



Missouri Department of Natural Resources
Air Pollution Control Program

INTERMEDIATE STATE PERMIT TO OPERATE

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

Intermediate Operating Permit Number: OP2010-014
Expiration Date: FEB 02 2015
Installation ID: 221-0018
Project Number: 2008-03-083

Installation Name and Address

Buckman Laboratories, Inc.
14664 East Missouri Highway 47
Cadet, MO 63630-0200
Washington County

Parent Company's Name and Address

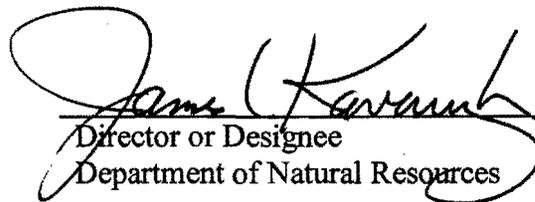
Buckman Laboratories International, Inc.
1256 North Mclean Blvd.
Memphis, TN 38108-0305

Installation Description:

Buckman Laboratories is a manufacturer of specialty chemicals for water treatment, pulp and paper, and leather industries.

FEB 03 2010

Effective Date



Director or Designee
Department of Natural Resources

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I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

Buckman Laboratories is a manufacturer of specialty chemicals for water treatment, pulp and paper, and leather industries.

Reported Air Pollutant Emissions, tons per year							
Year	Particulate Matter ≤ Ten Microns (PM-10)	Sulfur Oxides (SO _x)	Nitrogen Oxides (NO _x)	Volatile Organic Compounds (VOC)	Carbon Monoxide (CO)	Lead (Pb)	Hazardous Air Pollutants (HAPs)
2008	0.22	0.02	2.92	0.37	2.45	--	
2007	0.23	0.01	2.84	0.15	2.39	--	--
2006	0.22	0.01	2.92	0.16	2.45	--	--
2005	0.21	0.01	2.87	0.16	2.40	--	--
2004	0.24	0.01	3.11	0.17	2.71	--	--
2003	0.26	0.01	3.22	0.18	2.71	--	--

EMISSION UNITS WITH LIMITATIONS

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

Emission Unit #	Description of Emission Unit (Emission Unit ID)
EU0010	Boiler #1 - 8 MMBtu/hr, Natural gas and #2 fuel oil boiler (EP-B1)
EU0020	Boiler #2 - 8.4 MMBtu/hr, Natural gas boiler (EP-B2)
EU0030	Boiler #3 - 8.4 MMBtu/hr, Natural gas and #2 fuel oil boiler (EP-B3)
EU0040	Boiler #4 - 16.7 MMBtu/hr, Natural gas and #2 fuel oil boiler (EP-B4)
EU0050	Thermal Oxidizer - Emission Control Device (EP-TOX)
EU0060	Centrifuge for Dewatering Busan 1059WC (EP-CENT)
EU0070	Process Vessel #13 (EP-PV-13)
EU0080	TMEDA Fractionation Column (EP-R4C1)
EU0090	Tank #31 - 8,000 Gallon Storage Tank for Busan 1059WC liquor (EP-T-31)
EU0100	Tank #36 - 16,000 Gallon Storage Tank for Formalin (EP-T-36)
EU0110	Tank #42 - 16,300 Gallon Storage Tank for TMEDA (EP-T-42)
EU0120	Tank #45 - 7,000 Gallon Storage Tank for TMEDA (EP-T-45)

EMISSION UNITS WITHOUT LIMITATIONS

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

Description of Emission Source (Emission Unit ID)

Ozone Destruct Unit – Emission Control Device for Water Treatment (EP-OD-1)
Portable Tank Filling Location #1 - Vented to Control Device (EP-BF1)
Portable Tank Filling Location #2 - Vented to Control Device (EP-BF2)
Portable Tank Filling Location #3 - Plant Area (EP-BF3)
Portable Tank Filling Location #4 - TMEDA cylinders (EP-BF4)
Portable Tank Filling Location #5 - EPI cylinders (EP-BF5)
Process Vessel #4 (PV-4)
Process Vessel #5 (PV-5)
Process Vessel #6 (PV-06)
Process Vessel #7 (PV-07)
Process Vessel #8 (PV-08)
Process Vessel #9 (PV-09)
Process Vessel #10 (PV-10)
Process Vessel #11 (PV-11)
Process Vessel #14 (PV-14)
Process Vessel #16 (PV-16)
Process Vessel #14 Receiver –T1 (EP-R14T1)
Storage Tank #1 - Ester 80 Rework (EP-T-1)
Storage Tank #2 - Propylene Glycol & Water (EP-T-2)
Storage Tank #3 - Sodium Hydroxide (EP-T-3)
Storage Tank #4 - Miscellaneous Waste Water (EP-T-4)
Storage Tank #5 - Miscellaneous Waste Water (EP-T-5)
Storage Tank #6 - 15,000 Gallon Storage Tank for Diethylene glycol (EP-T-6)
Storage Tank #7 - Well Water (EP-T-7)
Storage Tank #8 - 15,000 Gallon Storage Tank for Dimethylamine (EP-T-8)
Storage Tank #9 - Ammonia (EP-T-9)
Storage Tank #10 - Nitrogen (EP-T-10)
Storage Tank #11- Miscellaneous Waste Water (EP-T-11)
Storage Tank #12 - Miscellaneous Waste Water (EP-T-12)
Storage Tank #13 - Miscellaneous Waste Water (EP-T-13)
Storage Tank #14 - Miscellaneous Waste Water (EP-T-14)
Storage Tank #15 - 7,500 Gallon Storage Tank for Tetramethylethylenediamine (TMEDA) (EP-T-15)
Storage Tank #16 - Acetic Anhydride (EP-T-16)
Storage Tank #17 - Cyanamide 50 (EP-T-17)
Storage Tank #18 - Ester 80 (EP-T-18)
Storage Tank #19 - Potassium Hydroxide (EP-T-19)
Storage Tank #20 - Hazardous Waste (EP-T-20)
Storage Tank #21 – Phosphorous Trichloride (EP-T-21)
Storage Tank #23 - Miscellaneous Water (EP-T-23)
Storage Tank #24 - DCEE Wash Water (EP-T-24)
Storage Tank #25 - WSCP Distillate (EP-T-25)
Storage Tank #26 - WSCP Distillate (EP-T-26)

