



Missouri Department of dnr.mo.gov

# NATURAL RESOURCES

Michael L. Parson, Governor

Carol S. Comer, Director

MAR 10 2020

David R. Zoghby  
Senior Director Marketing & Commercial Contracts  
EBV Explosives Environmental Company dba GD-OTS Munition Services  
P.O. Box 1386  
Joplin, MO 64802

Re: Renewal of Part 70 Operating Permit  
Installation ID: 097-0138, Permit Number: OP2020-010

Dear Dave Zoghby:

Enclosed with this letter is your Part 70 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 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

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:nwa

Enclosures

c: PAMS File: 2018-03-018





## PART 70 PERMIT TO OPERATE

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

**Operating Permit Number:** OP2020-010  
**Expiration Date:** MAR 10 2025  
**Installation ID:** 097-0138  
**Project Number:** 2018-03-018

**Installation Name and Address**

EBV Explosives Environmental Company  
dba GD-OTS Munition Services  
4174 County Road 180  
Carthage, MO 64836  
Jasper County

**Parent Company's Name and Address**

General Dynamics Ordnance & Tactical  
Systems  
11399 16th Court N., Suite 200  
St. Petersburg FL, 33716

**Installation Description:**

EBV Explosives Environmental Company dba General Dynamics Ordnance and Tactical Systems Munition Services (GD-OTS MS) is a reactive waste management facility located in Jasper County. GD-OTS MS operates two incinerators and ten thermal treatment units for the purpose of treating reactive wastes. Supporting the operation of these units are Storage Magazines, a Storage/Feed Handling Building, a Feed/Control Building, diesel powered emergency generators and residual/ash handling systems. The installation has potential to emit greater than the major source thresholds for Volatile Organic Compounds (VOC), Nitrogen Oxides (NO<sub>x</sub>), Carbon Monoxide (CO), as well as individual and total Hazardous Air Pollutants (HAPs).

MAR 10 2020

Effective Date

Director or Designee  
Department of Natural Resources



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Effective Date

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Director or Designee  
Department of Natural Resources

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## I. Installation Equipment Listing

### Emission Units With Limitations

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

| EP #    | Description   | Control Devices  |
|---------|---|--|
| EP01    | Storage Feed Handling Building Vent #1  | 1. Activated Carbon Filter (CD01), and<br>2. HEPA Filter (CD01A)   |
| EP02    | Storage Feed Handling Building Vent #2  | 1. Activated Carbon Filter (CD02), and<br>2. HEPA Filter (CD02A)   |
| EP03    | Incinerator Stack:<br>1. Rotary Kiln Incinerator, natural gas fired, 4 MMBtu/hr<br>2. Car Bottom Furnace, natural gas fired, 3.6 MMBtu/hr | 1. Secondary Combustor, natural gas fired, 12 MMBtu/hr,<br>2. Spray Dryer (ME-104), and<br>3. Baghouse (ME-105A, B, and C) |
| EP04    | Building #6 Emergency Generator, 676 hp, diesel fired (1994), Caterpillar/3412T   | None   |
| EP05    | Propellant Thermal Treatment System (PTTS) with two propellant Thermal Treatment Chambers (EU1 and EU2) - (Building 3)                    | 1. Dry Scrubber (CD-01),<br>2. Baghouse (CD-02), and<br>3. Wet Scrubber (CD-03)  |
| EP06    | Static Kilns 1,2,3, and 4 (Building 1)  | 1. Cartridge Filter (CD-07) and<br>2. HEPA Filter (CD-01A)   |
| EP07    | Thermal Treatment Units 1 & 2 (Building 1)  | 1. Cartridge Filter (CD-07),<br>2. HEPA Filter (CD-01A)  |
| EP08    | Thermal Treatment Units 3 & 4 (Building 1)  | 1. Cartridge Filter (CD-07),<br>2. HEPA Filter (CD-01A)  |
| EP10    | Emergency Fire Water Pump, 173 hp, diesel fired (2010), Model JU6H-UEABL8   | None   |
| EP11    | Building #12 Nitrocellulose Propellant Thermal Treatment Facility (NCP TTU)   | 1. Baghouse (CD-09) and<br>2. Wet Scrubber (CD-08)   |
| EP12    | Building #3 Heat Exchanger, natural gas fired, 3.5 MMBtu/hr   | Low NOx Burner   |
| HVAC-01 | HVAC System for Building #5 Storage Feed Handling System, natural gas fired, 1.2 MMBtu/hr   | None   |
| HVAC-02 | HVAC System for Building #6 Kiln Feed Room and Control Room, natural gas fired, 1.2 MMBtu/hr  | None   |
| HVAC-03 | HVAC System for Building #9 Field Office, natural gas fired, 0.4 MMBtu/hr   | None   |

| EP #    | Description  | Control Devices |
|---------|--|-----------------|
| HVAC-04 | HVAC System for Building #4 CBU Demil, natural gas fired, 0.3 MMBtu/hr             | None            |
| HVAC-05 | HVAC System for Building #1 ICM/MLRS Demil, natural gas fired, 0.5 MMBtu/hr        | None            |
| HVAC-06 | HVAC System for Building #3 MLRS Motor Demil, natural gas fired, 0.4 MMBtu/hr      | None            |
| HVAC-07 | HVAC System for Building #2 MLRS Demil, natural gas fired, 0.4 MMBtu/hr            | None            |
| HVAC-08 | HVAC System for Building #10 Maintenance Building, natural gas fired, 0.2 MMBtu/hr | None            |

**Emission Units Without Specific Limitations**

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

| EP # | Description   |
|------|---|
| None | 50 gallon capacity storage tank, contains diesel fuel |

## **II. Plant Wide Emission Limitations**

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

None



### III. Emission Unit Specific Emission Limitations

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

| <b>Permit Condition NESHAP C</b>                                    |   |  |
|---|---|--|
| 10 CSR 10-6.080, Emission Standards for Hazardous Air Pollutants    |   |  |
| 40 CFR Part 61, Subpart A, General Provisions                       |   |  |
| 40 CFR Part 61, Subpart C, National Emission Standard for Beryllium |   |  |
| EP #  | Description   | Control Devices  |
| EP03  | Incinerator Stack:<br>1. Rotary Kiln Incinerator, natural gas fired, 4 MMBtu/hr<br>2. Car Bottom Furnace, natural gas fired, 3.6 MMBtu/hr | 1. Secondary Combustor, natural gas fired, 12 MMBtu/hr,<br>2. Spray Dryer (ME-104), and<br>3. Baghouse (ME-105A, B, and C) |

**Emission Limitation:**

The permittee shall not emit in excess of 10 grams (0.022 lb) of beryllium over a 24-hour period. [§60.32(a)]

**Operational Limitation:**

The permittee shall not perform any changes in the operation which would potentially increase emissions above that determined by the most recent source test. The permittee may establish a new emission level and operational parameters by subsequent testing. [§61.33(c)]

**Performance Testing Requirements**

1. The permittee shall perform testing in conjunction with the next scheduled comprehensive performance test (CPT) that is required under 40 CFR 63 MACT EEE.
2. The permittee shall conduct testing according to 40 CFR 61, Appendix B, Method 103 or 104 or other EPA approved method. [§61.33(a)]
3. The permittee shall take samples over such a period or periods as are necessary to accurately determine the maximum emissions which will occur in any 24-hour period. Where emissions depend upon the relative frequency of operation of different types of processes, operating hours, operating capacities, or other factors, the calculation of maximum 24-hour-period emissions will be based on that combination of factors which is likely to occur during the subject period and which result in the maximum emissions. No changes in the operation shall be made, which would potentially increase emissions above that determined by the most recent source test, until a new emission level has been estimated by calculation and the results reported to the Director. [§61.33(c)]
4. All samples shall be analyzed and beryllium emissions shall be determined within 30 days after the source test. All determinations shall be reported to the Administrator by a registered letter dispatched before the close of the next business day following such determination. [§61.33(d)]
5. The permittee shall submit a completed Proposed Test Plan Form to the Director at least 30 days prior to the proposed test date so that the Director may arrange a pretest meeting, if necessary, and assure that the test date is acceptable for an observer to be present. The Proposed Test Plan may

serve the purpose of notification and must be approved by the Director prior to conducting the required emission testing. [modified §61.33(b)]

6. One electronic copy of a written report of the performance test results shall be submitted to [StackTesting@dnr.mo.gov](mailto:StackTesting@dnr.mo.gov) within 60 days of completion of any required testing. The report must include legible copies of the raw data sheets, analytical instrument laboratory data, and complete sample calculations from the required U.S. EPA Method for at least one sample run.
7. The test report is to fully account for all operational and emission parameters addressed both in the permit conditions as well as in any other applicable state or federal rules or regulations. The test report shall present the results in the same units of measure as the emission limitation to demonstrate compliance.

