



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 herein.

Intermediate Operating Permit Number: OP2016-028
Expiration Date: SEP 21 2021
Installation ID: 145-0007
Project Number: 2013-06-070

Installation Name and Address

FAG Bearings Corporation
3900 Rangeline Road
Joplin, MO 64804
Newton County

Parent Company's Name and Address

Schaeffler Group USA, Inc.
308 Springhill Farm Road
Fort Mill, SC 29715

Installation Description:

FAG Bearings Corporation manufactures anti-friction bearings. The installation has accepted a voluntary limitation on volatile organic compound and carbon monoxide emissions to obtain this Intermediate Operating Permit.

BJ
Prepared by:
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Operating Permit Unit

Kyra L Moore
Director or Designee
Department of Natural Resources

SEP 21 2016

Effective Date

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I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

FAG Bearings Corporation manufactures anti-friction bearings. The furnace treats raw steel bearing housings by subjecting them to very high temperatures, essentially carburizing the steel to increase the surface hardness. The furnace uses natural gas as fuel, with a maximum hourly design rate of 2.05 MMBTU per hour. During the process, propane is added at a rate of one gallon per hour to control the amount of O₂ in the furnace atmosphere. Methanol (with a nitrogen carrier gas) is injected at a rate of 5.3 gallons per hour and dissociates to create the desired carbon balance in the furnace atmosphere. FAG Bearings is not a named source. It is a synthetic minor source of volatile organic carbon (VOC) and carbon monoxide (CO).

Reported Air Pollutant Emissions, tons per year					
Pollutants	2014	2013	2012	2011	2010
Particulate Matter ≤ Ten Microns (PM ₁₀)	0.68	0.68	0.01	0.01	0.04
Particulate Matter ≤ 2.5 Microns (PM _{2.5})	0.63	0.63	0.01	0.01	0.04
Sulfur Oxides (SO _x)	0.01	0.01	0.00	0.00	0.00
Nitrogen Oxides (NO _x)	0.88	0.88	0.18	0.18	0.54
Volatile Organic Compounds(VOC)	21.94	23.44	31.54	31.54	31.18
Carbon Monoxide (CO)	6.02	4.26	5.79	5.79	6.22
Hazardous Air Pollutants (HAPs)	0.29	0.31	0.41	0.41	0.41
Ammonia (NH ₃)	0.03	0.03	0.01	0.01	0.02

EMISSION UNITS WITH LIMITATIONS

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

2014 EIQ Emission Point #	Description
EP-03	Wheelabrator descaler – MHDR – 0.003 tons
EP-20	standby generator – 0.0166 1000 gal diesel
EP-27	Weinstroth standby generator – 0.0028 1000 gal diesel

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.

2013 EIQ Emission Point #	Description
EP-01	billet heating furnace – 0.0051 mmft ³ /hr natural gas
EP-02	annealing furnace – 0.0063 mmft ³ /hr natural gas
EP-05A,B	MPI heat treat furnace – 0.0059 mmft ³ /hr natural gas / 0.0600 1000 gal methanol
EP-07	8000 gal UST (methanol)
EP-08	#2 diesel fuel tank
EP-10	diesel equipment tank
EP-12	coolant grinding fluid separator vats
E-13	coolant grinders
EP-14	oil hone/oil wash
EP-15	oil honing fluid cleaning vat 3
EP-16	coolant - turning machines
EP-17	turning coolant filtration system
EP-22	plant heating – 0.1961 mmft ³ /hr natural gas
EP-23	Weinstroth heat treat oven – 0.0020 mmft ³ /hr natural gas / 0.0300 1000 gal methanol
EP-24	dip tanks (building A)
EP-25	10,000 gal AST methanol
EP-26	Weinstroth generator tank

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. The plant wide conditions apply to all emission units at this installation. All emission units are listed in Section I under Emission Units with Limitations and Emission Units without Limitations.

PERMIT CONDITION PW1

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

Emission Limitation:

- 1) The permittee shall emit less than 100 tons of carbon monoxide (CO) in any consecutive twelve month period.
- 2) The permittee shall emit less than 100 tons of volatile organic carbon (VOC) in any consecutive twelve month period.

Monitoring/Recordkeeping:

- 1) The permittee shall maintain an accurate record of the CO emissions. Attachment E, or an equivalent, shall be used to demonstrate compliance with the emission limit.
- 2) The permittee shall maintain an accurate record of the VOC emissions. Attachment F, or an equivalent, shall be used to demonstrate compliance with the emission limit.
- 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 Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the the month during which the permittee determines that facility exceeded the emission limitation above.
- 2) Reports of any deviations from monitoring, other than the recordkeeping and reporting requirements of this permit condition, shall be submitted in the annual compliance certification, as required by Section V of this permit.

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.

PERMIT CONDITION 1	
10 CSR 10-6.060 Construction Permits Required Project 2008-05-063 (No Permit Required), August 14, 2008;	
Emission Unit	Description
EP-23	Weinstroth heat treat oven – 0.0020 mmft ³ /hr natural gas / 0.0300 1000 gal methanol

Operational Limitation:

- 1) The permittee shall not operate this unit without a flare in place.
- 2) The permittee shall operate the flare according to the manufacturer’s specifications.