Storage Tank #27 - Sealed - Carbon Disulfide (EP-T-27)
Storage Tank #28 - Miscellaneous Water (EP-T-28)
Storage Tank #29 - Sealed - Methylamine (EP-T-29)
Storage Tank #30 - Phosphorous Acid (EP-T-30)
Storage Tank #32 - Phosphorous Acid Distillate (EP-T-32)
Storage Tank #33 - 16,300 Gallon Storage Tank for Dichloroethylether (DCEE) (EP-T-33)
Storage Tank #34 - DMATO (EP-T-34)
Storage Tank #35 - 16,300 Gallon Storage Tank for Dichloroethylether (DCEE) (EP-T-35)
Storage Tank #37 - 16,300 Gallon Storage Tank for Bufloc 5031 (EP-T-37)
Storage Tank #38 - 5,700 Gallon Pressurized Storage Tank for Dimethylamine solution (EP-T-38)
Storage Tank #39 - PEG400 (EP-T-39)
Storage Tank #40 - NAMET (EP-T-40)
Storage Tank #41 - Busan 85 (EP-T-41)
Storage Tank #43 - 16,300 gallon storage tank for EDC (EP-T-43)
Storage Tank #44 - Phosphorous Acid (EP-T-44)
Storage Tank #46 - Sulfuric Acid Storage Tank (EP-T-46)
Storage Tank #47 - Vacuum System Seal Water (EP-T-47)
Storage Tank #48 - DCEE Column Overs (EP-T-48)
Storage Tank #49 - Kn-Methyl (EP-T-49)
Storage Tank #50 - Kn-Methyl (EP-T-50)
Storage Tank #51 - 24,000 Gallon Storage Tank for WSCP (EP-T-51)
Storage Tank #52 - 24,000 Gallon Storage Tank for Monomer Acid (EP-T-52)
Storage Tank #53 - PHOS 2 (product) (EP-T-53)
Storage Tank #54 - WSCP (EP-T-54)
Storage Tank #55 - Hydrobromic Acid (EP-T-55)
Storage Tank #56 - Butenediol (EP-T-56)
Storage Tank #57 - DPM (EP-T-57)
Storage Tank #58 - Bromine (EP-T-58)
Storage Tank #59 - Butylene Oxide (EP-T-59)
Storage Tank #60 - Methylene Chloride (EP-T-60)
Storage Tank #61 - Epichlorohydrin (EP-T-61)
Storage Tank #62 - Busan 1058 (EP-T-62)
Storage Tank #63 - BL1182 (EP-T-63)
Storage Tank #64 - Premix 1210 (EP-T-64)
Storage Tank #65 - Busan 881 (EP-T-65)
Storage Tank #66 - Sulfuric Acid (EP-T-66)
Storage Tank #67 - Empty (EP-T-67)
Storage Tank #68 - Vapam HL (EP-T-68)
Storage Tank #69 - Water Treatment Tank (EP-T-69)
Storage Tank #70 - Water Treatment Tank (EP-T-70)
Storage Tank #71 - Water Treatment Tank (EP-T-71)
Storage Tank #72 - Water Treatment Tank (EP-T-72)
Storage Tank #73 - Ester 80 (product) (EP-T-73)
Storage Tank #77 - Dipropylene glycol (EP-T-77)
Storage Tank #78 - Not in use (EP-T-78)
Storage Tank #79 - Bromine Scrubber (EP-T-79)
Storage Tank #81 - TDET (product) (EP-T-81)

Storage Tank #82 - PV Distillate (EP-T-82)
T-vent receiver (EP-T-VENT)
WSCP Stripper column (EP-T51-C1)
Truck Loading Area #5 (EP-TS-5)
Railcar Loading Area #3 (EP-RS-3)
Busan 1059 Drying Process (EP-DRY1, EP-DRY2, EP-DRY3, EP-DRY4)
Emergency Generator (EP-EG)
Phosphorous Acid Column (EP-PAC)
Dichloroethylether (DCEE) Distillation Column #1 (EP-C1)
Dichloroethylether (DCEE) Distillation Column #2 (EP-C2)

DOCUMENTS INCORPORATED BY REFERENCE

These documents have been incorporated by reference into this permit.

1. Construction Permit Number 0979-031..033
2. Construction Permit Number 0895-029
3. Construction Permit Number 0895-029A
4. Construction Permit Number 0596-031
5. Construction Permit Number 0596-034
6. Construction Permit Number 0596-036
7. Construction Permit Number 0596-036A
8. Construction Permit Number 1097-026
9. Construction Permit Number 1097-027
10. Construction Permit Number 1097-028

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 on the date of permit issuance.

PERMIT CONDITION PW001

10 CSR 10-6.065(2)(C) and 10 CSR 10-6.065(5)(A) Voluntary Limitation(s)

Emission Limitation:

- 1) The permittee shall emit less than 100 tons of volatile organic compounds (VOC) from this installation in any consecutive 12-month period.
- 2) The permittee shall emit less than 10 tons of any single hazardous air pollutant (HAP) from this installation in any consecutive 12-month period.
- 3) The permittee shall emit less than 25 tons of combined hazardous air pollutants from this installation in any consecutive 12-month period.

Monitoring:

- 1) The permittee shall monitor the monthly amount of VOC containing materials used at the installation.
- 2) The permittee shall monitor the monthly amount and type of HAP containing materials used at the installation.

Recordkeeping:

- 1) The permittee shall record the monthly total of VOC emissions and the sum of the most recent consecutive 12-month totals in tons from this installation. (See Attachment A)
- 2) The permittee shall record the monthly total of individual and combined HAP emissions from this installation and the sum of the most recent consecutive 12-month totals in tons. (See Attachments B and C)
- 3) All records shall be kept on-site for a minimum of five years and made available to the Missouri Department of Natural Resources' personnel upon request.

Reporting:

The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined that the installation exceeded the limitations listed above. Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted in the annual compliance certification as required by 10 CSR 10-6.065(5)(A).

PERMIT CONDITION PW002

10 CSR 10-6.080 40 CFR Part 61, Subpart FF
Emissions Standards for Hazardous Air Pollutants
National Emission Standard for Benzene Waste Operations

Emission Limitation:

The permittee shall not produce process wastewater at the facility with a total annual benzene quantity equal to or greater than 1.1 tons per year.

Monitoring:

The Department of Natural Resources may conduct periodic inspections and routine surveillance.

Recordkeeping:

- 1) Each owner or operator of a facility subject to the provisions of this subpart shall comply with the recordkeeping requirements of §61.356. Each record shall be maintained in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified.
- 2) Each owner or operator shall maintain records that identify each waste stream at the facility subject to this subpart, and indicate whether or not the waste stream is controlled for benzene emissions in accordance with this subpart. In addition, the owner or operator shall maintain the following records:
 - a) For each waste stream not controlled for benzene emissions in accordance with this subpart, the records shall include all test results, measurements, calculations, and other documentation used to determine the following information for the waste stream: waste stream identification, water content, whether or not the waste stream is a process wastewater stream, annual waste quantity, range of benzene concentrations, annual average flow-weighted benzene concentration, and annual benzene quantity.

Reporting:

- 1) Each owner or operator of a chemical plant, petroleum refinery, coke by-product recovery plant, and any facility managing wastes from these industries and has no benzene onsite in wastes, products, by-products, or intermediates shall submit to the Administrator within 90 days after January 7, 1993, or by the initial startup for a new source with an initial startup after the effective date, an initial report that is a statement to this effect.
- 2) If the total annual benzene quantity from facility waste is less than 1.1 ton/yr and whenever there is a change in the process generating the waste stream that could cause the total annual benzene quantity from facility waste to increase to 1 Mg per year (1.1 ton/yr) or more, then the owner or operator shall submit to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, a report that updates the following information:
 - a) Total annual benzene quantity from facility waste determined in accordance with §61.355(a).
 - b) A table identifying each waste stream and whether or not the waste stream will be controlled for benzene emissions in accordance with the requirements of this subpart.
 - c) For each waste stream identified as not being controlled for benzene emissions in accordance with the requirements of this subpart the following information shall be added to the table:
 - i) Whether or not the water content of the waste stream is greater than 10 percent;
 - ii) Whether or not the waste stream is a process wastewater stream, product tank drawdown, or landfill leachate;
 - iii) Annual waste quantity for the waste stream;

- iv) Range of benzene concentrations for the waste stream;
 - v) Annual average flow-weighted benzene concentration for the waste stream; and
 - vi) Annual benzene quantity for the waste stream.
- 3) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted in the annual compliance certification as required by 10 CSR 10-6.065(5)(A).

