufacturing	EP18
Cartridge Manufacturing-Process Heating (88.44 MMBtu total)	EP20
Anneal Ovens (2) 7.62 Line	EP20A
Wash/Dryer (2) 7.62 Line	EP20B
Water Rinses/Dryers 7.62 Line	EP20C
Anneal Ovens (2) .50 Line	EP20D
Wash/Dryers (2) .50 Line	EP20E
Water Rinses/Dryers (2) .50 Line	EP20F
Ballistics Testing	EP21
Pistol Range	EP30
Industrial Waste Water Treatment Plant	EP31
Sulfuric Acid Storage	EP32
Diesel #2 Storage For Backup Generators (25 Tanks)	EP33
Sulfuric Acid Mist Pickle Existing	EP34
Sulfuric Acid Mist Pickle Bath .50 Line	EP34C
Natural Gas Space Heaters - 46 Units	EP36
Mercury Stress Crack Testing	EP37
Charging Wings	EP39
Landfill (Inactive/Insignificant)	EP40
Landfill (Inactive/Insignificant)	EP41
Lime/Salt Storage (Insignificant)	EP42

Neutralized Explosive WWTP
Flashing Ground Activities
Draw Presses (6)

EP43
EP49
EP50

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.

Boilers

The following permit conditions have specific requirements as listed for the equipment indicated. For more information, the regulatory citation or source of the requirement is listed directly following the permit condition. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

Permit Condition B-1		
10 CSR 10-6.260 <i>Restriction of Emission of Sulfur Compounds</i>		
EQ Reference #	Description (Service Date)	Manufacturer
EP-01	Boiler #1 - 90 MMBtu/hr (1941) Dual Fired (Natural Gas & Fuel Oil)	Babcock and Wilcox
EP-02	Boiler #2 - 90 MMBtu/hr (1941) Dual Fired (Natural Gas & Fuel Oil)	Babcock and Wilcox
EP-03	Boiler #3 - 90 MMBtu/hr (1941) Dual Fired (Natural Gas & Fuel Oil)	Babcock and Wilcox
EP-04	Boiler #4 - 96 MMBtu/hr (1975) Dual Fired (Natural Gas & Fuel Oil)	Nebraska
Existing source is defined under 10 CSR 10-6.020(2)(E)45.B as being, installed, or under construction in the Kansas City metropolitan area on September 25, 1968.		

Emission Limitation:

- 1.) Boilers# 1, 2, & 3 - Emissions from any existing source operation shall not contain more than two thousand parts per million by volume (2000 ppmv) of sulfur dioxide. [10 CSR 10-6.260(3)(A)(1)]
- 2.) Boilers# 1, 2, & 3 - 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. [10 CSR 10-6.260(3)(A)(1)]
- 3.) Boiler# 4 (EP-04) - Emissions from any new source operation shall not contain more than five hundred parts per million by volume (500 ppmv) of sulfur dioxide. [10 CSR 10-6.260(3)(A)(2)]
- 4.) Boiler# 4 (EP-04) - Stack gasses shall not contain more than thirty-five milligrams (35 mg) per cubic meter of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three hour time period. [10 CSR 10-6.260(3)(A)(2)]
- 5.) No person shall cause or allow emissions of sulfur dioxide into the atmosphere from any indirect heating source in excess of eight pounds of sulfur dioxide per MMBtu actual heat input averaged on any consecutive three hour time period. [10 CSR 10-6.260(3)(B)(2)(A)]

Equipment and Operation Parameters:

- 1.) Natural gas usage in these units shall be limited to pipeline grade natural gas only.
- 2.) Fuel oil usage for these units shall be limited to fuel oil containing 0.5 weight percent sulfur or less.

Monitoring/Recordkeeping:

- 1.) The permittee shall maintain an accurate record of the annual fuel usage.
- 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:

The permittee shall report any deviations of this permit condition to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

Permit Condition B-2	
<i>10 CSR 10-6.070 New Source Performance Regulations 40 CFR 60 Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units</i>	
EIQ Reference #	Description
EP-44	Boiler No. 5 - Building 15A - 16.74 MMBtu Natural Gas Fired (2000)
	Boiler No. 6 - Building 15A - 16.74 MMBtu Natural Gas Fired (2000)
	Boiler No. 7 - Building 1 - 12.1 MMBtu Natural Gas Fired (2001)
	Boiler No. 8 - Building 3 - 12.1 MMBtu Natural Gas Fired (2001)
EP-48	Boiler 15B (#5 Package Boiler) - 33.5 MMBtu Dual Fired (2005)

Emission Limitations:

- 1.) Natural gas usage in these units shall be limited to pipeline grade natural gas only. [§60.42c(d)]
- 2.) Fuel oil usage for Boiler 15B (EP-48) shall be limited to fuel oil containing 0.5 weight percent sulfur or less. [§60.42c(d)]

Monitoring:

The permittee has elected to demonstrate compliance with the fuel oil sulfur limits based on a certification from the fuel supplier. [§60.42c(h)(1)]

Recordkeeping/Reporting:

- 1.) The permittee shall keep records and submit reports as required including the following information, as applicable: [§60.48c(e)]
 - a.) Calendar dates covered in the reporting period. [§60.48c(e)(1)]
 - b.) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under §60.48c(f)(1). [§60.48c(e)(11)]
 - i.) Fuel supplier certification for distillate oil shall include the following information: [§60.48c(f)(1)]
 1. The name of the oil supplier; and [§60.48c(f)(1)(i)]
 2. A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in §60.41c. [§60.48c(f)(1)(ii)]

- c.) In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the responsible official that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period. [[§60.48c\(e\)\(11\)](#)]
- 2.) The permittee shall record and maintain records of the amounts of each fuel combusted during each calendar month. [[§60.48c\(g\)\(2\)](#)]
- 3.) All records shall be maintained for five years and shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 4.) The reporting period for the reports required under subpart Dc is each six-month period. All reports shall be submitted to the MDNR and shall be postmarked by the 30th day following the end of the reporting period. [[§60.48c\(j\)](#)]
- 5.) The permittee shall report any deviations of this permit condition to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

Permit Condition B-3	
10 CSR 10-6.060 <i>Construction Permits Required</i>	
Air Pollution Control Program Construction Permit #032005-012	
Air Pollution Control Program Construction Permit #102013-006	
EIQ Reference #	Description
EP-44	Boiler No. 5 - Building 15A - 16.74 MMBtu Natural Gas Fired (2000)
	Boiler No. 6 - Building 15A - 16.74 MMBtu Natural Gas Fired (2000)
EP-48	Boiler 15B (#5 Package Boiler) - 33.5 MMBtu Dual Fired (2005)

Emission Limitation:

- 1.) The Permittee shall emit less than 39 tons of Sulfur Oxides (SOx) from Boiler 15B (EP-48) in any consecutive 12-month period when using fuel oil. [[Special Condition 1.A, Construction Permit #032005-012](#)]
- 2.) The permittee shall exclusively combust natural gas in Boilers #5 and #6 (EP-44). [[Special Condition 1, Construction Permit #102013-006](#)]

Monitoring & Recordkeeping:

- 1.) Attachment L, or equivalent forms approved by the Air Pollution Control Program shall be used to demonstrate compliance with the 39 ton/year emission limitation. [[Special Condition 1.B, Construction Permit #032005-01](#)]
- 2.) The Permittee shall maintain all records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. [[Special Condition 1.B, Construction Permit #032005-012](#)]

Reporting:

The Permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten (10) days after the end of the month during which the required records indicate that the source exceeds the 39 ton/year SOx limitation. [[Special Condition 1.C, Construction Permit #032005-012](#)]

Permit Condition B-4	
<i>10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants</i>	
EIQ Reference #	Description (Service Date)
EP-01	Boiler #1 - 90 MMBtu/hr, Dual Fired (1941) Dual Fired (Natural Gas & Fuel Oil)
EP-02	Boiler #2 - 90 MMBtu/hr, Dual Fired (1941) Dual Fired (Natural Gas & Fuel Oil)
EP-03	Boiler #3 - 90 MMBtu/hr, Dual Fired (1941) Dual Fired (Natural Gas & Fuel Oil)
EP-04	Boiler #4 - 96 MMBtu/hr, Dual Fired (1975) Dual Fired (Natural Gas & Fuel Oil)
EP-48	Boiler 15B (#5 Package Boiler) - 33.5 MMBtu Dual Fired (2005) (Natural Gas & Fuel Oil)

Emission Limitations:

- 1.) The permittee shall not cause or permit emissions to be discharged into the atmosphere from any existing source any visible emissions with an opacity greater than 20%. [10 CRS 10-6.220(3)(A)]
 - a.) 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%. [10 CRS 10-6.220(3)(B)]

Monitoring, Recordkeeping and Reporting:

- 1.) Monitoring for the visible emission standard is only required when the boiler is using fuel oil.
- 2.) The monitoring, recordkeeping and reporting requirements for this condition are placed under the 10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants heading in the Core Permit Requirements Section (Section IV) of this permit.

Permit Condition B-5	
<i>40 CFR 63 Subpart DDDDD—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters</i>	
EIQ Reference #	Description (Service Date)
EP-01	Boiler #1 - 90 MMBtu/hr, Dual Fired - (Natural Gas & Fuel Oil) (1941) ¹
EP-02	Boiler #2 - 90 MMBtu/hr, Dual Fired (Natural Gas & Fuel Oil) (1941) ¹
EP-03	Boiler #3 - 90 MMBtu/hr, Dual Fired (Natural Gas & Fuel Oil) (1941) ¹
EP-04	Boiler #4 - 96 MMBtu/hr, Dual Fired (Natural Gas & Fuel Oil) (1975) ¹
EP-44	Boiler No. 5 - Building 15A - 16.74 MMBtu Natural Gas Fired (2000)
	Boiler No. 6 - Building 15A - 16.74 MMBtu Natural Gas Fired (2000)
	Boiler No. 7 - Building 1 - 12.1 MMBtu Natural Gas Fired (2001)
	Boiler No. 8 - Building 3 - 12.1 MMBtu Natural Gas Fired (2001)
EP-48	Boiler 15B - 33.5 MMBtu Dual Fired (Natural Gas & Fuel Oil) (2005) ¹

The full text of the requirements for these units under MACT DDDDD are found in 40 CFR 63 under the citations presented in the table below.

Boiler Category	Gas 1 Fuels Subcategory (Existing Natural Gas Fired) >10 MMBtu With/Without Oxygen Trim System	Initial Compliance	§63.7510(e)
Compliance Date	January 31, 2016	Continuous Compliance	§63.7540(a)(10) or §63.7540(a)(12)

Emission Limitations	None per §63.7500(e)	Notification Requirements	§63.7545(e), (f), & (h)
Work Practice Standards	Table 3, Items #1 or 3, 4	Recordkeeping Requirements	§63.7555(a)(1), & (h), §63.7560
Performance Tests	None per §63.7500(e)	Reporting Requirements	§63.7550(b), & (f)
Tune Up Requirements	² §63.7500(e), § 63.7510(e)	General Provisions (40 CFR Part 63)	Table 10 to Subpart DDDDD
<p>¹Unit designed to burn gas 1 subcategory includes any boiler that burns only natural gas; with the exception of liquid fuels burned for periodic testing not to exceed a combined total of 48 hours during any calendar year, or during periods of gas curtailment and gas supply emergencies. Records required from §63.7555(h) will demonstrate compliance with the annual hourly usage limit.</p> <p>--</p> <p>²If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. [§63.7540(a)(13)]</p>			

Operational Limitations:

Fuel oil usage for periodic testing shall not exceed a combined total of 48 hours during any calendar year.

Initial and Continuous Compliance Requirements:

- 1.) The Permittee must complete an initial tune-up by following the procedures described in 63.7540(a)(10)(i) through (vi) and the one-time energy assessment specified in Table 3 of MACT DDDDD no later than January 31, 2016. (Except as specified in paragraph §63.7510(j)). [§63.7510(e)]
- 2.) The permittee must conduct an annual tune-up of the boilers to demonstrate continuous compliance as specified in paragraphs §63.7540(a)(10)(i) through (vi). (*This frequency does not apply to units with continuous oxygen trim systems that maintain an optimum air to fuel ratio*). [§63.7540(a)(10)]
- 3.) *For those units that have continuous oxygen trim systems* - The Permittee must conduct a tune-up of the boilers every five years as specified in paragraphs §63.7540(a)(10)(i) through (vi) to demonstrate continuous compliance. The permittee may delay the burner inspection specified in paragraph §63.7540(a)(10)(i) until the next scheduled or unscheduled unit shutdown, but you must inspect each burner at least once every 72 months. [§63.7540(a)(12)]

Recordkeeping:

- 1.) The Permittee must keep a copy of each notification and report submitted to comply with MACT DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that was submitted, according to the requirements in §63.10(b)(2)(xiv). [§63.7555(a)(1)]
- 2.) The Permittee must keep records of the total hours per calendar year that fuel oil is burned in each individual boiler and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies. [§63.7555(h)]
- 3.) The Permittee must maintain records of the calendar date, time, occurrence and duration of each startup and shutdown. [§63.7555(i)]
- 4.) The Permittee must maintain records of the type(s) and amount(s) of fuels used during each startup and shutdown. [§63.7555(j)]

Reporting:

- 1.) Notification Requirements – The permittee must submit a Notification of Compliance Status according to §63.9(h)(2)(ii). The Notification of Compliance Status must only contain the information specified in paragraphs §63.7545(e)(1) and (8). [[§63.7545\(e\)](#)]
- 2.) If the permittee intends to use a fuel other than natural gas to fire the affected unit during a period of natural gas curtailment or supply interruption, as defined in §63.7575, the permittee must submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption, as defined in §63.7575. The notification must include the information specified in paragraphs §63.7545(f)(1) through (5). [[§63.7545\(f\)](#)]
- 3.) If the permittee has switched fuels or made a physical change to the boiler and the fuel switch or physical change resulted in the applicability of a different subcategory, the permittee must provide notice of the date upon which you switched fuels or made the physical change within 30 days of the switch/change. The notification must identify the items listed in §63.7545(h)(1) through (3). [[§63.7545\(h\)](#)]
- 4.) The permittee shall report any deviations of this permit condition to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

Permit Condition B-6			
<i>40 CFR 63 Subpart DDDDD—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters</i>			
EIQ Reference #	Description		
EP-44	Boiler No. 9- Building 2 – 4.2 MMBtu Natural Gas Fired (2001)		
	Boiler No. 10 - Building 11 – 2.1 MMBtu Natural Gas Fired (2001)		
<i>The full text of the requirements for these units under MACT DDDDD are found in 40 CFR 63 under the citations presented in the table below.</i>			
Boiler Category	Gas 1 Fuels Subcategory (Existing Natural Gas Fired) < 5 MMBtu	Initial Compliance	§63.7510(e)
Compliance Date	January 31, 2016	Continuous Compliance	§63.7540(a)(12)
Emission Limitations	None per §63.7500(e)	Notification Requirements	§63.7545(e)
Work Practice Standards	Table 3, Items #1, & 4	Recordkeeping Requirements	§63.7555(a)(1), §63.7560
Performance Tests	None per §63.7500(e)	Reporting Requirements	§63.7550(b), & (f)
Tune Up Requirements	¹ §63.7500(e), §63.7510(e)	General Provisions (40 CFR Part 63)	Table 10 to Subpart DDDDD
¹ If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. [§63.7540(a)(13)]			

Initial and Continuous Compliance Requirements:

- 1.) The Permittee must complete an initial tune-up by following the procedures described in 63.7540(a)(10)(i) through (vi) and the one-time energy assessment specified in Table 3 of MACT DDDDD no later than January 31, 2016. (Except as specified in paragraph §63.7510(j)).
[§63.7510(e)]
- 2.) The Permittee must conduct a tune-up of the boilers every five years as specified in paragraphs §63.7540(a)(10)(i) through (vi) to demonstrate continuous compliance. The permittee may delay the burner inspection specified in paragraph §63.7540(a)(10)(i) until the next scheduled or unscheduled unit shutdown, but you must inspect each burner at least once every 72 months. [§63.7540(a)(12)]

Recordkeeping:

The permittee must keep a copy of each notification and report submitted to comply with MACT DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that was submitted, according to the requirements in §63.10(b)(2)(xiv). [§63.7555(a)(1)]

Reporting:

- 1.) Notification Requirements – The Permittee must submit a Notification of Compliance Status according to §63.9(h)(2)(ii). For these units, the Notification of Compliance Status must only contain the information specified in paragraphs §63.7545(e)(1) and (8). [§63.7545(e)]
- 2.) The permittee shall report any deviations of this permit condition to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

Internal Combustion Engines - Emergency Generators

The following permit conditions have specific requirements as listed for the equipment indicated. For more information, the regulatory citation or source of the requirement is listed directly following the permit condition. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

Permit Condition EG-1	
10 CSR 10-6.060 Construction Permits Required Air Pollution Control Program Construction Permit #1192-018	
EQ Reference #	Description (Service Date)
EP-05A	241 Hp (180 kW) Diesel Fired Emergency Generator, Industrial Waste Treatment Plant – 181L (1992)

Emission Limitation:

The 180 kW diesel generating unit, shall not operate for more than 200 hours in any twelve (12) consecutive month period. [Special Condition 2]

Monitoring/Recordkeeping:

- 1.) The permittee shall record the monthly totals of hours of operation of the generating unit of each consecutive 12 month period. These logs shall be used to certify compliance with the annual usage limitations. [\[Special Conditions 6 and 8\]](#)
- 2.) All records shall be maintained for a minimum of five years.
- 3.) These records shall be made available immediately for inspection to Department of Natural Resources' personnel upon request. [\[Special Condition 10\]](#)

Reporting:

The permittee shall report any deviations of this permit condition to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

Permit Condition EG-2	
10 CSR 10-6.060 <i>Construction Permits Required</i> APCP Construction Permit #0492-002A	
EIQ Reference #	Description (Service Date)
EP-05B	106 Hp Diesel Fired Emergency Generator - 181A (1990)
	20 Hp Diesel Fired Emergency Generator - 181B (1990)
	50 Hp Diesel Fired Emergency Generator - 181C (1990)
	16 Hp Diesel Fired Emergency Generator - 181D (1990)
	16 Hp Diesel Fired Emergency Generator - 181E (1990)
	16 Hp Diesel Fired Emergency Generator - 181F (1990)
	16 Hp Diesel Fired Emergency Generator - 181G (1990)
	32 Hp Diesel Fired Emergency Generator - 181H (1990)
	16 Hp Diesel Fired Emergency Generator - 181J (1990)
	51 Hp Diesel Fired Emergency Generator - 181K (1990)
	860 Hp (650kW) Diesel Fired Emergency Generator – 181AA (Bldg 2 W)(1992)
	240 Hp (160kW) Diesel Fired Emergency Generator – 181BB (Bldg 2 N)(1992)
	903 Hp (680kW) Diesel Fired Emergency Generator – 181DD (Bldg 1)(1992)
	966 Hp (725kW) Diesel Fired Emergency Generator - 181FF (Bldg 15)(1992)
	903 Hp (680kW) Diesel Fired Emergency Generator - 181MM (Bldg 35)(1992)
430 Hp Emergency Diesel Pump – (Bldg 15 Feedwater pump)(1992)	

Emission Limitation:

Each engine covered under this permit condition shall not operate more than 200 hours in any consecutive 12-month period. [\[Special Condition 1\]](#)

Monitoring/Recordkeeping:

- 1.) The permittee shall record the monthly and 12-month rolling sum of hours of operation of each generating unit. The permittee shall record the monthly and 12-month rolling sum of hours of operation of each generating unit. These logs shall be used to certify compliance with the annual usage limitations. [\[Special Condition 2\]](#)
- 2.) All records shall be maintained for a minimum of five years.
- 3.) These records shall be made available immediately for inspection to Department of Natural Resources’ personnel upon request.

Reporting:

The permittee shall report any deviations of this permit condition to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

Permit Condition EG-3	
10 CSR 10-6.060 <i>Construction Permits Required</i>	
Air Pollution Control Program Construction Permit #0395-027	
EIQ Reference #	Description (Service Date)
EP-05C	130 Hp (100kW) Diesel Fired Emergency Generator - 181CC (Bldg 57)(1996)
	270 Hp (205kW) Diesel Fired Emergency Generator - 181EE (Bldg 3N)(1997)
	860 Hp (650kW Diesel Fired Emergency Generator - 181HH (Bldg 13)(1997)
	205 Hp (205kW) Diesel Fired Emergency Generator - 181JJ (Bldg 121)(1997)
	605 Hp (455kW) Diesel Fired Emergency Generator - 181KK (Bldg 65)(1997)
	365 Hp (275kW) Diesel Fired Emergency Generator - 181LL (Bldg 139)(1997)
	153 Hp (113kW) Diesel Fired Emergency Generator - 181NN (Bldg 45)(1997)
	860 Hp (650kW) Diesel Fired Emergency Generator - 181PP (Bldg 93N)(1997)
	424 Hp (320kW) Diesel Fired Emergency Generator – 181GG (Bldg 93S)

Emission Limitation:

The permittee shall not emit nitrogen oxides (NOx) in excess of 23 tons during any consecutive 12-month period from the combined operation of the nine electrical generators. [\[Special Condition 1\]](#)

Monitoring/Recordkeeping:

- 1.) The permittee shall maintain a log showing the monthly and 12-month rolling sum of NOx emitted from the nine electrical generators in this emission unit. NOx emissions shall be calculated at the end of each month of operation using emission factors from AP-42 or equivalent (see Attachment M). Attachment M or equivalent records must be used to certify compliance with this requirement. [\[Special Condition 2\]](#)
- 2.) All records shall be maintained for a minimum of five years.
- 3.) These records shall be made available immediately for inspection to Department of Natural Resources’ personnel upon request.

Reporting:

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 any exceedance of the annual 23 ton NOx limitation imposed by this permit condition.