Monitoring/Recordkeeping/Reporting:

None – see Statement of Basis – Permit History

PERMIT CONDITION 2	
10 CSR 10-6.065(5)(C)2. Voluntary Limitation(s)	
Emission Unit	Description
EP-12	coolant grinding fluid separator vats
EP-13	coolant grinders
EP-14	oil hone/oil wash
EP-15	oil honing fluid cleaning vat 3
EP-16	coolant - turning machines
EP-17	turning coolant filtration system

Operational Limitation:

- 1) The permittee shall not operate these units without mist collector or smog hog in place.
- 2) The permittee shall operate the mist collectors according to the manufacturer’s instructions.

Monitoring/Recordkeeping

- 1) The permittee shall inspect filters for holes, imperfections, proper installation or other problems that could hinder the effectiveness of the filter.
- 2) The permittee shall maintain a log of filter maintenance and inspections, including when they occur (see Attachment D or equivalent).
- 3) The permittee shall maintain all records onsite for a minimum of five years and shall be made available to Department of Natural Resources’ personnel upon request.

Reporting:

The permittee shall report any deviations from the operational limitation, monitoring, or recordkeeping requirements of this permit condition in the semi- and annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 3	
10 CSR 10-6.065(5)(C)2. Voluntary Limitation(s)	
Emission Unit	Description
EP-03	Wheelabrator descaler with fabric filter

Operational Limitation:

- 1) The permittee shall not operate this unit without a fabric filter in place.
- 2) The permittee shall operate the fabric filter according to the manufacturer’s instructions.

Monitoring/Recordkeeping:

- 1) The permittee shall inspect filters for holes, imperfections, proper installation or other problems that could hinder the effectiveness of the filter.
- 2) The permittee shall maintain a log of filter maintenance and inspections, including when they occur (see Attachment D or equivalent).
- 3) The permittee shall maintain all records onsite for a minimum of five years and shall be made available to Department of Natural Resources’ personnel upon request.

Reporting:

The permittee shall report any deviations from the operational limitation, monitoring, or recordkeeping requirements of this permit condition in the semi- and annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 4				
10 CSR 10-6.070 New Source Performance Regulations				
40 CFR Part 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines				
Emergency Generators				
Emission Unit	Fuel	Model & Manufacture Date	Rating (kW)	Rating (hp)
EP-27	Diesel	Weinstroth standby generator – 2009	90	120

Emission Standards:

The permittee shall comply with the emission standards for new nonroad CI engines in Attachment G, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. [§60.4205(b)]

Operational Standards:

- 1) The permittee shall operate and maintain these units so that they achieve the emission standards above over the entire life of the engine. [§60.4206]
- 2) The permittee shall use diesel fuel that with a maximum sulfur content of 15 ppm . [§60.4207(b)]

- 3) Each unit must have a functional non-resettable hour meter. [§60.4209(b)]
- 4) The permittee shall operate and maintain these units according to the manufacturer's instructions, change those settings that are permitted by the manufacturer. [§60.4211(a)]

Compliance Requirements:

- 1) The permittee shall operate the emergency stationary ICE according to the following requirements. In order for the engine to be considered an emergency stationary ICE Subpart IIII, any operation other than emergency operation and maintenance & testing for 50 hours per year, as described in b) below is prohibited. If the permittee does not operate the engine according to the requirements, the engine will not be considered an emergency engine under Subpart IIII and shall meet all requirements for non-emergency engines. [§60.4211(f)]
 - a) There is no time limit on the use of emergency stationary ICE in emergency situations. [§60.4211(f)(1)]
 - b) The permittee may operate the emergency stationary ICE for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by c) below counts as part of the 100 hours per calendar year allowed by this paragraph. [§60.4211(f)(2)]
 - i. Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. [§60.4211(f)(2)(i)]
 - c) Emergency stationary ICE may be operated for up to 50 hours per calendar year in nonemergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in b) above. Except as provided in i) below, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [§60.4211(f)(3)]
 - i. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: [§60.4211(f)(3)(i)]
 - A. The engine is dispatched by the local balancing authority or local transmission and distribution system operator; [§60.4211(f)(3)(i)(A)]
 - B. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. [§60.4211(f)(3)(i)(B)]
 - C. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines. [§60.4211(f)(3)(i)(C)]
 - D. The power is provided only to the facility itself or to support the local transmission and distribution system. [§60.4211(f)(3)(i)(D)]
 - E. The permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local

transmission and distribution system operator may keep these records on behalf of the permittee. [§60.4211(f)(3)(i)(E)]

- 2) If the permittee does not operate and maintain the engine and control device according to the manufacturer's emission-related written instructions, or the permittee changes emission-related settings in a way that is not permitted by the manufacturer, the permittee shall demonstrate compliance as follows: [§60.4211(g)]
 - a) For a stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, the permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within one year of startup, or within one year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within one year after the permittee changes emission-related settings in a way that is not permitted by the manufacturer. [§60.4211(g)(2)]

Recordkeeping Requirements:

- 1) The permittee must keep records of the maintenance conducted on these units in order to demonstrate that they were operated and maintained according to the permittee's own maintenance plan. Attachment D or its equivalent may be used for this record.
- 2) The permittee must keep records of the hours of operation of the engine that are recorded through the non-resettable hour meter. The permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. Attachment H or equivalent may be used.
- 3) The permittee shall maintain all records onsite for a minimum of five years and make them available to Department of Natural Resources personnel upon request.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the the month during which the permittee determines that facility exceeded the emission limitation above.
- 2) Reports of any deviations from monitoring, other than the recordkeeping and reporting requirements of this permit condition, shall be submitted in the annual compliance certification, as required by Section V of this permit.