**Monitoring/Recordkeeping:**

The permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources’ personnel upon request. [modified §61.33(e)]

**Reporting:**

1. The permittee shall report any exceedance of the limitations no later than ten days after an exceedance of the emission limitation.
2. The permittee shall report any deviations from the monitoring, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring and annual compliance certification reports required by Section V of this permit.
3. All reports and certifications shall be submitted to the Air Pollution Control Program’s Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 or [AirComplianceReporting@dnr.mo.gov](mailto:AirComplianceReporting@dnr.mo.gov).

| <b>Permit Condition MACT EEE</b>  |   |  |
|---|---|--|
| 10 CSR 10-6.075, Maximum Achievable Control Technology Regulations  |   |  |
| 40 CFR Part 63, Subpart A, General Provisions   |   |  |
| 40 CFR Part 63, Subpart EEE, National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors |   |  |
| EP #  | Description   | Control Devices  |
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**Emission Limitations:**

1. The permittee shall comply with the emission standards and operating requirements at all times except:
  - a. During periods of startup, shutdown, and malfunction; and [§63.1206(b)(1)(i)]
  - b. When hazardous waste is not in the combustion chamber (i.e., the hazardous waste feed to the combustor has been cut off for a period of time not less than the hazardous waste residence time) and the permittee has documented in the operating record that the permittee is complying with all otherwise applicable requirements and standards promulgated under authority of Sections 112 or

129 of the Clean Air Act in lieu of the emission standards under §63.1219; the monitoring and compliance standards of this section and §§ 63.1207 through 63.1209, except the modes of operation requirements of § 63.1209(q); and the notification, reporting, and recordkeeping requirements of §§63.1210 through 63.1212. [§63.1206(b)(1)(ii)]

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

**Table 1: Summary of MACT EEE applicable emission limitations**

| Pollutant/Criteria  | Emission Limit       | Reference                  |
|---|----------------------|----------------------------|
| PCDDs/PCDFs (TEQ basis)   | ≤ 0.40 ng/dscm       | 40 CFR 63.1219(a)(1)(i)(B) |
| Mercury   | ≤ 130 µg/dscm        | 40 CFR 63.1219(a)(2)       |
| Semi-volatile Metals (SVM) (Cadmium and Lead)   | ≤ 230 µg/dscm        | 40 CFR 63.1219(a)(3)       |
| Low Volatile Metals (LVM) (Arsenic, Beryllium and Chromium)   | ≤ 92 µg/dscm         | 40 CFR 63.1219(a)(4)       |
| Total Hydrocarbons  | ≤ 10 ppmv            | 40 CFR 63.1219(a)(5)(ii)   |
| Hydrogen Chloride & Chlorine  | ≤ 32 ppmv dry as Cl- | 40 CFR 63.1219(a)(6)       |
| Particulate Matter (PM)   | ≤ 0.013 gr/dscf      | 40 CFR 63.1219(a)(7)       |
| Principal Organic Hazardous Constituent (POHC)  | DRE ≥ 99.99%         | 40 CFR 63.1219(c)          |
| Notes:<br>All emission concentrations are corrected to 7% oxygen<br>DRE - Destruction and Removal Efficiency standard as defined in §63.1219(c)<br>POHC – Organic compounds in the feedstream that are the most difficult to destroy.<br>TEQ - The international method of expressing toxicity equivalents for dioxins and furans |                      |                            |

**Operational Limitations:**

1. The permittee shall operate only under the operating requirements specified in the Documentation of Compliance under §63.1211(c) or the Notification of Compliance under §§63.1207(j) and 63.1210(d), except: [§63.1206(c)(1)(i)]
  - a. During performance tests under approved test plans according to §63.1207(e), (f), and (g), and [§63.1206(c)(1)(i)(A)]
  - b. Under the conditions of §63.1206(b)(1)(i) or (ii) [§63.1206(c)(1)(i)(B)]
2. The Documentation of Compliance and the Notification of Compliance shall contain operating requirements including, but not limited to, the operating requirements in §63.1206 and §63.1209. [§63.1206(c)(1)(ii)]
3. Failure to comply with the operating requirements is failure to ensure compliance with the emission standards of MACT EEE. [§63.1206(c)(1)(iii)]
4. Operating requirements in the Notification of Compliance are applicable requirements for purposes of 40 CFR Part 70. [§63.1206(c)(1)(iv)]
5. The permittee shall incorporate the operating requirements specified in the Notification of Compliance into the title V permit. [§63.1206(c)(1)(v)]

**Startup, Shutdown, and Malfunction Plan:**

1. The permittee is subject to the startup, shutdown, and malfunction plan requirements of § 63.6(e)(3). [§63.1206(c)(2)(i)]
2. If the permittee elects to comply with §270.235(a)(1)(iii), §270.235(a)(2)(iii), or §270.235(b)(1)(ii) of 40 CFR to address RCRA concerns to minimize emissions of toxic compounds from startup, shutdown, and malfunction events (including releases from emergency safety vents) then:  
[§63.1206(c)(2)(ii)]
  - a. The startup, shutdown, and malfunction plan shall include a description of potential causes of malfunctions, including releases from emergency safety vents that may result in significant releases of hazardous air pollutants and actions the permittee is taking to minimize the frequency and severity of those malfunctions. [§63.1206(c)(2)(ii)(A)]
  - b. The permittee shall submit the startup, shutdown, and malfunction plan to the Director for review and approval. Approval procedures are detailed in §63.1206(c)(2)(ii)(B). [§63.1206(c)(2)(ii)(B)]
  - c. The permittee shall request approval in writing from the Director within five days after making a change to the startup, shutdown, and malfunction plan that may significantly increase emissions of hazardous air pollutants. [§63.1206(c)(2)(ii)(C)(1)]
  - d. The approval of such changes to the startup, shutdown, and malfunction plan, shall follow the procedures of §63.1206(c)(2)(ii)(B) for initial approval of the plan. [§63.1206(c)(2)(ii)(C)(2)]
3. The permittee shall identify in the plan a projected oxygen correction factor based on normal operations to use during periods of startup and shutdown. [§63.1206(c)(2)(iii)]
4. The permittee shall record the plan in the operating record. [§63.1206(c)(2)(iv)]

**Operating under the startup, shutdown, and malfunction plan:**

The permittee shall operate these emission units under the startup, shutdown, and malfunction plan as described in §63.1206(c)(2)(v) such that:

1. During malfunctions, the automatic waste feed cutoff requirements of §63.1206(c)(3) continue to apply, except for §63.1206(c)(3)(v) and §63.1206(c)(3)(vi). If the permittee exceeds a MACT EEE emission standard monitored by a CEMS or COMs or operating limit specified under §63.1209, the automatic waste feed cutoff system shall immediately and automatically cutoff the hazardous waste feed, except as provided by §63.1206(c)(3)(viii). If the malfunction itself prevents immediate and automatic cutoff of the hazardous waste feed, however, permittee shall cease feeding hazardous waste as quickly as possible. [§63.1206(c)(2)(v)(1)]
2. Although the automatic waste feed cutoff requirements continue to apply during a malfunction, an exceedance of an emission standard monitored by a CEMS or COMS or operating limit specified under §63.1209 is not a violation of MACT EEE if the permittee takes the corrective measures prescribed in the startup, shutdown, and malfunction plan. [§63.1206(c)(2)(v)(2)]
3. For each set of ten exceedances of an emission standard or operating requirement while hazardous waste remains in the combustion chamber (i.e., when the hazardous waste residence time has not transpired since the hazardous waste feed was cutoff) during a 60-day block period, permittee must:  
[§63.1206(c)(2)(v)(3)]
  - a. Within 45 days of the 10<sup>th</sup> exceedance, complete an investigation of the cause of each exceedance and evaluation of approaches to minimize the frequency, duration, and severity of each exceedance, and revise the startup, shutdown, and malfunction plan as warranted by the evaluation to minimize the frequency, duration, and severity of each exceedance; and [§63.1206(c)(2)(v)(A)(3)(i)]
  - b. Record the results of the investigation and evaluation in the operating record, and include a summary of the investigation and evaluation, and any changes to the startup, shutdown, and

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

**Automatic Waste Feed Cutoff:**

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

feed cutoff system was activated), the permittee shall investigate the cause of the AWFCO, take appropriate corrective measures to minimize future AWFCOs, and record the findings and corrective measures in the operating record. [§63.1206(c)(3)(v)]