Permit Condition EG-4			
10 CSR 10-6.075 <i>Maximum Achievable Control Technology Regulations</i>			
40 CFR 63 Subpart ZZZZ— <i>National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines</i>			
EIQ Reference #	Description (Service Date)		
EP-05A	241 Hp Diesel Fired Emergency Generator IWTP – 181L (1992)		
EP-05B	106 Hp Diesel Fired Emergency Generator - 181A (1990)		
	20 Hp Diesel Fired Emergency Generator - 181B (1990)		
	50 Hp Diesel Fired Emergency Generator - 181C (1990)		
	16 Hp Diesel Fired Emergency Generator - 181D (1990)		
	16 Hp Diesel Fired Emergency Generator - 181E (1990)		
	16 Hp Diesel Fired Emergency Generator - 181F (1990)		
	16 Hp Diesel Fired Emergency Generator - 181G (1990)		
	32 Hp Diesel Fired Emergency Generator - 181H (1990)		
	16 Hp Diesel Fired Emergency Generator - 181J (1990)		
	51 Hp Diesel Fired Emergency Generator - 181K (1990)		
	277 Hp Emergency Diesel Emergency Generator - (bldg 7) 181M (March 2006)*		
	216 Hp Diesel Fired Emergency Generator (160 kW) - 181BB (1992)		
EP-05C	424 Hp Diesel Fired Emergency Generator - 181GG (1992)		
	130 Hp Diesel Fired Emergency Generator - 181CC (1996)		
	270 Hp Diesel Fired Emergency Generator - 181EE (1997)		
	205 Hp Diesel Fired Emergency Generator - 181JJ (1997)		
	365 Hp Diesel Fired Emergency Generator - 181LL (1997)		
	153 Hp Diesel Fired Emergency Generator - 181NN (1997)		
EP-05D	170 Hp Diesel Fired Emergency Pump for Firewater Bldg 50 (1941)		
	170 Hp Diesel Fired Emergency Pump for Firewater Bldg 50 (1941)		
EP-05E	182 Hp Diesel Fired Emergency Booster Pump (1999)		
Engine Category	<i>Existing</i> Emergency CI < 500 Hp	Monitoring, Installation, Collection, Operation and Maintenance Requirements	§63.6625(e), (f), (h), (i)
Date Constructed	<i>Before 6/12/2006</i>	Initial Compliance	No Requirements
Compliance Date	May 3, 2013	Continuous Compliance	§63.6605, §63.6640(f)
Work Practice Standards	§63.6602 Table 2c, Item #1	Notification Requirements	No Requirements

Operating Limitations	§63.6640(f)	Recordkeeping Requirements	§63.6655(a), (d), (e) & (f)
Fuel Requirements	No Requirements	Reporting Requirements	§63.6640(b), Footnote 1 of Table 2c
Performance Tests	No Requirements	General Provisions (40 CFR Part 63)	Yes, except per §63.6645(a)(5), the following do not apply: §63.7(b) and (c), §63.8(e), (f)(4) and (f)(6), and §63.9(b)-(e), (g) and (h).
<p>*For RICE with a site rating ≤ 500 brake HP, it is existing if construction commenced before June 12, 2006 per §63.6590(a)(1)(ii). The full text of the requirements for these units under MACT ZZZZ are found in 40 CFR 63 under the citations presented in the table above.</p>			

Operational Requirements:

- 1.) The permittee must be in compliance with the applicable requirements of MACT ZZZZ at all times. [[§63.6605\(a\)](#)]
- 2.) At all times, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. [[§63.6605\(b\)](#)]
- 3.) The permittee must demonstrate continuous compliance by operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or the permittee must develop and follow a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [[Item 9, Table 6 of Subpart ZZZZ](#)]

Work Practice Standards:

- 1.) For each RICE, the permittee must meet the following requirement (*except during periods of startup*):
 - a.) Change oil and filter every 500 hours of operation or annually, whichever comes first; (The permittee has the option to utilize an oil analysis program as described in §63.6625(i) or (j) in order to extend the specified oil change requirement.)
 - b.) Inspect spark plugs every 1000 hours of operation or annually, whichever comes first, and replace as necessary; and
 - c.) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
- 2.) During periods of startup the permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [[Items 1.a, 1.b and 1.c of Table 2c](#)]

Annual Usage Limitations to Maintain Emergency-Only Status:

- 1.) The permittee shall operate the emergency stationary RICE according to the requirements in paragraphs §63.6640(f)(1) through (4). In order for the engine to be considered an emergency

stationary RICE under 40 CFR 63 Subpart ZZZZ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs §63.6640(f)(1) through (4), is prohibited. If you do not operate the engine according to the requirements in paragraphs §63.6640(f)(1) through (4), the engine will not be considered an emergency engine under 40 CFR 63 Subpart ZZZZ and must meet all requirements for non-emergency engines. [\[§63.6640\(f\)\]](#)

- a.) There is no time limit on the use of emergency stationary RICE in emergency situations. [\[§63.6640\(f\)\(1\)\]](#)
- b.) The permittee may operate the emergency stationary RICE for any combination of the purposes specified in paragraphs §63.6640(f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs §63.6640(f)(3) and (4) counts as part of the 100 hours per calendar year allowed by this paragraph §63.6640(f)(2). [\[§63.6640\(f\)\(2\)\]](#)
 - i.) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Director for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. [\[§63.6640\(f\)\(2\)\(i\)\]](#)
 - ii.) Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see § 63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [\[§63.6640\(f\)\(2\)\(ii\)\]](#)
 - iii.) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. [\[§63.6640\(f\)\(2\)\(iii\)\]](#)
- c.) Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph §63.6640(f)(2). The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [\[§63.6640\(f\)\(3\)\]](#)

Recordkeeping Requirements;

- 1.) The permittee must keep records of all required maintenance performed on the air pollution control and monitoring equipment. [\[§63.6655\(a\)\(4\)\]](#)
- 2.) The permittee must keep records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [\[§63.6655\(a\)\(5\)\]](#)

- 3.) The permittee must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the stationary RICE and after-treatment control device (if any) were operated and maintained according to the permittee’s own maintenance plan. [§63.6655(e)]
- 4.) The permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee must document how many hours are spent for emergency operation; including what classified the operation as emergency and how many hours are spent for non-emergency operation. [§63.6655(f)]
- 5.) If the engine is used for the purposes specified in §63.6640(f)(2)(ii) or (iii) or §63.6640(f)(4)(ii), the permittee must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [§63.6655(f)]

Reporting:

The Permittee must report each instance in which an applicable emission limitation or operating limitation in Table 2c to MACT ZZZZ was not met. These instances are deviations from the emission and operating limitations in MACT ZZZZ, and must be reported according to the requirements in §63.6650. [§63.6640(b)]

Permit Condition EG-5	
10 CSR 10-6.075 <i>Maximum Achievable Control Technology Regulations</i> 40 CFR 63 Subpart ZZZZ— <i>National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines</i>	
EIQ Reference #	Description (Service Date)
EP-05B	860 Hp Diesel Fired Emergency Generator - 181AA (1992)
	903 Hp Diesel Fired Emergency Generator - 181DD (1992)
	966 Hp Diesel Fired Emergency Generator - 181FF (1992)
	903 Hp Diesel Fired Emergency Generator - 181MM (1992)
EP-05C	860 Hp Diesel Fired Emergency Generator - 181HH (1997)
	605 Hp Diesel Fired Emergency Generator - 181KK (1997)
	860 Hp Diesel Fired Emergency Generator - 181PP (1997)
Per §63.6590(b)(3)(iii), these units are not subject to the provisions of this rule or subpart A as long as they meet the usage restrictions of §63.6640(f).	

Annual Usage Limitations to Maintain Emergency-Only Status:

The permittee shall follow the applicable annual usage limitations of §63.6640(f) as summarized in Permit Condition EG-4 under Annual Usage Limitations to Maintain Emergency-Only Status.

Recordkeeping Requirements:

- 1.) The permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee must document how many hours are spent for emergency operation; including what classified the operation as emergency and how many hours are spent for non-emergency operation. [§63.6655(f)]
- 2.) If the engine is used for the purposes specified in §63.6640(f)(2)(ii) or (iii) or §63.6640(f)(4)(ii), the permittee must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [§63.6655(f)]

Permit Condition EG-6	
40 CFR 60 Subpart III— <i>Standards of Performance for Stationary Compression Ignition Internal Combustion Engines</i>	
EQ Reference	Description
EP-05E	324 HP Diesel fired Emergency Generator, 6.7 liters (located in bldg 5) - 181N (2011)
EP-05E	158 HP Diesel fired Emergency Generator, 4.5 liters (located in bldg 93) - 181P (2011)
EP-05E	324 HP Diesel fired Emergency Generator, 6.7 liters (2014)

Emission Limitations:

- 1.) The permittee shall use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, (Ultra Low Sulfur Diesel (ULSD) 15 ppm) [\[§60.4207\(b\)\]](#)
- 2.) The permittee must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. [\[§60.4205\(b\)\]](#)

Monitoring

- 1.) The permittee must install a non-resettable hour meter prior to startup of the engine. [\[§60.4209\(b\)\]](#)
- 2.) If the stationary CI internal combustion engine is equipped with a diesel particulate filter to comply with the emission standards in § 60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. [\[§60.4209\(b\)\]](#)

Compliance /Recordkeeping Requirements:

- 1.) The engines shall be installed and configured according to the manufacturer's emission-related specifications, except as permitted in §60.4211(g). [\[§60.4211\(c\)\]](#)
- 2.) The permittee shall do all of the following, except as permitted under §60.4211(g):
 - a.) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;
 - b.) Change only those emission-related settings that are permitted by the manufacturer; and
 - c.) Meet the requirements of 40 CFR Parts 89, 94 and/or 1068, as they apply to you. [\[§60.4211\(a\)\(1\) through \(a\)\(3\), and §60.4211\(c\)\]](#)
- 3.) If the permittee does not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows: [\[§60.4211\(g\)\]](#)
 - a.) The permittee shall keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within one year of startup, or within one year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within one year after the permittee changes emission-related settings in a way that is not permitted by the manufacturer. [\[§60.4211\(g\)\(2\)\]](#)

Annual Usage Limitations:

- 1.) In order for the engine to be considered an emergency stationary ICE under 40 CFR 60 Subpart III, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs §60.4211(f)(1) through (3), is prohibited. [§60.4211(f)]
 - a.) There is no time limit on the use of emergency stationary ICE in emergency situations. [§60.4211(f)(1)]
 - b.) The permittee may operate the emergency stationary ICE for any combination of the purposes specified in paragraphs §60.4211(f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph §60.4211(f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph §60.4211(f)(2). [§60.4211(f)(2)]
 - i.) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Director for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. [§60.4211(f)(2)(i)]
 - ii.) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see § 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [§60.4211(f)(2)(ii)]
 - iii.) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of five percent or greater below standard voltage or frequency. [§60.4211(f)(2)(iii)]
 - c.) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph §60.4211(f)(2). Except as provided in paragraph §60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [§60.4211(f)(3)]
 - i.) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
 1. The engine is dispatched by the local balancing authority or local transmission and distribution system operator;
 2. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
 3. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

4. The power is provided only to the facility itself or to support the local transmission and distribution system.
 5. The permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator. [[§60.4211\(f\)\(3\)\(i\)\(A\) through \(E\)](#)]
- d.) If the permittee does not operate the engine according to the requirements in paragraphs §60.4211(f)(1) through (3), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. [[§60.4211\(f\)](#)]

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).

Production Equipment Requirements

The following permit conditions have specific requirements as listed for the equipment indicated. For more information, the regulatory citation or source of the requirement is listed directly following the permit condition. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

Permit Condition 1	
10 CSR 10-6.060 <i>Construction Permits Required</i> Air Pollution Control Program Construction Permit #0496-018 Air Pollution Control Program Construction Permit #1095-022	
EIQ Reference #	General Description:
EP-13	Model 37E Printers for 20 mm ammunition cases; MHDR = 1256 cartridges/hr. (1995) Ink Jet Model 1LSS 4200 Series for 5.56 MM cartridge fiber packing cartons; MHDR = 4,200 cartons/hr. (1996)

Nuisance Odor Plan:

If in the opinion of the Director, a continuing situation of demonstrated nuisance odors exists for the neighbors of the facility, the Director may require the permittee to submit a corrective action plan adequate to timely and significantly mitigate the odors. The permittee shall implement any such plan immediately upon its approval by the Director. Failure to either submit or implement a plan shall be a violation of the permit. [[Special Condition 1](#)]

Permit Condition 2	
10 CSR 10-6.060 <i>Construction Permits Required</i> Air Pollution Control Program Construction Permit #062009-004	
EIQ Reference #	Description
EP-13 (A-C)	Three (3) Can Printing lines

Operational Requirements:

- 1.) Use of Alternative Coatings -
 - a.) When considering using an alternative material in the can (EP 13A-C) that is different than a material listed in the Application for Authority to Construct (for Construction Permit #062009-004), the permittee shall calculate the potential emissions of volatile organic compounds (VOCs) and each individual HAP in the alternative material. [\[Special Condition 1.A\]](#)
 - b.) The permittee shall seek approval from the Air Pollution Control Program before use of the alternative material in the following cases: [\[Special Condition 1.B\]](#)
 - i.) If the sum of potential VOC emissions for an alternative cleaning or ink material is equal to or greater than 0.197 tons per year (tpy).
 - ii.) If the potential individual HAP emissions for the alternative material is equal to or greater than the Screening Model Action Levels (SMAL) for any compound listed in Attachment B.
- 2.) Solvent/Ink Cloths –
 - a.) The Permittee shall keep the solvents and cleaning solutions in sealed containers whenever the materials are not in use.
 - b.) The Permittee shall provide and maintain suitable, easily read, permanent markings on all solvent and cleaning solution containers used with this equipment. [\[Special Condition 2\]](#)

Monitoring and Recordkeeping:

When using an alternative material - Attachment A or an equivalent form shall be used to show compliance with the required VOC and HAP analysis. The Permittee shall maintain all records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources’ personnel upon request. [\[Special Condition 1\]](#)

Reporting:

The permittee shall report any deviations of this permit condition to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

Permit Condition 3	
<i>10 CSR 10-2.230 Control of Emissions from Industrial Surface Coating Operations</i>	
EIQ Reference #	General Description:
EP-14A, EP-14C & EP-14D	Three 5.56 mm loading machine water base plate dip - TIP ID painting Two 7.62 mm Loading machine water base plate dip - TIP ID painting Twenty-four (24) 50 Cal Load Machine - TIP ID dip applicator water base paint

Emission Limitation:

The permittee shall not emit into the atmosphere any VOC from any surface coating operation in excess of 3.5 lbs. VOC per gallon of coating (minus water and non-VOC organic compounds). [\[10 CSR 10-2.230\(4\)\(B\)\]](#)

Operation Parameters:

The permittee shall not apply any coating with a VOC content greater than 3.5 lbs per gallon of coating (minus water and non-VOC organic compounds) from this emission unit.

Monitoring:

The permittee shall determine the composition of the coatings by formulation data supplied by the manufacturer of the coating or from data determined by approved methods outlined in 10 CSR 10-2.230(5)(B).

Recordkeeping:

- 1.) The permittee shall maintain a record of the VOC content, in lbs per gallon, of all coatings applied from this emission unit.
- 2.) All records shall be maintained for a minimum of five years.
- 3.) These records shall be made available to Department of Natural Resources' personnel upon request.

Reporting:

The permittee shall report any deviations of this permit condition to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

Permit Condition 4		
<i>10 CSR 10-6.060 Construction Permits Required</i>		
Air Pollution Control Program Construction Permit #1088-009A		
EIQ Reference #	General Description:	Manufacturer/Model #
EP-14B	Three ammunition tip spray painting/sealing systems; Spray painting system - small air-operated stationary spray gun, MHDR 1.03 gal/hr; Collection efficiency - 99 % efficient particulate filters	Matra Manurhin International

Emission Limitation:

- 1.) The three spray units may operate at a design capacity for 52 weeks per calendar year (365 days). [\[Condition 1\]](#)
- 2.) The permittee shall spray no more than 27,000 gallons of lacquer during any consecutive 12-month period with the combined operation of the three ammunition tip spray systems. [\[Condition 2\]](#)
- 3.) The VOC content of the paint shall not exceed 2.5 pounds per gallon. [\[Condition 2\]](#)
- 4.) All control equipment shall be maintained and operated according to the manufacturer's specifications.

Monitoring/Recordkeeping:

- 1.) The permittee shall maintain records noting:
 - a.) Monthly and 12-month rolling sum of the quantity of paint sprayed by the three ammunition tip spray systems.
 - b.) The VOC content of each paint used in each of the three ammunition tip spray systems. [\[Condition 3\]](#)
- 2.) All records shall be maintained for a minimum of five years.
- 3.) These records shall be made available to Department of Natural Resources' personnel upon request.

Reporting:

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 any exceedance of any of the terms imposed by this regulation, or any malfunction which causes an exceedance of this regulation.

Permit Condition 5	
10 CSR 10-6.060 <i>Construction Permits Required</i>	
Air Pollution Control Program Construction Permit #112008-012	
Air Pollution Control Program Construction Permit #062003-006	
Air Pollution Control Program Construction Permit #062013-007	
EIQ Reference #	Description
EP-15A	Case Mouthwater Proofing and Primer Cap Seal (8 units 15A-1 through 15A-8)
EP16	Thinners Used For Cartridge Tip Id And Sealing Operations

Emission & Operating Limitations:

- 1.) The Permittee shall emit less than 0.01 tons of lead chromate from the Primer Cap Seal (EP-15A) in any consecutive 12-month period. [[Construction Permit #112008-012, Special Condition 1.A](#)]
- 2.) The Permittee shall emit less than 40 tons of Volatile Organic Compounds (VOCs) from use of the VOC based mouth water-proofing sealant at their existing cartridge sealing operation (EP-15) in any consecutive 12-month period. [[Construction Permit #062003-006, Special Condition 1.A](#)]
- 3.) When considering using alternative materials with the new equipment list that is different to those listed in the Application for Authority to Construct (for construction permit #112008-012B), The Permittee must calculate the potential emissions for each individual HAP in the alternative material. If the potential HAP emissions for the alternative material are equal to or greater than the Screen Modeling Action Levels (SMAL) as listed in Attachment B or is greater than 10 ton per year, then the Permittee must seek approval from the Air Pollution Control Program before use of the alternative material. [[Construction Permit #112008-012B, Special Condition 1.B](#)]
- 4.) The Permittee shall keep the chemicals associated with the Primer Cap Seal process (EP-15A) in closed containers whenever the materials are not in use. The Permittee shall provide and maintain suitable, easily read, permanent markings on all solvent and cleaning solution containers used with this equipment. [[Construction Permit #062013-007, Special Condition 1](#)]

Monitoring & Recordkeeping:

- 1.) Attachments C and D or equivalent forms shall be used to demonstrate compliance with the annual lead chromate limit and the alternate materials selection method described under Special Condition 1.B of Construction Permit #112008-012B. These records shall include Material Safety Data Sheets (MSDS) for all materials used in this equipment. [[Construction Permit #112008-012B, Special Condition 1.C](#)]
- 2.) Attachment E or equivalent forms shall be used to demonstrate compliance with the annual 40 ton VOC limit. These records shall include Material Safety Data Sheets (MSDS) for all materials used in the VOC based mouth water-proofing sealant. [[Construction Permit #062003-006, Special Condition 1.B](#)]
- 3.) The Permittee shall maintain all records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.

Reporting:

The Permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten (10) days after the end of the month during which the records indicate that the source exceeds the 0.01 tpy lead chromate or the 40 tpy VOC limitation.

[\[Construction Permits #112008-012B Special Condition 1.D, & 062003-006 Special Condition 1.C\]](#)

Permit Condition 6	
10 CSR 10-6.075 <i>Maximum Achievable Control Technology Regulations</i> 40 CFR Part 63 Subpart N <i>National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks</i>	
EIQ Reference #	General Description:
EP-25	Hard chromium electroplating tanks with mesh pad.

Emission Limitation:

- 1.) The permittee shall comply with the emission limitations in §63.342 no later than September 19, 2014. [\[§63.343\(a\)\(1\)\]](#)
- 2.) During tank operation, the permittee shall not allow the concentration of total chromium in the exhaust gas stream discharge to the atmosphere to exceed 0.015 milligrams of total chromium per dry standard cubic meter (mg/dscm) of ventilation air (6.6×10^{-6} grains per dry standard cubic foot [gr/dscf]. [\[§63.342\(c\)\(1\)\(ii\)\]](#)
- 3.) The emission limitations apply during tank operation as defined in §63.341, and during periods of startup and shutdown as these are routine occurrences for affected sources subject to 40 CFR 63 Subpart N. [\[§63.342\(b\)\(1\)\]](#)

Work Practice Standards:

- 1.) The permittee shall implement the housekeeping procedures specified in Table 2 of §63.342. (See Attachment K) [\[§63.343\(a\)\(8\)\]](#)
- 2.) The permittee is subject to the following work practice standards:
 - a.) At all times, including periods of startup, shutdown, and malfunction, the permittee shall operate and maintain any affected source, including associated air pollution control devices and monitoring equipment, in a manner consistent with good air pollution control practices, consistent with the required operation and maintenance plan. [\[§63.342\(f\)\(1\)\(i\)\]](#)
 - b.) Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the required operation and maintenance plan. [\[§63.342\(f\)\(1\)\(ii\)\]](#)
 - c.) Operation and maintenance requirements established pursuant to Section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards. [\[§63.342\(f\)\(1\)\(iii\)\]](#)
- 3.) Table 1 of §63.342 requires that the permittee perform the following tasks at least once per quarter:
 - a.) Visually inspect device to ensure there is proper drainage, no chronic acid buildup on the pads, and no evidence of chemical attack on the structural integrity of the device.
 - b.) Visually inspect back portion of the mesh pad closest to the fan to ensure there is no breakthrough of chromic acid mist.
 - c.) Visually inspect ductwork from tank to the control device to ensure there are no leaks.
- 4.) Table 1 of §63.342 also requires the permittee to perform washdown of the composite mash-pads in accordance with manufacturers' recommendations. [\[Table 1 to §63.342 - Summary of Work Practice Standards\]](#)

Operation and Maintenance Plan Requirements:

- 1.) The permittee shall prepare and maintain an operation and maintenance plan no later than the compliance date. The plan shall be incorporated by reference into this title V permit. The plan shall include the elements listed under paragraphs §63.342(f)(3)(i)(A) through (F). [§63.342(f)(3)(i)]
- 2.) If the operation and maintenance plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the permittee shall revise the operation and maintenance plan within 45 days after such an event occurs. The revised plan shall include procedures for operating and maintaining the process equipment, add-on air pollution control device, or monitoring equipment during similar malfunction events, and a program for corrective action for such events. [§63.342(f)(3)(ii)]
- 3.) Recordkeeping associated with the operation and maintenance plan is identified in §63.346(b). Reporting associated with the operation and maintenance plan is identified in §63.347(g) and (h) and paragraph §63.342(f)(3)(iv). [§63.342(f)(3)(iii)]
- 4.) If actions taken by the permittee during periods of malfunction are inconsistent with the procedures specified in the operation and maintenance plan required by paragraph §63.342(f)(3)(i), the owner or operator shall record the actions taken for that event and shall report by phone such actions within two working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within seven working days after the end of the event, unless the owner or operator makes alternative reporting arrangements, in advance, with the Director. [§63.342(f)(3)(iv)]
- 5.) The permittee shall keep the written operation and maintenance plan on record after it is developed to be made available for inspection, upon request, by the Director for the life of the affected source or until the source is no longer subject to the provisions of this subpart. In addition, if the operation and maintenance plan is revised, the permittee shall keep previous (i.e., superseded) versions of the operation and maintenance plan on record to be made available for inspection, upon request, by the Director for a period of five years after each revision to the plan. [§63.342(f)(3)(v)]
- 6.) To satisfy the requirements of paragraph §63.342(f)(3), the permittee may use applicable standard operating procedure (SOP) manuals, Occupational Safety and Health Administration (OSHA) plans, or other existing plans, provided the alternative plans meet the requirements of this section. [§63.342(f)(3)(vi)]

Monitoring:

- 1.) The permittee shall demonstrate continuous compliance by monitoring and recording the pressure drop across the composite mesh-pad system once each day that any affected source is operating. To be in compliance with the standards, the composite mesh-pad system shall be operated within ± 2 inch of water column of pressure drop value established during the initial performance test, or shall be operated within the range of compliant values for pressure drop established during multiple performance tests. [§63.343(c)(1)]
- 2.) The permittee may repeat the performance test and establish as a new site-specific operating parameter the pressure drop across the composite mesh-pad system according to the requirements in paragraphs §63.343(c)(1)(i) or (ii). To establish a new site-specific operating parameter for pressure drop, the owner or operator shall satisfy the requirements specified in paragraphs §63.343(c)(1)(iii)(A) through (D). [§63.343(c)(1)(iii)]
- 3.) The requirement to operate a composite mesh-pad system within the range of pressure drop values established under paragraphs §63.343(c)(1)(i) through (iii) does not apply during automatic washdown cycles of the composite mesh-pad system. [§63.343(c)(1)(iv)]

Recordkeeping:

- 1.) The permittee shall keep the written operation and maintenance plan on record to be made available for inspection, upon request, by the Director for the life of the affected source or until the source is no longer subject to the provisions of this subpart. In addition, if the operation and maintenance plan is revised, the permittee shall keep previous (i.e., superseded) versions of the operation and maintenance plan on record to be made available for inspection, upon request, by the Director for a period of five years after each revision to the plan. [§ 63.342(f)(3)(v)]
- 2.) The permittee shall fulfill all recordkeeping requirements outlined in §63.346(b) and in the General Provisions to 40 CFR Part 63, according to the applicability of subpart A as identified in Table 1 of 40 CFR 63 Subpart N. [§63.346(a)]
- 3.) All records shall be maintained for five years in accordance with §63.10(b)(1). [§ 63.346(c)]

Reporting:

- 1.) If actions taken by the permittee during periods of malfunction are inconsistent with the procedures specified in the operation and maintenance plan, the permittee shall record the actions taken for that event and shall report by phone such actions within 2 working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within 7 working days after the end of the event, unless the permittee makes alternative reporting arrangements, in advance with the Director. [§63.342(f)(3)(iv)]
- 2.) The permittee shall fulfill all reporting requirements outlined in the General Provisions to 40 CFR Part 63, according to the applicability of subpart A. [§63.347(a)]
- 3.) *Ongoing compliance status reports for major sources.*
 - a.) The permittee shall submit a summary report to the Director to document the ongoing compliance status of the affected source. The report shall contain the information identified in paragraph §63.347(g)(3) shall be submitted semiannually except when:
 - i.) The Director determines on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the source; or
 - ii.) The monitoring data collected by the permittee in accordance with §63.343(c) show that the emission limit has been exceeded, in which case quarterly reports shall be submitted. Once an owner or operator of an affected source reports an exceedance, ongoing compliance status reports shall be submitted quarterly until a request to reduce reporting frequency under paragraph §63.347(g)(2) is approved. [§63.347(g)(1)]
 - b.) *Request to reduce frequency of ongoing compliance status reports.* If required to submit ongoing compliance reports on a quarterly (or more frequent basis), the permittee may reduce the frequency of reporting to semiannual if all of the conditions of §63.347(g)(2) are met. [§63.347(g)(2)]
 - c.) *Contents of ongoing compliance status reports.* The owner or operator of an affected source for which compliance monitoring is required in accordance with §63.343(c) shall prepare a summary report to document the ongoing compliance status of the source. The report must contain the information listed under paragraph §63.347(g)(3). [§63.347(g)(3)]
- 4.) The permittee shall report any deviations of this permit condition to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

Permit Condition 7	
10 CSR 10-6.060 <i>Construction Permits Required</i>	
Air Pollution Control Program Construction Permit #042001-003	
Air Pollution Control Program Construction Permit #112001-009A	
EQ Reference #	Description
EP45	M27/M13 High Speed Link Presses
EP46	Tie Bar Cutting Machines
EP47	M16/M14A2N Links Welders

Emission Limitation:

- 1.) The permittee shall not emit volatile organic compounds (VOC) from the entire Machine Gun Belt Operation, which includes sixteen (16) presses and one lubrication tank, in excess of thirty-nine (39) tons in any consecutive twelve (12) month period. [[Special Condition 1.A of 112001-009A](#)]
- 2.) The permittee shall control particulate emissions from the four (4) 30-ton presses and the six (6) resistance welders through the use of electrostatic precipitators, and shall control emissions from the tie bar machine using a fabric filter, as specified in the permit application for Construction Permit 042001-003. This air pollution control equipment shall be operated and maintained in accordance with the manufacturer's specifications. Any and all instrumentation used to monitor this control equipment shall be located in such a manner that Department of Natural Resources' employees may easily observe them. Replacement filters for the fabric filter shall be available on-site at all times. The filters shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance). . [[Special Condition 2.A of CP 042001-003](#)]

Monitoring/Recordkeeping:

- 1.) The permittee shall monitor and record any and all control equipment operating data at least once every 24 hours. The permittee shall maintain an operating and maintenance log for the control equipment. This log shall include all incidents of malfunction with an estimate of its impact on emissions, the duration of the event, the probable cause, and all corrective actions that have been taken to prevent similar future occurrences. This log shall also include inspection schedules that detail all maintenance activities, repair actions, replacements, etc. [[Special Condition 2.B of CP 042001-003](#)]
- 2.) The permittee shall maintain an accurate record of the monthly and rolling twelve (12) month totals of VOC emitted from the Machine Gun Belt Operation (See Attachment F). [[Special Conditions 2.B of CP 112001-009A](#)]
- 3.) All records required under this section shall be maintained by the permittee for a minimum of five years.

Reporting:

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 any exceedance of any of the terms imposed by this permit condition, or any malfunction which causes an exceedance of the 39 ton VOC limitation.

Permit Condition 8	
10 CSR 10-6.060 <i>Construction Permits Required</i> Air Pollution Control Program Construction Permit #012013-009	
EIQ Reference #	Description
EP-51	Five High Speed Case Manufacturing Lines (located in Building 1)

VOC Emission Limitation;

The permittee shall emit less than 40.0 tons of VOCs in any consecutive 12-month period from the use of new lube, wash additives and brass brighteners on the five case lines in Building 1 Case Manufacturing (EP-51). [Special Condition 1.A]

Operational Requirement – Solvent;

The permittee shall keep the solvents and cleaning solutions in sealed containers whenever the materials are not in use. The permittee shall provide and maintain suitable, easily read, permanent markings on all solvent and cleaning solution containers used with this equipment. [Special Condition 2]

Recordkeeping and Reporting Requirements;

- 1.) Attachment F or equivalent forms, such as electronic forms, approved by the Air Pollution Control Program shall be used to demonstrate compliance with the 40 ton/year VOC limit. [Special Condition 1.B]
- 2.) The Permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources’ personnel upon request. These records shall include MSDS for all materials used [Special Condition 3.A]
- 3.) 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 end of the month during which any record required by this permit show an exceedance of a limitation imposed by this permit. [Special Condition 3.B]

Explosive Waste Incinerator Requirements

The following permit conditions have specific requirements as listed for the equipment indicated. For more information, the regulatory citation or source of the requirement is listed directly following the permit condition. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

Permit Condition EWI-1	
10 CSR 10-6.075 <i>Maximum Achievable Control Technology Standards</i> 40 CFR Part 63 Subpart EEE - <i>National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors</i>	
General Description:	Explosive Waste Incinerator – Single Chamber Control Devices: 1. Direct Flame Afterburner 2. Gas Cooler 3. Baghouse - High Temperature Fabric Filter
EIQ Reference #	EP-24B

Emission Limitations:

The permittee shall meet all applicable emissions limitations and operating requirements in §63.1219 including the following:

	Emission Limit	Citation
PCDDs/PCDFs (TEQ basis)	≤ 0.40 ng/dscm	40 CFR 63.1219(a)(1)(i)(B)
Mercury	≤ 130 µg/dscm	40 CFR 63.1219(a)(2)
Semivolatile Metals (SVM) (Cadmium and Lead)	≤ 230 µg/dscm	40 CFR 63.1219(a)(3)
Low Volatile Metals (LVM) (Arsenic, Beryllium and Chromium)	≤ 92 µg/dscm	40 CFR 63.1219(a)(4)
Total Hydrocarbons	≤ 100 ppmv CO	40 CFR 63.1219(a)(5)(ii)
Hydrogen Chloride & Chlorine	≤ 32 ppmv dry as Cl-	40 CFR 63.1219(a)(6)
Particulate Matter (PM)	≤ 0.013 gr/dscf	40 CFR 63.1219(a)(7)
Principal Organic Hazardous Constituent (POHC)	DRE ≥ 99.99%	40 CFR 63.1219(c)
Notes: All emission concentrations are corrected to 7% oxygen DRE - Destruction and Removal Efficiency standard as defined in §63.1219(c) POHC – Organic compounds in the feedstream that are the most difficult to destroy. TEQ - The international method of expressing toxicity equivalents for dioxins and furans		

Emission Standards:

- 1.) The emission standards and operating requirements set forth in 40 CFR 63 Subpart EEE apply at all times except:
 - a.) During periods of startup, shutdown, and malfunction; and
 - b.) When hazardous waste is not in the combustion chamber (i.e., the hazardous waste feed to the combustor has been cut off for a period of time not less than the hazardous waste residence time) and you have documented in the operating record that you are complying with all otherwise applicable requirements and standards promulgated under authority of Sections 112 or 129 of the Clean Air Act in lieu of the emission standards under §63.1219; the monitoring and compliance standards of this section and §§ 63.1207 through 63.1209, except the modes of operation requirements of § 63.1209(q); and the notification, reporting, and recordkeeping requirements of §§63.1210 through 63.1212. [[§63.1206\(b\)\(1\)\(i\) and \(ii\)](#)]

Operating Requirements:

- 1.) The permittee shall operate only under the operating requirements specified in the Notification of Compliance under §§63.1207(j) and 63.1210(d), except:
 - a.) During performance tests under approved test plans according to §63.1207(e), (f), and (g), and
 - b.) Under the conditions of §63.1206(b)(1)(i) or (ii) [[§63.1206\(c\)\(1\)\(i\)](#)]
- 2.) The Notification of Compliance shall contain operating requirements including, but not limited to, the operating requirements in this §63.1206 and §63.1209. [[§63.1206\(c\)\(1\)\(ii\)](#)]
- 3.) Failure to comply with the operating requirements is failure to ensure compliance with the emission standards of 40 CFR Part 63, subpart EEE. [[§63.1206\(c\)\(1\)\(iii\)](#)]
- 4.) Operating requirements in the Notification of Compliance are applicable requirements for purposes of parts 40 CFR Parts 70 and 71. [[§63.1206\(c\)\(1\)\(iv\)](#)]

- 5.) The permittee shall incorporate the operating requirements specified in the Notification of Compliance into their title V permit. [[§63.1206\(c\)\(1\)\(v\)](#)]

Startup, Shutdown, and Malfunction Plan:

- 1.) The permittee is subject to the startup, shutdown, and malfunction plan requirements of §63.6(e)(3). [[§63.1206\(c\)\(2\)\(i\)](#)]
- 2.) If the permittee elects to comply with §§ 270.235(a)(1)(iii), 270.235(a)(2)(iii), or 270.235(b)(1)(ii) of 40 CFR to address RCRA concerns to minimize emissions of toxic compounds from startup, shutdown, and malfunction events (including releases from emergency safety vents) then:
 - a.) The startup, shutdown, and malfunction plan shall include a description of potential causes of malfunctions, including releases from emergency safety vents that may result in significant releases of hazardous air pollutants and actions the permittee is taking to minimize the frequency and severity of those malfunctions. [[§63.1206\(c\)\(2\)\(ii\)\(A\)](#)]
 - b.) The permittee shall submit the startup, shutdown, and malfunction plan to the Director for review and approval. Approval procedures are found in §63.1206(c)(2)(ii)(B). [[§63.1206\(c\)\(2\)\(ii\)\(B\)](#)]
 - c.) The permittee shall request approval in writing from the Director within 5 days after making a change to the startup, shutdown, and malfunction plan that may significantly increase emissions of hazardous air pollutants. The approval of such changes to the startup, shutdown, and malfunction plan, shall follow the procedures provided by paragraph §63.1206(c)(2)(ii)(B) for initial approval of the plan. [[§63.1206\(c\)\(2\)\(ii\)\(C\)\(1\)](#)]
 - d.) The permittee shall identify in the plan, a projected oxygen correction factor based on normal operations to use during periods of startup and shutdown. [[§63.1206\(c\)\(2\)\(iii\)](#)]
 - e.) The permittee shall record the plan in the operating record. [[§63.1206\(c\)\(2\)\(iv\)](#)]
- 3.) The permittee shall operate these emission units under the startup, shutdown, and malfunction plan as described in §63.1206(c)(2)(v) such that:
 - a.) During malfunctions, the automatic waste feed cutoff requirements of §63.1206(c)(3) continue to apply, except for paragraphs §63.1206(c)(3)(v) and §63.1206(c)(3)(vi). If permittee exceeds a 40 CFR Part 63, subpart EEE emission standard monitored by a CEMS or COMs or operating limit specified under §63.1209, the automatic waste feed cutoff system shall immediately and automatically cutoff the hazardous waste feed, except as provided by §63.1206(c)(3)(viii). If the malfunction itself prevents immediate and automatic cutoff of the hazardous waste feed, however, permittee shall cease feeding hazardous waste as quickly as possible. [[§63.1206\(c\)\(2\)\(v\)\(A\)\(1\)](#)]
 - b.) Although the automatic waste feed cutoff requirements continue to apply during a malfunction, an exceedance of an emission standard monitored by a CEMS or COMS or operating limit specified under §63.1209 is not a violation of this subpart if the permittee takes the corrective measures prescribed in the startup, shutdown, and malfunction plan. [[§63.1206\(c\)\(2\)\(v\)\(A\)\(2\)](#)]
 - c.) For each set of ten exceedances of an emission standard or operating requirement while hazardous waste remains in the combustion chamber (i.e., when the hazardous waste residence time has not transpired since the hazardous waste feed was cutoff) during a 60-day block period, permittee shall:
 - i.) Within 45 days of the 10th exceedance, complete an investigation of the cause of each exceedance and evaluation of approaches to minimize the frequency, duration, and severity of each exceedance, and revise the startup, shutdown, and malfunction plan as warranted by the evaluation to minimize the frequency, duration, and severity of each exceedance; and

- ii.) Record the results of the investigation and evaluation in the operating record, and include a summary of the investigation and evaluation, and any changes to the startup, shutdown, and malfunction plan, in the excess emissions report required under §63.10(e)(3). [[§63.1206\(c\)\(2\)\(v\)\(A\)\(3\)](#)]
- d.) The permittee shall include waste feed restrictions (e.g., type and quantity), and other appropriate operating conditions and limits in the startup, shutdown, and malfunction plan if hazardous waste is being feed during startup or shutdown. [[§63.1206\(c\)\(2\)\(v\)\(B\)\(1\)](#)]
- e.) The permittee shall interlock the operating limits established under paragraph §63.1206(c)(2)(v)(B)(1) with the automatic waste feed cutoff system required under §63.1206(c)(3), except for paragraphs §63.1206(c)(3)(v) and §63.1206(c)(3)(vi). [[§63.1206\(c\)\(2\)\(v\)\(B\)\(2\)](#)]
- f.) When feeding hazardous waste during startup or shutdown, the automatic waste feed cutoff system shall immediately and automatically cutoff the hazardous waste feed if the operating limits established under paragraph §63.1206(c)(2)(v)(B)(1), except as provided by §63.1206(c)(3)(viii) are exceeded. [[§63.1206\(c\)\(2\)\(v\)\(B\)\(3\)](#)]
- g.) Although the automatic waste feed cutoff requirements of this paragraph apply during startup and shutdown, an exceedance of an emission standard or operating limit is not a violation of this subpart if permittee complies with the operating procedures prescribed in the startup, shutdown, and malfunction plan. [[§63.1206\(c\)\(2\)\(v\)\(B\)\(4\)](#)]

Automatic Waste Feed Cutoff (AWFCO):

- 1.) General. The permittee must operate the hazardous waste combustor with a functioning system that immediately and automatically cuts off the hazardous waste feed, except as provided by §63.1206(c)(3)(viii):
 - a.) When any of the following are exceeded: Operating parameter limits specified under §63.1209; an emission standard monitored by a CEMS; and the allowable combustion chamber pressure;
 - b.) When the span value of any CMS detector, except a CEMS, is met or exceeded;
 - c.) Upon malfunction of a CMS monitoring an operating parameter limit specified under §63.1209 or an emission level; or
 - d.) When any component of the automatic waste feed cutoff system fails. [[§63.1206\(c\)\(3\)\(i\)\(A\)-\(D\)](#)]
- 2.) Ducting of combustion gases. During an AWFCO, the permittee must continue to duct combustion gasses to the air pollution control system while hazardous waste remains in the combustion chamber (i.e., if the hazardous waste residence time has not transpired since the hazardous waste feed cutoff system was activated). [[§63.1206\(c\)\(3\)\(ii\)](#)]
- 3.) Restarting waste feed. The permittee must continue to monitor during the cutoff the operating parameters for which limits are established under §63.1209 and the emissions required under that section to be monitored by a CEMS, and you must not restart the hazardous waste feed until the operating parameters and emission levels are within the specified limits. [[§63.1206\(c\)\(3\)\(iii\)](#)]
- 4.) Failure of the AWFCO system. If the AWFCO system fails to automatically and immediately cutoff the flow of hazardous waste upon exceedance of a parameter required to be interlocked with the AWFCO system under §63.1206(c)(3)(i), you have failed to comply with the AWFCO requirements of §63.1206(c)(3). If an equipment or other failure prevents immediate and automatic cutoff of the hazardous waste feed, however, the permittee must cease feeding hazardous waste as quickly as possible. [[§63.1206\(c\)\(3\)\(iv\)](#)]
- 5.) Corrective measures. If, after any AWFCO, there is an exceedance of an emission standard or operating requirement, irrespective of whether the exceedance occurred while hazardous waste remained in the combustion chamber (i.e., whether the hazardous waste residence time has

transpired since the hazardous waste feed cutoff system was activated), the permittee must investigate the cause of the AWFCO, take appropriate corrective measures to minimize future AWFCOs, and record the findings and corrective measures in the operating record.

[\[§63.1206\(c\)\(3\)\(v\)\]](#)

- 6.) Excessive exceedance reporting.
 - a.) For each set of ten exceedances of an emission standard or operating requirement while hazardous waste remains in the combustion chamber (i.e., when the hazardous waste residence time has not transpired since the hazardous waste feed was cutoff) during a 60-day block period, the permittee must submit to the Director a written report within 5 calendar days of the 10th exceedance documenting the exceedances and results of the investigation and corrective measures taken.
 - b.) On a case-by-case basis, the Director may require excessive exceedance reporting when fewer than ten exceedances occur during a 60-day block period. [\[§63.1206\(c\)\(3\)\(vi\)\(A\) and \(B\)\]](#)
- 7.) Testing. The AWFCO system and associated alarms must be tested at least weekly to verify operability, unless the permittee documents in the operating record that weekly inspections will unduly restrict or upset operations and that less frequent inspection will be adequate. At a minimum, the permittee must conduct operability testing at least monthly. The permittee must document and record in the operating record AWFCO operability test procedures and results. [\[§63.1206\(c\)\(3\)\(vii\)\]](#)

ESV openings — [\[§63.1206\(c\)\(4\)\(i\)-\(iv\)\]](#)

- 1.) Failure to meet standards. If an emergency safety vent (ESV) opens when hazardous waste remains in the combustion chamber (i.e., when the hazardous waste residence time has not expired) during an event other than a malfunction as defined in the startup, shutdown, and malfunction plan such that combustion gases are not treated as during the most recent comprehensive performance test (e.g., if the combustion gas by-passes any emission control device that was operating during the performance test), the permittee must document in the operating record whether you remain in compliance with the emission standards of this subpart considering emissions during the ESV opening event.
- 2.) ESV operating plan.
 - a.) The permittee must develop an ESV operating plan, comply with the operating plan, and keep the plan in the operating record.
 - b.) The ESV operating plan must provide detailed procedures for rapidly stopping the waste feed, shutting down the combustor, and maintaining temperature and negative pressure in the combustion chamber during the hazardous waste residence time, if feasible. The plan must include calculations and information and data documenting the effectiveness of the plan's procedures for ensuring that combustion chamber temperature and negative pressure are maintained as is reasonably feasible.
- 3.) Corrective measures. After any ESV opening that results in a failure to meet the emission standards as defined in §63.1206(c)(4)(i), the permittee must investigate the cause of the ESV opening, take appropriate corrective measures to minimize such future ESV openings, and record the findings and corrective measures in the operating record.
- 4.) Reporting requirements. The permittee must submit to the Director a written report within 5 days of an ESV opening that results in failure to meet the emission standards of this subpart (as determined in §63.1206(c)(4)(i)) documenting the result of the investigation and corrective measures taken.

Combustion system leaks. [\[§63.1206\(c\)\(5\)\(i\)-\(ii\)\]](#)

- 1.) Combustion system leaks of hazardous air pollutants must be controlled by:

- a.) Keeping the combustion zone sealed to prevent combustion system leaks; or
- b.) Maintaining the maximum combustion zone pressure lower than ambient pressure using an instantaneous monitor; or
- c.) Upon prior written approval of the Director, an alternative means of control to provide control of combustion system leaks equivalent to maintenance of combustion zone pressure lower than ambient pressure; or
- d.) Upon prior written approval of the Director, other technique(s) which can be demonstrated to prevent fugitive emissions without use of instantaneous pressure limits; and
- e.) The permittee must specify in the performance test workplan and Notification of Compliance the method that will be used to control combustion system leaks. If the permittee controls combustion system leaks by maintaining the combustion zone pressure lower than ambient pressure using an instantaneous monitor, the permittee must also specify in the performance test workplan and Notification of Compliance the monitoring and recording frequency of the pressure monitor, and specify how the monitoring approach will be integrated into the automatic waste feed cutoff system.

Operator training and certification. [[§63.1206\(c\)\(6\)](#)]

- 1.) The permittee must establish training programs for all categories of personnel whose activities may reasonably be expected to directly affect emissions of hazardous air pollutants from the source. Such persons include, but are not limited to, chief facility operators, control room operators, continuous monitoring system operators, persons that sample and analyze feedstreams, persons that manage and charge feedstreams to the combustor, persons that operate emission control devices, and ash and waste handlers. Each training program shall be of a technical level commensurate with the person's job duties specified in the training manual. Each commensurate training program shall require an examination to be administered by the instructor at the end of the training course. Passing of this test shall be deemed the "certification" for personnel, except that, for control room operators, the training and certification program shall be as specified in paragraphs [§63.1206\(c\)\(6\)\(iii\)](#) through [§63.1206\(c\)\(6\)\(vi\)](#).
- 2.) The permittee must ensure that the source is operated and maintained at all times by persons who are trained and certified to perform these and any other duties that may affect emissions of hazardous air pollutants. A certified control room operator must be on duty at the site at all times the source is in operation.
- 3.) Hazardous waste incinerator control room operators must:
 - a.) Be trained and certified under a site-specific, source-developed and implemented program that meets the requirements of [§63.1206\(c\)\(6\)\(v\)](#). [[§63.1206\(c\)\(6\)\(iii\)\(A\)](#)]
 - b.) To maintain control room operator qualification under a site-specific, source developed and implemented training program as provided by paragraph (c)(6)(v) of this section, control room operators must complete an annual review or refresher course covering, at a minimum, the following topics:
 - i.) Update of regulations;
 - ii.) Combustor operation, including startup and shutdown procedures, waste firing, and residue handling;
 - iii.) Inspection and maintenance;
 - iv.) Responses to malfunctions or conditions that may lead to malfunction; and
 - v.) Operating problems encountered by the operator. [[§63.1206\(c\)\(6\)\(vi\)\(A\) through \(E\)](#)]
 - c.) You must record the operator training and certification program in the operating record. [[§63.1206\(c\)\(6\)\(vii\)](#)]

Operation and maintenance plan —[§63.1206(c)(7)(i)-(iv)]

- 1.) The permittee must prepare and at all times operate according to an operation and maintenance plan that describes in detail procedures for operation, inspection, maintenance, and corrective measures for all components of the combustor, including associated pollution control equipment, that could affect emissions of regulated hazardous air pollutants.
 - a.) The plan must prescribe how you will operate and maintain the combustor in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels achieved during the comprehensive performance test.
 - b.) This plan ensures compliance with the operation and maintenance requirements of §63.6(e) and minimizes emissions of pollutants, automatic waste feed cutoffs, and malfunctions.
- 2.) The permittee must record the plan in the operating record.