PERMIT CONDITION 5	
10 CSR 10-6.220, Restriction of Emissions of Visible Air Contaminants	
Emission Unit	Model & Manufacture Date
EP-01	billet heating furnace – 0.0051 mmft ³ /hr natural gas
EP-02	annealing furnace – 0.0063 mmft ³ /hr natural gas
EP-05A,B	MPI heat treat furnace – 0.0059 mmft ³ /hr natural gas / 0.0600 1000 gal methanol
EP-23	Weinstroth heat treat oven – 0.0020 mmft ³ /hr natural gas / 0.0300 1000 gal methanol

Emission Limitation:

- 1) The permittee shall not cause or permit emissions to be discharged into the atmosphere from any new source any visible emissions with an opacity greater than 20%.
- 2) Exception: The permittee 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 40%.

Monitoring:

- 1) The permittee shall conduct opacity readings on each emission unit using the procedures contained in USEPA Test Method 22. The permittee is only required to take readings when the emission unit is operating and when the weather conditions allow. If no visible emissions are observed using Method 22, then no further observations are required. For emission units with visible emissions, the permittee shall have a certified observer conduct a Method 9 opacity observation.
- 2) The permittee must maintain the following monitoring schedule:
 - a) The permittee shall conduct weekly observations for a minimum of eight (8) consecutive weeks after permit issuance.
 - b) Should the permittee observe no violations of this regulation during this period then-
 - i) The permittee may observe once every two (2) weeks for a period of eight (8) weeks.
 - ii) If a violation is noted, monitoring reverts to weekly.
 - iii) Should no violation of this regulation be observed during this period then-
 - (1) The permittee may observe once per month.
 - (2) If a violation is noted, monitoring reverts to weekly.
- 3) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency. Issuance of this permit does not trigger a monitoring schedule reset.

Recordkeeping:

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

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program's Compliance / Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) The permittee shall report any deviations from the emission limitation, monitoring, recordkeeping, and reporting requirements of this permit condition in the semi-annual and annual monitoring report required by Section V of this permit.

PERMIT CONDITION 6	
10 CSR 10-6.261 Control of Sulfur Dioxide	
Emission Unit	Description
EP-20	standby generator – 0.0166 1000 gal diesel
EP-27	Weinstroth standby generator – 0.0028 1000 gal diesel

Operational Limitation:

The permittee shall not operate these units with fuel that contains more than 35,249 parts per million sulfur.

Monitoring/Recordkeeping/Reporting:

- 1) The permittee shall keep records of the sulfur content of fuel used in these units. Purchase receipts are sufficient for these records.
- 2) The permittee shall maintain all records onsite for a minimum of five years and shall be made available to Department of Natural Resources' personnel upon request.

Reporting:

The permittee shall report any deviations from the operational limitation, monitoring, or recordkeeping requirements of this permit condition in the semi- and annual monitoring report and compliance certification required by Section V of this permit.

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. The following is only an excerpt from the regulation or code, and is provided for summary purposes only

10 CSR 10-6.045 Open Burning Requirements

- 1) General Provisions. The open burning of tires, petroleum-based products, asbestos containing materials, and trade waste is prohibited, except as allowed below. Nothing in this rule may be construed as to allow open burning which causes or constitutes a public health hazard, nuisance, a hazard to vehicular or air traffic, nor which violates any other rule or statute.
- 2) 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.

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

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

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

- 1) The permittee shall submit full emissions report either electronically via MoEIS, which requires Form 1.0 signed by an authorized company representative, or on Emission Inventory Questionnaire (EIQ) paper forms on the frequency specified in this rule and in accordance with the requirements outlined in this rule. Alternate methods of reporting the emissions, such as spreadsheet file, can be submitted for approval by the director.
- 2) The permittee may be required by the director to file additional reports.
- 3) Public Availability of Emission Data and Process Information. Any information obtained pursuant to the rule(s) of the Missouri Air Conservation Commission that would not be entitled to confidential treatment under 10 CSR 10-6.210 shall be made available to any member of the public upon request.
- 4) The permittee shall submit a full EIQ for the 2011, 2014, 2017, and 2020 reporting years. In the interim years the installation may submit a Reduced Reporting Form; however, if the installation's

emissions increase or decrease by more than five tons when compared to their last submitted full EIQ, the installation shall submit a full EIQ rather than a Reduced Reporting Form.