PERMIT CONDITION PW003

40 CFR Part 60, Subpart VV
Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals
Manufacturing Industry

Operational Limit/Equipment Specifications:

The owner or operator of Synthetic Organic Chemical Manufacturing facilities with the design capacity for producing a chemical affected by 40 CFR Part 60, Subpart VV [§60.489] in amounts equal to or greater than 1000 Mg per year, affecting processes installed after January 5, 1981, are subject to the provisions of 40 CFR Part 60, Subpart VV and include the following operational limits and/or equipment specifications:

1) Pumps in Light Liquid Service

- a) A leak is detected when visual indications of liquids dripping from the pump seal are present or an instrument reading of 10,000 ppm or greater is measured according to the methods described in § 60.485.
- b) Repair of any and all leaks shall be performed as soon as practical, but no later than 15 calendar days after it is detected, except as provided in § 60.482-9.
- c) A first attempt at repair shall be performed no later than 5 calendar days after the leak is detected.

2) Compressors

- a) Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in §60.482-1(c) and paragraphs (h) and (i) of §60.482-3 and the aforementioned seal system shall be:
 - i) Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or
 - ii) Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of §60.482-10; or
 - iii) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.
- b) Each barrier fluid system as described in paragraph (a) shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both. The criteria for failure of the seal system, barrier fluid system, or both shall be determined by the owner or operator based upon design considerations and operating experience.
- c) Repair of any and all leaks shall be performed as soon as practical, but no later than 15 calendar days after it is detected, except as provided in §60.489.
- d) A first attempt at repair shall be performed no later than 5 calendar days after the leak is detected.

3) Pressure Relief Devices in Gas/Vapor Service

- a) Each pressure relief device, except during pressure releases, shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, according to the methods specified by § 60.485 (c).
- b) Each pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm, as soon as possible and no later than five calendar days after the pressure release, except as specified in § 60.489.
- c) Any pressure relief device that is routed to a process or fuel gas system, equipped with a closed vent system capable of capturing and transporting leakage to a control device as described in § 60.482-10, or equipped with a rupture disk that is replaced as soon as possible, but no later than five calendar days after each pressure release, except as provided in § 60.489, is exempt from paragraphs of a) and b) of this section.

4) Valves in Gas/Vapor Service and in Light Liquid Service

- a) A leak is detected when an instrument reading of 10,000 ppm or greater is measured according to the methods described in § 60.485.
- b) Repairs to the leak shall be performed as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in § 60.482-9.
- c) A first attempt at repair shall be made no later than 5 calendar days after a leak is first detected and includes, but is not limited to the following procedures:
 - i) Tightening of bonnet bolts;
 - ii) Replacement of bonnet bolts;
 - iii) Tightening of packing gland nuts;
 - iv) Injection of lubricant into lubricated packing;

5) Closed Vent Systems and Control Devices

- a) Vapor recovery systems (e.g. condensers and absorbers) shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 ppm by volume, whichever is less stringent.
- b) Enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 ppm by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 °C.
- c) A leak is positively detected by when an instrument reading of 500 ppm by volume above background or by visual inspections.
- d) Repair shall be made as soon as practicable, but no later than 15 calendar days after the leak is first detected.
- e) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

6) Delay of Repair

- a) Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown.
- b) Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service.
- c) Delay of repair for pumps will be allowed if:
 - i) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and
 - ii) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

- d) Delay of repair for valves will be allowed if:
 - i) The owner or operator demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and
 - ii) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with § 60.482-10.
- e) Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.
- f) Delay of repair for a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.

Monitoring:

1) Pumps in Light Liquid Service

- a) Each pump in light liquid service shall be monitored monthly to detect leaks by the instrument methods specified in §60.485(b), except as provided in §60.482-1(c) and §60.482-2 (d), (e).
- b) Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.
- c) Any pump that is designated as unsafe-to-monitor, according to §60.486(f)(1), is exempt from the monitoring and inspection requirements of this section if they comply with the requirements described in §60.482-2(g)(1) and (2).

2) Compressors

- a) Each sensor required by §60.482-3(d) shall be checked daily or equipped with an audible alarm.

3) Pressure Relief Devices in Gas/Vapor Service

- a) Each pressure relief device in gas/vapor service shall be monitored after each pressure release to ensure a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided by delay of repair requirements [§60.482-9].

4) Valves in Gas/Vapor Service

- a) Each valve shall be monitored monthly to detect leaks by the methods specified in §60.485(b), except valves that are designated for no detectable emissions, as described in §60.486(e)(2), and are in conformance with the requirements of §60.482-7(f).
- b) Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.
- c) Any valve designated as unsafe-to-monitor, as described in §60.486(f)(1), is exempt from the monitoring requirements described in this section if they comply with the requirements described in §60.482-7(h)(1),(2), and (3).

- d) An owner or operator may elect to comply with alternative work practices specified in §60.483-b(2) and (3) if they notify the Administrator before implementing one of the alternative work practices, as specified in §60.487(d). (b)(1) and comply with the initial requirements for valves in gas/vapor service and valves in light liquid service, as described in §60.482-7.
- 5) Closed Vent Systems and Control Devices
- a) Each vapor collection system or closed vent system constructed of hard-piping is subject to the following monitoring requirements:
- i) An initial inspection shall be conducted according to the procedures described in §60.485(b); and
 - ii) Annual inspection shall be conducted for visible, audible, or olfactory indications of leaks
- b) Each vapor collection system or closed vent system constructed of ductwork is subject to the following monitoring requirements:
- i) An initial inspection and annual inspections shall be conducted according to the procedures described in §60.485(b).
- c) Any vapor collection system or closed vent system operated under a vacuum is exempt from the initial and annual inspection and monitoring requirements described in §60.485(b) (instrument readings), but are still subject to annual inspections for visible, audible, or olfactory indications of leaks.
- d) Any parts of the closed vent system that are designated as unsafe to inspect, as described in §60.482-10(1)(1), are exempt from the monitoring and inspection requirements listed above if they comply with the requirements described in §60.482-10(j)(1) and (2).
- e) Any parts of the closed vent system that are designated as difficult to inspect, as described in §60.482-10(1)(2), are exempt from the monitoring and inspection requirements listed above if they comply with the requirements described in §60.482-10(k)(1), (2), and (3).

Recordkeeping:

Each owner or operator subject to the provisions of this subpart shall comply with the following recordkeeping requirements of this section.

- 1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to leaking equipment when a leak is detected.
- 2) The identification on equipment, except on a valve, may be removed after it has been repaired. The identification on a valve may be removed after it has been monitored for 2 successive months, as specified in §60.482-7(c), and no leak has been detected during those 2 months.
- 3) The following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location when each leak is detected:
 - a) The instrument and operator identification numbers and the equipment identification number.
 - b) The date the leak was detected and the dates of each attempt to repair the leak.
 - c) Repair methods applied in each attempt to repair the leak.
 - d) “Above 10,000” if the maximum instrument reading measured by the methods specified in §60.485(a) after each repair attempt is equal to or greater than 10,000 ppm.
 - e) “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak. The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.
 - f) The expected date of successful repair of the leak if a leak is not repaired within 15 days.
 - g) Dates of process unit shutdowns that occur while the equipment is repaired.
 - h) The date of successful repair of the leak.