Bag leak detection system requirements. [§63.1206(c)(8)]

- 1.) If the combustor is equipped with a baghouse (fabric filter), the permittee must continuously operate either:
 - a.) A bag leak detection system that meets the specifications and requirements of paragraph (c)(8)(ii) of this section and you must comply with the corrective measures and notification requirements of §63.1206(c)(8)(iii) and §63.1206(iv); or
 - b.) A particulate matter detection system under paragraph §63.1206(c)(9).

Changes in design, operation, or maintenance —[§63.1206(b)(5)]

- 1.) Changes that may adversely affect compliance. If the permittee plans to change (as defined in paragraph §63.1206(b)(5)(iii)) the design, operation, or maintenance practices of the source in a manner that may adversely affect compliance with any emission standard that is not monitored with a CEMS:
 - a.) Notification. The permittee must notify the Director at least 60 days prior to the change, unless you document circumstances that dictate that such prior notice is not reasonably feasible. The notification must include:
 - i.) A description of the changes and which emission standards may be affected; and
 - ii.) A comprehensive performance test schedule and test plan under the requirements of § 63.1207(f) that will document compliance with the affected emission standard(s);
 - b.) Performance test. The permittee must conduct a comprehensive performance test under the requirements of §§ 63.1207(f)(1) and (g)(1) to document compliance with the affected emission standard(s) and establish operating parameter limits as required under §63.1209, and submit to the Director a Notification of Compliance under §§ 63.1207(j) and 63.1210(d); and
 - c.) Restriction on waste burning.
 - i.) Except as provided by §63.1206(b)(5)(i)(C)(2), after the change and prior to submitting the notification of compliance, the permittee must not burn hazardous waste for more than a total of 720 hours (renewable at the discretion of the Director) and only for the purposes of pretesting or comprehensive performance testing. Pretesting is defined at § 63.1207(h)(2)(i) and (ii).
- 2.) Changes that will not affect compliance. If the permittee determines that a change will not adversely affect compliance with the emission standards or operating requirements, the permittee must document the change in the operating record upon making such change. The permittee must revise as necessary the performance test plan, Documentation of Compliance, Notification of Compliance, and start-up, shutdown, and malfunction plan to reflect these changes.

Monitoring Requirements:

The applicable monitoring requirements as promulgated under §63.1209 are as follows:

Pollutant/Criteria	Monitoring Parameters	Citation
PCDDs/PCDFs (TEQ basis)	Maximum Baghouse Inlet Temperature	§63.1209(k)(1)
PCDDs/PCDFs (TEQ basis)	Minimum Combustor Chamber Temperature (measured as Flame Temperature)	§63.1209(k)(2)(ii)
Mercury	Feedrate of total Mercury	§63.1209(l)(1)(i)
Mercury	Minimum Carbon Injection Rate	§63.1209(l)(3)
SVM - Cadmium and Lead	Maximum Feed Rate of SVM (Cd, Pb)	§63.1209(n)(2)(ii)
LVM - Arsenic, Beryllium and Chromium	Maximum Feed Rate of LVM (AS, Be, Cr)	§63.1209(n)(2)(ii)
Total Hydrocarbons	CO and Oxygen CEMS	§63.1209(a)(1)(i)
Hydrogen Chloride & Chlorine	Maximum feed Rate of Chlorine/Chloride	§63.1209(o)(1)
Particulate Matter (PM)	Maximum Ash Feed Rate	§63.1209(m)(3)
Destruction and Removal Efficiency (DRE)	Minimum Combustor Chamber Temperature (measured as Flame Temperature)	§63.1209(j)(1)(ii)
	Maximum Flue Gas Flow Rate (measured as Combustion Air Flow Rate)	§63.1209(j)(2)(i)
	Maximum TNT equivalents feed rate	§63.1209(j)(3)
<p><i>The current Operating Parameter Limits are listed in Attachment J or located in the most recent Notice of Compliance (NOC) . The NOC is incorporated by reference into this permit per §63.1206(c)(1)(v).</i></p>		

Performance Testing Requirements:

- 1.) Frequency of testing. The permittee must conduct testing periodically as prescribed in paragraphs §63.1207(d)(1) through §63.1207(d)(3). The date of commencement of the initial comprehensive performance test is the basis for establishing the deadline to commence the initial confirmatory performance test and the next comprehensive performance test. The permittee may conduct performance testing at any time prior to the required date. The deadline for commencing subsequent confirmatory and comprehensive performance testing is based on the date of commencement of the previous comprehensive performance test. Unless the Director grants a time extension under paragraph §63.1207(i), the permittee must conduct testing as follows:
 - a.) Comprehensive performance testing. You must commence testing no later than 61 months after the date of commencing the previous comprehensive performance test used to show compliance with §63.1219. If the permittee submits data in lieu of the initial performance test, the permittee must commence the subsequent comprehensive performance test within 61 months of commencing the test used to provide the data in lieu of the initial performance test.
 - b.) Confirmatory performance testing. The permittee must commence confirmatory performance testing no later than 31 months after the date of commencing the previous comprehensive performance test used to show compliance with §63.1219. If the permittee submits data in lieu of the initial performance test, the permittee must commence the initial confirmatory performance test within 31 months of the date six months after the compliance date. To ensure that the confirmatory test is conducted approximately midway between comprehensive performance

- tests, the Director will not approve a test plan that schedules testing within 18 months of commencing the previous comprehensive performance test.
- c.) Duration of testing. The permittee must complete performance testing within 60 days after the date of commencement, unless the Director determines that a time extension is warranted based on your documentation in writing of factors beyond your control that prevent you from meeting the 60-day deadline. [§63.1207(d)(1)-(3)]
- 2.) Notification of performance test and CMS performance evaluation, and approval of test plan and CMS performance evaluation plan. [§63.1207(e)(1)(i)]
- a.) The provisions of §63.7(b) and (c) and §63.8(e) apply, except:
- i.) Comprehensive performance test. The permittee must submit to the Director a notification of your intention to conduct a comprehensive performance test and CMS performance evaluation and a site-specific test plan and CMS performance evaluation test plan at least one year before the performance test and performance evaluation are scheduled to begin.
1. The Director will notify the permittee of approval or intent to deny approval of the site-specific test plan and CMS performance evaluation test plan within nine months after receipt of the original plan.
2. The permittee must submit to the Director a notification of your intention to conduct the comprehensive performance test at least 60 calendar days before the test is scheduled to begin.
- b.) Confirmatory performance test. The permittee must submit to the Director a notification of the intention to conduct a confirmatory performance test and CMS performance evaluation and a site-specific test plan and CMS performance evaluation test plan at least 60 calendar days before the performance test is scheduled to begin. The Director will notify the permittee of approval or intent to deny approval of the site-specific test plan and CMS performance evaluation test plan within 30 calendar days after receipt of the original test plans. [§63.1207(e)(1)(ii)]
- c.) The permittee must make the site-specific test plan and CMS performance evaluation test plan available to the public for review no later than 60 calendar days before initiation of the test. The permittee must issue a public notice to all persons on the facility/public mailing list (developed pursuant to 40 CFR 70.7(h), 71.11(d)(3)(i)(E) and 124.10(c)(1)(ix)) announcing the availability of the test plans and the location where the test plans are available for review. The test plans must be accessible to the public for 60 calendar days, beginning on the date that the permittee issues the public notice. The location must be unrestricted and provide access to the public during reasonable hours and provide a means for the public to obtain copies. The notification must include the following information at a minimum: [§63.1207(e)(2)]
- i.) The name and telephone number of the source's contact person;
- ii.) The name and telephone number of the regulatory agency's contact person;
- iii.) The location where the test plans and any necessary supporting documentation can be reviewed and copied;
- iv.) The time period for which the test plans will be available for public review; and
- v.) An expected time period for commencement and completion of the performance test and CMS performance evaluation test.

Recordkeeping Requirements:

The permittee shall retain all appropriate records as specified in §63.10, §63.1200, §63.1206, §63.1209, and §63.1211 in their operating record. A listing of the potential records for retention includes the following:

Reference	Document, Data, or Information
§63.1200, §63.10(b) and (c)	General. Information required to document and maintain compliance with the regulations of Subpart EEE, including data recorded by continuous monitoring systems (CMS), and copies of all notifications, reports, plans, and other documents submitted to the Director.
§63.1206(b)(1)(ii)	If you elect to comply with all applicable requirements and standards promulgated under authority of the Clean Air Act, including Sections 112 and 129, in lieu of the requirements of Subpart EEE when not burning hazardous waste, you must document in the operating record that you are in compliance with those requirements.
§63.1206(b)(5)(ii)	Documentation that a change will not adversely affect compliance with the emission standards or operating requirements.
§63.1206(b)(11)	Calculation of hazardous waste residence time.
§63.1206(c)(2)	Startup, shutdown, and malfunction plan.
§63.1206(c)(2)(v)(A)	Documentation of your investigation and evaluation of excessive exceedances during malfunctions.
§63.1206(c)(3)(v)	Corrective measures for any automatic waste feed cutoff that results in an exceedance of an emission standard or operating parameter limit.
§63.1206(c)(3)(vii)	Documentation and results of the automatic waste feed cutoff operability testing.
§63.1206(c)(4)(ii)	Emergency safety vent operating plan.
§63.1206(c)(4)(iii)	Corrective measures for any emergency safety vent opening.
§63.1206(c)(5)(ii)	Method used for control of combustion system leaks.
§63.1206(c)(6)	Operator training and certification program.
§63.1206(c)(7)	Operation and maintenance plan.
§63.1209(c)(2)	Feedstream analysis plan.
§63.1209(l)(3), §63.1209(k)(6)(iii)	Documentation that a substitute activated carbon will provide the same level of control as the original material.
§63.1209(q)	Documentation of changes in modes of operation.
§63.1211(c)	Documentation of compliance.

Notification Requirements:

The permittee shall submit all applicable documents to the Director in accordance with the requirements of §63.9, §63.10, §63.1206, §63.1207, and §63.1210. A listing of the potential documents for submittal includes the following:

Reference	Notification
§63.9(j)	Notification and documentation of any change in information already provided under §63.9.
§63.1206(b)(5)(i)	Notification of changes in design, operation, or maintenance that may adversely affect compliance.
§63.1206(c)(8)(iv)	Notification of excessive bag leak detection system exceedances.
§63.1207(e), 63.9(e) §63.9(g)(1) and (3)	Notification of performance test and continuous monitoring system evaluation, including the performance test plan and CMS performance evaluation plan.
§63.1210(d), §63.1207(j), §63.1207(k), §63.1207(l), §63.9(h), §63.10(d)(2), §63.10(e)(2)	Notification of compliance, including results of performance tests and continuous monitoring system performance evaluations.

Reporting Requirements:

- 1.) Permittee shall submit all applicable reports to the Director in accordance with the requirements of §63.10 and §63.1206. A listing of the potential reports for submittal includes the following:

Reference	Report
§63.10(d)(4)	Compliance progress reports, if required as a condition of an extension of the compliance date granted under § 63.6(i).
63.10(d)(5)(i)	Periodic startup, shutdown, and malfunction reports.
§63.10(d)(5)(ii)	Immediate startup, shutdown, and malfunction reports.
§63.10(e)(3)	Excessive emissions and continuous monitoring system performance report and summary report.
§63.1206(c)(2)(ii)(B)	Startup, shutdown, and malfunction plan.
§63.1206(c)(3)(vi)	Excessive exceedances reports.
§63.1206(c)(4)(iv)	Emergency safety vent opening reports.

- 2.) The permittee shall report any deviations of this permit condition to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

Permit Condition EWI-2	
<i>10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants</i>	
General Description:	Explosive Waste Incinerator – Single Chamber Control Devices: 1. Direct Flame Afterburner 2. Gas Cooler 3. Baghouse - High Temperature Fabric Filter
EIQ Reference #	EP-24B

Emission Limitations:

- 1.) The permittee shall not cause or permit emissions to be discharged into the atmosphere from any existing source any visible emissions with an opacity greater than 20%. [10 CRS 10-6.220(3)(A)]
 - a.) 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%. [10 CRS 10-6.220(3)(B)]

Monitoring, Recordkeeping and Reporting:

The monitoring, recordkeeping and reporting requirements for this condition are placed under the 10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants heading in the Core Permit Requirements Section (Section IV) of this permit.

Miscellaneous Support Equipment

The following permit conditions have specific requirements as listed for the equipment indicated. For more information, the regulatory citation or source of the requirement is listed directly following the permit condition. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

Permit Condition MSE - 1	
<i>10 CSR 10-2.210 Control of Emissions from Solvent Metal Cleaning</i>	
EIQ Reference #	General Description:
EP-19A	Cold solvent degreasing tank ID# 35 (EU-CSDEGR1) Cold solvent degreasing tank ID# 54 (EU-CSDEGR3) Cold solvent degreasing tank ID# 55 (EU-CSDEGR4) Cold solvent degreasing tank ID# 56 (EU-CSDEGR5) Cold solvent degreasing tank ID# 29 (EU-CSDEGR6)

Emission Limitation:

- 1.) The permittee shall not cause or allow solvent metal cleaning or degreasing operation unless the equipment conforms to the specifications listed in 10 CSR 10-2.210(3)(A).
- 2.) The permittee shall not cause or allow solvent metal cleaning or degreasing operation without operating procedures as listed in 10 CSR 10-2.210(3)(B) and recommendation by the equipment manufacturer:
- 3.) The permittee shall not cause or allow solvent metal cleaning or degreasing operation without the minimum operator and supervisor training as specified in 10 CSR 10-2.210(3)(C).

Monitoring and Recordkeeping:

- 1.) The permittee shall keep monthly inventory records of solvent types and amounts purchased and solvent consumed. The permittee shall maintain material safety data sheets of the cleaning solvents.
- 2.) The permittee shall keep monthly records of all types and amounts of solvent containing waste material transferred to either a contract reclamation service or to a disposal facility and all amounts distilled on the premises.
- 3.) The permittee shall maintain maintenance and repair logs for both the degreaser and any associated control equipment.
- 4.) A record shall be kept of solvent metal cleaning training for each employee.
- 5.) These records shall be maintained for five years and be made available to Department of Natural Resources' personnel upon request.

Reporting:

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 any exceedance of any of the terms imposed by this regulation, or any malfunction which causes an exceedance of this regulation.

Permit Condition MSE - 2	
10 CSR 10-6.060 Construction Permits Required Air Pollution Control Program Construction Permit #1088-009A	
Emission Unit	Description
EP-26	One air stripper for the purpose of stripping VOCs from drinking water

Emission Limitation:

The air stripper on well number 1 and 3 shall operate at a maximum gallon per month flow not to exceed 800 gallons/minute, 8760 hours/year. [[Special Condition 4](#)]

Monitoring/Recordkeeping:

- 1.) The permittee shall maintain monthly flow meter recordings.
- 2.) All records shall be maintained for a minimum of five years.
- 3.) These records shall be made available to Department of Natural Resources' personnel upon request.

Permit Condition MSE - 3	
10 CSR 10-2.260 <i>Control of Petroleum Liquid Storage, Loading and Transfer</i> 10 CSR 10-2.330 <i>Control of Gasoline Reid Vapor Pressure</i>	
Emission Unit	Description
EP-06A	Delivery of gasoline to underground 15,000 gallon storage tank. Located in Bldg 14

Operational Requirements:

- 1.) The permittee shall not cause or permit the transfer of gasoline from a delivery vessel into a gasoline storage tank with a capacity greater than two hundred fifty (250) gallons unless:
 - a.) The storage tank is equipped with a submerged fill pipe extending unrestricted to within six inches of the bottom of the tank, and not touching the bottom of the tank, or the storage tank is equipped with a system that allows a bottom fill condition;
 - b.) All storage caps and fittings are vapor-tight when gasoline transfer is not taking place; and
 - i.) Each storage tank is vented via a conduit that is:
 - ii.) At least two inches (2") inside diameter;

- iii.) At least twelve feet (12') in height above grade; and
 - iv.) Equipped with a pressure/vacuum valve that is CARB certified and MO/PETP approved at three inches (3") water column pressure (wcp)/8 inches (8") water column vacuum (wcv).
When the owner or operator provides documentation that the system is CARB certified for a different valve and will not function properly with a 3" wcp/8" wcv valve, the valve shall be MO/PETP approved. All pressure/vacuum valves shall be bench tested prior to installation. Initial fueling installations shall have MO/PETP approved pressure/vacuum valves. [10 CSR 10-2.260(3)(C)1.A through 1.C]
- 2.) The permittee shall also ensure that stationary storage tanks with a capacity greater than 2,000 gallons used for gasoline storage be equipped with a Stage I vapor recovery system in addition to the requirements of 10 CSR 10-2.260(3)(C)1 and the delivery vessels to these tanks shall be in compliance with 10 CSR 10-2.260(3)(D). The Stage I vapor recovery system requirements include:
 - a.) The vapor recovery system shall collect no less than 90% by volume of the vapors displaced from the stationary storage tank during gasoline transfer and shall return the vapors via a vapor-tight return line to the delivery vessel. All coaxial systems shall be equipped with poppeted fittings.
 - b.) A delivery vessel shall be refilled only at installations complying with the provisions of 10 CSR 10-2.260(3)(B).
 - c.) This subsection shall not be construed to prohibit safety valves or other devices required by governmental regulations. [10 CSR 10-2.260(3)(C)2.A through 2.C]
 - 3.) The permittee shall not cause or permit the transfer of gasoline from a delivery vessel into a storage tank with a capacity greater than two thousand (2,000) gallons unless—
 - a.) The permittee employs one (1) vapor line per product line during the transfer. The staff director may approve other delivery systems upon submittal to the department of test data demonstrating compliance with 10 CSR 10-2.260(3)(C)2.A.;
 - b.) The vapor hose(s) employed is no less than three inches (3") inside diameter; and
 - c.) The product hose(s) employed is no more than four inches (4") inside diameter. [10 CSR 10-2.260(3)(C)3.A through 3.C]
 - 4.) The permittee shall keep records documenting the vessel owners and number of delivery vessels unloaded by each owner. Records shall be kept for five years and shall be made available to the staff director within five days of a request. The permittee shall retain on-site copies of the loading ticket, manifest or delivery receipt for each grade of product received, subject to examination by the staff director upon request. If a delivery receipt is retained rather than a manifest or loading ticket, the delivery ticket shall bear the following information: vendor name, date of delivery, quantity of each grade, point of origin, and the manifest or loading ticket number. The required retention on-site of the loading ticket, manifest or delivery receipt shall be limited to the four most recent records for each grade of product. [10 CSR 10-2.260(3)(C)4]
 - 5.) The provisions of 10 CSR 10-2.260(3)(C)2 shall not apply to transfers made to storage tanks equipped with floating roofs or their equivalent. [10 CSR 10-2.260(3)(C)5]
 - 6.) The permittee shall operate the vapor recovery system and the gasoline loading equipment in a manner that prevents:
 - a.) The gauge pressure from exceeding 4,500 pascals (18" of H₂O) in the delivery vessel;
 - b.) A reading equal to or greater than 100% of the lower explosive limit (LEL, measured as propane at two and one-half (2.5) centimeters from all points on the perimeter of a potential leak source when measured by the method referenced in 10 CSR 10-6.030(14)(E) during loading or transfer operations; and
 - c.) Visible liquid leaks during loading or transfer operation;

- d.) The permittee shall repair and retest within 15 days, a vapor recovery system that exceeds these limits; and
- e.) The permittee shall maintain written records of inspection reports, enforcement documents, gasoline deliveries, routine and unscheduled maintenance and repairs and all results of tests conducted. [10 CSR 10-2.260(3)(E)]

Reid Vapor Pressure (RVP) Limitation:

- 1.) The permittee shall not sell, dispense, supply, offer for sale, offer for supply, transport or change in trade for use gasoline intended for final use in the Clay, Platte and Jackson counties that exceeds the Reid Vapor Pressure (RVP) limit of 7.0 pound per square inch (psi) from June 1 through September 15. [10 CSR 10-2.330(3)(A) and (B)]
- 2.) Gasoline blends having at least nine percent but not more than ten percent ethyl alcohol by volume of the blended mixture shall have an RVP limit of 8.0 psi from June 1 through September 15. [10 CSR 10-2.330(3)(C)]

Monitoring/Recordkeeping Requirements for (RVP) Limitation:

- 1.) The permittee shall maintain records of any RVP testing and test results during June 1 through September 15. These records shall be kept for at least five years after the date of the completed RVP test. [10 CSR 10-2.330(6)(A)]
- 2.) Each bill of lading, invoice, loading ticket, delivery ticket, and other document that accompanies a shipment of gasoline (which includes gasoline blended with ethyl alcohol) shall contain a legible and conspicuous statement that the RVP of the gasoline does not exceed 7.0 psi, in accordance with this rule for conventional gasoline, or that the RVP does not exceed 8.0 psi for nine to ten percent ethyl alcohol blends. [10 CSR 10-2.330(6)(B)]
- 3.) Each bill of lading, invoice, loading ticket, delivery ticket, and other document that accompanies a shipment of gasoline containing ethyl alcohol shall contain a legible and conspicuous statement that the gasoline being shipped contains ethyl alcohol and that the percentage concentration of ethyl alcohol is between nine percent to ten percent [10 CSR 10-2.330(6)(C)]
- 4.) The permittee shall keep records of the bill of lading, invoice, loading ticket, delivery ticket, and other documents accompanying a shipment of gasoline during the compliance period. These records shall be kept for at least five years after the date of delivery. [10 CSR 10-2.330(6)(D)]
- 5.) The Director may require additional recordkeeping on a case-by-case basis. The Director may require records be kept for additional periods of time for enforcement compliance. [10 CSR 10-2.330(6)(E)]
- 6.) These records shall be made available immediately upon request for review or duplication by Department of Natural Resources' personnel and city and county personnel certified under Section 643.140, RSMo. [10 CSR 10-2.330(6)(D)]

Testing/Monitoring/Reporting:

- 1.) Testing and Monitoring Procedures and Reporting. [10 CSR 10-2.260(5)]
 - a.) The staff director, at any time, may monitor a delivery vessel, vapor recovery system or gasoline loading equipment by a method determined by the staff director to confirm continuing compliance with this rule. [10 CSR 10-2.260(5)(C)]
 - b.) Testing and monitoring procedures to determine compliance with 10 CSR 10-2.260(3)(D) and confirm the continuing existence of leak-tight conditions shall be conducted using the method referenced in 10 CSR 10-6.030(14)(B) or by any method determined by the staff director.

- c.) A static leak decay test of the Stage I vapor recovery system shall be required once every five years to demonstrate system vapor tightness. In addition, a bench test of each pressure/vacuum valve shall be required once every two years to demonstrate component vapor tightness. [10 CSR 10-2.260(5)(D)]
 - d.) Additional testing may also be required by the staff director in order to determine proper functioning of vapor recovery equipment. [10 CSR 10-2.260(8)]
- 2.) Reporting - General: The permittee shall report any deviations of this permit condition to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than the semi-annual monitoring report and annual compliance certification, 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 regulations or codes. Consult the appropriate sections in the Code of Federal Regulations (CFR), the Code of State Regulations (CSR), and local ordinances 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. The following is only an excerpt from the regulation or code, and is provided for summary purposes only.