- 5) In addition to the EIQ submittal schedule outlined above, any permit issued under 10 CSR 10-6.060 section (5) or (6) triggers a requirement that a full EIQ be submitted in the first full calendar year after the permitted equipment initially operates.
- 6) The fees shall be payable to the Department of Natural Resources and shall be accompanied by the emissions report.
- 7) The permittee shall complete required reports on state supplied EIQ forms or electronically via MoEIS. Alternate methods of reporting the emissions can be submitted for approval by the director. The reports shall be submitted to the director by April 1 after the end of each reporting year. If the full emissions report is filed electronically via MoEIS, this due date is extended to May 1.
- 8) The reporting period shall end on December 31 of each calendar year. Each report shall contain the required information for each emission unit for the twelve (12)-month period immediately preceding the end of the reporting period.
- 9) The permittee shall collect, record and maintain the information necessary to complete the required forms during each year of operation of the installation.

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

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

10 CSR 10-6.150 Circumvention

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

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

Emission Limitation:

- 1) The permittee shall not cause or allow to occur any handling, transporting or storing of any material; construction, repair, cleaning or demolition of a building or its appurtenances; construction or use of a road, driveway or open area; or operation of a commercial or industrial installation without applying reasonable measures as may be required to prevent, or in a manner which allows or may allow, fugitive particulate matter emissions to go beyond the premises of origin in quantities that the particulate matter may be found on surfaces beyond the property line of origin. The nature or origin of the particulate matter shall be determined to a reasonable degree of certainty by a technique proven to be accurate and approved by the director.
- 2) The permittee shall not cause nor allow to occur any fugitive particulate matter emissions to remain visible in the ambient air beyond the property line of origin.
- 3) Should it be determined that noncompliance has occurred, the director may require reasonable control measures as may be necessary. These measures may include, but are not limited to, the following:
 - a) Revision of procedures involving construction, repair, cleaning and demolition of buildings and their appurtenances that produce particulate matter emissions;
 - b) Paving or frequent cleaning of roads, driveways and parking lots;

- c) Application of dust-free surfaces;
- d) Application of water; and
- e) Planting and maintenance of vegetative ground cover.

Monitoring:

The permittee shall conduct inspections of its facilities sufficient to determine compliance with this regulation. If the permittee discovers a violation, the permittee shall undertake corrective action to eliminate the violation.

The permittee shall maintain the following monitoring schedule:

- 1) The permittee shall conduct weekly observations for a minimum of eight (8) consecutive weeks after permit issuance.
- 2) Should no violation of this regulation be observed during this period then-
 - a) The permittee may observe once every two (2) weeks for a period of eight (8) weeks.
 - b) If a violation is noted, monitoring reverts to weekly.
 - c) Should no violation of this regulation be observed during this period then-
 - i) The permittee may observe once per month.
 - ii) If a violation is noted, monitoring reverts to weekly.
- 3) If the permittee reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner to the initial monitoring frequency.

Recordkeeping:

The permittee shall document all readings on Attachment A, or its equivalent, noting the following:

- 1) Whether air emissions (except water vapor) remain visible in the ambient air beyond the property line of origin.
- 2) Whether equipment malfunctions contributed to an exceedance.
- 3) Any violations and any corrective actions undertaken to correct the violation.

10 CSR 10-6.180 Measurement of Emissions of Air Contaminants

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

10 CSR 10-6.165 Restriction of Emission of Odors

This requirement is not federally enforceable.

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

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

10 CSR 10-6.280 Compliance Monitoring Usage
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- 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)(E)2 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, 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 April 1st, unless the applicable requirement specifies more frequent submission. These certifications shall be submitted to the Air Pollution Control Program, 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 contemporaneous written notice of the change to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219. 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 Keith Przybyiski, 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) MDNR 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 C

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 E

CO Compliance Worksheet

This sheet covers the period from _____ to _____.
 (month, year) (month, year)

Emission Point	Description	¹ Monthly Usage	Units	² Emission Factor (lbs CO/unit)	Overall Control Efficiency (%)	³ Total Monthly Emissions (tons/month)
EP-05A,B	MPI heat treat furnace - methanol		1000 gal Methanol	5775		
EP-20	standby generator exhaust		1000 gal	0.013		
EP-23	Weinstroth heat treat oven - methanol		1000 gal Methanol	5775	93%	
EP-27	Weinstroth standby generator exhaust		1000 gal	0.013		
	natural gas usage ⁴ (SCC 20200102)	0.22 (max)	mmft ³	84		6.75
⁵Total Monthly Installation-Wide CO Emissions (tons)						
⁶Total 12-Month Rolling Installation-Wide CO Emissions (tons)						

¹ Enter total amount of material (indicated in the next column) used in month.
² Emission factor sources are WebFIRE for natural gas combustion and construction permit project 2008-05-0063 for EP-05 & -23 using Methanol.
³ Total monthly emissions = Monthly Usage * Emission Factor * (1-control eff) * 0.0005.
⁴ Potential natural gas emissions are 0.22 mmft³/hr * 84 lbs CO/mmft³ *730 hours/month * 0.0005 tons/lb = 6.75 tons CO/month
⁵Total installation emissions are the sum of the total monthly emissions for each emission point.
⁶12-Month Rolling CO Emissions = Sum of twelve most recent monthly CO Compliance Worksheets + the sum of all start-up, shutdown, and malfunction CO emission during the same 12-month period as reported to the Compliance / Enforcement Section.
12-Month Rolling Total CO Emissions less than 100 tons/yr indicates compliance.