- 4) The following information pertaining to the design requirements for closed vent systems and control devices shall be recorded and kept in a readily accessible location:
 - a) Detailed schematics, design specifications, and piping and instrumentation diagrams.
 - b) The dates and descriptions of any changes in the design specifications.
 - c) A description of the parameter or parameters monitored to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.
 - d) Periods when the closed vent systems and control devices are not operated as designed.
 - e) Dates of startups and shutdowns of the closed vent systems and control devices.
- 5) The following information pertaining to all equipment subject to the requirements of this subpart shall be recorded in a log that is kept in a readily accessible location:
 - a) A list of identification numbers for equipment subject to the requirements of this subpart.
 - b) The dates, background level, and maximum instrument reading measured during each compliance test.
 - c) A list of identification numbers for equipment in vacuum service.

Reporting:

- 1) The permittee shall submit semiannual reports to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, beginning six months after the issuance of this permit.
- 2) The initial semiannual report shall include the following information:
 - a) Process unit identification.
 - b) Number of valves, pumps, and compressors subject to this subpart.
- 3) All semiannual reports shall include the following information:
 - a) Process unit identification.
 - b) For each month during the semiannual reporting period,
 - i) Number of valves, pumps, and compressors for which leaks were detected.
 - ii) Number of valves, pumps, and compressors for which leaks were not repaired.
 - iii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.
 - iv) Dates of process unit shutdown which occurred within the semiannual reporting period.
 - v) Revisions to items reported in the initial semiannual report if changes have occurred since the initial report or subsequent revisions to the initial report.
 - vi) The results of all performance tests and notification to the Air Pollution Control Program of the schedule for the initial performance tests at least 30 days before the initial performance tests.

PERMIT CONDITION PW004

10 CSR 10-6.060 Construction Permits Required
Construction Permit #0596-036 issued March. 11, 1997

Work Practice Standard:

- 1) The permittee shall implement a visual inspection/maintenance program for the facility to reduce process fugitive emissions from any equipment which comes in contact with any of the following materials:

- a) Bromine, Hydrobromic Acid, Busan 90C, Dimethylamine, Ammonia, Busan 85, Monomethylamine, Unitol Alk, Ester 80, DMATO, Nabonate, Metam Concentrate, Kn-Methyl, Busan 1020, Busan 881, Busan 1058 and BL-1182.
- b) 1,2-Butylene Oxide, Carbon Disulfide, Diethylene Glycol, Formaldehyde, Methanol, Methylene Chloride, P-mix, Phosphorous Acid 70%, Phosphorous Trichloride, SKW Cyanamid L500, and TMEDA 85.

Monitoring/Recordkeeping:

- 1) Leaks detected shall be clearly marked with a weatherproof and readily visible identification which includes the equipment identification number. The identification shall remain in place until the leak is repaired.
- 2) Leaks detected shall be recorded in a log with the following information:
 - a) The equipment identification number;
 - b) The date the leak was detected and the dates of each attempt to repair the leak;
 - c) The date when the equipment was fixed or replaced, and;
 - d) Repair method.

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the annual compliance certification to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, certification as required as required by 10 CSR 10-6.065(5)(A).

III. Emission Unit Specific Emission Limitations

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

EU0010, EU0020, EU0030, AND EU0040 – BOILERS			
Emission Unit	Description	Manufacturer/Model #	Emission Unit ID
EU0010	Boiler #1, Natural Gas and #2 Fuel Oil, 8.0 MMBtu, Installed January 1957	Cleaver-Brooks/CB-223-200	EP-B-1
EU0020	Boiler #2, Natural Gas, 8.4 MMBtu, Installed January 1963	Continental F10C200-3871-G436	EP-B-2
EU0030	Boiler #3, Natural Gas and #2 Fuel Oil, 8.4 MMBtu, Installed January 1963	Industrial Combustion/E976-MLG-84	EP-B-3
EU0040	Boiler #4, Natural Gas and #2 Fuel Oil, 16.7 MMBtu, Installed January 1986	Cleaver-Brooks/CB-200-400	EP-B-4

PERMIT CONDITION (EU0010, EU0030, EU0040)-001
 10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any existing source (EU0010 and EU0030) any visible emissions with an opacity greater than 40%.
- 2) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any new source (EU0040) any visible emissions with an opacity greater than 20%.
- 3) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60%.

Monitoring:

- 1) When combusting fuel oil only, the permittee shall conduct opacity readings on each emission unit (EU0010, EU0030, and EU0040) using the procedures contained in U.S. EPA Test Method 22 at least once per week.
 - a) At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.

Recordkeeping:

- 1) The permittee shall maintain records of all observation results (see Attachment D), noting:

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

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted in the annual compliance certification, as required as required by 10 CSR 10-6.065(5)(A).

PERMIT CONDITION (EU0010, EU0030, EU0040)-002
 10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions of sulfur dioxide into the atmosphere from any indirect heating source in excess of eight pounds of sulfur dioxide per million BTUs actual heat input averaged on any consecutive three hour time period
- 2) No owner or other person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010 Ambient Air Quality Standards, as found in the following table.

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

Monitoring:

- 1) The permittee shall maintain an accurate record of the sulfur content of fuel used. The installation shall maintain records of the amount of fuel burned (natural gas or fuel oil) and verify the sulfur

content to be less than 0.5% by weight. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type as a grade level with a sulfur content less than 0.5% by weight will be acceptable.

- 2) If the requirements of condition 1 cannot be met, then compliance to the emission limitations shall be determined by source testing. The heating value of the fuel shall be determined as specified in 10 CSR 10-6.040(2). Source testing to determine compliance shall be performed as specified in 10 CSR 10-6.030(6). The actual heat input shall be determined by multiplying the heating value of the fuel by the amount of fuel burned during the source test period.
- 3) Other methods approved by the permitting agency in advance may be used to verify compliance.

Recordkeeping:

- 1) If monitoring option 1 is used to verify compliance, then the permittee shall maintain records on the premises of the analysis of all fuel used which shows weight percentage of sulfur in the fuel. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
- 2) If monitoring option 2 is used to verify compliance, then the permittee shall maintain records on the premises of all source testing performed.
- 3) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 4) All records shall be maintained for five years.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of the emission limit or sulfur content limit established by 10 CSR 10-6.260, or any malfunction which causes an exceedance.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted in the annual compliance certification, as required by 10 CSR 10-6.065(5)(A).

PERMIT CONDITION (EU0010, EU0020, EU0030, EU0040)-003

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

Emission Limitation:

The permittee shall not emit particulate matter in excess of 0.47 pounds per million BTU of heat input for EU0010, EU0020, and EU0030. The permittee shall not emit particulate matter in excess of 0.37 pounds per million BTU of heat input for EU0040.

Operation Limitation/Equipment Specifications:

EU0010, EU0030 and EU0040 shall be limited to burning pipeline grade natural gas and fuel oil #2. EU0020 shall be limited to burning pipeline grade natural gas.