10 CSR 10-6.045 Open Burning Requirements

- 1) General Provisions. The open burning of tires, petroleum-based products, asbestos containing materials, and trade waste is prohibited, except as allowed below. Nothing in this rule may be construed as to allow open burning which causes or constitutes a public health hazard, nuisance, a hazard to vehicular or air traffic, nor which violates any other rule or statute.
- 2) Refer to the regulation for a complete list of allowances. The following is a listing of exceptions to the allowances:
 - a) Burning of household or domestic refuse. Burning of household or domestic refuse is limited to open burning on a residential premises having not more than four dwelling units, provided that the refuse originates on the same premises, with the following exceptions:
 - i) Kansas City metropolitan area. The open burning of household refuse must take place in an area zoned for agricultural purposes and outside that portion of the metropolitan area surrounded by the corporate limits of Kansas City and every contiguous municipality;
 - b) Yard waste, with the following exceptions:
 - i) Kansas City metropolitan area. The open burning of trees, tree leaves, brush or any other type of vegetation shall require an open burning permit;
- 3) Certain types of materials may be open burned provided an open burning permit is obtained from the director. The permit will specify the conditions and provisions of all open burning. The permit may be revoked if the owner or operator fails to comply with the conditions or any provisions of the permit.
- 4) Alliant Lake City Small Caliber Ammunition Company may be issued an annually renewable open burning permit for open burning provided that an air curtain destructor or incinerator is utilized and only tree trunks, tree limbs, vegetation or untreated wood waste are burned. Open burning shall occur at least two hundred (200) yards from the nearest occupied structure unless the owner or operator of the occupied structure provides a written waiver of this requirement. Any waiver shall accompany the open burning permit application. The permit may be revoked if Alliant Lake City Small Caliber Ammunition Company fails to comply with the provisions or any condition of the open burning permit.
 - a) In a nonattainment area, as defined in 10 CSR 10-6.020, paragraph (2)(N)5., the director shall not issue a permit under this section unless the owner or operator can demonstrate to the satisfaction of the director that the emissions from the open burning of the specified material would be less than the emissions from any other waste management or disposal method.
- 5) Reporting and Recordkeeping. New Source Performance Standard (NSPS) 40 CFR Part 60 Subpart CCCC establishes certain requirements for air curtain destructors or incinerators that burn wood trade waste. These requirements are established in 40 CFR 60.2245-60.2260. The provisions of 40 CFR Part 60 Subpart CCCC promulgated as of September 22, 2005 shall apply and are hereby incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N Capitol Street NW, Washington, DC 20401. To comply with NSPS

40 CFR 60.2245-60.2260, sources must conduct an annual Method 9 test. A copy of the annual Method 9 test results shall be submitted to the director.

- 6) Test Methods. The visible emissions from air pollution sources shall be evaluated as specified by 40 CFR Part 60, Appendix A–Test Methods, Method 9–Visual Determination of the Opacity of Emissions from Stationary Sources. The provisions of 40 CFR Part 60, Appendix A, Method 9 promulgated as of December 23, 1971 is incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N Capitol Street NW, Washington, DC 20401.

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 10-6.080 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 10-6.110 Submission of Emission Data, Emission Fees and Process Information

- 1) The permittee shall submit full emissions report either electronically via MoEIS, which requires Form 1.0 signed by an authorized company representative, or on Emission Inventory Questionnaire (EIQ) paper forms on the frequency specified in this rule and in accordance with the requirements outlined in this rule. Alternate methods of reporting the emissions, such as spreadsheet file, can be submitted for approval by the director.
- 2) The permittee may be required by the director to file additional reports.
- 3) Public Availability of Emission Data and Process Information. Any information obtained pursuant to the rule(s) of the Missouri Air Conservation Commission that would not be entitled to confidential treatment under 10 CSR 10-6.210 shall be made available to any member of the public upon request.
- 4) 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.
- 5) The fees shall be payable to the Department of Natural Resources and shall be accompanied by the emissions report.
- 6) The permittee shall complete required reports on state supplied EIQ forms or electronically via MoEIS. Alternate methods of reporting the emissions can be submitted for approval by the director. The reports shall be submitted to the director by April 1 after the end of each reporting year. If the full emissions report is filed electronically via MoEIS, this due date is extended to May 1.
- 7) The reporting period shall end on December 31 of each calendar year. Each report shall contain the required information for each emission unit for the twelve (12)-month period immediately preceding the end of the reporting period.
- 8) The permittee shall collect, record and maintain the information necessary to complete the required forms during each year of operation of the installation.

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

Emission Limitation:

- 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 10-6.165 Restriction of Emission of Odors

This requirement is not federally enforceable.

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 odor evaluation shall be taken at a location outside of the installation's property boundary.

10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Limitation:

No owner or other person shall cause or permit to be discharged into the atmosphere from any source any visible emissions in excess of the limits specified by this rule. This permit will contain the opacity limits identified (10, 20 or 40 percent) for the specific emission units.

Monitoring:

- 1) The permittee shall conduct a visual emission observation on this emission unit once a month using the procedures contained in U.S. EPA 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 were 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) Should a violation be observed, monitoring frequency will progress in the following manner:
 - a) Weekly observations shall be conducted for a minimum of eight (8) consecutive weeks after the date of the initial violation. 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 (8) 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.
- 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:

The permittee shall maintain records of all observation results using Attachments G, H, and I (or equivalent forms), noting:

- 1) Whether any air emissions (except for water vapor) were visible from the emission units;
- 2) All emission units from which visible emissions occurred;
- 3) Whether the visible emissions were normal for the process;
- 4) The permittee shall maintain records of any equipment malfunctions, which may contribute to visible emissions; and,
- 5) The permittee shall maintain records of all U.S. EPA Method 9 opacity tests performed.

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.
- 5) 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)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, 11201 Renner Blvd., Lenexa, KS 66219, 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 applicable 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, 11201 Renner Blvd., Lenexa, KS 66219, 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, 11201 Renner Blvd., Lenexa, KS 66219, 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 Air Pollution Control Program shall place a copy with the permit in the public file. Written notice shall be provided to the EPA and the Air Pollution Control Program 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 Air Pollution Control Program 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, 11201 Renner Blvd., Lenexa, KS 66219, 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 Ms. Karen Davies, Vice President and General Manager. On April 3, 2012, the Air Pollution Control Program was informed that Mr. Kent Holiday, Vice President and General Manager, is now the responsible official. 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) The Missouri Department of Natural Resources 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) The Missouri Department of Natural Resources 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 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 - HAPs Screen Modeling Action Levels (SMAL)
 (Permit Condition 2)**

Chemical	CAS#	Emission Threshold Levels (tons/year)	Synonyms
Acetaldehyde	75-07-0	9	Acetic Aldehyde, Aldehyde, Ethanal, Ethyl Aldehyde
Acetamide	60-35-5	1	Acetic Acid Amide, Ethanamide
Acetonitrile	75-05-8	4	Methyl Cyanide, Ethanenitrile, Cyanomethane
Acetophenone	98-86-2	1	Acetylbenzene, Methyl Phenyl Ketone, Hypnone
Acetylamino fluorine, [2-]	53-96-3	0.005	N-2-Fluorenyl Acetamide, N-Fluorenyl Acetamide, 2-Acetamideofluorene
Acrolein	107-02-8	0.04	Acrylaldehyde, Acrylic Aldehyde, Allyl Aldehyde, Propenal
Acrylamide	79-06-1	0.02	Propenamide, Acrylic Amide, Acrylamide Monomer, Ethylenecarboxamide
Acrylic Acid	79-10-7	0.6	Propenoic Acid, Ethylene Carboxylic Acid, Vinylformic Acid
Acrylonitrile	107-13-1	0.3	Vinyl Cyanide, Cyanoethylene, Propenenitrile
Allyl Chloride	107-05-1	1	1-Chloro-2-Propene, 3-Chloropropylene, Chloroallylene, Alpha-Propylene
Aminobiphenyl, [4-]	92-67-1	1	Biphenylene, P-Phenylaniline, Xenylamine, 4-Aminodiphenyl, 4-Biphenylamine
Aniline	62-53-3	1	Aminobenzene, Phenylamine, Aniline Oil, Aminophen, Arylamine
Anisidine, [Ortho-]	90-04-0	1	O-Methoxyaniline
Antimony Compounds (except those specifically listed)		5	Antimony (Pentachloride, Tribromide, Trichloride, Trifluoride)
Antimony Pentafluoride	7783-70-2	0.1	
Antimony Potassium Tartrate	28300-74-5	1	
Antimony Trioxide	1309-64-4	1	
Antimony Trisulfide	1345-04-6	0.1	
Arsenic and Inorganic Arsenic Compounds		0.005	Arsenic (Diethyl, Disulfide, Pentoxide, Trichloride, Trioxide, Trisulfide), Arsinine, Arsenous Oxide
Benz(a)Anthracene	56-55-3	0.01	
Benz(c)acridine	225-51-4	0.01	
Benzene	71-43-2	2	Benzol, Phenyl Hydride, Coal Naphtha, Phene, Benxole, Cyclohexatriene
Benzidine	92-87-5	0.0003	4,4'-Biphenyldiamine, P-Diaminodiphenyl, 4,4'-Diaminobiphenyl, Benzidine Base
Benzo(a)pyrene	50-32-8	0.01	
Benzo(b)fluoranthene	205-992	0.01	
Benzotrichloride	98-07-7	0.006	Benzoic Trichloride, PhenylChloroform, Trichloromethylbenzene
Benzyl Chloride	100-44-7	0.1	Alpha-Chlorotoluene, Toly Chloride
Beryllium Compounds (except Beryllium Salts)		0.008	Beryllium (Acetate, Carbonate, Chloride, Fluoride, Hydroxide, Nitrate, Oxide)

Chemical	CAS#	Emission Threshold Levels (tons/year)	Synonyms
Beryllium Salts		0.00002	
Biphenyl*	92-52-4	10	
Bis(Chloroethyl)Ether	111-44-4	0.06	Dichloroethyl ether, Dichloroether, Dichloroethyl Oxide, BCEE
Bis(Chloromethyl)Ether	542-88-1	0.0003	BCME, Sym-Dichloromethyl ether, Dichloromethyl Ether, Oxybis-(Chloromethane)
Bromoform*	75-25-2	10	Tribromomethane
Butadiene, [1,3-]	106-99-0	0.07	Biethylene, Bivinyll, Butadiene Monomer, Divinyl Erythrene, Vinylethylene
Butylene Oxide, [1,2-]	106-88-7	1	1,2-Epoxybutane, 1-Butene Oxide, 1,2-Butene Oxide, Butylene Oxide, Ethylethylene
Cadmium Compounds		0.01	Cadmium (Dust, Fume, Acetate, Chlorate, Chloride, Fluoride, Oxide, Sulfate, Sulfide)
Calcium Cyanamide*	156-62-7	10	
Caprolactam*	105-60-2	10	
Captan*	133-06-2	10	
Carbaryl*	63-25-2	10	
Carbon Disulfide	75-15-0	1	Carbon Bisulfide, Dithiocarbonic Anhydride
Carbon Tetrachloride	56-23-5	1	Tetrachloromethane, Perchloromethane
Carbonyl Sulfide	463-58-1	5	Carbon Oxide Sulfide, Carbonoxysulfide
Catechol	120-80-9	5	Pyrocatechol, O-Dihydroxybenzene
Chloramben	133-90-4	1	3-Amino-2,5-Dichlorobenzoic Acid, Amben, Amiben*, Vegiben* (*Trademark)
Chlordane	57-74-9	0.01	ENT9932, Octachlor
Chlorine	7782-50-5	0.1	Bertholite
Chloroacetic Acid	79-11-8	0.1	Monochloroacetic Acid, Chloroethanoic Acid
Chlorobenzene	108-90-7	10	
Chloroacetophenone, [2-]	532-27-4	0.06	Phenacyl Chloride, Chloromethyl Phenyl Ketone, Tear Gas, Mace
Chlorobenzilate	510-15-6	0.4	Ethyl-4,4'-Dichlorobenzilate, Ethyl-4,4'-Dichlorophenyl Glycollate
Chloroform	67-66-3	0.9	Trichloromethane
Chloromethyl Methyl Ether	107-30-2	0.1	CMME, Methyl Chloromethyl Ether, Chloromethoxymethane, Monochloromethyl Ether
Chloroprene	126-99-8	1	2-Chloro-1,3-Butadiene, Chlorobutadiene, Neoprene Rubber Compound
Chromic Chloride	10025-73-7	0.1	
Chromium Compounds (except Hexavalent)		5	Chromium, Chromium(II) Compounds, Chromium (III) Compounds
Chromium Compounds, Hexavalent		0.002	Chromium (VI)
Chrysene	218-01-9	0.01	
Cobalt Carbonyl	12010-68-1	0.1	
Cobalt Metal (and compounds, except		0.1	Cobalt (Bromide, Chloride, Diacetate, Formate, Nitrate, Oxide, Sulfamate)

Chemical	CAS#	Emission Threshold Levels (tons/year)	Synonyms
those specifically listed)			
Coke Oven Emissions	8007-45-2	0.03	Coal Tar, Coal Tar Pitch, Coal Tar Distillate
Cresol, [Meta-]	108-39-4	1	3-Cresol, M-Cresylic Acid, 1-Hydroxy-3-Methylbenzene, M-Hydroxytoluene
Cresol, [Ortho-]	95-48-7	1	2-Cresol, O-Cresylic Acid, 1-Hydroxy-2-Methylbenzene, 2-Methylphenol
Cresol, [Para-]	106-44-5	1	4-Cresol, P-Cresylic Acid, 1-Hydroxy-4-Methylbenzene, 4-Hydroxytoluene
Cresols/ Cresylic Acid (isomers and mixture)	1319-77-3	1	
Cumene	98-82-8	10	
Cyanide Compounds (except those specifically listed) ¹	20-09-7	5	Cyanide (Barium, Chlorine, Free, Hydrogen, Potassium, Silver, Sodium, Zinc)
DDE (p,p'-Dichlorodiphenyl Dichloroethylene)	72-55-9	0.01	
Di(2-Ethylhexyl)Phthalate, (DEHP)	117-81-7	5	Bis(2-ethylhexyl)Phthalate, Di(2-Ethylhexyl)Phthalate, DOP, Di-Sec-Octyl Phthalate
Diaminotoluene, [2,4-]	95-80-7	0.02	2,4-Toluene Diamine, 3-Amino-Para-Toluidine, 5-Amino-Ortho-Toluidine
Diazomethane	334-88-3	1	Azimethylene, Diazirine
Dibenz(a,h)anthracene	53-70-3		
Dibenzofuran	132-64-9	5	Diphenylene Oxide
Dibenzopyrene, [1,2:7,8]	189-55-9		
Dibutylphthalate*	84-74-2	10	
Dibromo-3-Chloropropane, [1,2-]	96-12-8	0.01	DBCP
Dibromomethane, [1,2-]	106-93-4	0.1	Ethylene Dibromide, Ethylene Bromide, Sym-Dibromoethane
Dichlorobenzene, [1,4-]	106-46-7	3	1,4-Dichloro-P-DCB, 1-4-DCB, PDB, PDCB
Dichlorobenzidene, [3,3-]	91-94-1	0.2	4,4'-Diamino-3,3'-Dichlorobiphenyl, 3,3'-Dichlorobiphenyl-4,4'-Diamine, DCB
Dichloroethane, [1,1-]	75-34-3	1	Ethylidene Dichloride, 1,1-Ethylidene Dichloride, Asymmetrical Dichlorethane
Dichloroethane, [1,2-]	107-06-2	0.8	Ethylene Dichloride, Glycol Dichloride, Ethylene Chloride
Dichloroethylene, [1,1-]	75-35-4	0.4	Vinylidene Chloride, DCE, VDC
Dichlorophenoxyacetic acid, [2,4], salt and esters*	94-75-7	10	
Dichloropropane, [1,2-]	78-87-5	1	Propylene Dichloride
Dichloropropene [1,3-]	542-75-6	1	1,3-Dichloropropylene, Alpha-Chlorallyl Chloride
Dichlorvos	62-73-7	0.2	DDVP, 2,2-Dichlorovinyl dimethylphosphate
Diethanolamine	11-42-2	5	Bis(2-Hydroxyethyl)Amine, 2,2'-Dihydroxydiethylamine, Di(2-Hydroxyethyl)Amine
Diethyl Sulfate	64-67-5	1	Diethyl Ester Sulfuric Acid, Ethyl Sulfate

Chemical	CAS#	Emission Threshold Levels (tons/year)	Synonyms
Dimethoxybenzidine, [3,3-]	119-90-4	0.1	Fast Blue B Base, Dianisidine, O-Dianisidine
Dimethylbenz(a)anthracene, [7,12]	57-97-6	0.01	
Dimethyl Benzidine, [3,3-]	119-93-7	0.008	O-Tolidine, Bianisidine, 4,4'-Diamino-3,3'-Dimethylbiphenyl, Diaminoditoyl
Dimethyl Carbamoyl Chloride	79-44-7	0.02	DMCC, Chloroformic Acid Dimethyl Amide, Dimethyl Carbamyl Chloride
Dimethyl Formamide	68-12-2	1	DMF, Formyldimethylamine
Dimethyl Hydrazine, [1,1-]	57-14-7	0.008	Unsymmetrical Dimethylhydrazine, UDMH, Dimazine
Dimethyl Phthalate*	131-11-3	10	
Dimethyl Sulfate	77-78-1	0.1	Sulfuric Acid Dimethyl Ester, Methyl Sulfate
Dimethylaminoazobenzene, [4-]	60-11-7	1	N,N-Dimethyl-P-Phenylazo-Aniline, Benzeneazo Dimethylaniline
Dimethylaniline, [N,N-]	121-69-7	1	N,N-Diethyl Aniline, N,N-Dimethylphenylamine, DMA
Dinitro-O-Cresol, [4,6-] and salts	534-52-1	0.1	DNOC, 3,5-Dinitro-O-Cresol, 2-Methyl-4,6-Dinitrophenol
Dinitrophenol, [2,4-]	51-28-5	1	DNP
Dinitrotoluene, [2,4-]	121-14-2	0.02	Dinitrotoluol, DNT, 1-Methyl-2,4-Dinitrobenzene
Dioxane, [1,4-]	123-91-1	6	1,4-Diethyleneoxide, Diethylene Ether, P-Dioxane
Diphenylhydrazine, [1,2-]	122-66-7	0.09	Hydrazobenzene, N,N'-Diphenylhydrazine, N,N'-Bianiline, 1,1'-Hydrodibenzene
Diphenylmethane Diisocyanate, [4,4-]	101-68-8	0.1	Methylene Bis(Phenylisocyanate), Methylene Diphenyl Diisocyanate, MDI
Epichlorohydrin	106-89-8	2	1-Chloro-2,3-Epoxypropane, EPI, Chloropropylene Oxide, Chloromethyloxirane
Ethoxy Ethanol [2-]*	110-80-5	10	
Ethyl Acrylate	140-88-5	1	Ethyl Propenoate, Acrylic Acid Ethyl Ester
Ethyl Benzene*	100-41-4	10	
Ethyl Chloride*	75-00-3	10	
Ethylene Glycol*	107-21-1	10	
Ethylene Imine (Aziridine)	151-56-4	0.003	Azacyclopropane, Dimethyleneimine, Ethylenimine, Vinylamine, Azirane
Ethylene Oxide	75-21-8	0.1	1,2-Epoxyethane, Oxirane, Dimethylene Oxide, Anprolene
Ethylene Thiourea	96-45-7	0.6	2-Imidazolidinethione, ETU
Fluomine	62207-76-5	0.1	
Formaldehyde	50-00-0	2	Oxymethylene, Formic Aldehyde, Methanal, Methylene Oxide, Oxomethane
Glycol Ethers (except those specifically listed) ²		5	
Heptachlor	76-44-8	0.02	1,4,5,6,7,8,8A-Heptachloro-3A,4,7,7A-Tetrahydro-4,7-Methanoindiene
Hexachlorobenzene	118-74-1	0.01	Perchlorobenzene, HCB, Pentachlorophenyl Benzene, Phenyl Perchloryl
Hexachlorobutadiene	87-68-3	0.9	Perchlorobutadiene, 1,3-Hexachlorobutadiene, HCB
Hexachlorocyclopentadiene	77-47-4	0.1	HCCPD, HEX

Chemical	CAS#	Emission Threshold Levels (tons/year)	Synonyms
Hexachloroethane	67-72-1	5	Perchloroethane, Carbon Hexachloride, HCE, 1,1,1,2,2,2-Hexachloroethane
Hexamethylene Diisocyanate, 1,6-	822-06-0	0.02	1,6-Diisocyanatohexane, 1,6-Hexanediol Diisocyanate
Hexamethylphosphoramide	680-31-9	0.01	Hexamethylphosphoric Triamide, HEMPA, Hexametapol, Hexamethylphosphoramide
Hydrazine	302-01-2	0.004	Methylhydrazine, Diamide, Diamine, Hydrazine Base
Hydrochloric Acid*	7647-01-0	10	
Hydrogen Fluoride	7664-39-3	0.1	Hydrofluoric Acid Gas, Fluorhydric Acid Gas, Anhydrous Hydrofluoric Acid
Hydrogen Selenide	7783-07-5	0.1	
Hydroquinone	123-31-9	1	Quinol, Hydroquinol, P-Diphenol, 1,4-Benzenediol, Hydrochinone, Arctivin
Indeno(1,2,3-cd)Pyrene	193-39-5	0.01	
Isophorone*	78-59-1	10	
Lead and Compounds (except those specifically listed)	20-11-1	0.01	Lead (Acetate, Arsenate, Chloride, Fluoride, Iodide, Nitrate, Sulfate, Sulfide)
Lindane [Gamma-Hexachlorocyclohexane]	58-89-9	0.01	Benzene Hexachloride – Gamma Isomer
Maleic Anhydride	108-31-6	1	2,5-Furandiene, Cis-Butenedioic Anhydride, Toxilic Anhydride
Manganese and Compounds (except those specifically listed)	20-12-2	0.8	Manganese (Acetate, Chloride, Dioxide, (II)-Oxide, (III)-Oxide, (II)-Sulfate)
Mercury Compounds (except those specifically listed)	20-13-3	0.01	Mercury Compounds (Methyl-, Ethyl-, Phenyl-)
Mercury Compounds (Inorganic)	20-13-3	0.01	Mercury (Chloride, Cyanide, (I,II)-[Bromide, Iodide, Nitrate, Sulfate], Oxide)
Methanol*	67-56-1	10	
Methoxychlor*	72-43-5	10	
Methoxy Ethanol, [2-]*	108-86-4	10	
Methyl Bromide*	74-83-9	10	Bromomethane
Methyl Chloride*	74-87-3	10	Chloromethane
Methyl Chloroform*	71-55-6	10	1,1,1-Trichloroethane
Methyl Hydrazine	60-34-4	0.06	Monomethylhydrazine, Hydrozomethane, 1-Methylhydrazine
Methyl Iodide	74-88-4	1	Idomethane
Methyl Isobutyl Ketone*	108-10-1	10	
Methyl Isocyanate	624-83-9	0.1	Isocyanatomethane, Isocyanic Acid, Methyl Ester
Methyl Methacrylate*	80-62-6	10	
Methyl Tert-Butyl Ether*	12108-13-3	10	
Methylcyclopentadienyl Manganese	12108-13-3	0.1	