Attachment F

VOC Compliance Worksheet

This sheet covers the period from _____ to _____.
 (month, year) (month, year)

Emission Point	Description	¹ Monthly Usage	Units	² Emission Factor (lbsVOC / unit)	Overall Control Efficiency (%)	³ Total Monthly Emissions (tons/month)
EP-12	coolant grinding fluid separator vats		1000 gal	857.78	99	
EP-13	coolant grinders		1000 gal	857.78	99	
EP-14	oil hone/oil wash		1000 gal	6,845.62	49	
EP-15	oil honing fluid cleaning vat 3		1000 gal	6,845.62	49	
EP-16	coolant - turning machines		1000 gal	1,265.36	49	
EP-17	turning coolant filtration system		1000 gal	1,265.36	49	
EP-24	dip tanks (building A)		1000 gal	5,708.84	0	
	diesel usage ⁴	0.0194 (max)	1000 gal	0.493		0.0003
	natural gas usage ⁴	0.2154 (max)	mmft ³	5.5		0.43
Working losses from storage tanks						
EP-07	8000 gal UST (methanol)		1000 gal	0.001	0	
EP-08	#2 diesel fuel tank (emergency gen)		1000 gal	0.0189	0	
EP-10	diesel equipment tank		1000 gal	0.0189	0	
EP-25	10,000 gal AST methanol		1000 gal	1.0216	0	
EP-26	diesel fuel tank		1000 gal	0.0189	0	
all tanks	Breathing losses ⁴	3	1000 gal	10.2406	0	0.02
⁵Total Monthly Installation-Wide VOC Emissions (tons)						
⁶Total 12-Month Rolling Installation-Wide VOC Emissions (tons)						

¹ Enter total amount of material (indicated in the next column) used in month.

² Emission factor sources construction permit project 2008-05-0063 for EP-12 through 24, WebFIRE for diesel & natural gas usage, and MOEIS all others.

³ Total monthly emissions = Monthly Usage * Emission Factor * (1-control eff) * 0.0005.

⁴ Potential natural gas emissions are 0.2154 mmft³/hr * 5.5 lbs VOC/mmft³ * 730 hours/month * 0.0005 tons/lb = 0.43 tons VOC/month

Potential diesel emissions are 0.0194 1000 gal/hr * 0.493 lbs VOC/1000 gal * 730 hours/month * 0.0005 tons/lb = 0.003 tons VOC/month

Potential breathing losses for all tanks of 3 turnovers/month based on MHDR of main oven EP-23

⁵Total installation emissions are the sum of the total monthly emissions for each emission point.

612-Month Rolling VOC Emissions = Sum of twelve most recent Combined VOC Compliance Worksheets+ the sum of all start-up, shutdown, and malfunction VOC emission during the same 12-month period as reported to the Compliance / Enforcement Section.

12-Month Rolling Total VOC Emissions less than 100 tons/yr indicates compliance.

ATTACHMENT G

Emission Standards for CI ICE [40 CFR Part 89]

Table 1.—Emission Standards (g/kW-hr)

Rated Power (kW)	Tier	Model Year ¹	NOx	HC	NMHC + NOx	CO	PM
kW<8	Tier 1	2000	—	—	10.5	8.0	1.0
	Tier 2	2005	—	—	7.5	8.0	0.80
8≤kW<19	Tier 1	2000	—	—	9.5	6.6	0.80
	Tier 2	2005	—	—	7.5	6.6	0.80
19≤kW<37	Tier 1	1999	—	—	9.5	5.5	0.80
	Tier 2	2004	—	—	7.5	5.5	0.60
37≤kW<75	Tier 1	1998	9.2	—	—	—	—
	Tier 2	2004	—	—	7.5	5.0	0.40
	Tier 3	2008	—	—	4.7	5.0	
75≤kW<130	Tier 1	1997	9.2	—	—	—	—
	Tier 2	2003	—	—	6.6	5.0	0.30
	Tier 3	2007	—	—	4.0	5.0	
130≤kW<225	Tier 1	1996	9.2	1.3	—	11.4	0.54
	Tier 2	2003	—	—	6.6	3.5	0.20
	Tier 3	2006	—	—	4.0	3.5	
225≤kW<450	Tier 1	1996	9.2	1.3	—	11.4	0.54
	Tier 2	2001	—	—	6.4	3.5	0.20
	Tier 3	2006	—	—	4.0	3.5	
450≤kW≤560	Tier 1	1996	9.2	1.3	—	11.4	0.54
	Tier 2	2002	—	—	6.4	3.5	0.20
	Tier 3	2006	—	—	4.0	3.5	
kW>560	Tier 1	2000	9.2	1.3	—	11.4	0.54
	Tier 2	2006	—	—	6.4	3.5	0.20

¹ The model years listed indicate the model years for which the specified tier of standards take effect.

Attachment H

Generator Hours Compliance Worksheet – EP-27 Weinstroth standby generator

This worksheet covers the
 month of _____

¹ Date	Emergency		⁴ Monthly Usage
	² Meter Reading Begin	³ Meter Reading End	
Date	Operation & Maintenance		Monthly Usage
	Meter Reading Begin	Meter Reading End	
Date	Non-Emergency		Monthly Usage
	Meter Reading Begin	Meter Reading End	
⁵Total Monthly Operating & Maintenance			
⁶Total Monthly Non-Emergency Usage			

¹ Enter date generator was used.