6. For each set of ten exceedances of an emission standard or operating requirement while hazardous waste remains in the combustion chamber (i.e., when the hazardous waste residence time has not transpired since the hazardous waste feed was cutoff) during a 60-day block period, the permittee shall submit to the Director a written report within five calendar days of the 10th exceedance documenting the exceedances and results of the investigation and corrective measures taken. On a case-by-case basis, the Director may require excessive exceedance reporting when fewer than ten exceedances occur during a 60-day block period. [§63.1206(c)(3)(vi)(A) and (B)]
7. The permittee shall test AWFCO system and associated alarms at least weekly to verify operability, unless the permittee can document in the operating record that weekly inspections will unduly restrict or upset operations and that less frequent inspection will be adequate. At a minimum, permittee shall conduct operability testing at least monthly. The permittee shall document and record AWFCO operability test procedures and results in the operating record. [§63.1206(c)(3)(vii)]
8. The permittee may ramp down the waste feed rate of pumpable hazardous waste over a period not to exceed one minute, except as provided by §63.1206(c)(3)(viii)(B). If the permittee elects to ramp down the waste feed, the permittee shall document ramp down procedures in the operating and maintenance plan. The procedures shall specify that the ramp down begins immediately upon initiation of automatic waste feed cutoff and the procedures shall prescribe a bona fide ramping down. If an emission standard or operating limit is exceeded during the ramp down, the permittee is deemed to have failed to comply with the emission standards or operating requirements of MACT EEE. If the automatic waste feed cutoff is triggered by an exceedance of any of the following operating limits, the permittee may not ramp down the waste feed cutoff: Minimum combustion chamber temperature, maximum hazardous waste feed rate, or any hazardous waste firing system operating limits that may be established for this combustor. [§63.1206(c)(3)(viii)(A) and (B)]

**ESV Openings:**

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

4. The permittee shall submit to the Director a written report within 5 days of an ESV opening that results in failure to meet the emission standards of MACT EEE (as determined in §63.1206(c)(4)(i)) documenting the result of the investigation and corrective measures taken. [§63.1206(c)(4)(ii)]

**Combustion System Leaks:**

1. The permittee shall control combustion system leaks of hazardous air pollutants by:  
[§63.1206(c)(5)(i)]
  - a. Keeping the combustion zone sealed to prevent combustion system leaks; or  
[§63.1206(c)(5)(i)(A)]
  - b. Maintaining the maximum combustion zone pressure lower than ambient pressure using an instantaneous monitor; or [§63.1206(c)(5)(i)(B)]
  - c. Upon prior written approval of the Director, an alternative means of control to provide control of combustion system leaks equivalent to maintenance of combustion zone pressure lower than ambient pressure; or [§63.1206(c)(5)(i)(C)]
  - d. Upon prior written approval of the Director, other technique(s) which can be demonstrated to prevent fugitive emissions without use of instantaneous pressure limits; and  
[§63.1206(c)(5)(i)(D)]
2. The permittee shall specify in the performance test work plan and Notification of Compliance the method that will be used to control combustion system leaks. If the permittee controls combustion system leaks by maintaining the combustion zone pressure lower than ambient pressure using an instantaneous monitor, the permittee shall also specify in the performance test work plan and Notification of Compliance the monitoring and recording frequency of the pressure monitor, and specify how the monitoring approach will be integrated into the automatic waste feed cutoff system.  
[§63.1206(c)(5)(ii)]

**Operator Training and Certification:**

1. The permittee shall establish training programs for all categories of personnel whose activities may reasonably be expected to directly affect emissions of hazardous air pollutants from the source. Such persons include, but are not limited to, chief facility operators, control room operators, continuous monitoring system operators, persons that sample and analyze feed streams, persons that manage and charge feed streams to the combustor, persons that operate emission control devices, and ash and waste handlers. Each training program shall be of a technical level commensurate with the person's job duties specified in the training manual. Each commensurate training program shall require an examination to be administered by the instructor at the end of the training course. Passing of this test shall be deemed the "certification" for personnel, except that, for control room operators, the training and certification program shall be as specified in §63.1206(c)(6)(iii) through §63.1206(c)(6)(vi).  
[§63.1206(c)(6)(i)]
2. The permittee shall ensure that the source is operated and maintained at all times by persons who are trained and certified to perform these and any other duties that may affect emissions of hazardous air pollutants. A certified control room operator shall be on duty at the site at all times the source is in operation. [§63.1206(c)(6)(ii)]
3. The permittee shall ensure hazardous waste incinerator control room operators are:  
[§63.1206(c)(6)(iii)]
  - a. Trained and certified under a site-specific, source-developed and implemented program that meets the requirements of §63.1206(c)(6)(v); or [§63.1206(c)(6)(iii)(A)]
  - b. Trained under the requirements of, and certified under, one of the following American Society of Mechanical Engineers (ASME) standards: QHO-1-1994, QHO-1a-1996, or QHO-1-2004

(Standard for the Qualification and Certification of Hazardous Waste Incinerator Operators). If permittee elects to use the ASME program, then: [§63.1206(c)(6)(iii)(B)]

- i. Control room operators shall, prior to the compliance date, achieve provisional certification, and shall submit an application to ASME and be scheduled for the full certification exam. Within one year of the compliance date, control room operators shall achieve full certification; [§63.1206(c)(6)(iii)(B)(1)]
  - ii. New operators and operators of new sources shall, before assuming their duties, achieve provisional certification, and shall submit an application to ASME, and be scheduled for the full certification exam. Within one year of assuming their duties, these operators shall achieve full certification; or [§63.1206(c)(6)(iii)(B)(2)]
  - c. Trained and certified under a State program. [§63.1206(c)(6)(iii)(C)]
4. The permittee shall record the operator training and certification program in the operating record. [§63.1206(c)(6)(vii)]

**Operation and Maintenance Plan:**

1. The permittee shall prepare and at all times operate according to an operation and maintenance plan that describes in detail procedures for operation, inspection, maintenance, and corrective measures for all components of the combustor, including associated pollution control equipment, that could affect emissions of regulated hazardous air pollutants. [§63.1206(c)(7)(i)]
2. The permittee's plan shall prescribe how the permittee operates and maintains the combustor in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels achieved during the comprehensive performance test. [§63.1206(c)(7)(ii)]
3. The permittee's plan shall ensure compliance with the operation and maintenance requirements of §63.6(e) and minimize emissions of pollutants, automatic waste feed cutoffs, and malfunctions. [§63.1206(c)(7)(iii)]
4. The permittee shall record the plan in the operating record. [§63.1206(c)(7)(iv)]

**Bag Leak Detection System Requirements:**

The permittee shall continuously operate the combustor baghouse (fabric filter) with either:  
[§63.1206(c)(8)(i)]

1. A bag leak detection system that meets the specifications and requirements of §63.1206(c)(8)(ii) and shall comply with the corrective measures and notification requirements of §63.1206(c)(8)(iii) and §63.1206(iv); or [§63.1206(c)(8)(i)(A)]
2. A particulate matter detection system under §63.1206(c)(9). [§63.1206(c)(8)(i)(B)]

**Changes in Design, Operation or Maintenance:**

1. If the permittee plans to change (as defined in §63.1206(b)(5)(iii)) the design, operation, or maintenance practices of the source in a manner that may adversely affect compliance with any emission standards that is not monitored with a CEMS, then the permittee shall: [§63.1206(b)(5)(i)]
  - a. Notify the Director at least 60 days prior to the change, unless the permittee documents the circumstances that dictate that such prior notice is not reasonably feasible. The notification shall include: [§63.1206(b)(5)(i)(A)]
    - i. A description of the changes and which emission standards may be affected; and [§63.1206(b)(5)(i)(A)(1)]
    - ii. A comprehensive performance test schedule and test plan under the requirements of §63.1207(f) that will document compliance with the affected emission standard(s); [§63.1206(b)(5)(i)(A)(2)]



- b. Conduct a comprehensive performance test under the requirements of §63.1207(f)(1) and (g)(1) to document compliance with the affected emission standard(s) and establish operating parameter limits as required under §63.1209, and submit to the Director a Notification of Compliance under §63.1207(j) and §63.1210(d); and [§63.1206(b)(5)(i)(B)]
  - c. Except as provided by §63.1206(b)(5)(i)(C)(2), after the change and prior to submitting the notification of compliance, the permittee shall not burn hazardous waste for more than a total of 720 hours (renewable at the discretion of the Director) and only for the purposes of pretesting or comprehensive performance testing. Pretesting is defined at §63.1207(h)(2)(i) and (ii). [§63.1206(b)(5)(i)(C)(1)]
2. If the permittee determines that a change will not adversely affect compliance with the emission standards or operating requirements, the permittee shall document the change in the operating record upon making such change. The permittee shall revise as necessary the performance test plan, Documentation of Compliance, Notification of Compliance, and start-up, shutdown, and malfunction plan to reflect these changes. [§63.1206(b)(5)(ii)]

**Monitoring Requirements:**

The permittee shall comply with the applicable monitoring requirements in §63.1209 which are as follows:

**Table 2: Summary of Monitoring Requirements of MACT EEE**

| Pollutant/Criteria  | Monitoring Parameters   | Reference            |
|---|---|----------------------|
| PCDDs/PCDFs (TEQ basis)                                     | Minimum Combustor Chamber Temperature (measured as Flame Temperature) | §63.1209(k)(2)(ii)   |
| Mercury   | Feedrate of total Mercury   | §63.1209(l)(1)(i)    |
| Semi-volatile Metals (SVM) (Cadmium and Lead)               | Maximum Feed Rate of SVM (Cd, Pb)                                     | §63.1209(n)(2)(i)(A) |
| Low Volatile Metals (LVM) (Arsenic, Beryllium and Chromium) | Maximum Feed Rate of LVM (AS, Be, Cr)                                 | §63.1209(n)(2)(ii)   |
| Total Hydrocarbons  | CO and Oxygen CEMS  | §63.1209(a)(1)(i)    |
| Hydrogen Chloride & Chlorine                                | Maximum feed Rate of Chlorine/Choride                                 | §63.1209(o)(1)       |
| Particulate Matter (PM)                                     | Maximum Ash Feed Rate   | §63.1209(m)(3)       |
| Destruction and Removal Efficiency (DRE)                    | Minimum Combustor Chamber Temperature (measured as Flame Temperature) | §63.1209(j)(1)(ii)   |
|   | Minimum Flue Gas Flow Rate (measured as Combustion Air Flow Rate)     | §63.1209(j)(2)(i)    |

**Performance Testing Requirements:**

- 1. The permittee shall conduct testing periodically as prescribed in §63.1207(d)(1) through §63.1207(d)(3). The date of commencement of the initial comprehensive performance test is the basis for establishing the deadline to commence the initial confirmatory performance test and the

next comprehensive performance test. Permittee may conduct performance testing at any time prior to the required date. The deadline for commencing subsequent confirmatory and comprehensive performance testing is based on the date of commencement of the previous comprehensive performance test. Unless the Director grants a time extension under §63.1207(i), permittee shall conduct testing as follows: [§63.1207(d)]

- a. The permittee shall commence testing no later than 61 months after the date of commencing the previous comprehensive performance test used to show compliance with §63.1219. If data is submitted in lieu of the initial performance test, permittee shall commence the subsequent comprehensive performance test within 61 months of commencing the test used to provide the data in lieu of the initial performance test. [§63.1207(d)(1)]
- b. The permittee shall commence confirmatory performance testing no later than 31 months after the date of commencing the previous comprehensive performance test used to show compliance with §63.1219. If data is submitted in lieu of the initial performance test, permittee shall commence the initial confirmatory performance test within 31 months of the date six months after the compliance date. To ensure that the confirmatory test is conducted approximately midway between comprehensive performance tests, the Director will not approve a test plan that schedules testing within 18 months of commencing the previous comprehensive performance test. [§63.1207(d)(2)]
- c. The permittee shall complete performance testing within 60 days after the date of commencement, unless the Director determines that a time extension is warranted based on permittee documentation in writing of factors beyond their control that prevent them from meeting the 60- day deadline. [§63.1207(d)(3)]
- d. Notification of performance test and CMS performance evaluation, and approval of test plan and CMS performance evaluation plan. The permittee shall comply with the provisions of §63.7(b) and (c) and §63.8(e) which apply, except: [§63.1207(d)(4)]
- e. The permittee shall submit to the Director a notification of their intention to conduct a comprehensive performance test and CMS performance evaluation and a site-specific test plan and CMS performance evaluation test plan at least one year before the performance test and performance evaluation are scheduled to begin. [§63.1207(e)(1)(i)]
  - i. The Director will notify permittee of approval or intent to deny approval of the sitespecific test plan and CMS performance evaluation test plan within 9 months after receipt of the original plan. [§63.1207(e)(1)(i)(A)]
  - ii. The permittee shall submit to the Director a notification of their intention to conduct the comprehensive performance test at least 60 calendar days before the test is scheduled to begin. [§63.1207(e)(1)(i)(B)]
- f. The permittee shall submit to the Director a notification of their intention to conduct a confirmatory performance test and CMS performance evaluation and a site-specific test plan and CMS performance evaluation test plan at least 60 calendar days before the performance test is scheduled to begin. The Director will notify permittee of approval or intent to deny approval of the site-specific test plan and CMS performance evaluation test plan within 30 calendar days after receipt of the original test plans. [§63.1207(e)(1)(ii)]
- g. The permittee shall make their site-specific test plan and CMS performance evaluation test plan available to the public for review no later than 60 calendar days before initiation of the test. The permittee shall issue a public notice to all persons on their facility/public mailing list (developed pursuant to 40 CFR 70.7(h), 71.11(d)(3)(i)(E) and 124.10(c)(1)(ix)) announcing the availability of the test plans and the location where the test plans are available for review. The test plans shall be accessible to the public for 60 calendar days, beginning on the date that the public notice

is issued. The location shall be unrestricted and provide access to the public during reasonable hours and provide a means for the public to obtain copies. The notification shall include the following information at a minimum: [§63.1207(e)(2)]

- i. The name and telephone number of the source's contact person; [§63.1207(e)(2)(i)]
  - ii. The name and telephone number of the regulatory agency's contact person; [§63.1207(e)(2)(ii)]
  - iii. The location where the test plans and any necessary supporting documentation can be reviewed and copied; [§63.1207(e)(2)(iii)]
  - iv. The time period for which the test plans will be available for public review; and [§63.1207(e)(2)(iv)]
  - v. An expected time period for commencement and completion of the performance test and CMS performance evaluation test. [§63.1207(e)(2)(v)]
- h. The permittee may petition the Director under §63.7(h) to obtain a “waiver” of any performance test—initial or periodic performance test; comprehensive or confirmatory test. The “waiver” would be implemented as an extension of time to conduct the performance test at a later date. [§63.1207(e)(3)]
- i. Qualifications for the waiver [§63.1207(e)(3)(i)]
    - A. The permittee may not petition the Director for a waiver if the Director has issued a notification of intent to deny the test plan(s) under §63.7(c)(3)(i)(B); [§63.1207(e)(3)(i)(A)]
    - B. The permittee must submit a site-specific emissions testing plan and a continuous monitoring system performance evaluation test plan at least one year before a comprehensive performance test is scheduled to begin as required by §63.1207(c)(1), or at least 60 days before a confirmatory performance test is scheduled to begin as required by §63.1207(d). The test plans must include all required documentation, including the substantive content requirements of §63.1207(f) and §63.8(e); and [§63.1207(e)(3)(i)(B)]
    - C. The permittee must make a good faith effort to accommodate the Director’s comments on the test plans. [§63.1207(e)(3)(i)(B)]
  - ii. Procedures for obtaining a waiver and duration of the waiver. [§63.1207(e)(3)(ii)]
    - A. The permittee shall submit to the Director a waiver petition or request to renew the petition under §63.7(h) separately for each source at least 60 days prior to the scheduled date of the performance test; [§63.1207(e)(3)(ii)(A)]
    - B. The Director will approve or deny the petition within 30 days of receipt and notify you promptly of the decision; [§63.1207(e)(3)(ii)(B)]
    - C. The Director will not approve an individual waiver petition for a duration exceeding 6 months; [§63.1207(e)(3)(ii)(C)]
    - D. The Director will include a sunset provision in the waiver ending the waiver within 6 months; [§63.1207(e)(3)(ii)(D)]
    - E. The permittee may submit a revised petition to renew the waiver under § 63.7(h)(3)(iii) at least 60 days prior to the end date of the most recently approved waiver petition; [§63.1207(e)(3)(ii)(E)]
    - F. The Director may approve a revised petition for a total waiver period up to 12 months. [§63.1207(e)(3)(ii)(F)]
  - iii. Content of the waiver [§63.1207(e)(3)(iii)]
    - A. The permittee must provide documentation to enable the Director to determine that the source is meeting the relevant standard(s) on a continuous basis as required by §63.7(h)(2). For extension requests for the initial comprehensive performance test, the