Chemical	CAS#	Emission Threshold Levels (tons/year)	Synonyms
Methylene Bis(2-Chloroaniline), [4,4-]	101-14-4	0.2	Curene, MOCA, 4,4'-Diamino-3,3'-Dichlorodiphenylmethane
Methylene Chloride*	75-09-2	10	Dichloromethane
Methylenedianiline, [4,4-]	101-77-9	1	4,4'-Diaminodipheylmethane, DDM, MDA, Bis(4-Aminophenyl)Methane, DAPM
Naphthanlene*	91-20-3	10	
Nickel Carbonyl	13463-39-3	0.1	
Nickel Compounds (except those specifically listed)		1	Nickel (Acetate, Ammonium Sulfate, Chloride, Hydroxide, Nitrate, Oxide, Sulfate)
Nickel Refinery Dust	12035-72-2	0.08	
Nickel Subsulfide		0.04	
Nitrobenzene	98-95-3	1	Nitrobenzoil, Oil of Mirbane, Oil of Bitter Almonds
Nitrobiphenyl, [4-]	92-93-3	1	4-Nitrodiphenyl, P-Nitrobiphenyl, P-Nitrophenyl, PNB
Nitrophenol, [4-]	100-02-7	5	4-Hydroxynitrobenzene, Para-Nitrophenol
Nitropropane, [2-]	79-46-9	1	Dimethylnitromethane, Sec-Nitropropane, Isonitropropane, Nitroisopropane
Nitroso-N-Methylurea, [N-]	684-93-5	0.0002	N-Methyl-N-Nitrosourea, N-Nitroso-N-Methylcarbamide
Nitrosodimethylamine, [N-]	62-75-9	0.001	Dimethylnitrosamine, DMN, DMNA
Nitrosomorpholine, [N-]	59-89-2	1	4-Nitrosomorpholine
Parathion	56-38-2	0.1	DNTP, Monothiophosphate, Diethyl-P-Nitrophenyl
PCB (Polychlorinated Biphenyls)	1336-36-3	0.009	Aroclors
Pentachloronitrobenzene	82-68-8	0.3	Quintobenzene, PCNB, Quiniozene
Pentachlorophenol	87-86-5	0.7	PCP, Penchlorol, Pentachlorophenate, 2,3,4,5,6-Pentachlorophenol
Phenol	108-95-2	0.1	Carbolic Acid, Phenic Acid, Phenylic Acid, Phenyl Hydrate, Hydroxybenzene
Phenyl Mercuric Acetate	62-38-4	0.01	
Phenylenediamine, [p-]*	106-50-3	10	
Phosgene	75-44-5	0.1	Carbonyl Chloride, Carbon Oxychloride, Carbonic Acid Dichloride
Phosphine	7803-51-2	5	Hydrogen Phosphide, Phosphoretted Hydrogen, Phosphorus Trihydride
Phosphorous (Yellow or White)	7723-14-0	0.1	
Phthalic Anhydride	85-44-9	5	Phthalic Acid Anhydride, Benzene-O-Dicarboxylic Acid Anhydride, Phthalandione
Polycyclic Organic Matter (except those specifically listed)	TP15	0.01	POM, PAH, Polyaromatic Hydrocarbons
Potassium Cyanide	151508	0.1	
Propane Sultone, [1,3-]	1120-71-4	0.03	1,2-Oxathiolane-2,2-Dioxide, 3-Hydroxy-1-Propanesulphonic Acid Sultone
Propiolactone, [Beta-]	57-57-8	0.1	2-Oxeatanone, Propiolactone, BPL, 3-Hydroxy-B-Lactone-Propanoic Acid
Propionaldehyde	123-38-6	5	Propanal, Propyl Aldehyde, Propionic Aldehyde

Chemical	CAS#	Emission Threshold Levels (tons/year)	Synonyms
Propoxur*	114-26-1	10	Baygone
Propylene Oxide	75-56-9	5	1,2-Epoxypropane, Methylethylene Oxide, Methyl Oxirane, Propene Oxide
Propyleneimine, [1,2-]	75-55-8	0.003	2-Methyl Aziridine, 2-Methylazacyclopropane, Methylethyleneimine
Quinoline	91-22-5	0.006	1-Azanaphthalene, 1-Benzazine, Benzo(B)Pyridine, Chinoleine, Leucoline
Quinone	016-51-4	5	Benzoquinone, Chinone, P-Benzoquinone, 1,4-Benzooquinone
Selenium and Compounds (except those specifically listed)	7782-49-2	0.1	Selenium (Metal, Dioxide, Disulfide, Hexafluoride, Monosulfide)
Sodium Cyanide	143339	0.1	
Sodium Selenate	13410010	0.1	
Sodium Selenite	101020188	0.1	
Styrene	100-42-5	1	Cinnamene, Cinnamol, Phenethylene, Phenylethylene, Vinylbenzene
Styrene Oxide	96-09-3	1	Epoxyethylbenzene, Phenylethylene Oxide, Phenyl Oxirane, Epoxystyrene
Tetrachlorodibenzo-P-Dioxin	1746-01-6	6.00E-07	
Tetrachloroethane, [1,1,2,2-]	79-34-5	0.3	Sym-Tetachloroethane, Acetylene Tetrachloride, Ethane Tetrachloride
Tetrachloroethylene*	127-18-4	10	Perchloroethylene
Tetraethyl Lead	78-00-2	0.01	
Tetramethyl Lead	75-74-1	0.01	
Titanium Tetrachloride	7550-45-0	0.1	Titanium Chloride
Toluene*	108-88-3	10	
Toluene Diisocyanate, [2,4-]	584-84-9	0.1	TDI, Tolyene Diisocyanate, Diisocyanatoluene
Toluidine, [Ortho-]	95-53-4	4	Ortho-Aminotoluene, Ortho-Methylaniline, 1-Methyl-1,2-Aminobenzene
Toxaphene	8001-35-2	0.01	Chlorinated Camphene, Camphechlor, Polychlorcamphene
Trichlorobenzene*	120-82-1	10	
Trichloroethane, [1,1,2-]	79-00-5	1	Vinyl Trichloride, Beta-Trichloroethane
Trichloroethylene*	79-01-6	10	
Triethylamine*	121-44-8	10	
Trichlorophenol, [2,4,5-]	95-95-4	1	2,4,5-TCP
Trichlorophenol, [2,4,6-]	88-06-2	6	2,4,6-TCP
Trifluralin	1582-09-8	9	2,6-Dinitro-N-N-Dipropyl-4-(Trifluoromethyl)Benzeneamine
Trimethylpentane, [2,2,4-]	540-84-1	5	Isobutyltrimethylethane, Isoctane
Urethane [Ethyl Carbamate]	51-79-6	0.8	Ethyl Urethane, O-Ethylurethane, Leucothane, NSC 746, Urethan
Vinyl Acetate	108-05-4	1	Acetic Acid Vinyl Ester, Vinyl Acetate Monomer, Ethenyl Ethanoate
Vinyl Bromide	593-60-2	0.6	Bromoethylene, Bromoethene

Chemical	CAS#	Emission Threshold Levels (tons/year)	Synonyms
Xylenes (isomers and mixtures)*	1330-20-7	10	
Xylene, m-*	108-38-3	10	
Xylene, o-*	95-47-6	10	
Xylene, p-*	106-42-3	10	

¹X'CN where X'H' or any other group where a formal dissociation may occur, for example, KCN or Ca(CN)₂

²Includes mono- and diethers of ethylene glycol, diethylene glycol and triethylene glycol R-(OCH₂CH₂)_n-OR' where n = 1, 2, or; R=Alkyl or oryl groups; R' R, H or groups which, when removed, yield glycol ethers with the structure R-(OCH₂CH₂)_n-OH. Polymers and ethylene glycol monobutyl ether are excluded from the glycol category.

**Attachment I - Method 9 Opacity Emission Observations
(Core Permit Requirements)**

Company		Observer
Location		Observer Certification Date
Date		Emission Unit
Time		Control Device

Hour	Min.	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 J – Operating Parameter Limits
(Permit Condition EWI-1)**

Operating Parameter Limits			
Parameter ¹	OPL	Averaging Period ²	Emission Standard Affected
Maximum TNT equivalents feed rate	94.8 lb/hr	HRA	DRE, HC, and D/F
Maximum total organically bound SVM feed rate	10.0 lb/hr	12-hr RA	SVM
Maximum total elemental SVM feed rate	450 lb/hr	12-hr RA	SVM
Maximum total LVM feed rate	6.9 lb/hr	12-hr RA	LVM
Maximum total chlorine feed rate	3.5 lb/hr	12-hr RA	SVM, LVM, and HCl/Cl ₂
Maximum total PM generation feed rate	47.2 lb/hr	12-hr RA	PM
Maximum total HVM feed rate	0.42 lb/hr	12-hr RA	HVM(Mercury)
Minimum rotary kiln outlet temperature	688 F	12-hr RA	DRE, HC, and D/F
Maximum system draft pressure	0.0 in. w.c.	Instantaneous	Fugitive Emissions
Minimum afterburner outlet temperature	1408 F	HRA	DRE, HC, and D/F
Maximum baghouse inlet temperature	400 F	HRA	D/F, SVM, LVM
Minimum baghouse pressure drop	1.0 in. w.c.	HRA	PM, SVM, LVM
Maximum baghouse pressure drop	6.0 in. w.c	HRA	PM, SVM, LVM
Maximum stack gas velocity	52.0 fps	HRA	DRE, HC, and D/F
Maximum CO concentration in the stack gas	100 ppmv, corrected to 7% O ₂	HRA	DRE,HC
Maximum baghouse inlet temperature for Mercury waste	300 F	HRA	Mercury

Attachment J – Operating Parameter Limits (continued)

Operating Parameter Limits			
Minimum Powder Activated Carbon (PAC) injection system carbon feed rate	30 lb/hr	HRA	Mercury
Maximum PAC injection system motive air pressure	10 psi	HRA	Mercury
Minimum PAC injection system motive air pressure	6 psi	HRA	Mercury
Maximum PAC injection system eductor air pressure	-4 inches w.c	HRA	Mercury
Minimum PAC injection system eductor air pressure	2 inches w.c.	HRA	Mercury
Powder Activated Carbon type	Darco® HG-LH or equivalent	HRA	Mercury
<p>¹ Emission standards/limits are monitored through operational parameters (OPLs) established from comprehensive and confirmatory performance testing. In the event that the OPLs should change due to testing, the approved OPLs within the most current NOC submittal shall be used to demonstrate compliance with the §63.1219 standards. The NOC is incorporated by reference into this permit per §63.1206(c)(1)(v).</p> <p>² HRA refers to hourly rolling average. 12-hr RA refers to 12-hour rolling average.</p>			

Attachment K - Table 2 to §63.342—Housekeeping Practices

For	You must:	At this minimum frequency
1. Any substance used in an affected chromium electroplating or chromium anodizing tank that contains hexavalent chromium	(a) Store the substance in a closed container in an enclosed storage area or building; AND (b) Use a closed container when transporting the substance from the enclosed storage area	At all times, except when transferring the substance to and from the container. Whenever transporting substance, except when transferring the substance to and from the container.
2. Each affected tank, to minimize spills of bath solution that result from dragout. Note: this measure does not require the return of contaminated bath solution to the tank. This requirement applies only as the parts are removed from the tank. Once away from the tank area, any spilled solution must be handled in accordance with Item 4 of these housekeeping measures	(a) Install drip trays that collect and return to the tank any bath solution that drips or drains from parts as the parts are removed from the tank; OR (b) Contain and return to the tank any bath solution that drains or drips from parts as the parts are removed from the tank; OR (c) Collect and treat in an onsite wastewater treatment plant any bath solution that drains or drips from parts as the parts are removed from the tank	Prior to operating the tank. Whenever removing parts from an affected tank. Whenever removing parts from an affected tank.
3. Each spraying operation for removing excess chromic acid from parts removed from, and occurring over, an affected tank	Install a splash guard to minimize overspray during spraying operations and to ensure that any hexavalent chromium laden liquid captured by the splash guard is returned to the affected chromium electroplating or anodizing tank	Prior to any such spraying operation.
4. Each operation that involves the handling or use of any substance used in an affected chromium electroplating or chromium anodizing tank that contains hexavalent chromium	Begin clean up, or otherwise contain, all spills of the substance. Note: substances that fall or flow into drip trays, pans, sumps, or other containment areas are not considered spills	Within 1 hour of the spill.
5. Surfaces within the enclosed storage area, open floor area, walkways around affected tanks contaminated with hexavalent chromium from an affected chromium electroplating or chromium anodizing tank	(a) Clean the surfaces using one or more of the following methods: HEPA vacuuming; Hand-wiping with a damp cloth; Wet mopping; Hose down or rinse with potable water that is collected in a wastewater collection system; Other cleaning method approved by the permitting authority; OR (b) Apply a non-toxic chemical dust suppressant to the surfaces	At least once every 7 days if one or more chromium electroplating or chromium anodizing tanks were used, or at least after every 40 hours of operating time of one or more affected chromium electroplating or chromium anodizing tank, whichever is later. According to manufacturer's recommendations.
6. All buffing, grinding, or polishing operations that are located in the same room as chromium electroplating or chromium anodizing operations	Separate the operation from any affected electroplating or anodizing operation by installing a physical barrier; the barrier may take the form of plastic strip curtains	Prior to beginning the buffing, grinding, or polishing operation.
7. All chromium or chromium-containing wastes generated from housekeeping activities	Store, dispose, recover, or recycle the wastes using practices that do not lead to fugitive dust and in accordance with hazardous waste requirements	At all times.

STATEMENT OF BASIS

Lake City Army Ammunition Plant (LCAAP) was established in December, 1940, with production beginning in 1941. This Class II government-owned contractor-operated installation was established to manufacture and test small caliber ammunition for the U.S. Army. The facility has remained in continuous operation except for a five-year period between the end of World War II and the beginning of the Korean conflict. Remington Arms operated the plant from its inception until 1985, when operations were taken over by Olin Corporation. Since April 2001, it has been operated by Alliant Techsystems (ATK).

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 May 9, 2008;
- 2) 2011 Emissions Inventory Questionnaire; and
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition.
- 4) Request for existing performance test to meet new standard for 40 CFR Part 63, Subpart N, "*National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks*" Approval letter from Mr. Clifford Johnson, APCP Compliance and Enforcement, to Mr. Kent Holiday, Vice President and General Manager, Alliant Techsystems Operations, LLC, and dated May 1, 2013.
- 5) Letter titled "Pre Compliance Report: Engineering Assessment for Emissions Calculation for 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing (MON)", dated October 3, 2007, to Mr. Jim Kavanaugh, APCP Director, from Mr. Thomas J. Herman; Senior Manager, Environmental Engineering, Safety & Industrial Hygiene, Alliant Techsystems Inc. -Lake City Ammunition Division.

Construction Permit History

Permit Number	Description	Operating Permit Condition(s)
1088-009A	Install three new painting/sealing systems and two air strippers	4, MSE-2
0690-003	Install an explosive wastewater treatment plant to remove metals	Note 1
0690-009	Install a trinitroresorcinol (TNR) manufacturing building	Note 1
0191-004	Install four air strippers that will strip VOCs from drinking water	Note 1
0492-002A	Install emergency diesel pump for boiler feed, and emergency generators	EG2
1192-018	Install a natural gas fired generator unit	EG1
0694-021	Install a primer popping operation	Not installed
0395-027	Install nine standby emergency diesel generators	EG3
1095-022	Install three video-jet printers for 20-mm case marking. This equipment replaced the ink-pad and rubber-stamping method	1
0496-018	Install three ink jet equipment for 5.56 mm packing cartons. This equipment replaced the existing rubber-stamp operation	1
1097-018	Modify existing process to manufacture I-136N igniter mix by eliminating calcium resinate and replacing it with a polyurethane formula	Note 1
0199-021	Install emergency diesel booster pump and fuel storage tank	Note 1

Permit Number	Description	Operating Permit Condition(s)
012000-017	Install three ammunition loading machines and one ammunition priming machine. Replaced four WWII machines	Note 1
092000-002	Install calcium resinate system for manufacturing	Note 1
112000-008	Install two 16.8 MMBTU/hr steam generating boilers	Note 1
042001-003	Install machine gun belt link manufacturing equipment. Permit has been relinquished to Lake City Ammo by Galion, Inc	7
052001-012	Install two 12.1 million BTU per hour natural gas fired steam generating boilers	Note 1
082001-016	Install one 45-ton press, one 75-ton press and one resistance welding station to an existing machine gun belt link manufacturing operation. Permit has been relinquished to Lake City Ammo by Valentec Wells, LLC (formerly Galion, Inc.)	7
102001-006	Install two 150-ton presses and one 100-ton press to an existing machine gun belt link manufacturing operation	7
112001-009A	Install two 30-ton presses and one 60 ton press to an existing machine gun belt link manufacturing operation	7
062003-006	Mouth Water-Proofing Sealant	5
012003-008	Two Manurhin loaders for the combat cartridge tip identification and cartridge sealing operation (EP-14 and EP-15, respectively)	Note 1
032005-012	Installation of a 33.5 MMBtu dual fired boiler	B-3
112008-012	Installation of eight new priming machines and five new loading machines, including one Manurhin loading machine.	5
122008-007	Installation of six new draw presses, three new wash and dry lines, two new pickle/wash/lube lines and eight new back end case cells.	Note 1
122008-007	Change Equipment	Note 1
112008-012A	Transfer Efficiency corrections	Attachment C
112008-012B	Solvent Evaluation used in construction permit 112008-012.	Note 1
052009-017	Thermal Convection System	Note 2
062009-004	Can and crate printing lines	2
022010-008	New Case Line	Note 1
042010-005	Temporary permit for a concrete crusher	Note 2
022011-010	Temporary permit for thermally neutralizing trace explosives residues from equipment.	Note 2
062013-007	Increasing the usage and changing the formulation on the mouth water proofing compound.	5
012013-009	Use of new lube, wash additives and brass brighteners for five high speed case manufacturing lines in Building 1	8
102013-006	The installation of two new 16.736 MMBtu/hr natural gas burners on existing Boilers #5 and #6 (EP-44).	B-3

Notes:

- The following construction permits have no special permit conditions. As such, applicable permit conditions were not listed for these construction permits in the operating permit:
Missouri Department of Natural Resources Air Construction Permit # 0690-003
Missouri Department of Natural Resources Air Construction Permit # 0690-009

Missouri Department of Natural Resources Air Construction Permit # 0191-004
 Missouri Department of Natural Resources Air Construction Permit # 1097-018
 Missouri Department of Natural Resources Air Construction Permit # 0199-021
 Missouri Department of Natural Resources Air Construction Permit # 012000-017
 Missouri Department of Natural Resources Air Construction Permit # 092000-002
 Missouri Department of Natural Resources Air Construction Permit # 112000-008
 Missouri Department of Natural Resources Air Construction Permit # 052001-012
 Missouri Department of Natural Resources Air Construction Permit # 012003-008
 Missouri Department of Natural Resources Air Construction Permit # 122008-007
 Missouri Department of Natural Resources Air Construction Permit #112008-012B
 Missouri Department of Natural Resources Air Construction Permit #022010-008

- 2) This permit was a temporary permit that has expired.

Construction Permit Revisions

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

- 1) Missouri Department of Natural Resources Air Construction Permit #1088-009A

Missouri Department of Natural Resources Air Construction Permit #1192-018

These two construction permits were amended together under project #2240-0046-018. This amendment consisted of a letter dated March 16, 1994, signed by Randy Raymond which revised Conditions 1-3 from permit 1088-009A and Conditions 3 and 4 from permit 1192-018. The 120 kW natural gas fired generator authorized under this permit has been disconnected from the fuel source and has not been used in over 5 years. The Eldorado unit disassembled and removed from service in August 2005. All other existing conditions from permit 1088-009A and 1192-018 are still valid.

- 2) Missouri Department of Natural Resources Air Construction Permit # 0492-002

Permit # 0492-002 authorized the installation of 20 diesel generators and one emergency diesel pump. On December 1, 1994 the permittee notified the Missouri DNR that five of the twenty permitted generators were not installed since these generators were not needed. Therefore, only the 17 emergency generators that were installed are included in Permit Condition EG-2.

- 3) Missouri Department of Natural Resources Air Construction Permit # 0492-002A

Permit # 0492-002A modified the daily recordkeeping requirement to a monthly recordkeeping requirement. Permit Condition EG-2 incorporates the monthly requirement.

- 4) Missouri Department of Natural Resources Air Construction Permit # 0694-021

Missouri Department of Natural Resources Air Construction Permit # 0694-021A

The primer popping operation, authorized by this construction permit and amendment, was never installed. The primer popping operation was not included in the operating permit.

- 5) Air Pollution Control Program Construction Permit # 0395-027:

The worksheet included in Construction Permit 0395-027 contained an incorrect emission factor that was not sourced and could not be reproduced. Attachment M was drafted with an appropriate emission factor and was included in the revised draft. Special Condition 1 was corrected to require a 12 month rolling total instead of 24 month, since records are already required to be retained for five years by provisions within this permit.

- 6) Air Pollution Control Program Construction Permits #042001-003, #082001-016, #102001-006, #112001-009, & #12001-009A

Special Conditions 1.A of the referenced construction permits are duplicative other than the updated total number of subject units with each sequential construction permit. Therefore Special Condition 1.A of Construction Permit 12001-009A was used as a reference for the source of the requirement since it was the last construction permit to revise and restate the following requirement:

“Alliant Lake City Small Caliber Ammunition Company, LLC (hereafter referred to as Permittee) shall not emit volatile organic compounds (VOC) from the entire machine gun belt link manufacturing operation (hereafter referred to as the operation) into the atmosphere in excess of 40.0 ton in any consecutive 12-month period. This entire operation consists of the three (3) presses permitted herein, all equipment permitted in Permit Number 042001-003 issued to Galion, Incorporated, all equipment permitted in Permit Number 082001-016 issued to Valentec Wells, LLC, and all equipment permitted in Permit Number 102001-006 issued to the Permittee. This limitation shall be implemented by limiting the sixteen (16) presses and the lubrication tank to 39.0 ton per year of VOC in any consecutive 12-month period, to allow for other miscellaneous VOC emission sources in the operation. “

For brevity purposes, the condition was written to read:

”The permittee shall not emit volatile organic compounds (VOC) from the entire Machine Gun Belt Operation, which includes sixteen (16) presses and one lubrication tank, in excess of thirty-nine (39) tons in any consecutive twelve (12) month period.” (See *Permit Condition 7*)

7) Air Pollution Control Program Construction Permit #032005-012:

The emission point reference EP-47 within Special Condition 1.A was corrected to EP-48. (See *Permit Condition B-3*)

8) Air Pollution Control Program Construction Permit #112008-012B

Construction Permit #112008-012B Special Condition 2 is duplicated in Construction Permit #062013-007, Special Condition 1. (See *Permit Condition 5, Emission & Operating Limitations item #4*). The reference from the newest permit was used.

9) Air Pollution Control Program Construction Permit #062009-004

Only three new can printing lines were installed (two in building 3 and one in building 1). No new crate printing lines were installed.