² Enter non-resettable meter reading when generator was started.

³ Enter non-resettable meter reading when generator was stopped

⁴ Meter Reading End – Meter Reading Begin = Monthly Usage.

⁵ Enter sum of O&M usage for month.

⁶ Enter sum of Non-emergency usage for month.

Calendar year sum Non-Emergency less than 50 hour/yr indicates compliance.

Calendar year sum O&M + Non-Emergency less than 100 hour/yr indicates compliance.

APPENDIX A

Abbreviations and Acronyms

%	percent	MHDR	maximum hourly design rate
°F	degrees Fahrenheit	MMBtu	Million British thermal units
acfm	actual cubic feet per minute	MMCF	million cubic feet
BACT	Best Available Control Technology	MSDS	Material Safety Data Sheet
BMPs	Best Management Practices	NAAQS	National Ambient Air Quality Standards
Btu	British thermal unit	NESHAPs	National Emissions Standards for Hazardous Air Pollutants
CAM	Compliance Assurance Monitoring	NO_x	nitrogen oxides
CAS	Chemical Abstracts Service	NSPS	New Source Performance Standards
CEMS	Continuous Emission Monitor System	NSR	New Source Review
CFR	Code of Federal Regulations	PM	particulate matter
CO	carbon monoxide	PM_{2.5}	particulate matter less than 2.5 microns in aerodynamic diameter
CO₂	carbon dioxide	PM₁₀	particulate matter less than 10 microns in aerodynamic diameter
CO₂e	carbon dioxide equivalent	ppm	parts per million
COMS	Continuous Opacity Monitoring System	PSD	Prevention of Significant Deterioration
CSR	Code of State Regulations	PTE	potential to emit
dscf	dry standard cubic feet	RACT	Reasonable Available Control Technology
EIQ	Emission Inventory Questionnaire	RAL	Risk Assessment Level
EP	Emission Point	SCC	Source Classification Code
EPA	Environmental Protection Agency	scfm	standard cubic feet per minute
EU	Emission Unit	SDS	Safety Data Sheet
fps	feet per second	SIC	Standard Industrial Classification
ft	feet	SIP	State Implementation Plan
GACT	Generally Available Control Technology	SMAL	Screening Model Action Levels
GHG	Greenhouse Gas	SO_x	sulfur oxides
gpm	gallons per minute	SO₂	sulfur dioxide
gr	grains	tph	tons per hour
GWP	Global Warming Potential	tpy	tons per year
HAP	Hazardous Air Pollutant	VMT	vehicle miles traveled
hr	hour	VOC	Volatile Organic Compound
hp	horsepower		
lb	pound		
lbs/hr	pounds per hour		
MACT	Maximum Achievable Control Technology		
µg/m³	micrograms per cubic meter		
m/s	meters per second		
Mgal	1,000 gallons		
MW	megawatt		

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 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 June 26, 2013;
- 2) Operating Permit OP2008-062, issued December 22, 2008;
- 3) Project 2008-05-063 (No Permit Required), August 14, 2008;
- 4) 2013 Emissions Inventory Questionnaire, received April 22, 2014;
- 5) WebFIRE; and
- 6) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition.

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

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

40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines – this rule applies to engines modified or constructed on or after July 1, 2007. FAG Bearings has one natural diesel-fired generator subject to this rule. It is an emergency generator. Compliance with the emission limit is achieved through purchase of a certified engine [§ 60.4211(c)].

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.

Permit History

Project 2008-05-063 (No Permit Required) – this project authorizes construction of a new heat treat furnace. A flare is used for control, and is operated automatically at all times the furnace is in operation.

Controlled pollutants are CO and VOC. Emission factors were calculated for the unique processes of FAG Bearings.

New Source Performance Standards (NSPS) Applicability

40 CFR Part 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. This rule applies to diesel generator EP-27, but not to EP-20. EP-20 was constructed before the applicability date.

Maximum Achievable Control Technology (MACT) Applicability

40 CFR Part 63 Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. The rule applies to sources of HAPs from RICE at major and area sources. FAG Bearings is an source of HAPs. EP-20 and -27 are emergency generators and exempt from Subpart ZZZZ under 40 CFR Part 63.6585(f).

National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

In the permit application and according to APCP records, there was no indication that any Missouri Air Conservation Law, Asbestos Abatement, 643.225 through 643.250; 10 CSR 10-6.080, Emission Standards for Hazardous Air Pollutants, Subpart M, National Standards for Asbestos; and 10 CSR 10-6.250, Asbestos Abatement Projects - Certification, Accreditation, and Business Exemption Requirements apply to this installation. The installation is subject to these regulations if they undertake any projects that deal with or involve any asbestos containing materials. None of the installation's operating projects underway at the time of this review deal with or involve asbestos containing material. Therefore, the above regulations were not cited in the operating permit. If the installation should undertake any construction or demolition projects in the future that deal with or involve any asbestos containing materials, the installation must follow all of the applicable requirements of the above rules related to that specific project.