Monitoring/Recordkeeping:

- 1) The permittee shall maintain on the premises of the installation calculations demonstrating compliance with this rule (See Attachment G).

- 2) The calculation shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the annual compliance certification to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(5)(A).

EU0050 – THERMAL OXIDIZER			
Emission Unit	Description	Manufacturer/Model #	Emission Unit ID
EU0050	Thermal Oxidizer – Emission Control Device, 2.0 MMBtu/hr natural gas burner, Installed January 1996	Eclipse/200 RM-S	EP-TOX

PERMIT CONDITION (EU0050)-001 10 CSR 10-6.065(2)(C) and 10 CSR 10-6.065(5)(A) Voluntary Limitation(s)

Operational Limitation:

- 1) The permittee shall operate the Thermal Oxidizer control device a minimum of 70% of the available run-time¹.
- 2) The permittee shall ensure the following emission points are vented to the Thermal Oxidizer at all times:
 - a) EP-BF1, EP-BF2, EP-C1, EP-CENT, EP-R4C1, EP-R4T2, EP-R10T1, EP-T-15, EP-T-20, EP-T-31, EP-T-33, EP-T-35, EP-T-36, EP-T-42, EP-T-43, EP-T-45, EP-T-47, EP-T-48, EP-T-49, EP-T-50, EP-T-60, EP-T-61, EP-T-62, EP-T-63, EP-T-68, EP-T-VENT, EP-T51-C1, EP-TS-5, EP-RS-3, EP-VAC, EP-R14T1, EP-DRY1

Monitoring/Recordkeeping/Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the annual compliance certification to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(5)(A).

EU0060 – CENTRIFUGE			
Emission Unit	Description	Manufacturer/Model #	Emission Unit ID
EU0060	Centrifuge Used for Dewatering Busan 1059WC	Unknown	EP-CENT

PERMIT CONDITION (EU0060)-001 10 CSR 10-6.060 Construction Permits Required Construction Permit #1097-026, Issued October 28, 1997

Emission/Operational Limitation:

- 1) The permittee shall vent the centrifuge to the thermal oxidizer.

¹ This is a voluntary limitation taken by the permittee. This condition does not relieve the permittee of any compliance obligations specified in issued construction permits.

- 2) The thermal oxidizer must be in use at all times when the centrifuge is in operation and shall be operated and maintained in accordance with the manufacturer's specifications.

Monitoring/Recordkeeping:

- 1) Buckman Laboratories, Inc. shall maintain an operating and maintenance log for the thermal oxidizer which shall include the following:
 - a) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
 - b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
- 2) A copy of the operating log required in #1 shall be kept at the plant site for the most recent 60 months and be made immediately available to the Department of Natural Resources' personnel upon request.

Reporting:

- 1) 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 such a plan shall be a violation of this permit.
- 2) The permittee shall report any deviations/exceedances of this permit condition using the annual compliance certification to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(5)(A).

EU0070 – PROCESS VESSEL			
Emission Unit	Description	Manufacturer/Model #	Emission Unit ID
EU0070	Process Vessel #13	Unknown	EP-PV-13

<p align="center">PERMIT CONDITION (EU0070)-001</p> <p>10 CSR 10-6.060 Construction Permits Required Construction Permit #0596-034 issued May 15, 1996 and #0596-036 issued March. 11, 1997</p>
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Operational Limitation:

- 1) The condenser and scrubber associated with Reactor 13 (EU0070) shall be used at all times Bis(BromoAcetoxy) -2-Butene or Busan 90C is in production. The scrubber shall have affixed to it a plate inscribed with the manufacturer's design liquid flow rate to the scrubber.
- 2) The scrubber shall be equipped with a gauge or meter which indicates the liquid flow rate to the scrubber. This gauge or meter shall be located such that it may be easily observed by the Department of Natural Resources' employees.
- 3) The condenser and scrubber system shall be operated in conformance with good engineering practices and the manufacturer's specifications.

Monitoring/Recordkeeping:

- 1) The permittee shall monitor and record the liquid flow rate to the scrubber at least three times every Bis(BromoAcetoxy)-2-Butene or Busan 90C batch-cycle. The liquid flow rate shall be maintained within the design conditions specified by the manufacturer's performance warranty.

- 2) The permittee shall maintain an operating and maintenance log for the condenser and scrubber which shall include the following:
 - a) Incidents of malfunction, with corresponding changes in emissions, duration of event, probable cause, and corrective actions; and
 - b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the annual compliance certification to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(5)(A).

EU0080 – FRACTIONATION COLUMN			
Emission Unit	Description	Manufacturer/Model #	Emission Unit ID
EU0080	Fractionation Column for processing TMEDA, 0.084 TPH, Installed April 1, 1998	Unknown	EP-R4C1

PERMIT CONDITION (EU0080)-001

10 CSR 10-6.060 Construction Permits Required
Construction Permit #1097-027 Issued October 24, 1997

Emission/Operational Limitation:

- 1) The permittee shall operate the DMA scrubber at all times during the use of the fractionation column.
 - a) The flowrate and pH of the scrubbing solution shall be maintained within the manufacturer's design specifications.
- 2) The permittee shall maintain all equipment which emits any regulated pollutant in good working order at all times when the installation is in operation.

Monitoring/Recordkeeping:

- 1) The scrubber shall be equipped with a gauge or meter which indicates the flowrate and pH of the scrubbing solution.
- 2) The flowrate and pH of the scrubbing solution shall be recorded once every three hours of operation to verify the operation of the scrubber.

Reporting:

- 1) If a continuing situation of demonstrated nuisance odors exists in violation of 10 CSR 10-3.090, the Director may require the Permittee to submit a corrective action plan within ten (10) days 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 such a plan shall be a violation of this permit.
- 2) The permittee shall report any deviations/exceedances of this permit condition using the annual compliance certification to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(5)(A).

EU0090, EU0100, EU0110, EU0120 – STORAGE TANKS			
Emission Unit	Description	Manufacturer/Model #	Emission Unit ID
EU0090	8,000 Gallon Storage Tank for Busan 1059WC Liquor	Unknown	EP-T-31
EU0100	16,000 Gallon Storage Tank for Formaldehyde 37% Solution (Formalin), Installed January 1, 1998	Metal Masters, Inc., Model 1882	EP-T-36
EU0110	16,300 Gallon Storage Tank for TMEDA, Installed January 1, 1986	Plant Maintenance and Service Corp./0-341-B	EP-T-42
EU0120	7,000 Gallon Storage Tank for TMEDA, Installed January 1, 1987	Mid-South Maintenance/0193	EP-T-45

PERMIT CONDITION (EU0090)-001

10 CSR 10-6.060 Construction Permits Required
Construction Permit #1097-026, Issued October 28, 1997

Emission/Operational Limitation:

- 1) The permittee shall vent EU0090 to the thermal oxidizer.
- 2) The thermal oxidizer must be in use at all times when EU0090 is in operation and shall be operated and maintained in accordance with the manufacturer's specifications.

Monitoring/Recordkeeping:

- 1) Buckman Laboratories, Inc. shall maintain an operating and maintenance log for the thermal oxidizer which shall include the following:
 - a) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
 - b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
- 2) A copy of the operating log required in #1 shall be kept at the plant site for the most recent 60 months and be made immediately available to the Department of Natural Resources' personnel upon request.