- permittee must submit the Documentation of Compliance to assist the Director in making this determination. [§63.1207(e)(3)(iii)(A)]
- B. The permittee must include in the petition information justifying the request for a waiver, such as the technical or economic infeasibility, or the impracticality, of the affected source performing the required test, as required by §63.7(h)(3)(iii). [§63.1207(e)(3)(iii)(B)]
- iv. At the same time the permittee submits their petition to the Director, permittee shall notify the public (e.g., distribute a notice to the facility/public mailing list developed pursuant to 40 CFR 70.7(h), 71.11(d)(3)(i)(E) and 124.10(c)(1)(ix)) of permittee's petition to waive a performance test. [§63.1207(e)(3)(iv)]
- A. The name and telephone number of the source's contact person; [§63.1207(e)(3)(iv)(A)]
- B. The name and telephone number of the regulatory agency's contact person; [§63.1207(e)(3)(iv)(B)]
- C. The date the source submitted its site-specific performance test plan and CMS performance evaluation test plans; and [§63.1207(e)(3)(iv)(C)]
- D. The length of time requested for the waiver. [§63.1207(e)(3)(iv)(D)]
2. The provisions of §§63.7(c)(2)(i)-(iii) and (v) regarding the content of the test plan apply. In addition, the permittee must include the information listed in §63.1207(f)(1) for comprehensive performance testing and §63.1207(f)(2) for confirmatory testing in the test plan. [§63.1207(f)]
3. The permittee must comply with the provisions of §63.7(e). Conducting performance testing under operating conditions representative of the extreme range of normal conditions is consistent with the requirement of §63.7(e)(1) to conduct performance testing under representative operating conditions. The permittee shall comply with the requirements of §63.1207(g)(1) for comprehensive performance testing and §63.1207(g)(2) for confirmatory testing [§63.1207(g)]
4. The permittee shall comply with the requirements of §63.1207(h) for operating conditions during subsequent testing. [§63.1207(h)]
5. After the initial comprehensive performance test, you may request up to a one-year time extension for conducting a comprehensive or confirmatory performance test to consolidate performance testing with other state or federally required emission testing, or for other reasons deemed acceptable by the Director. If the Director grants a time extension for a comprehensive performance test, the deadlines for commencing the next comprehensive and confirmatory tests are based on the date that the subject comprehensive performance test commences. The permittee shall comply with the provisions of §63.1207(i) for time extension requests for subsequent testing. [§63.1207(i)]
6. The permittee shall comply with the requirements of §63.1207(j) for the notification of compliance.
7. If the permittee fails to submit a timely notification of compliance, the permittee shall cease hazardous waste burning immediately and comply with the provisions of §63.1207(k).
8. If the permittee fails a performance test, the permittee shall comply with the provisions of §63.1207(l).
9. The permittee is not required to conduct performance tests to document compliance with the mercury, semivolatile metals, low volatile metals, or hydrogen chloride/chlorine gas emission standards under the conditions specified in §63.1207(m)(1) or (2). The waiver provisions of this §63.1207 apply in addition to the provisions of §63.7(h). The permittee shall also comply with the provisions of §63.1207(m)(3) through (5). [§63.1207(m)]

**Recordkeeping Requirements:**

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

**Table 3: Summary of MACT EEE Recordkeeping Requirements**

| <b>Document, Data, or Information</b>  | <b>Reference</b>  |
|--|---|
| General. Information required to document and maintain compliance with the regulations of MACT EEE, including data recorded by continuous monitoring systems (CMS), and copies of all notifications, reports, plans, and other documents submitted to the Director.  | §63.1200,<br>§63.10(b) and (c)  |
| If the permittee elects to comply with all applicable requirements and standards promulgated under authority of the Clean Air Act, including Sections 112 and 129, in lieu of the requirements of Subpart EEE when not burning hazardous waste, the permittee must document in the operating record that the permittee is in compliance with those requirements. | §63.1206(b)(1)(ii)  |
| Documentation that a change will not adversely affect compliance with the emission standards or operating requirements.  | §63.1206(b)(5)(ii)  |
| Calculation of hazardous waste residence time.   | §63.1206(b)(11)   |
| Startup, shutdown, and malfunction plan.   | §63.1206(c)(2)  |
| Documentation of investigation and evaluation of excessive exceedances during malfunctions.  | §63.1206(c)(2)(v)(A)  |
| Corrective measures for any automatic waste feed cutoff that results in an exceedance of an emission standard or operating parameter limit.  | §63.1206(c)(3)(v)   |
| Documentation and results of the automatic waste feed cutoff operability testing.  | §63.1206(c)(3)(vii)   |
| Emergency safety vent operating plan.  | §63.1206(c)(4)(ii)  |
| Corrective measures for any emergency safety vent opening.   | §63.1206(c)(4)(iii)   |
| Method used for control of combustion system leaks.  | §63.1206(c)(5)(ii)  |
| Operator training and certification program.   | §63.1206(c)(6)  |
| Operation and maintenance plan.  | §63.1206(c)(7)  |
| Feedstream analysis plan   | §63.1209(c)(2)  |
| Documentation that a substitute activated carbon, dioxin/furan formation reaction inhibitor, or dry scrubber sorbent will provide the same level of control as the original material.  | §63.1209(k)(6)(iii),<br>§63.1209(k)(7)(ii),<br>§63.1209(k)(9)(ii),<br>§63.1209(o)(4)(iii) |
| Results of carbon bed performance monitoring.  | §63.1209(k)(7)(i)(C)  |
| Documentation of changes in modes of operation.  | §63.1209(q)   |
| Documentation of compliance.   | §63.1211(c)   |

**Notification Requirements:**

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

**Table 4: Summary of MACT EEE Notification Requirements**

| <b>Notification</b>  | <b>Reference</b>  |
|--|---|
| Notification and documentation of any change in information already provided under §63.9.  | §63.9(j)  |
| Notification of changes in design, operation, or maintenance that may adversely affect compliance.   | §63.1206(b)(5)(i)   |
| Notification of excessive bag leak detection system exceedances.   | §63.1206(c)(8)(iv)  |
| Notification of excessive particulate matter detection system exceedances.   | §63.1206(c)(9)(v)   |
| Notification of performance test and continuous monitoring system evaluation, including the performance test plan and CMS performance evaluation plan. | §63.1207(e), 63.9(e) §63.9(g)(1) and (3)  |
| Notification of compliance, including results of performance tests and continuous monitoring system performance evaluations.                           | §63.1210(d), §63.1207(j), §63.1207(k), §63.1207(l), 63.9(h), §63.10(d)(2), §63.10(e)(2) |

**Reporting Requirements:**

1. The permittee shall submit all applicable reports to the Director in accordance with the requirements of §63.10 and §63.1206. A summary of reporting requirements appears in the table below.
2. The permittee shall report any deviations from the monitoring, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring and annual compliance certification reports required by Section V of this permit.
3. All reports and certifications shall be submitted to the Air Pollution Control Program’s Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 or [AirComplianceReporting@dnr.mo.gov](mailto:AirComplianceReporting@dnr.mo.gov).

**Table 5: Summary of MACT EEE Reporting Requirements**

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

| <b>Permit Condition MACT DDDDD</b>   |   |                 |
|--|---|-----------------|
| 10 CSR 10-6.075, Maximum Achievable Control Technology Regulations   |   |                 |
| 40 CFR Part 63, Subpart A, General Provisions  |   |                 |
| 40 CFR Part 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters |   |                 |
| EP #   | Description   | Control Devices |
| EP12   | Building #3 Heat Exchanger, natural gas fired, 3.5 MMBtu/hr | Low NOx Burner  |

**Operational Limitation:**

1. The permittee shall complete a tune-up every 5 years as specified in §63.7540. [§63.7500(e) and MACT DDDDD Table 3]
2. The permittee shall be in compliance with the work practice standards. These operating limits apply at all times the affected unit is operating. [§63.7505(a)]

**Tune Up Requirements:**

1. The permittee shall demonstrate initial compliance with the applicable work practice standards in MACT DDDDD Table 3 within the 5-year schedule as specified in §63.7515(d) following the initial compliance date specified in §63.7495(a). Thereafter, the permittee is required to complete the 5-year tune-up as specified in §63.7515(d). [§63.7510(g)]
2. The permittee shall conduct a 5-year performance tune-up according to §63.7540(a)(12). Each 5-year tune-up specified in §63.7540(a)(12) must be conducted no more than 61 months after the previous tune-up. [§63.7515(d)]
3. The permittee shall demonstrate continuous compliance with the work practice standards in MACT DDDDD Table 3, according to the methods in §63.7540(a)(12). [§63.7540(a)] [§63.7540(a)]
  - a. The permittee shall conduct a tune-up of the process heater every 5 years as specified in §63.7540(a)(10)(i) through (vi) to demonstrate continuous compliance. The permittee may delay the burner inspection specified in §63.7540(a)(10)(i) until the next scheduled or unscheduled unit shutdown, but the permittee must inspect each burner at least once every 72 months. [§63.7540(a)(12)]
    - i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment; [§63.7540(a)(10)(i)]
    - ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available; [§63.7540(a)(10)(ii)]
    - iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown). [§63.7540(a)(10)(iii)]
    - iv. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available.; [§63.7540(a)(10)(iv)]

- v. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and [§63.7540(a)(10)(v)]
  - vi. Maintain on-site and submit, if requested by the Director, a report containing the information in §63.7540(a)(10)(vi)(A) through (C), [§63.7540(a)(10)(vi)]
  - vii. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the process heater. [§63.7540(a)(10)(vi)(A)]
  - viii. A description of any corrective actions taken as a part of the tune-up. [§63.7540(a)(10)(vi)(B)]
- b. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. [§63.7540(a)(13)]
4. The permittee shall report each instance in which the permittee did not meet each operating limit in MACT DDDDD Table 3. These instances are deviations from the operating limits. These deviations must be reported according to the requirements in §63.7550. [§63.7540(b)]

**Initial Compliance:**

The permittee shall submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.7545(e). [§63.7530(f)]