Updated Potential to Emit for the Installation

Pollutant	Potential to Emit (tons/yr) ¹
CO	2,282.44
HAP	3.44
Methanol	0.76
NO _x	7.67
PM ₁₀	26.89
PM ₂₅	24.76
SO _x	0.08
VOC	262.85

¹Each emission unit was evaluated at 8,760 hours of uncontrolled annual operation unless otherwise noted.

Other Regulatory Determinations

EP-5A – the carbon monoxide emission factor (5775 lbs/1000 gal) of EP-5A, MPI heat treat furnace–methanol, is unusually high. The 2001 application contained the following explanation for this factor:

Because of the unique process of carburization used by FAG Bearings, the potential to emit CO from the heat treating furnaces is currently in excess of 100 tons/year.

10 CSR 10-6.400 Restriction of Emissions of Particulate Matter from Industrial Processes – EP-03
Wheel-A-Brator descaler is conditionally exempt from 6.400 due to Permit Condition 3 which requires use of a control device (fabric filter) designed to control at least 90% of particulate matter emissions [10CSR 10-6.400(1)(B)(14)].

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 APCP a schedule for achieving compliance for that regulation(s).

Response to Public Comments

A draft of the Intermediate Operating Permit for F.A.G. Bearings was placed on public notice on May 20, 2016, by the Missouri Department of Natural Resources (MDNR). Comments were received from Mr. Robert Cheever of Region VII of the Environmental Protection Agency. The three comments are addressed in the order in which they appear within the letter.

Comment #: 1

Section II, beginning on page 5 of the draft Intermediate State Permit to Operate for FAG identifies applicable plant wide emission limitations and includes two (2) permit conditions.

- First, Permit Condition PW1 is a voluntary limitation the permittee has accepted to control carbon monoxide (CO) at a level below that needed to obtain a Part 70 operating permit. Permit Condition 2 is a voluntary limitation the permittee has accepted to control volatile organic compounds (VOC) at a level to avoid the need for a Part 70 operating permit. However, neither PW1 nor PW2 identify the emission units(s) subject to the voluntary limits. Therefore, EPA recommends MDNR identify “what” is subject to CO and VOC limits.
- Second, Permit Condition PW1 and Permit Condition PW2 reference the use of Attachment E and Attachment F, respectively, for use by the permittee to accurately record compliance demonstrations information. Both attachments reference the use of “mass balance worksheet” (emphasis added) to determine emission factors. However, there are no examples of the mass balance worksheets included with the operating permit available for public review. EPA recommends MDNR include examples of the mass balance methodology, used by the permittee, for emission factor determinations on Attachments E and F.
- Third, Permit Condition PW1 and Permit Condition PW2 establishes an emission limitation of less than 100 tons of carbon monoxide (CO) and less than 100 tons of volatile organic compounds (VOCs), respectively, in any consecutive twelve month period. Additionally, PW1 approves the use of Attachment E and PW2 approves the use of Attachment F to accurately demonstrate compliance with the twelve month period CO and VOC limits. However, Attachment E and Attachment F appears to account for only a portion of the CO and VOC emitting processes. Therefore, PW1 fails to ensure that the CO and PW2 fails to ensure the VOC emissions, respectively, will be below the established limits. While the draft operating permit intends to restrict CO and VOC below the individual limits, these limits are not enforceable as a practical matter. To effectively limit FAG’s CO and VOC emissions a specified, the CO and VOC emission limits of PW1 and PW2 must apply at all times to all actual emission units, and all actual CO and VOC emission units must be considered in determining compliance with the respective limits. The draft operating permit is unclear whether all actual CO and VOC emissions must be considered in determining compliance with these limits. Attachments E and F would appear to capture the emissions associated with some of the processes, however,

there does not appear to be any tracking associated with the CO and VOC emissions from other sources such as insignificant sources and natural gas combustion.

In its response to a petition filed against the Hu Honua Bioenergy Facility, the EPA reiterates that for purposes of determining the potential-to-emit (PTE) of a stationary source, the PTE shall encompass the maximum capacity of a stationary source to emit a pollutant under its physical and operation design. Thus, emissions for all emission units that are part of the source's physical and operation design (installation) must be included in calculating PTE for purposes of determining CO and VOC limitation compliance, including emission units that have been designated as "without limitations" and any designated "insignificant activities." Similarly, EPA has previously explained that when a source accepts a source-wide limit for a pollutant, all actual emissions of that pollutant from the source must be considered in determining compliance with the limit. EPA recommends MDNR revise PW1 and PW2 in the Intermediate State Permit to Operate so as to ensure the source-wide CO and VOC emission limits are enforceable. MDNR should clarify in the operating permit that the limits apply at all times to all actual source-wide CO and VOC emissions and that all actual CO and VOC emission units must be considered in determining compliance with those limits.

Response to Comment:

All actual sources of CO and VOC are listed in Attachments E and F, respectively. In each attachment, all sources of natural gas are summed together in one row at the MHDR level. The mass balance calculations for the indicated emission factors in Attachments E and F came from project 2008-05-063. Additional text was added to the Statement of Basis and "mass balance" in Attachments E and F was replaced with "construction permit project 2008-05-0063".

Comment #: 2

Section III, beginning on page 7, identifies, applicable emission unit specific emission limitations and the draft Intermediate State Permit to Operate for FAG, on public notice, includes six (6) emission unit specific permit conditions.