New Source Performance Standards (NSPS) Applicability

40 CFR 60 Subpart Dc - *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*

NSPS Subpart Dc applies to Boilers #5-10 (EP-44) and Boiler 15B (EP-48): (See *Permit Condition B2*)

NSPS K, Ka, and Kb - *Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced:*

- 40 CFR Part 60 Subpart K - After June 11, 1973, and Prior to May 19, 1978
- 40 CFR Part 60 Subpart Ka - After May 18, 1978, and Prior to July 23, 1984
- 40 CFR Part 60 Subpart Kb - after July 23, 1984

EIQ Reference	Storage Tanks	Notes
EP06A	15,000 gallon Gasoline UST - Bldg 14	Note 3
EP-06B	20,000-gallon Diesel UST for vehicles	Notes 1, 2
EP-07A	1,000-gallon Diesel UST	Note 3
EP-07C	550-gallon Diesel AST	Note 3
EP-10	Two 15,000-gallon Fuel Oil USTs	Notes 1, 2, & 3
EP-11B	240,000-gallon Fuel Oil AST; Installed 1941	Notes 1, 2
EP-32	Two Sulfuric Acid Storage Tanks	Note 2

EIQ Reference	Storage Tanks	Notes
EP-33	18 Diesel ASTs 30 to 1500-gallons	Notes 1, 2, & 3
<p>Notes - The above tanks are not subject to the provisions of NSPS Subparts K, Ka, and Kb for the following reasons:</p> <ol style="list-style-type: none"> 1.) Storage of fuel oils no. 2 – 6 not considered VOL by §60.111(b) and §60.111a(b). 2.) Maximum true vapor pressure less than 3.5 kPa. (§60.110b(b)) 3.) Tank volume less than 75m³ (19,813 gallon). (§60.110b(b)) 		

40 CFR 60 Subpart IIII—*Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*

The facility has two RICE units subject to this standard. (See Permit Condition EG-6)

Maximum Achievable Control Technology (MACT) Applicability

40 CFR Part 63 Subpart N—*National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks*

The chrome electroplating tank (EP-25) is subject to the provisions Subpart N (See Permit Condition 6). The unit is classified as an “existing small open surface hard chromium electroplating tank” under the standard. Subpart N was amended in 2012, lowering the chromium emission limitation for open surface, existing small, hard chromium electroplating facilities from 0.03 mg/dscm to 0.015 mg/dscm. On May 1, 2013, the Air Pollution Control Program approved the use of previous successful testing results for demonstrating compliance with the new standard.

40 CFR Part 63 Subpart EEE, *National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors*

To describe the explosive waste incinerator and also summarize the compliance strategy under MACT EEE, the following text was excerpted from the October 1, 2012 - December 31, 2012 Summary Report dated January 15, 2013:

Alliant Techsystems Operations, LLC at the Lake City Army Ammunition Plant operates an Ammunition Peculiar Equipment (APE) Model 1236 deactivation furnace to destroy obsolete or unserviceable ammunition items, propellant wastes, and explosive or pyrotechnic waste materials. The explosive waste incinerator (EWI) is designed to ignite the ammunition items and effectively burn out reactive components from the metal shells. The EWI consists of an APE 1236 rotary kiln, an afterburner, evaporative cooler, a baghouse, a stack and ancillary equipment.

Obsolete or unserviceable ammunition items, propellant wastes, and explosive or pyrotechnic wastes are fed to the kiln, where they are ignited and the reactive components are burned out from the metal shells. At the far end of the kiln from the feed chute, there is a combination natural gas and No.2 fuel-oil burner that is used to maintain the desired temperature in the combustion chamber. Ash and metal components that are not entrained in the flue gases are discharged at the burner end of the kiln onto a discharge conveyor. The discharge conveyor moves the ash materials from the kiln to an adjacent accumulation area. From the kiln, the flue gas is transported to the afterburner. The afterburner is designed to further heat the combustion gases and to provide destruction of any remaining organics.

The gases then enter the gas conditioning system, which consists of an evaporative cooler. The evaporative cooler lowers the temperature of the flue gases and also ensures that no sparks are

conveyed to downstream equipment. Any collected material is discharged through double tipping valves into a collection container for disposal. If mercury bearing waste is processed, powder activated carbon (PAC) is injected after the evaporative cooler to adsorb the mercury vapor.

Following conditioning, the flue gases pass through ductwork to the baghouse, where PM, metals and mercury contaminated PAC (if used) are removed from the gas stream. Collected particulates are discharged to a collection drum through a double-tipping valve. The cleaned flue gases are pulled through an induced draft (ID) fan and discharged out of the EWI stack. The EWI is equipped with continuous monitoring systems (CMS) that measure process parameters and emissions using instruments such as flow meters, pressure transmitters, and continuous emissions monitoring systems (CEMS). This equipment enables the operators of the facility to maintain safe operation in compliance with the operating parameter limits (OPLs) required by the HWC NESHAP.

The OPLs are listed in Attachment J, and are established through comprehensive testing, and verified through periodic comprehensive/confirmatory performance testing required under §63.1207(d). . In the event that the OPLs should change due to testing, the approved OPLs within the most current NOC submittal shall be used to demonstrate compliance with the §63.1219 standards. The most recently approved NOC is incorporated by reference into this permit per §63.1206(c)(1)(v). (*See Permit Condition EWI-1*).

40 CFR 63 Subpart FFFF—*National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing*

The requirements in 40 CFR 63 Subpart FFFF do not apply to this facility since there are no process vents, storage tanks or transfer racks as defined in §63.2550.

40 CFR 63 Subpart MMMM—*National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products*

The requirements in 40 CFR 63 Subpart MMMM do not apply since §63.3881(b)(4) exempts the surface coating of metal parts and products performed on-site at installations owned or operated by the Armed Forces of the United States, or the surface coating of military munitions manufactured by or for the Armed Forces of the United States.

40 CFR 63 Subpart GGGGG—*National Emission Standards for Hazardous Air Pollutants: Site Remediation*

§63.7881(b)(2) states that a site remediation is not subject to MACT GGGGG if the site remediation will be performed under the authority of the Comprehensive Environmental Response and Compensation Liability Act (CERCLA) as a remedial action or a non time-critical removal action.

- The Lake City Army Ammunition Plant is currently performing remediation under the EPA Superfund Record of Decision, January 2008 for Lake City Army Ammunition Plant, EPA ID: MO3213890012. The air stripper for the drinking water system (EP-26) falls under Section 2.35 - IWOU-Wide Groundwater , Alternative 4: Monitored Natural Attenuation, Land Use Controls, Groundwater Extraction and Ex-situ Treatment via Air Stripping, and In-Situ Treatment at Area 12 via Enhanced Reductive Dechlorination.

§63.7881(3) states that a site remediation is not subject to this subpart if the site remediation will be performed under a Resource Conservation and Recovery Act (RCRA) corrective action conducted at a treatment, storage and disposal facility (TSDF) that is either required by your permit issued by either the

U.S. Environmental Protection Agency (EPA) or a State program authorized by the EPA under RCRA Section 3006; required by orders authorized under RCRA; or required by orders authorized under RCRA Section 7003

- The Lake City Army Ammunition Plant is also operating and conducting post-closure and corrective action activities under two hazardous waste permits, one issued by the department and one issued by EPA, both effective May 17, 2002. The department issued the Missouri Hazardous Waste Management Facility Part I Permit. EPA issued the Hazardous and Solid Waste Amendments Part II Permit.

For these reasons, the remediation activities being undertaken at this facility are exempt from 40 CFR 63 Subpart GGGGG.

40 CFR 63 Subpart DDDDD—*National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters*

EIQ Reference #	Description (Service Date)	Notes
EP20	Cartridge Manufacturing - Natural Gas Fired Heat Sources (88.44 MMBtu total)	Units do not meet the definition of Process Heater (<i>see below</i>)
<i>EP20A</i>	Anneal Ovens (2) 7.62 Line	
<i>EP20B</i>	Wash/Dryer (2) 7.62 Line	
<i>EP20C</i>	Water Rinses/Dryers 7.62 Line	
<i>EP20D</i>	Anneal Ovens (2) .50 Line	
<i>EP20E</i>	Wash/Dryers (2) .50 Line	
<i>EP20F</i>	Water Rinses/Dryers (2) .50 Line	
EP36	Natural Gas Space Heaters - 46 Units	

Process heater means an enclosed device using controlled flame, and the unit's primary purpose is to transfer heat indirectly to a process material (liquid, gas, or solid) or to a heat transfer material (e.g., glycol or a mixture of glycol and water) for use in a process unit, instead of generating steam.

- Process heaters are devices in which the combustion gases do not come into direct contact with process materials.
- Process heaters do not include units used for comfort heat or space heat, food preparation for on-site consumption, or autoclaves.

Compliance Assurance Monitoring (CAM) Applicability

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

The CAM rule applies to each pollutant specific emission unit that:

- Is subject to an emission limitation or standard, and
- Uses a control device to achieve compliance, and
- Has 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

Pollutant	Potential to Emit (tons/yr) ¹
CO	165.28
CO ₂ e	321,013
HAP	271.42
NO _x	359.24
PM ₁₀	75.10
PM ₂₅	N/D
SO _x	1,780.63
VOC	1,405.02

PTE other than CO₂e was taken from CP # 012013-009. CO₂e PTE was evaluated at 8760 hours.

10 CSR 10-2.210 Control of Emissions from Solvent Metal Cleaning

10 CSR 10-2.210(1)(D).1.A provides an exemption for cold cleaners with liquid surface areas of one (1) square foot or less or maximum capacities of one (1) gallon. The following units were identified in the application to be exempt due to these reasons.

Cold Solvent Degreasing Tank ID#	
# 3 (EU-CSDEGR7)	# 60 (EU-CSDEGR13)
# 4 (EU-CSDEGR8)	# 61 (EU-CSDEGR14)
# 5 (EU-CSDEGR9)	# 62 (EU-CSDEGR15)
# 41 (EU-CSDEGR11)	# 70 (EU-CSDEGR18)
# 57 (EU-CSDEGR12)	--

10 CSR 10-2.230 Control of Emissions From Industrial Surface Coating Operations

EIQ Reference	General Description:	Notes
EP-14A EP-14C EP-14D	Three 5.56 mm loading machine water base plate dip - TIP ID painting Two 7.62 mm Loading machine water base plate dip - TIP ID painting Twenty-four (24) 50 Cal Load Machine - TIP ID dip applicator water base paint	1
EP-14B	Three ammunition tip spray painting/sealing systems; Spray painting system - small air-operated stationary spray gun, MHDR 1.03 gal/hr; Collection efficiency - 99 % efficient particulate filters	2
EP-15A	Case Mouthwater Proofing and Primer Cap Seal (8 units 15A-1 through 15A-8)	3

Notes:

- 1) Provisions of rule applied in Permit Condition 3.
- 2) EP-14B - Construction Permit 1088-009A limits the unit to 2.5 lbs VOC/gallon (*See Permit Condition 4*), which is more restrictive than the 3.5 lbs VOC/gallon limit imposed by 10 CSR 10-2.230.
- 3) Case Mouthwater Proofing and Primer Cap Seal (EP-15A) is a cartridge sealing operation and is not considered industrial surface coating operation. The sealer used in the sealing operation does not match the definition of "sealer" in 10 CSR 10-6.020(2)(S)3, therefore the waterproofing operation does not use materials meeting the definition of "Coating" under 10 CSR 10-6.020(2)(C)31.

10 CSR 10-2.260 Control of Petroleum Liquid Storage, Loading and Transfer

EQ Reference	Storage Tanks	Notes
EP06A	15,000 gallon Gasoline UST - Bldg 14	See Permit Condition MSE - 3
EP-06B	20,000-gallon Diesel UST for vehicles	Tanks are not subject to the provisions of 10 CSR 10-2.260 because the maximum true vapor pressure of stored liquids are less than 1.5 psia (2.260(3)(A)1) and 4 psia (2.260(3)(A)4.B)
EP-07A	1,000-gallon Diesel UST	
EP-07C	550-gallon Diesel AST	
EP-10	Two 15,000-gallon Fuel Oil USTs	
EP-11B	240,000-gallon Fuel Oil AST; Installed 1941	
EP-33	18 Diesel ASTs 30 to 1500-gallons	

10 CSR 10-2.290 Control of Emissions From Rotogravure and Flexographic Printing Facilities

10 CSR 10-2.290(1)(B) states that this rule applies to installations with uncontrolled PTE ≥ 250 kg per day or 100 tons per year of VOC from the combination of rotogravure and flexographic printing presses. The current operation of can printing (EP-13) is well below this applicability threshold. (Construction permit #062009-004 states that the uncontrolled VOC PTE for the units are 0.197 tons/year).

10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

EQ Ref	Emission Unit	Notes
EP01	Boiler No. 1 - 90 MMBtu/hr Dual Fired (Natural Gas & Fuel Oil) (1941)	1
EP02	Boiler No. 2 - 90 MMBtu/hr Dual Fired (Natural Gas & Fuel Oil) (1941)	
EP03	Boiler No. 3 - 90 MMBtu/hr Dual Fired (Natural Gas & Fuel Oil) (1941)	
EP04	Boiler No. 4 - 96 MMBtu/hr Dual Fired (Natural Gas & Fuel Oil) (1975)	
EP44	Boilers No. 5 - 10 - Natural Gas Fired	2
EP48	Boiler 15B (#5 Package Boiler) - 33.5 MMBtu Dual Fired (2005)	1
EP05A-D	Emergency Generators (30 units)	3
EP-13A-C	Can Printing lines	4
EP14A-D	Cartridge ID/Sealing Operations	5
EP15A-E	Cartridge Sealing Operations	6
EP24B	Explosive Waste Incinerator	7
EP45	M27/M13 High Speed Link Presses	8
EP46	Tie Bar Cutting Machines	
EP47	M16/M14A2N Links Welders	
EP17A-C	Ignitor Production	9
EP18	Trinitroresourcinol Manufacturing	10
EP20	Natural Gas Process Heaters (88.44 MMBtu total)	2
EP36	Natural Gas Space Heaters - 46 Units	2
EP37	Mercury Stress Crack Testing	11
EP39	Charging Wings	
EP50	Draw Presses (6)	8
EP51	Five High Speed Case Manufacturing Lines (located in Building 1)	12

EQ Ref	Emission Unit	Notes
<u>Notes:</u>		
1) Units required to monitor for visible emissions when burning fuel oil (<i>See Permit Condition B-4</i>).		
2) Natural Gas Fired units are highly unlikely to exceed the visible emission standard, no monitoring required.		
3) Stationary internal combustion engines are exempt from this rule per 10 CSR 10-6.220(1)(A).		
4) Construction Permit 062009-004 states that “Due to how the ink is applied, there are no PM ₁₀ emissions associated with this project” and that the VOC PTE is 0.197 tpy. Taking those factors into account, the likelihood of this unit exceeding the 20% opacity limitation is very low. For these reasons, monitoring for 10 CSR 10-6.220 was not required for this unit.		
5) Particulate emissions from dip coating operations are minimal and are not likely to cause the unit to exceed the visible emissions standard. Using information from CP 1088-009A, the PTE for PM from the 3 tip spray systems (EP-14B) is 0.024 lb/hr and is not likely to cause the unit to exceed the visible emissions standard. For these reasons, monitoring was not required for these units.		
6) Construction Permit provides a controlled PTE of 0.12 tons/year of PM ₁₀ and the unit is not likely to exceed the visible emissions standard. For this reason, monitoring was not required for this unit.		
7) Explosive Waste Incinerator (<i>See Permit Condition EWI-2</i>)		
8) Construction Permit 112001-009A states that the uncontrolled PTE for EP-45, EP-46, and EP-47 is 1.92 tons/year (0.44 lbs/hr) for PM ₁₀ . PM emissions from the presses (EP-45) and welders (EP-47) are controlled by an electrostatic precipitator and the tie bar cutting machines (EP-46) are controlled through the use of fabric filters.		
9) No PM emissions associated with this process according to Construction Permit 092000-002.		
10) No PM emissions associated with this process according to Construction Permit 0690-009.		
11) No PM emissions associated with this process according to historical EQ submittals.		
12) No PM emissions associated with this process according to Construction Permit CP 012013-009		

10 CSR 10-6.400 Restriction of Emission of Particulate Matter From Industrial Processes

EQ Reference #	Description	Notes
EP 13A-C	Can Printing lines	1
EP-14B	Three ammunition tip spray painting/sealing systems	2
EP-15A	Case Mouthwater Proofing and Primer Cap Seal	3
EP45	M27/M13 High Speed Link Presses (Lube Usage)	4
EP46	Tie Bar Cutting Machines	
EP47	M16/M14A2N Links Welders	
<u>Notes:</u>		
1) 10 CSR 10-6.400(1)(B)12 exempts emission units that at maximum design capacity have a potential to emit less than one-half (0.5) pounds per hour of particulate matter. Construction Permit #062009-004 states that “Due to how the ink is applied, there are no PM ₁₀ emissions associated with this project”. Therefore no provisions from this rule were placed into this permit for these units.		
2) 10 CSR 10-6.400(1)(B)14 exempts coating operations equipped with a control system designed to control at least ninety-five percent (95%) of the particulate overspray provided the system is operated and maintained in accordance with manufacturers’ specifications or comparable maintenance procedures that meet or exceed manufacturers’ specifications. These units meet that requirement with Construction Permit #1088-009A and are exempt from this rule. (<i>See Permit Condition 4</i>)		
3) 10 CSR 10-6.400(1)(B)12 exempts emission units that at maximum design capacity have a potential to emit less than 0.5 pounds per hour of particulate matter. Construction Permit 112008-012B states that the particulate matter less than 10 microns (PM ₁₀) is equal to 200 lbs per year for EP-15A. Assuming the PM ₁₀ to be half of total PM, this would equate to less than 0.05 lbs/hour PM, which is an order of magnitude less than the exemption level. For this reason, it can be safe to assume that the unit meets the exemption requirements and is not subject to this rule.		

- 4) 10 CSR 10-6.400(1)(B)15 provides an exemption for any particulate matter emission unit that is subject to a federally enforceable requirement to install, operate, and maintain a particulate matter control device system that controls at least ninety percent (90%) of particulate matter emissions. These units meet that requirement with Construction Permit 042001-003 and are exempt from this rule. (*See Permit Condition 7*)

10 CSR 10-6.405 Restriction of Particulate Matter Emissions From Fuel Burning Equipment Used for Indirect Heating

Permit Conditions B-1 and B-2 limit the sulfur content below 0.5 weight percent sulfur or less, making these units exempt from the rule per 10 CSR 10-6.405(1)(E).

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 Air Pollution Control Program'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 Air Pollution Control Program a schedule for achieving compliance for that regulation(s).

Prepared by:

Don Murphy
Environmental Engineer

Response to Comments

A draft of the Part 70 operating permit for the Alliant Techsystems Inc. Lake City Ammunition Plant was placed on public notice March 19, 2014, by the Missouri Department of Natural Resources (MDNR). Comments were received on April 3, 2014 from Mark Smith, Air Permitting and Compliance Branch Chief at Environmental Protection Agency Region 7. The eighteen comments are presented below as submitted, with the response to each comment by the Air Pollution Control Program (APCP) directly following.

Comment 1:

Three (3) construction permits have been issued to the Lake City facility in 2013 (January, June and October) in which all three (3) indicate the parent company of this facility as either the Department of Defense or the Department of the Army. In reviewing the construction permit history for the Lake City, the original construction permits issued in the time period 1988 to 1994 also indicate the owner to be the Department of the Army. Additionally, over the intervening years, there appears to have been several contract operators managing the site operations for the Department of Defense; including Olin, Galion, Safety Components, Inc and Alliant.

The draft Part 70 operating permit cover page indicates the parent company to be Alliant Techsystems with an address in Minneapolis, Minnesota. However, based on the construction permit history, it appears the United States Department of Defense is the actual owner of the Lake City facility and Alliant Techsystems is likely the current contract operator. Therefore, EPA recommends that MDNR consider revising the "Parent Company's Name and Address" to indicate that the Department of Defense as the owner of the facility. Additionally, EPA recommends that MDNR include a detailed ownership and contractual operator lineage in the Statement of Basis

APCP Response

The Parent Company's Name and Address has been updated to the Department of the Army. The Statement of Basis Section of the draft permit was revised by inserting historical information to clarify previous ownership.

Comment #2

It has been the customary practice of MDNR to specify and include the regulated air pollutant(s) that make the source major and therefore subject to a Part 70 operating permit within the Installation Description on the permit cover sheet and the Installation Description and Equipment Listing Section (Section I) in the body of the permit. However, the installation description on the cover page of the Lake City draft permit Installation description on page 4 does not specify the pollutant(s) which create the need for a Part 70 /Title V operating permit. Therefore, EPA recommends MDNR consider listing the major air pollutant(s) in the installation description that makes the source subject to Title V.

APCP Response

The sentence "The installation is an existing major source of Volatile Organic Compounds (VOC), Sulfur Oxides (SOx), Nitrogen Oxides (NOx), Hazardous Air Pollutants (HAP), Greenhouse Gases (GHG) and Carbon Monoxide (CO)" is located in the installation description located on page 4 of the draft operating permit. For clarity, the sentence was reiterated on the cover page.

Comment #3:

Section I, Installation Description and Equipment Listing includes a list of Emission Units with Limitations with a description of the emission units and an EIQ reference number. EIQ Reference # EP05A-D is listed with the description "Emergency Generators/Fire Water pumps (30 units)." Permit conditions EG-1 through EG-6 are included in the operating permit to capture all of the applicable requirements for these 30 units included in EIQ reference EP05A-D.

However, there are only 29 units specifically listed in permit conditions EG-1 through EG-6 in the draft operating permit. Additionally, permit condition EG-6 includes the standards of performance for stationary compression ignition internal combustion engines with an EIQ reference EP-05E (2 units); and EP-05E (2 units) are not included in the Section I listing of units with limitations.

The Emission Units with Limitations listing also includes EIQ reference #'s EP-13A-I, to capture applicable requirements associated with "Can and Crate Printing lines" and EIQ reference #'s P-15A-E which captures the applicable requirements associated with "Cartridge Sealing Operations." Permit Condition 1 and Permit Condition 2 (draft operating permit page 22) address the EIQ reference # EP-13. However, Permit Condition 1 references EP-13 and Permit Condition 2 references EP-13 (A-C). Based on the descriptions included with the draft operating permit, Permit Conditions 1 addresses two (2) printers and Permit Condition 2 addresses "three (3) can printing lines." Therefore, these permit conditions account for five (5) emission units and the listing in Section I appears to indicate there are nine (9) emission units. Permit Condition 5 is included in the draft operating permit to incorporate applicable requirements associated with EIQ reference EP-15A which has a description of "case mouthwater proofing and primer cap seal (8 units 15A-1 through 15A-8)." The EIQ reference number included in Permit Condition 5, along with the total number of represented emission units in Permit Condition 5 are not consistent with the listing in Section I; Emission Units with Limitations. Additionally, EIQ Reference # EP16 is not included on the list of emission units with limitations.

EPA recommends that MDNR review the list of emission units with limitations and verify that all are included in the Production Equipment Requirements permit conditions and that all of the production units for which permit conditions have been written are included in the list of emission units with limitations. Also, where an EIQ reference number accounts for multiple emission units, EPA suggests MDNR consider listing every emission unit associated with each EIQ reference number.

APCP Response

There are currently 33 RICE units located at the LCAAP facility listed under EP-05(A-E).