**General Provisions:**

MACT DDDDD Table 10 shows which parts of the General Provisions in §§63.1 through 63.15 apply. [§63.7565]

**Recordkeeping:**

1. The permittee shall keep records according to §63.7555(a)(1) and (2). [§63.7555(a)]
  - a. A copy of each notification and report that was submitted to comply with MACT DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that was submitted, according to the requirements in §63.10(b)(2)(xiv). [§63.7555(a)(1)]
  - b. Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in §63.10(b)(2)(viii). [§63.7555(a)(2)]
2. The permittee's records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1). [§63.7560(a)]
3. As specified in §63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [§63.7560(b)]
4. The permittee must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). The permittee can keep the records off site for the remaining 3 years. [§63.7560(c)]

**Reporting:**

1. The permittee shall submit to the Administrator all of the notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply by the dates specified. [§63.7545(a)]



2. The permittee shall submit an Initial Notification not later than 15 days after the actual date of startup of the affected source. [§63.7545(c)]
3. The permittee shall submit a Notification of Compliance Status according to §63.9(h)(2)(ii). For the initial compliance demonstration for each process heater, the permittee must submit the Notification of Compliance Status before the close of business on the 60th day following the completion of all initial compliance demonstrations for all process heaters at the facility according to §63.10(d)(2). The Notification of Compliance Status must only contain the information specified in §63.7545(e)(1) and (8) and must be submitted within 60 days of the compliance date specified at §63.7495(b). [§63.7545(e)]
  - a. A description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, a description of the add-on controls used on the unit to comply with MACT DDDDD, description of the fuel(s) burned, including whether the fuel(s) were a secondary material determined by the permittee or the EPA through a petition process to be a non-waste under §241.3 of Chapter I, whether the fuel(s) were a secondary material processed from discarded non-hazardous secondary materials within the meaning of §241.3 of Chapter I, and justification for the selection of fuel(s) burned during the compliance demonstration. [§63.7545(e)(1)]
  - b. In addition to the information required in §63.9(h)(2), the notification of compliance status must include the following certification(s) of compliance, and signed by a responsible official: [§63.7545(e)(8)]
    - i. “This facility completed the required initial tune-up for all of the process heaters covered by 40 CFR part 63 subpart DDDDD at this site according to the procedures in §63.7540(a)(10)(i) through (vi). [§63.7545(e)(8)(i)]
4. The permittee shall submit each report in MACT DDDDD Table 9 that applies. [§63.7550(a)]
5. Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), the permitteeshall submit each report, according to §63.7550(h), by the date in MACT DDDDD Table 9 and according to the requirements in §63.7550(b)(1) through (4). For units that are subject only to a requirement to conduct subsequent 5-year tune-up according to §63.7540(a)(12), the permittee may submit only a 5-year compliance report, as specified in §63.7550(b)(1) through (4), instead of a semi-annual compliance report. [§63.7550(b)]
  - a. The first 5 year compliance report must cover the period beginning on the compliance date that is specified for each process heater in §63.7495 and ending on December 31 within 5 years, after the compliance date that is specified for the source in §63.7495. [§63.7550(b)(1)]
  - b. The first 5-year compliance report must be postmarked or submitted no later than January 31. [§63.7550(b)(2)]
  - c. Each 5-year compliance report must cover the 5-year period from January 1 to December 31. [§63.7550(b)(3)]
  - d. Each subsequent 5-year compliance report must be postmarked or submitted no later than January 31. [§63.7550(b)(4)]
  - e. For each affected source that is subject to permitting regulations pursuant to part 70 of Chapter I, and if the permitting authority has established dates for submitting semiannual reports pursuant to 70.6(a)(3)(iii)(A), the permittee may submit the first and subsequent compliance reports according to the dates the permitting authority has established in the permit instead of according to the dates in §63.7550(b)(1) through (4). [§63.7550(b)(5)]
6. A compliance report must contain the following information depending on how the facility chooses to comply with the limits set in this rule. [§63.7550(c)]

- a. The permittee must submit a compliance report with the information in §63.7550(c)(5)(i) through (iii), (xiv) and (xvii). [§63.7550(c)(1)]

**Reporting:**

1. The permittee shall submit to the Director all of the notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply by the dates specified. [§63.7545(a)]
2. The permittee shall submit an Initial Notification not later than 15 days after the actual date of startup of the affected source. [§63.7545(c)]
3. The permittee shall submit a Notification of Compliance Status according to §63.9(h)(2)(ii). For the initial compliance demonstration for each process heater, the permittee must submit the Notification of Compliance Status before the close of business on the 60th day following the completion of all initial compliance demonstrations for all process heaters at the facility according to §63.10(d)(2). The Notification of Compliance Status must only contain the information specified in §63.7545(e)(1) and (8) and must be submitted within 60 days of the compliance date specified at §63.7495(b). [§63.7545(e)]
  - a. A description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, a description of the add-on controls used on the unit to comply with MACT DDDDD, description of the fuel(s) burned, including whether the fuel(s) were a secondary material determined by the permittee or the EPA through a petition process to be a non-waste under §241.3 of Chapter I, whether the fuel(s) were a secondary material processed from discarded non-hazardous secondary materials within the meaning of §241.3 of Chapter I, and justification for the selection of fuel(s) burned during the compliance demonstration. [§63.7545(e)(1)]
  - b. In addition to the information required in §63.9(h)(2), the notification of compliance status must include the following certification(s) of compliance, and signed by a responsible official:
    - i. “This facility completed the required initial tune-up for all of the process heaters covered by 40 CFR part 63 subpart DDDDD at this site according to the procedures in §63.7540(a)(10)(i) through (vi). [§63.7545(e)(8)(i)]
4. The permittee shall submit all reports required by MACT DDDDD Table 9 electronically to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) The permittee must use the appropriate electronic report in CEDRI for MACT DDDDD. Instead of using the electronic report in CEDRI, the permittee may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (<http://www.epa.gov/ttn/chief/cedri/index.html>), once the XML schema is available. If the reporting form specific to MACT DDDDD is not available in CEDRI at the time that the report is due, the permittee must submit the report to the Administrator at the appropriate address listed in §63.13. You must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI. [§63.7550(h)(3)]
5. The permittee shall submit copies of all reports sent to the Administrator to the Air Pollution Control Program's Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 or [AirComplianceReporting@dnr.mo.gov](mailto:AirComplianceReporting@dnr.mo.gov).
6. The permittee shall report any deviations from the monitoring, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring and annual compliance certification reports required by Section V of this permit. These certification reports shall be submitted to the Air Pollution Control Program's Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 or [AirComplianceReporting@dnr.mo.gov](mailto:AirComplianceReporting@dnr.mo.gov).

| <b>Permit Condition NSPS III</b>  |   |
|---|---|
| 10 CSR 10-6.070, New Source Performance Standards<br>40 CFR Part 60, Subpart A, General Provisions<br>40 CFR Part 60, Subpart III, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines |   |
| EP #  | Description   |
| EP10  | Emergency Fire Water Pump, 173 hp, diesel fired (2010), Model JU6H-UEABL8 |

**Emission Limitations:**

For EP10, the permittee must comply with the emission standards in NSPS III Table 4 as follows: [§60.4205(c)]

- a. 4.0 g/kw-hr NMHC + NOX [§80.112(a)]
- b. 5.0 g/kw-hr CO [§80.112(a)]
- c. 0.30 g/kw-hr PM [§80.112(a)]

**Operational Limitations:**

The permittee must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel. [§60.4207(b)]

- a. A maximum sulfur content of 15 ppm. [§80.510(b)(1)(i)]
- b. A minimum cetane index of 40; or a maximum aromatic content of 35 volume percent. [§80.510(b)(2)(i) and (ii)]

**General Provisions:**

The permittee shall comply with the general provisions as shown in NSPS III Table 8.