Reporting:

- 1) 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 such a plan shall be a violation of this permit.
- 2) The permittee shall report any deviations/exceedances of this permit condition using the annual compliance certification to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(5)(A).

PERMIT CONDITION (EU0100)-001

10 CSR 10-6.060 Construction Permits Required
Construction Permit #1097-028A, Issued November 18, 1997

Emission/Operational Limitation:

- 1) The permittee shall vent the formalin storage tank (EU0100) to the thermal oxidizer.
- 2) The thermal oxidizer must be in use at all times when EU0100 is in operation and shall be operated and maintained in accordance with the manufacturer's specifications.

Monitoring/Recordkeeping:

- 1) Buckman Laboratories, Inc. shall maintain an operating and maintenance log for the thermal oxidizer which shall include the following:
 - a) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
 - b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
- 2) A copy of the operating log required in #1 shall be kept at the plant site for the most recent 60 months and be made immediately available to the Department of Natural Resources' personnel upon request.

Reporting:

- 1) 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 such a plan shall be a violation of this permit.
- 2) The permittee shall report any deviations/exceedances of this permit condition using the annual compliance certification to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(5)(A).

PERMIT CONDITION (EU0110, EU0120)-001

10 CSR 10-6.060 Construction Permits Required
Construction Permit #1097-027 Issued October 24, 1997

Emission/Operational Limitation:

Emissions from Tank 42 (EU0110) and Tank 45 (EU0120) shall be vented to and controlled by the thermal oxidizer.

Monitoring/Recordkeeping/Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the annual compliance certification to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(5)(A).

IV. Core Permit Requirements

The installation shall comply with each of the following requirements. Consult the appropriate sections in the Code of Federal Regulations (CFR), 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 on the date of permit issuance.

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(5)(B)1.A(III)] The permittee shall retain the most current operating permit issued to this installation on-site. [10 CSR 10-6.065, §(5)(C)(1) and §(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, §(5)(C)(1) and §(6)(C)3.B]

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

- 1) The permittee shall complete and submit an Emission Inventory Questionnaire (EIQ) in accordance with the requirements outlined in this rule.
- 2) The permittee shall pay an annual emission fee per ton of regulated air pollutant emitted according to the schedule in the rule. This fee is an emission fee assessed under authority of RSMo. 643.079.
- 3) The fees shall be payable to the Department of Natural Resources and shall be accompanied by the Emissions Inventory Questionnaire (EIQ) form or equivalent approved by the Director.

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

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

10 CSR 10-6.150 Circumvention

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

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

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

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

10 CSR 10-6.180 Measurement of Emissions of Air Contaminants

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

10 CSR 10-6.045 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:
 1. 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;
 2. Springfield-Greene County area. The open burning of household refuse must take place outside the corporate limits of Springfield and only within areas zoned A-1, Agricultural District;
 3. St. Joseph area. The open burning of household refuse must take place within an area zoned for agricultural purposes and outside that portion of the metropolitan area surrounded by the corporate limits of St. Joseph; and
 4. St. Louis metropolitan area. The open burning of household refuse is prohibited;
 - (B) Yard waste, with the following exceptions:
 1. Kansas City metropolitan area. The open burning of trees, tree leaves, brush or any other type of vegetation shall require an open burning permit;

2. Springfield-Greene County area. The City of Springfield requires an open burning permit for the open burning of trees, brush or any other type of vegetation. The City of Springfield prohibits the open burning of tree leaves;
 3. St. Joseph area. Within the corporate limits of St. Joseph, the open burning of trees, tree leaves, brush or any other type of vegetation grown on a residential property is allowed during the following calendar periods and time-of-day restrictions:
 - A. A three (3)-week period within the period commencing the first day of March through April 30 and continuing for twenty-one (21) consecutive calendar days;
 - B. A three (3)-week period within the period commencing the first day of October through November 30 and continuing for twenty-one (21) consecutive calendar days;
 - C. The burning shall take place only between the daytime hours of 10:00 a.m. and 3:30 p.m.; and
 - D. In each instance, the twenty-one (21)-day burning period shall be determined by the Director of Public Health and Welfare of the City of St. Joseph for the region in which the City of St. Joseph is located provided, however, the burning period first shall receive the approval of the Department Director; and
 4. St. Louis metropolitan area. The open burning of trees, tree leaves, brush or any other type of vegetation is limited to the period beginning September 16 and ending April 14 of each calendar year and limited to a total base area not to exceed sixteen (16) square feet. Any open burning shall be conducted only between the hours of 10:00 a.m. and 4:00 p.m. and is limited to areas outside of incorporated municipalities;
- (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) Buckman Laboratories, Inc 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 Buckman Laboratories, Inc 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 Record Keeping. 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 10-3.090 Restriction of Emission of Odors

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

This requirement is not federally enforceable.

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

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

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

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

Title VI – 40 CFR Part 82 Protection of Stratospheric Ozone

- 1) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
 - a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
 - b) The placement of the required warning statement must comply with the requirements pursuant to §82.108.
 - c) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.

- d) No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
- 2) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:
 - a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
 - b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
 - c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
 - d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. ("MVAC-like" appliance as defined at §82.152).
 - e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
 - f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
- 3) If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR Part 82, Subpart A, Production and Consumption Controls.
- 4) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.

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

10 CSR 10-6.280 Compliance Monitoring Usage

- 1) The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates:
 - a) Monitoring methods outlined in 40 CFR Part 64;
 - b) Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - c) Any other monitoring methods approved by the Director.
- 2) Any credible evidence may be used for the purpose of establishing whether a permittee has violated or is in violation of any such plan or other applicable requirement. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred by a permittee:
 - a) Monitoring methods outlined in 40 CFR Part 64;
 - b) A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and

- c) Compliance test methods specified in the rule cited as the authority for the emission limitations.
- 3) The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
 - a) Applicable monitoring or testing methods, cited in:
 - i) 10 CSR 10-6.030, "Sampling Methods for Air Pollution Sources";
 - ii) 10 CSR 10-6.040, "Reference Methods";
 - iii) 10 CSR 10-6.070, "New Source Performance Standards";
 - iv) 10 CSR 10-6.080, "Emission Standards for Hazardous Air Pollutants"; or
 - b) Other testing, monitoring, or information gathering methods, if approved by the Director, that produce information comparable to that produced by any method listed above.

V. General Permit Requirements

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

10 CSR 10-6.065, §(5)(C)1 and §(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, §(5)(C)1 and §(6)(C)1.C General Record Keeping and Reporting Requirements

- 1) Record Keeping
 - 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's Enforcement Section, P. O. Box 176, Jefferson City, MO 65102.
 - b) The permittee shall submit a report of all required monitoring by:
 - i) April 1st for monitoring which covers the January through December time period.
 - ii) Exception. Monitoring requirements which require reporting more frequently than 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, record keeping, reporting, or any other requirements of the permit.
 - 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 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 annual 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 §(5)(C)1 and §(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(5)(C)1.A 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 under this rule.
- 6) Failure to comply with the limitations and conditions that qualify the installation for an Intermediate permit make the installation subject to the provisions of 10 CSR 10-6.065(6) and enforcement action for operating without a valid part 70 operating permit.