EIQ Reference #	Description (Service Date)
EP-05A	241 Hp Diesel Fired Emergency Generator IWTP – 181L (1992)
EP-05B	106 Hp Diesel Fired Emergency Generator - 181A (1990)
	20 Hp Diesel Fired Emergency Generator - 181B (1990)
	50 Hp Diesel Fired Emergency Generator - 181C (1990)
	16 Hp Diesel Fired Emergency Generator - 181D (1990)
	16 Hp Diesel Fired Emergency Generator - 181E (1990)

EQ Reference #	Description (Service Date)
EP-05B	16 Hp Diesel Fired Emergency Generator - 181F (1990)
	16 Hp Diesel Fired Emergency Generator - 181G (1990)
	32 Hp Diesel Fired Emergency Generator - 181H (1990)
	16 Hp Diesel Fired Emergency Generator - 181J (1990)
	51 Hp Diesel Fired Emergency Generator - 181K (1990)
	277 Hp Emergency Diesel Emergency Generator - 181M (March 2006)
	216 Hp Diesel Fired Emergency Generator (160 kW) - 181BB (1992)
EP-05B	860 Hp Diesel Fired Emergency Generator - 181AA (1992)
	903 Hp Diesel Fired Emergency Generator - 181DD (1992)
	966 Hp Diesel Fired Emergency Generator - 181FF (1992)
	903 Hp Diesel Fired Emergency Generator - 181MM (1992)
	430 Hp Emergency Diesel Pump – (Bldg 15 Feedwater pump)(1992)
EP-05C	860 Hp Diesel Fired Emergency Generator - 181HH (1997)
	605 Hp Diesel Fired Emergency Generator - 181KK (1997)
	860 Hp Diesel Fired Emergency Generator - 181PP (1997)
EP-05C	424 Hp Diesel Fired Emergency Generator - 181GG (1992)
	130 Hp Diesel Fired Emergency Generator - 181CC (1996)
	270 Hp Diesel Fired Emergency Generator - 181EE (1997)
	205 Hp Diesel Fired Emergency Generator - 181JJ (1997)
	365 Hp Diesel Fired Emergency Generator - 181LL (1997)
	153 Hp Diesel Fired Emergency Generator - 181NN (1997)
EP-05D	170 Hp Diesel Fired Emergency Pump for Firewater Bldg 50 (1941)
	170 Hp Diesel Fired Emergency Pump for Firewater Bldg 50 (1941)
EP-05E	182 Hp Diesel Fired Emergency Booster Pump (1999)
EP-05E	324 HP Diesel fired Emergency Generator, 6.7 liters - 181N (2011)
EP-05E	158 HP Diesel fired Emergency Generator, 4.5 liters - 181P (2011)
EP-05E	324 HP Diesel fired Emergency Generator, 6.7 liters - 181R (2014)

Draft Permit Revisions:

Section I; Emission Units with Limitations listing was revised as follows:

- EP05A-D changed to reflect the listing of EP-05A-E, which encompasses 33 units;
- Thinners Used For Cartridge Tip Id And Sealing Operations (EP-16) was inserted into the listing since it has unit specific requirements in Permit Condition XX;
- Emission Points EP15A-E was revised to reflect one unit EP-15A;
- Cold Solvent Degreasing Tanks (EP-19A) was inserted into the listing since it has unit specific requirements in Permit Condition XX;
- Can and Crate Printing lines (EP-13(A-C)) as the proper emission point assignment for the 3 units covered under Permit Condition 2.

- Cartridge Sealing Operations (EP-15A) as the proper emission point assignment for the 8 units covered under Permit Condition 5.

Permit Condition EG-6 was revised to include the 324 HP Diesel fired Emergency Generator (EP-05E) which was recently installed but inadvertently omitted from the draft.

Comment #4:

Item 1 under the monitoring and recordkeeping requirements of Permit Condition B-3 references an "Attachment A" which is to be used to demonstrate compliance with the annual sulfur dioxide (SO₂) limit. However, Attachment A of the draft operating permit is the HAP calculation sheet associated with Permit Condition 2 (EP13A-C and EP-19). The draft operating permit does not include the MDNR suggested recordkeeping form to be used to track SO₂ as required by construction permit #032005-012. Therefore, EPA recommends that MDNR include a suggested SO₂ tracking recordkeeping form as an attachment in the operating permit and correct the reference to the form in Permit Condition B-3. Also, the reporting section in Permit Condition B-3 requires the permittee to report to MDNR "no later than ten (10) days after the end of the month during which the records from Special Condition Number 1.B indicate that the source exceeds the limitation of Special Conditions Number 1.A." However, Part 70 operating permits do not include "special conditions." EPA recommends that MDNR revise the reporting requirements to refer to the operating permit conditions incorporated from the construction permit.

APCP Response

The suggested changes were made to the draft.

Comment #5:

The regulatory applicability summary table included as a portion of Permit Condition B-5 has a footnote 1 which is the definition of a "Unit designed to burn gas 1 subcategory" as extracted from 40 CFR 63.7575. However, the footnote in the draft operating permit is not the same as what is included in §63.7575. The §63.7575 definition of a "unit designed to burn gas 1 subcategory says: "includes any boiler or process heater that burns only natural gas, refinery gas and/or other gas 1 fuels." The definition goes on to include "gaseous fuel boilers and process heaters that burn liquid fuel for periodic testing of liquid fuel, maintenance, or operator training, not to exceed a combined total of 48 hours during any calendar year are included in this definition." The definition also allows "gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply interruptions of any duration to be included in this definition."

Draft Permit Condition B-5 incorporates the applicable National Emission Standards for Hazardous Air Pollutants (MACT) for Industrial, Commercial and Institutional (ICI) boiler and process heaters for Boilers #1, #2, #3, #4, #5, #6, #7, #8, and #15B. In the description section of these nine (9) boilers, boilers #1, #2, #3, #4, and #15B are all referred to footnote 1 which defines "units designed to burn gas 1 subcategory." The draft permit does not recognize boilers #5, #6, #7, and #8 as "units designed to burn gas 1 category; yet these four (4) boilers are natural-gas fired only. Clearly they meet the definition of a gas 1 category unit and should have this same footnote reference. Additionally, there is no construction permit condition that sets a specific liquid burning limit on any of the dual-fuel fired boilers and there is no operating permit condition restriction which sets a liquid fuel burning limit.

Therefore, EPA recommends that MDNR revisit the boiler operating scenario of these Lake City boilers and include a liquid fuel burning limit as necessary to meet the 48 hour per year requirement to meet the definition of a "unit designed to burn gas 1 category. Also, EPA recommends MDNR modify the boiler description for Permit Condition B-5 to include Boilers #5, #6, #7, and #8 as units designed to burn gas 1 category.

APCP Response

The units in the table are all listed as Gas 1 Fuels Subcategory; with the footnote to clarify that the dual fired units are still considered Gas 1 Fuels Subcategory under MACT DDDDD as long as they limit fuel oil usage and met the definition under the standard.

Actions taken: The table footnote markers were revised for clarity. A fuel limitation and associated recordkeeping was inserted into the permit condition to demonstrate proper classification under the MACT standard.

Comment #6:

Item 2 in the Initial and Continuous Compliance Requirements of Permit Condition B-5 says the permittee must conduct an annual tune-up of the boilers to demonstrate continuous compliance. Item 3, in this same section requires the permittee to inspect each burner at least once every 72 months. Neither permit requirement includes a starting date for the annual tune-up or the 72 month burner inspection. EPA recommends that MDNR clarify when the annual tuneup and 72 month burner inspection begins.

The recordkeeping requirement #1, in Permit Condition B-5 specifies the "what" but does not specify the "who" and so EPA recommends MDNR begin recordkeeping item 1 by saying "Permittee shall keep" a copy Also, recordkeeping item 2 should clarify that the permittee shall keep annual fuel oil burning records for each individual boiler.

Finally, the reporting requirement #1 in Permit Condition B-5 requires the permittee to submit a Notification of Compliance Status for "these" units. EPA would suggest that MDNR specify the units by number which are to be included in "these." Item 2 in the reporting requirements of Permit Condition B-5 begins "(I)f the permittee you intends to use ... It appears that this wording is slightly awkward and needs some editing.

APCP Response

The start date for the tune up requirement is the compliance date of the rule which is stated in Item 1 of the Initial and Continuous Compliance Requirements section of Permit Condition B-5 as "no later than January 31, 2016". Since the date of the next required tune up would depend on the date that the facility actually performed the initial tune up, it is not possible to determine the dates at this time. The wording in Reporting Requirements, Item 2 was corrected. Reporting Requirement, Item 1 was edited for clarity.

Comment #7:

The #2 requirement under the Initial and Continuous Compliance Requirements of Permit Condition B-6 requires the permittee to conduct a boiler tune-up every five (5) years. However, there is no date from which the five (5) year clock starts; so EPA recommends MDNR specify the start date for boiler tune-ups. Additionally, the recordkeeping requirement in Permit Condition B-6 specifies the "what" but does

not specify the "who" and so EPA recommends MDNR begin the recordkeeping requirement by saying "Permittee shall keep" a copy

APCP Response

The start date for the tune up requirement is the compliance date of the rule which is stated in Item 1 of the Initial and Continuous Compliance Requirements section of Permit Condition B-5 as "no later than January 31, 2016". Since the date of the next required tune up would depend on the date that the facility actually performed the initial tune up, it is not possible to determine the dates at this time. The wording in Recordkeeping, Item 1 was modified as suggested.

Comment #8:

Permit Condition EG-1 incorporates the requirements from Construction Permit #1192-018, which according to the draft operating permit condition is EIQ Reference # EP-05A; a 903 hp (2.30 MMBtu) diesel-fired emergency generator IWTP-181L. The emission limitation associated with the draft permit condition limits this emission unit to no more than 200 hours in any consecutive 12-month period. Permit Condition EG-4 incorporates the National Emission Standards for Hazardous Air Pollutants (MACT) for Stationary Reciprocating Internal Combustion Engines (RICE) and according to the draft operating permit includes EIQ Reference EP-05A; a 122 hp diesel-fired emergency generator IWTP-181L. The emission unit descriptions in these two (2) permit conditions appear to be directed at the same emission unit; however, there is wide disparity in the horsepower (903 hp vs 122 hp). Additionally, the descriptions include an acronym, IWTP, which is undefined. EPA recommends that MDNR clarify the horsepower (hp) of the EIQ Reference # EP-05A emission unit in Permit Conditions EG-1 and EG-4 and include a definition of IWTP.

APCP Response

Construction Permit #1192-018 was for the installation of two emergency generators. The first being a 120kw natural gas fired emergency generator and an 180kw emergency diesel fired generator. The 120 kW gas fired generator is no longer operational. Unit 181L is a 180kw diesel fired emergency generator located near the IWTP (Industrial Waste-water Treatment Plant). The draft permit was corrected and revised for clarity.

Comment #9:

Permit Condition EG-3 incorporates the requirements of construction permit #0395-027 involving the installation of nine (9) diesel-fired emergency generators. The emission limitation associated with this permit condition limits the NOx to less than 23 tons per consecutive 12- month period for all nine engines. Additionally, the monitoring and recordkeeping requirement require the permittee to maintain a log showing the monthly and 12-month rolling sum of NOx emissions. Construction Permit (CP) # 0395-027 includes some requirements which have not been captured in this permit condition. CP # 0395-027 includes a worksheet for monitoring the monthly and 12-month rolling total NOx which is not in the draft operating permit. Also, CP # 0395-027 states that the actual emission as are based on an annual throughput of 6,096 gallons of diesel fuel oil per year. Therefore, EPA recommends MDNR review CP # 0395-027 and revises Permit Condition EG-3 to include all applicable requirements.

APCP Response

The referenced statement "that the actual emission as are based on an annual throughput of 6,096 gallons of diesel fuel oil per year" can be found in the Emissions/Controls Evaluation section of

Construction Permit 0395-027, and precedes a facility wide PTE table calculated using the previous EIQ submittal data inappropriately labeled "Existing Emissions". The statement in context reads;

" The actual emissions are based on an annual throughput of 6,096 gallons of diesel fuel oil (No. 2) processed per year. Potential emissions are based on the maximum design rate of the equipment operating 8,760 hours per year."

No changes to the draft were made in response to this part of the comment.

Special Condition 2 of Construction Permit 0395-027 states:

Monthly NOx emission records shall be kept at all times and will include data from the previous 24-month period. Totals shall be calculated at the end of each month of operation. This data shall be compiled on the worksheet attached to this permit, or on a similar table of your design.

The worksheet included in Construction Permit 0395-027 contained an incorrect emission factor that was not sourced and could not be reproduced. Attachment M was drafted with an appropriate emission factor and was included in the revised draft. A clarification was also placed in the Statement of Basis under Construction Permit revisions.

Comment #10:

Permit Condition EG-4 incorporates the National Emission Standards for Hazardous Air Pollutants (MACT) for Stationary Reciprocating Internal Combustion Engines (RICE) and the list of emission units includes EP-05A (1 unit), EP-05B (12 units); EP-05C (6 units) and EP-05D (2 units). However, it appears as if this permit condition does not capture all of the RICE subject to the MACT.

Construction permit (CP) # 0199-021 approved the installation of an emergency diesel-fired booster pump which does not appear to be included. Also, MDNR issued a "no construction permit is required" notification regarding the installation of a Cummins 150DGFA standby emergency generator (project number 2006-02-050) and another "no construction permit is required" assessment for the installation of a new air compressor to service the evaporative cooler and PAC system (project number 2006-12-018).

EPA recommends that MDNR review these three (3) projects and verify whether or not the affiliated emergency diesel-fired booster pump, Cummins 150DGFA emergency generator and air compressor engines should be added to Permit Condition EG-4 or any other internal combustion engines-- emergency generator permit condition.

APCP Response

Permit Condition EG-4 was revised to reflect that the 182 Hp emergency diesel fired booster pump associated with CP# 0199-021 is subject to the RICE MACT standards for existing emergency CI units smaller than 500 Hp.

The Cummins 150DGFA (project number 2006-02-050) is the 277 HP Emergency Diesel Emergency Generator (Bldg 7) 181M (March 2006) included in EP-05B in the draft. No changes necessary.

The air compressor referenced in the "no construction permit is required" assessment for the installation of a new air compressor to service the evaporative cooler and PAC system (project number 2006-12-018) is not subject to the RICE MACT since it is electric powered. No changes necessary.

Comment #11:

Permit Condition EG-5 includes a section called Annual Usage Limitations to Maintain Emergency-Only Status. However, the statement within this limitation has no specific action requirement for any specific individual. EPA suggests that MDNR consider rewording this requirement to say: "The permittee shall follow the applicable annual usage limitations of §63.6640(f) as summarized in Permit Condition EG-4."

APCP Response

The suggested changes were made to the draft.

Comment #12:

Permit Condition 7 incorporates the applicable requirements of three (3) construction permits; Construction Permit (CP) #042001-003, Construction Permit (CP) #102001-006, and Construction Permit (CP) #112001-009A. These three (3) CP's are all issued for a machine gun belt link manufacturing process and subsequent expansions. CP #042001-003 authorizes the installation of four (4) 100-ton low-speed presses (3,600 pieces/hour); four (4) 30-ton high-speed presses (39,000 pieces/hour); four (4) electric furnaces; two (2) natural gas-fired endothermic gas generators; one (1) tie-bar machine (6,900 pieces/hour); six (6) resistance welding stations (85,215 pieces/hour combined) and one (1) lubrication tank. CP # 102001-006 authorizes an addition to the machine gun belt link manufacturing process that includes: two (2) 150-ton lowspeed presses (3,600 pieces/hour); and one (1) 100 ton low-speed press (7,200 pieces/hour).

CP # 112001-009A authorizes another addition to the machine gun belt link manufacturing process that includes: two (2) 30-ton high-speed presses (39,000 pieces/hour); and one (1) 60-ton high speed press (39,000 pieces/hour). All together, these three (3) CP's indicate that there are seven (7) high speed presses and six (6) resistance welding lines all equipped with electrostatic precipitators to control particulate emission and a fabric filter is used to control particulate emission from the tie bar machine. The seven (7) low-speed presses are not equipped with air pollution controls.

The draft emission limitation #1, in Permit Condition 7, limits volatile organic compounds (VOC) from the "entire Machine Gun Belt Operation which includes sixteen (16) presses and one (1) lubrication tank." Emission limitation #2 requires the permittee to control particulate emission from four (4) 30-ton presses and six (6) resistance welders through the use of electrostatic precipitators and control emissions from the tie-bar machine through the use of a fabric filter. There appears to be some inconsistency between what is authorized by the three (3) referenced CP's and the emission limitations included with Permit Condition 7. First, the referenced CP's include only fourteen (14) total presses and not sixteen (16) total presses as stated in the emission limitation. Second, there are seven (7) high-speed presses using electrostatic precipitators for particulate control according to the CP's which is different than what's indicated in the emission limitation. Some of this inconsistency is due to the fact that Construction Permit (CP) #082001-015 is not included as part of the machine gun belt link manufacturing process.

CP #082001-016 authorizes the addition of one (1) 45-ton low-speed press and one (1) 75-ton low-speed press and one (1) resistance welding station with a throughput of 14,203 pieces per hour. This welding station is also vented through an electrostatic precipitator for particulate control. Additionally, the table of construction permit history in the Statement of Basis includes

CP #082001-016 and indicates it is included in operating permit condition 5 (Permit Condition 5). However, this CP is not shown with the references included in Permit Condition 5. EPA recommends that MDNR review the total history of the Machine Gun Belt Link manufacturing process and verify that all appropriate equipment and air pollution control devices are specified. EPA also suggests that MDNR list all of the appropriate construction permit references and the specific items involved with each of the EIQ Reference numbers associated with Permit Condition 7.

APCP Response

There are 3 construction permits (#042001-003, #102001-006, and #112001-009) and one construction permit amendment #112001-009A in Permit Condition 5 of the draft operating permit. Construction Permit Amendment #112001-009A is the text summarized in Item #1 of Permit Condition 7 of the draft operating permit since #112001-009A is the last issued construction permit applicable to this equipment, and that the condition restates the same limit on the revised number of units, it is the referenced source of the requirement since it meets the requirements of the previous construction permits. The original text of Special Condition 1.A of Construction Permit CP # 112001-009A states:

“Alliant Lake City Small Caliber Ammunition Company, LLC (hereafter referred to as Permittee) shall not emit volatile organic compounds (VOC) from the entire machine gun belt link manufacturing operation (hereafter referred to as the operation) into the atmosphere in excess of 40.0 ton in any consecutive 12-month period. This entire operation consists of the three (3) presses permitted herein, all equipment permitted in Permit Number 042001-003 issued to Galion, Incorporated, all equipment permitted in Permit Number 082001-016 issued to Valentec Wells, LLC, and all equipment permitted in Permit Number 102001-006 issued to the Permittee. This limitation shall be implemented by limiting the **sixteen (16)** presses and the lubrication tank to 39.0 ton per year of VOC in any consecutive 12-month period, to allow for other miscellaneous VOC emission sources in the operation.”

Revisions – the construction permit references within Permit Condition 7 were edited for clarity and an explanation was inserted into the Statement of Basis under the Heading Construction Permit Revisions.

Comment #13:

There are several sections included with Permit Condition EWI-1 with several references where the permittee is required to submit documents; seek prior approval; and/or make a notification and the draft permit requires that these activities involve the "Administrator." EPA believes that the "Director" may be a more appropriate contact for the permittee and recommends MDNR consider the use of "Director" in place of "Administrator" within Permit Condition EWI-1.

APCP Response

The suggested changes were made to the draft.

Comment #14:

The draft operating permit includes a section "Miscellaneous Support Equipment" including Permit Condition MSE-1 for EIQ Reference # EP-19A and Permit Condition MSE-2 for EIQ Reference # EP-26. However, neither of these EIQ Reference Numbers and their associated emission units are listed in the section I list of emission units with limitations. EPA recommends MDNR add these emission units to the list of emission units with limitations in section I.

APCP Response

The suggested changes were made to the draft.

Comment #15:

Permit Condition MSE-2 incorporates the requirements from Construction Permit #1088-009A and involves the air stripping of volatile organic compounds (VOC) from a drinking water supply. It appears as if this activity qualifies as a site remediation activity and is potentially subject to the National Emission Standards for Hazardous Air Pollutants: Site Remediation as established in 40 CFR Part 63, Subpart GGGGG. Additionally, Construction Permit #0191-004 authorized the installation of additional air strippers for the removal of VOC from the drinking water supply. CP #0191-004 does not include any specific special conditions; however, it also may be subject to the requirements of 40 CFR Part 63, Subpart GGGGG. EPA recommends that MDNR review 40 CFR Part 63, Subpart GGGGG and either include the applicable requirements or provide an explanation in the Statement of Basis as to why the requirements do not apply.

APCP Response

The Statement of Basis section of the permit draft was revised to address why 40 CFR 63 Subpart GGGGG does not apply to the ongoing remediation activities at the facility.

Comment #16:

Permit Condition MSE-3 incorporates the requirements associated with the delivery, storage and on-site distribution of gasoline at the Lake City facility. However, operational requirements #1, #3, #4 and #6 all refer to the "owner or operator" as the responsible party. In as much as these are applicable requirements for the Lake City facility, the responsible party is the "permittee" and to be consistent with the other permit condition requirements, EPA recommends MDNR replace "owner or operator" with "permittee."

Also, the #2 requirement in the monitoring/recordkeeping requirements for (RVP) limitation in Permit Condition MSE-3 says *"the RVP of the gasoline does not exceed seven and two-tenths (7.0) psi, in accordance with this rule for conventional gasoline, or that the RVP does not exceed eight and two-tenths (8.0) for the nine to ten percent ethyl alcohol blends."* (Emphasis added) The requirements should read: *"the RVP of the gasoline does not exceed seven and zero-tenths (7.0) psi, in accordance with this rule for conventional gasoline, or that the RVP does not exceed eight and zero-tenths (8.0) for the nine to ten percent ethyl alcohol blends."* (Emphasis added) and EPA recommends that MDNR make this modification.

APCP Response

The suggested changes were made to the draft.

Comment #17:

The draft Statement of Basis includes a table of "Construction Permit History" and EPA has several comments:

- Permit Number 082001-016 indicates it is contained in operating permit condition 5; however, as stated above this is incorrect, in fact this construction permit is not included anywhere however it appears that it should have been included with permit condition 7.
- Permit number 062003-006 indicates it is contained in operating permit condition 4;

however, in fact it is in permit condition 5.

- Permit number 062009-004 indicates it is contained in operating permit condition 1; however, in fact it is in permit condition 2.

- Permit number 022010-008 refers to Note 1; however, the construction permit is not listed in Note 1.

- Note 1 lists Missouri Department of Natural Resources Air Construction Permit # 0199-021 which in fact includes an emergency diesel engine which is likely subject to 40 CFR Part 63, Subpart ZZZZ and should be included in the appropriate operating permit condition.

- Note 1 lists Missouri Department of Natural Resources Air Construction Permit #112000-008 which includes boilers #5 and #6 which are included in operating permit conditions B-2 and B-3.

APCP Response

- The references in the table as to location within the draft permit were revised.
- The provisions from Construction Permit Number 082001-016 were previously consolidated into Permit Condition 7. The Statement of Basis was edited for clarity.
- The Construction Permit History Table is simply for locational reference for the Construction Permit special conditions within the Title V permit. Note 1 in the table clearly states: "The following construction permits have no special permit conditions. As such, applicable permit conditions were not listed for these construction permits in the operating permit."
- All units are evaluated for MACT or NSPS applicability regardless of applicability of 10 CSR 10-6.060 *Construction Permits Required*. The MACT requirements applicable to the emergency RICE unit permitted in CP 0199-021 are stated in Permit Condition EG-4, therefore no changes to the draft are necessary in regards to this part of the comment.

Comment #18:

Item 2 in the Statement of Basis section titled Construction Permit Revisions says "On December 1, 1994 the permittee notified the Missouri DNR that five of the twenty permitted generators were not installed since these generators were not needed. Therefore, only the 17 emergency generators that were installed are included in Permit Condition EG-2. EPA suggests MDNR review the numbers which do not appear to add up.

APCP Response

The facility has reviewed and concurred that there are 16 installed emergency generators under CP 0492-002, which is what is reflected in the draft operating permit. The 1994 letter states that units: 113kw (EP 42), 150kw (EP44), 275kw (EP45), 545kw (EP46), 545kw (EP47) were not installed. Although these generators with these kw ratings were not installed in the location as proposed in the construction permit application, there are three smaller generators at LCAAP that were installed during this time frame. These generators are a 10kw, a 25kw, and a 37kw generator; they are also known or labeled as 181F, 181H, and 181C. The Statement of Basis was revised to reflect 16 generators were installed and operated under CP 0492-002.