**Monitoring:**

1. The permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 over the entire life of the engine. [§60.4206]
2. If the permittee does not install, configure, 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 must demonstrate with §60.4211(g).
3. The permittee must install a non-resettable hour meter prior to startup of the engine. [§60.4209(a)]
4. The permittee must do all of the following, except as permitted under §60.4211(g): [§60.4211(a)]
  - a. Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; [§60.4211(a)(1)]
  - b. Change only those emission-related settings that are permitted by the manufacturer; and [§60.4211(a)(2)]
  - c. Meet the applicable requirements of 40 CFR parts 89, 94 and/or 1068. [§60.4211(a)(3)]
5. The permittee must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in §60.4211(g). [§60.4211(c)]

**Notifications, Reporting, and Recordkeeping:**

1. The permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.
2. The permittee shall report any deviations from the monitoring, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring and annual compliance certification reports required by Section V of this permit.
3. All reports and certifications shall be submitted to the Air Pollution Control Program's Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 or [AirComplianceReporting@dnr.mo.gov](mailto:AirComplianceReporting@dnr.mo.gov) unless otherwise specified in this permit condition.

| <b>Permit Condition 0990-002B</b>                       |   |  |
|---|---|--|
| 10 CSR 10-6.060, Construction Permits Required          |   |  |
| Construction Permit 0990-002B, Issued November 12, 1997 |   |  |
| EP #  | Description   | Control Devices  |
| EP03  | Incinerator Stack:<br>1. Rotary Kiln Incinerator, natural gas fired, 4 MMBtu/hr<br>2. Car Bottom Furnace, natural gas fired, 3.6 MMBtu/hr | 1. Secondary Combustor, natural gas fired, 12 MMBtu/hr,<br>2. Spray Dryer (ME-104), and<br>3. Baghouse (ME-105A, B, and C) |

**Emission Limitations:**

The emission rate of each pollutant emitted by these emission units shall never exceed the de minimis levels listed in 10 CSR 10-6.020(3)A on a consecutive 12 month basis. [Special Condition 12]

**Operational Limitations:**

1. The secondary combustor must be at least eighteen hundred degrees Fahrenheit (1800°F) before combustion of waste in the kiln or bottom car furnace can occur. A mechanical (not manual) system of combustion (primary and secondary combustion burners ) operation must be installed to ensure this [Special Condition 5]
2. Each incinerator operator shall be trained in the incinerator operating procedures by an individual experienced in the operation of this incinerator. The minimum training shall include the basic operation of this incinerator. The minimum training shall include the basic operation of the incinerator and all emergency procedures to be followed if the incinerator should malfunction or exceed operating parameters. [Special Condition 8]
3. An operator meeting the requirements of Special Condition 8 shall be present during all periods of incinerator operation. [Special Condition 9]
4. This incineration unit shall be operated in accordance with the manufacturer's instructions and guidelines of operation, to include preheating all chambers to the proper operating temperatures and proper use of all burners to maintain proper operating temperatures. [Special Condition 10]

**Monitoring:**

1. The permittee shall install continuous monitoring systems for measuring the opacity of exhaust gases and the temperature of the secondary combustor. The temperature measurement shall be made at a point one (1) second downstream from the entrance to the secondary combustor. [Special Condition 3]

2. The opacity of the exhaust gases and the temperature of the secondary combustor shall be recorded continuously whenever the unit is operating. The method of recording will be subject to Air Pollution Control Program review and approval. [Special Condition 4]

**Recordkeeping:**

1. Records shall be kept on-site, for the previous sixty (60) month period, indicating the amount of waste (in tons) processed monthly in these units. These records shall be made available to employees of the Missouri Department of Natural Resources upon their request. [Special Condition 6]
2. Records shall be kept on-site, for the previous sixty (60) month period, indicating the amount of natural gas (in standard cubic feet) used monthly in these units. These records shall be made available to employees of the Missouri Department of Natural Resources upon their request. [Special Condition 7]
3. The manufacturer's instructions and guidelines of operation shall be available at all times at the site upon request. [Special Condition 11]
4. The permittee shall keep monthly records including at least the following information: [Special Condition 13]
  - a. The total amount of each type of waste incinerated with both that month's and the rolling twelve (12) month total shown.
  - b. The weight percentage of each component of each waste type.
  - c. Total hours of operation of rotary kiln with both that month's and the rolling twelve (12) month total shown.
  - d. Total hours of operation of car bottom furnace with both that month's and the rolling twelve (12) month total shown.
  - e. Calculations showing the emission rate of each pollutant listed in 10 CSR 10-6.020(3)A with both that month's total and the rolling twelve (12) month total shown.
5. A copy of each monthly record shall be kept on-site for the previous 60 month period. . These records shall be made available immediately for inspection to Department of Natural Resources' personnel upon verbal request. [Special Condition 14]

**Reporting:**

1. The permittee shall report any exceedance of the limitations no later than ten days after an exceedance of the emission limitation.
2. The permittee shall report any deviations from the monitoring, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring and annual compliance certification reports required by Section V of this permit.
3. All reports and certifications shall be submitted to the Air Pollution Control Program's Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 or [AirComplianceReporting@dnr.mo.gov](mailto:AirComplianceReporting@dnr.mo.gov).

| <b>Permit Condition 1293-010</b><br>10 CSR 10-6.060, Construction Permits Required<br>Construction Permit 1293-010, Issued October 28, 1993 |  |   |
|---|--|---|
| EP #  | Description                            | Control Devices   |
| EP01  | Storage Feed Handling Building Vent #1 | 1. Activated Carbon Filter (CD01),<br>and<br>2. HEPA Filter (CD01A) |
| EP02  | Storage Feed Handling Building Vent #2 | 1. Activated Carbon Filter (CD02),<br>and<br>2. HEPA Filter (CD02A) |

**Operational Limitation:**

1. The permittee shall operate the activated carbon system to control volatile organic compounds (VOCs) at all times when materials are being handled which may contain VOCs. [Special Condition 1]
2. The permittee shall operate the HEPA filter system to reduce particulate matter less than ten microns (PM<sub>10</sub>) emissions at all times that powdered material is being handled or when other materials are being handled in such a way as to create airborne particulate [Special Condition 2]
3. The permittee shall not process more material in the feed/handling building than is actually treated in the incinerator on a calendar year basis. [Special Condition 3]

**Monitoring/Recordkeeping:**

1. The permittee shall maintain operating and maintenance logs for the activated carbon and HEPA filter systems which include the following:
  - a. Incidents of malfunction, with impact on emissions, time, date and duration of event, probable cause, and corrective actions; and
  - b. Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
2. The permittee shall use Attachment Operation and Maintenance Log, or an equivalent, to demonstrate compliance.
3. The permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.

**Reporting:**

1. The permittee shall report any deviations from the monitoring, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring and annual compliance certification reports required by Section V of this permit.
2. All reports and certifications shall be submitted to the Air Pollution Control Program's Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 or [AirComplianceReporting@dnr.mo.gov](mailto:AirComplianceReporting@dnr.mo.gov).

| <b>Permit Condition 0894-007</b>   |  |
|--|--|
| 10 CSR 10-6.060, Construction Permits Required<br>Construction Permit 0894-007, Issued November 12, 1997 |  |
| EP #   | Description  |
| EP04   | Building #6 Emergency Generator, 676 hp, diesel fired (1994), Caterpillar/ 3412T |

**Operational Limitations:**

The permittee shall not operate the Caterpillar Model 3412T power generator more than ninety-one (91) hours in any consecutive twelve (12) month period. [Special Condition 1]

**Monitoring:**

The permittee shall provide a non-resettable hour meter as part of the generator set in order to quantify its hours of operation. [Special Condition 2]

**Recordkeeping:**

The permittee shall maintain records on-site, covering a period of the previous sixty months, which show the hours of operation of the Caterpillar Model 3412T power generator set on a monthly basis. These records shall be made immediately available to Department of Natural Resources' personnel upon verbal request. [Special Condition 3]

**Reporting:**

1. The permittee shall report any exceedance of the limitations no later than fifteen days after the end of each month, if the records indicate an exceedance of the operational limitation. [Special Condition 4]
2. The permittee shall report any deviations from the monitoring, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring and annual compliance certification reports required by Section V of this permit.
3. All reports and certifications shall be submitted to the Air Pollution Control Program's Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 or [AirComplianceReporting@dnr.mo.gov](mailto:AirComplianceReporting@dnr.mo.gov).

| <b>Permit Condition 012012-001</b>                     |   |  |
|--|---|--|
| 10 CSR 10-6.060, Construction Permits Required         |   |  |
| Construction Permit 012012-001, Issued January 4, 2012 |   |  |
| EP #   | Description   | Control Devices  |
| EP03   | Incinerator Stack:<br>1. Rotary Kiln Incinerator, natural gas fired, 4 MMBtu/hr<br>2. Car Bottom Furnace, natural gas fired, 3.6 MMBtu/hr | 1. Secondary Combustor, natural gas fired, 12 MMBtu/hr,<br>2. Spray Dryer (ME-104), and<br>3. Baghouse (ME-105A, B, and C) |
| EP05   | Propellant Thermal Treatment System (PTTS) with two propellant Thermal Treatment Chambers (EU1 and EU2) - (Building 3)                    | 1. Dry Scrubber (CD-01),<br>2. Baghouse (CD-02), and<br>3. Wet Scrubber (CD-03)  |
| EP06   | Static Kilns 1,2,3, and 4 (Building 1)  | 1. Cartridge Filter (CD-07) and<br>2. HEPA Filter (CD-01A)   |
| EP07   | Thermal Treatment Units 1 & 2 (Building 1)  | 1. Cartridge Filter (CD-07),<br>2. HEPA Filter (CD-01A)  |
| EP08   | Thermal Treatment Units 3 & 4 (Building 1)  | 1. Cartridge Filter (CD-07),<br>2. HEPA Filter (CD-01A)  |

**Emission Limitations:**

The permittee shall emit less than ten (10.0) tons of hydrogen chloride (HCl) (CAS 7647-01-0) from the Propellant Thermal Treatment System (PTTS) in any consecutive twelve (12) month period. [Special Condition 2.A.]