10 CSR 10-6.065(5)(C)1.C Reasonably Anticipated Operating Scenarios

None

10 CSR 10-6.065, §(5)(B)4; §(5)(C)1, §(6)(C)3.B; and §(6)(C)3.D; and §(5)(C)3 and §(6)(C)3.E.(I) – (III) and (V) – (VI) 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 June 1st, unless the applicable requirement specifies more frequent submission. These certifications shall be submitted to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. All deviations and exceedances 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, §(5)(C)1 and §(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(5)(C)5 Off-Permit Changes

- 1) Except as noted below, the permittee may make any change in its permitted installation's operations, activities or emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a permit revision. 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 a Title I modification; Please Note: Changes at the installation which affect the emission limitation(s) classifying the installation as an intermediate source (add additional equipment to the record keeping requirements, increase the emissions above major source level) do not qualify for off-permit changes.
 - b) The permittee must provide written notice of the change to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, KS 66101, no later than the next annual emissions report. 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; and
 - 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.

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

The application utilized in the preparation of this permit was signed by Rock A. Stevens, Plant Manager. 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 §(5)(E)4 and §(6)(E)6.A(III)(a)-(c) Reopening-Permit for Cause

This permit may be reopened for cause if:

- 1) The Missouri Department of Natural Resources (MDNR) or EPA determines that the permit contains a material mistake or that inaccurate statements were made which resulted in establishing the emissions limitation standards or other terms of the permit,
- 2) 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,
- 3) 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 §(5)(E)1.A and §(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 F

This record keeping sheet or an equivalent sheet may be used to meet the record keeping requirements for Permit Condition (EU0010, EU0020, EU0030, EU0040)-001, EU0050-001 and EU0060-001.

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

Readings ranged from _____ to _____ % opacity.
 Was the emission unit in compliance at the time of evaluation?

 YES NO Signature of Observer

ATTACHMENT G

This record keeping sheet or an equivalent sheet may be used to meet the record keeping requirements for Permit Condition (EU0010, EU0020, EU0030, EU0040)-003.

Equipment	Heat Input (MMBtu/hr)
Boiler #1, EU0010 (Existing)	8
Boiler #2, EU0020 (Existing)	8.4
Boiler #3, EU0030 (Existing)	8.4
Boiler #4, EU0040 (New)	16.7
Total Heat Input (Q)	41.5

$$\text{Emissions Limit}_{\text{EU0010-0030}} = 0.90(Q)^{-0.174} = 0.90(41.5)^{-0.174} = 0.47$$

$$\text{Emissions Limit}_{\text{EU0040}} = 1.31(Q)^{-0.338} = 1.31(41.5)^{-0.338} = 0.37$$

The following table demonstrates compliance with the emission limit:

Potential Emission Rate (lb/MMBtu) = MHDR x PM Emission Factor / Heat Capacity

Emission Unit	Heat Capacity	Maximum Hourly Design Rate *	PM Emission Factor	Emission Factor Reference	Potential Emission Rate (lb/MMBtu)	Emission Rate Limit (lb/MMBtu)
EU0010	8.0 MMBtu/hr	0.008 mmft ³ /hr	7.6 lb/mmft ³	AP42 Table 1.4-2	0.007	0.47
EU0010	8.0 MMBtu/hr	0.057 1,000-gal/hr	1.0 lb/1,000 gal	Fire 6.25 for SCC 1-02-005-02	0.007	0.47
EU0020	8.4 MMBtu/hr	0.008 mmft ³ /hr	7.6 lb/mmft ³	AP42 Table 1.4-2	0.007	0.47
EU0030	8.4 MMBtu/hr	0.008 mmft ³ /hr	7.6 lb/mmft ³	AP42 Table 1.4-2	0.007	0.47
EU0030	8.4 MMBtu/hr	0.06 1,000-gal/hr	1.0 lb/1,000 gal	Fire 6.25 for SCC 1-02-005-02	0.007	0.47
EU0040	16.7 MMBtu/hr	0.016 mmft ³ /hr	7.6 lb/mmft ³	AP42 Table 1.4-2	0.007	0.37
EU0040	16.7 MMBtu/hr	0.119 1,000-gal/hr	1.0 lb/1,000 gal	Fire 6.25 for SCC 1-02-005-02	0.007	0.37

* Heat capacity divided by heating value of fuel; 1050 mmBtu/mmft³ for natural gas, 140 mmBtu/1000 gal for fuel oil #2 (AP-42)

STATEMENT OF BASIS

Voluntary Limitations

In order to qualify for this Intermediate State Operating Permit, the permittee has accepted voluntary, federally enforceable emission limitations. Per 10 CSR 10-6.065(5)(C)1.A.(VI), if these limitations are exceeded, the installation immediately becomes subject to 10 CSR 10-6.065(6) and enforcement action for operating without a valid part 70 operating permit. It is the permittee's responsibility to monitor emission levels and apply for a part 70 operating permit far enough in advance to avoid this situation. This may mean applying more than eighteen months in advance of the exceedance, since it can take that long or longer to obtain a part 70 operating permit.

Permit Condition EU0060 – 005: In the operating permit application, the permittee proposed a voluntary limit regarding minimum operational run time of the thermal oxidizer which has been incorporated into this Intermediate State Operating Permit. Permit condition EU0060 – 005 is in addition to other operational conditions applicable to the thermal oxidizer (EU0060).

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) Intermediate Operating Permit Application, received March 24, 2008;
- 2) 2007 Emissions Inventory Questionnaire, received May 29, 2008; and
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition.

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

None.

Other Air Regulations Determined Not to Apply to the Operating Permit

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

10 CSR 10-6.100, Alternate Emission Limits

This rule is not applicable because the installation is in an ozone attainment area.

40 CFR Part 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978:

EU0010, EU0020, EU0030 are not subject to the requirements of Subpart Da because their respective construction commencement dates were prior to September 18, 1978. EU0040 is not subject to the requirements of Subpart Da because its capacity is less than 250 MMBtu/hr.

40 CFR Part 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units:

EU0010, EU0020, EU0030, EU0040 are not subject to the requirements of Subpart Db because their respective capacities are less than 100 MMBtu/hr.

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

EU0010, EU0020, EU0030 are not subject to the requirements of Subpart Dc because their respective capacities are less than 10 MMBtu/hr. EU0040 is not subject to the requirements of Subpart Dc because its construction commencement date is prior to June 9, 1989.

40 CFR Part 60, Subpart Kb, *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984:*

Tanks 51 and 52 (EP-T-51 and EP-T-52) are storage vessels with capacities greater than 75 m³ but less than 151 m³ and are used for storing volatile organic liquids. Tank 51 stores WSCP, which has an approximate vapor pressure of 1.65 KPa. Tank 52 stores Monomer Acid, which has an approximate vapor pressure of 0.069 KPa. According to 40 CFR 60.110b(b), they are exempt from the requirements of Subpart Kb because the maximum true vapor pressures of the volatile organic liquids currently stored are less than 15 KPa. This information was verified through correspondence with a representative of the permittee.

40 CFR Part 60, Subpart NNN, *Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations:*

The permittee is a batch manufacturer of organic chemicals, therefore the permittees batch manufacturing distillation processes are exempt from the requirements of this subpart in accordance with 40 CFR 60.660(c)(3) which states, "Any distillation unit that is designed and operated as a batch operation is not an affected facility."