- First, Permit condition 1 requires the permittee to operate a flare at all times the Weinstroth heat treat oven (emission unit EP-23) is in operation. However, Permit Condition 1 includes no mention of the pollutant(s) being controlled by the flare. Also, if the flare use is critical during oven operation, the EPA recommends MDNR use its authority provided in 10 CSR 10-6.065(6)(C)1.C.(1)b and specify appropriate monitoring and record keeping to verify the permittee compliance.
- Second, Permit Condition 2 requires the permittee to ensure a mist collector plate is in place at all times that emission units EP-12, EP-13, EP-14, EP-15, EP-16 and EP-17 are in operation. However, Permit Condition 2 includes no mention of the pollutant(s) being controlled by the mist collector plate. Also, if the mist collector plate is critical during the operation of these six (6) emission units, then EPA recommends MDNR use its authority provided in 10 CSR 10-6.065(6)(C)1.C.(1)b and specify appropriate monitoring and record keeping to verify the permittee compliance.

- Third, Permit Condition 3 requires the permittee to inspect the Wheelabrator descaler fabric filter for holes, imperfections, proper installation or other problems. However, Permit condition 3 does not specify when and how often the permittee is to conduct these inspections. As written, this monitoring/record keeping requirement is not enforceable from a practical matter. EPA recommends MDNR define when and how often the permittee is to conduct the fabric filter inspections.
- Fourth, Permit condition 4 incorporates the applicable requirements from 40 CFR Part 60, Subpart IIII: “*New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines*. It appears that MDNR is attempting to streamline Permit Condition 4 by “incorporating by reference” (IBR) many of the applicable requirements from 40 CFR part 60, Subpart IIII. EPA strongly supports and encourages the permit authority use of IBR and has issued guidance that describes EPA’s recommended approach. This guidance says that IBR in operating permit may be appropriate and useful under several circumstances including referencing of test method procedures; inspection and maintenance plans; and compliance determination calculation methodology. EPA’s guidance also recommends that all emission limits, operation requirements, compliance determinations, and monitoring , recordkeeping, and reporting, applicable to the specific emission unit(s), must be clearly incorporated into the permit. There is value to be gained by the permittee and the permitting authority through review of specific requirements and extraction of those that are applicable and translating them in a logical fashion as operating permit conditions. Therefore, EPA strongly encourages MDNR to include the applicable 40 CFR part 60, Subpart IIII emission standards, operational standards, compliance, monitoring, record keeping and reporting tasks as requirements in Permit Condition 4.

Also, it is MDNR’s customary practice to include examples of the compliance recordkeeping as attachments in operating permits. However, Permit Condition 4 requires the permittee to maintain records of engine operating hours and the reason for the engine operation; yet, there is/are no example(s) of the record keeping attached for review. EPA recommends MDNR include a referenced attachment used by FAG Bearings to track emergency engine hours of operation and reasons(s) for the tracked operation.

Additionally, emission unit EP-27 is identified in the table on page 3 as a Weinstroth standby generator (as described in FAG Bearings operating permit renewal application) and as a Marathon Electric in Permit condition 4 introduction on page 8. EPA recommends MDNR maintain a consistent emission unit description throughout the operating permit.

- Finally, Permit Condition 5 identifies the compliance responsibility for the emission limitation as “owner or other person” and “a person.” MDNR’s customary practice is to identify compliance responsibility as belonging to the “permittee.” EPA recommends MDNR maintain their customary practice and modify Permit Condition 5 to be consistent with the other permit conditions.

Response to Comment:

The flare is an integral part of the oven operates automatically while the oven is active. Monitoring and recordkeeping are not practical or necessary to verify compliance. Any change that affected the flare would require a process change that would trigger a construction permit review.

Permit Condition 2 was modified to include monitoring, recordkeeping, and reporting requirements for the filters in the mist collector and smog hogs, based on the already existing maintenance procedures used by FAG Bearings.

Details of the fabric filter inspection, such as frequency, are contained in the manufacturer's operating instructions.

The text of all Permit Conditions, including 4, were reviewed for clarity. Incorporations by Reference were replaced by the actual text where needed.

Attachment H was added to track generator EP-27 hour usage.

The text in Permit Condition 5 was corrected to read "permittee".

Mr. Keith Przybyiski
FAG Bearings Corporation
3900 Rangeline Road
Joplin, MO 64804

Re: FAG Bearings Corporation, 145-0007
Permit Number: OP2016-028

Dear Mr. Przybyiski:

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.

This permit may include requirements with which you may not be familiar. If you would like the department to meet with you to discuss how to understand and satisfy the requirements contained in this permit, an appointment referred to as a Compliance Assistance Visit (CAV) can be set up with you. To request a CAV, please contact your local regional office or fill out an online request. The regional office contact information can be found at <http://dnr.mo.gov/regions/>. The online CAV request can be found at <http://dnr.mo.gov/cav/compliance.htm>.

You may appeal this permit to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.078.16 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.

Mr. Keith Przybyiski
Page Two

If you have any questions or need additional information regarding this permit, please contact the Air Pollution Control Program (APCP) at (573) 751-4817, or you may write to the Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

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

MJS/msj

Enclosures

c: PAMS File: 2013-06-070