40 CFR Part 60, Subpart RRR, *Standards of Performance for Volatile Organic Compound Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes:*

The permittee is a batch manufacturer of organic chemicals, therefore the permittees batch manufacturing reactor processes are exempt from the requirements of this subpart in accordance with 40 CFR 60.700(c)(1) which states, "Any reactor process that is designed and operated as a batch operation is not an affected facility."

Construction Permit Revisions

Permit Condition (EU0060) – 001, Construction Permit #1097-026, Issued October 28, 1997

Construction Permit #1097-026 was issued under the premise that the centrifuge used for dewatering Busan 1059 WC would be vented to the liquor storage tank, which would then be vented to the thermal oxidizer. Based on the operating permit application and EIQ process flow diagrams, it appears that the centrifuge is vented directly to the thermal oxidizer, rather than to the liquor storage tank, which is still consistent with the intent of the construction permit. Consequently, permit condition (EU0060) – 001 states that emissions from the centrifuge shall be controlled by the thermal oxidizer.

Permit Condition (EU0110) – 001, Construction Permit #1097-028A, Issued November 18, 1997:

Construction Permit 1097-028A requires that Tank #81, a 16,000 gallon storage tank for Formalin (37% Formaldehyde Solution), be vented to the thermal oxidizer. On June 3, 1998 Buckman notified the APCP that to avoid time consuming programming changes in the Digital Control System, the new

tank would be tagged Tank #36, the number of the old formaldehyde storage tank which was replaced with the new tank. Consequently, permit condition EU0110 - 001 specifies that Tank #36 (EU0110) will be vented to the thermal oxidizer in accordance with Construction Permit #1097-028A.

Permit 1097-028A was also issued for the installation of a 16,000 gallon tank for hydrochloric acid (Tank 82). According to the permittee, they do not use or store any hydrochloric acid on site and the tank designated as Tank 82 is used to store PV distillate. Based on correspondence with a representative of the permittee, PV distillate is an organic liquid at atmospheric conditions with a vapor pressure of approximately 8 KPa. Since PV distillate is not of similar chemical composition to hydrochloric acid, requiring it to be vented to the thermal oxidizer would not be a logical continuation of the intention of Permit 1097-028A. Therefore, based upon current use and review of issued permits, EP-T-82 is listed as an emission unit without limitations.

Permit 0895-029A: Special condition #3 states that emissions from tanks containing BL-2186 (Tank 64) and ethylenediamine (Tank 66) shall be controlled by venting the tanks to the thermal oxidizer. According to a representative of the permittee, BL-2186 never entered production for business reasons and ethylenediamine (EDA) is stored in sealed drums. Tank 64 currently contains Premix 1210 product and Tank 66 contains sulfuric acid (H₂SO₄). Therefore, since tanks 64 and 66 do not currently store the materials described in special condition #3 of Permit 0895-029A, EP-T-64 and EP-T-66 are listed as emission units without limitations.

New Source Performance Standards (NSPS) Applicability

40 CFR Part 60, Subpart VV, *Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry:*

Subpart VV applies to manufacturing facilities that produce as an intermediate or final product any chemical listed in §60.489. The rules and regulations found in this subpart regulate a variety of process equipment components in VOC service. Exemptions to the requirements of this rule exist on a case by case analysis of the applicable process components. It would be overly restrictive to the permittee if this operating permit specified all equipment, components and processes within their facility subject to Subpart VV. It would also unduly limit flexibility to alter and upgrade their process components. Permit condition PW003 was written as a plant wide condition for this reason, though Subpart VV does not necessarily apply to all equipment at the installation. PW003 is a generalized summary of the limits, monitoring, record keeping, and reporting requirements of Subpart VV. The logs specified in the recordkeeping section of PW003 should ultimately serve as the primary basis for determining compliance with Subpart VV at this installation. This rule requires semi-annual monitoring report submittals, which is only required for the subject units.

Maximum Available Control Technology (MACT) Applicability

At the time of permit issuance there are no promulgated MACT standards applicable to this installation.

National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

40 CFR Part 61, Subpart F, *National Emission Standard for Vinyl Chloride:*

The Subpart F NESHAP applies to facilities that produce vinyl chloride as a final product. The process equipment produces a very small amount (less than 2 parts per million in the liquid material) of vinyl chloride impurities, but does not produce vinyl chloride as a final product. Therefore, Subpart F is not applicable.

40 CFR Part 61, Subpart FF, *National Emission Standard for Benzene Waste Operations:*

Subpart FF NESHAP applies to owners and operators of chemical manufacturing plants. Based on the permittees SIC code (2899), they are part of Division D: Manufacturing, Major Group 28: Chemicals and Allied Products, 2899: Chemicals and Chemical Preparations, Not Elsewhere Classified, and thus subject to the rules and regulations of Subpart FF. The review of the permittees manufacturing operation indicates that benzene waste would not be expected at their facility. If the permittee exceeds the limits prescribed by permit condition PW002, they will be subject to more stringent requirements located in Subpart FF. It is the permittees responsibility to familiarize themselves with all pertinent contents in Subpart FF regarding the generation of benzene waste.

Other Regulatory Determinations

Permit Condition (EU0010, EU0030, EU0040) – 001, *10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants:*

EU0010, EU0030 and EU0040 are dual fuel boilers, capable of combusting natural gas and fuel oil, while EU0020 combusts natural gas only. The installation also operates natural gas burners associated with the RTO (EU0050) and the Ozone Destruct Unit. This regulation was not applied to units combusting natural gas, as it is highly unlikely that these units would ever exceed the opacity requirements listed in the regulation.

Permit Condition (EU0010, EU0030, EU0040) – 002, *10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds:*

10 CSR 10-6.260 applies to any installation that is an emission source of sulfur compounds. Boilers EU0010, EU0030, and EU0040 do not meet the exemption requirements of this rule and are therefore subject to it. Boiler EU0020, since it only combusts pipeline grade natural gas, is exempt from this rule per 10 CSR 10-6.260(1)(A)2.

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

CERTIFIED MAIL: 70073020000315696100
RETURN RECEIPT REQUESTED

Mr. Rock A. Stevens
Plant Manager
Buckman Laboratories, Inc.
P.O. Box 200
Cadet, MO 63630

Re: Buckman Laboratories, Incorporated. 221-0018
Permit Number: **OP2010-014**

Dear Mr. Stevens:

Enclosed with this letter is your intermediate operating permit. Please review this document carefully. Operation of your installation in accordance with the rules and regulations cited in this document is necessary for continued compliance. It is very important that you read and understand the requirements contained in your permit.

You may appeal this permit to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within thirty (30) days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If you send your appeal by registered or certified mail, we will deem it filed on the date you mailed it. If you send your appeal by a method other than registered or certified mail, we will deem it filed on the date the AHC receives it.

If you have any questions or need additional information regarding this permit, please do not hesitate to contact Don Murphy at the Department's Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102, or by telephone at (573) 751-4817. Thank you for your time and attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Michael J. Stansfield, P.E.
Operating Permit Unit Chief

MJS/djk

Enclosures

c: Ms. Tamara Freeman, US EPA Region VII
Southeast Regional Office
PAMS File: 2008-03-083