**Operational Limitations:**

1. PTTC (EP05) Material and Throughput Limitations
  - a. The permittee shall control the feed rate to the Propellant Thermal Treatment Chambers (PTTCs) (EU1 and EU2) (EP05) to a maximum of 1.01 tons (gross rocket motor weight) per hour. [Special Condition 6.A.]
2. PTTC (EP05) Total Enclosure
  - a. The permittee shall maintain a negative static pressure within the PTTC (EP05) to ensure compliance with Special Condition 7.A. [Special Condition 7.B.]
3. Dry Scrubber (CD-1)
  - a. The permittee shall control HCl emissions from the PTTS using a dry scrubber as specified in the permit application. [Special Condition 8.A.]
4. Baghouse (CD-2)
  - a. The permittee shall control emissions from the PTTS using baghouses as specified in the permit application. The baghouses shall be operated and maintained in accordance with the manufacturer's specifications. Each baghouse shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that the Department of Natural Resources' employees may easily observe them. Replacement filters for the baghouses shall be kept on hand at all times. [Special Condition 9.A.]
5. Wet Scrubber (CD-03)
  - a. The permittee shall control HCl emissions from the PTTS using a packed bed wet scrubber as specified in the permit application. [Special Condition 10.A.]



**Monitoring:**

1. Continuous Emission Monitoring System (CEMS)
  - a. Continuous compliance with the emission rate limit for the PTTS (EP05) shall be verified using a HCl continuous emission monitoring system (CEMS) according to Special Condition 5. [Special Condition 3.C.]
  - b. The permittee shall install, certify, operate, calibrate, test and maintain a CEMS to continuously monitor and record the HCl concentration in the PTTS exhaust stack (EP05). [Special Condition 5.A.]
  - c. The CEMS shall be certified by the Director after review and acceptance of a demonstration of conformance with Performance Specification Z, also referred to as Other Test Method (OTM) 23, "Procedure DD: Quality Control and Quality Assurance Requirements for Hydrochloric Acid Continuous Emissions Monitoring Systems at Stationary Sources". GD-OTS MS's Quality Control and Quality Assurance (QA/QC) plan shall also adhere to the quality assurance procedures outlined in 40 CFR Part 60, Appendix F, Procedure 1, "Quality Assurance Requirements for Gas Continuous Emission Monitoring Systems Used for Compliance Determinations". [Special Condition 5.B.]
  - d. The permittee shall install, certify, operate, calibrate, test and maintain a continuous monitoring system to monitor and record the PTTS exhaust stack (EP-05) flowrate (corrected to standard dry conditions). [Special Condition 5.C.]
  - e. The permittee shall use the CEMS data and the exhaust flowrate to calculate the average pounds HCl emitted per minute. [Special Condition 5.D.]
  - f. The permittee shall verify compliance with the emission limit specified in Special Condition 2.A by calculating the sum of all emissions measured according to Special Condition 5.D. [Special Condition 5.E.]
  - g. The permittee shall verify continuous compliance with the PTTS (EP-05) emission rate limit specified in Special Condition 3.A. by calculating a 60- minute rolling average of the emissions measured according to Special Condition 5.D. [Special Condition 5.F.]
2. Negative Pressure
  - a. The permittee shall continuously monitor and record the static pressure inside the ash discharge conveyor (EP05) to demonstrate compliance with special condition 7.B. [Special Condition 7.C.]
  - b. At least one time per calendar year (no less than 9 calendar months and no more than 15 calendar months following the previous calibration), The permittee shall calibrate the static pressure gage required by Special Condition 7.C. and verify the actual face velocity at each natural draft opening exceeds 200 feet per minute at all times during the combustion cycle. [Special Condition 7.D.]
3. Baghouse (CD-2)
  - a. The permittee shall monitor and record the operating pressure drop across the baghouses at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty. [Special Condition 9.B.]
  - b. The permittee shall install and monitor a broken bag detector for each baghouse that indicates when a baghouse has exceeded an emission rate of one (1.0) milligram per actual cubic meter of particulate matter. [Special Condition 9.C.]
4. Wet Scrubber (CD-03)
  - a. The permittee shall develop and implement a control device monitoring plan to verify proper operation of the wet scrubber. The plan shall be documented and available for review by any Missouri Department of Natural Resources' personnel upon request. At a minimum, the plan shall include the following: [Special Condition 10.B.]

- i. A minimum pressure drop across the wet scrubber on a 60-minute rolling average; and [Special Condition 10.B.1)]
- ii. A minimum pH on a 60-minute rolling average; and [Special Condition 10.B.2)]
- iii. A minimum scrubber water flowrate on a 60-minute rolling average; and [Special Condition 10.B.3)]
- iv. A maximum flue gas flowrate on a 60-minute rolling average. [Special Condition 10.B.4)]

**Recordkeeping:**

1. Propellant Thermal Treatment Chambers (PTTC) (EP05)
  - a. The permittee shall record the total amount of rocket motor segments combusted in each PTTC (EU1 and EU2) in units of gross motor weight at least once every day. [Special Condition 6.C.]
  - b. The permittee shall maintain an operating and maintenance log associated with the ventilation of the PTTCs (EP05) which shall include the following: [Special Condition 7.E.]
    - i. Incidents of malfunction, with impact on emissions, time, date and duration of event, probable cause, and corrective actions; and [Special Condition 7.E.1)]
    - ii. Maintenance activities, with inspection schedule, repair actions, and replacements, etc. [Special Condition 7.E.2)]
2. Propellant Thermal Treatment System (PTTS) (EP05)
  - a. The permittee shall develop an operation and maintenance plan that describes procedures for operation, inspection, maintenance, and corrective measures for all components of the PTTS, including the PTTCs and the associated pollution control equipment. The plan shall be documented and available for review by any Missouri Department of Natural Resources' personnel upon request. [Special Condition 6.D.]
  - b. The permittee shall maintain an operating and maintenance log for the PTTS (EP05) which shall include the following: [Special Condition 6.E.]
    - i. Incidents of malfunction, with impact on emissions, time, date and duration of event, probable cause, and corrective actions; and [Special Condition 6.E.1)]
    - ii. Maintenance activities, with inspection schedule, repair actions, and replacements, etc. [Special Condition 6.E.2)]
3. Dry Scrubber (CD-01)
  - a. The permittee shall record the monitoring parameters as specified in the plan developed according to Special Condition 8.B. at least once every hour. The monitored parameters shall be maintained within design conditions specified in the plan. [Special Condition 8.C.]
  - b. The permittee shall maintain an operating and maintenance log for the dry scrubber and auxiliary equipment which shall include the following: [Special Condition 8.D.]
    - i. Incidents of malfunction, with impact on emissions, time, date and duration of event, probable cause, and corrective actions; and [Special Condition 8.D.1)]
    - ii. Maintenance activities, with inspection schedule, repair actions, and replacements, etc. [Special Condition 8.D.2)]
4. Baghouse (CD-02)
  - a. The operating and maintenance plan required by Special Condition 6.D. shall include a corrective measures plan that specifies the procedures the permittee will follow in the case of a bag leak detection system alarm or malfunction. The corrective measures plan must include, at a minimum, the procedures used to determine and record the time and cause of the alarm or bag leak detection system malfunction as well as the corrective measures taken to correct the control device or bag leak detection system malfunction. [Special Condition 9.D.]

- b. The permittee shall maintain an operating and maintenance log for the baghouses which shall include the following: [Special Condition 9.E.]
  - i. Incidents of malfunction, including bag leak detection system alarms, with impact on emissions, time, date and duration of event, probable cause, and corrective actions; and [Special Condition 9.E.1)]
  - ii. The percent of the operating time during each 6-month period that the PTTS operates during malfunction events, including bag leak detection system alarms, [Special Condition 9.E.2)]
  - iii. Maintenance activities, with inspection schedule, repair actions, and replacements, etc. [Special Condition 9.E.3)]
5. Wet Scrubber (CD-03)
  - a. The permittee shall record the monitoring parameters as specified in the plan developed according to Special Condition 10.B. at least once every hour. The monitored parameters shall be maintained within design conditions specified in the plan. [Special Condition 10.C.]
  - b. The permittee shall maintain an operating and maintenance log for the wet scrubber which shall include the following: [Special Condition 10.D.]
    - i. Incidents of malfunction, with impact on emissions, time, date and duration of event, probable cause, and corrective actions; and [Special Condition 10.D.1)]
    - ii. Maintenance activities, with inspection schedule, repair actions, and replacements, etc. [Special Condition 10.D.2)]
6. The permittee shall use Attachment Operation and Maintenance Log, and Attachment HCL Emissions, or equivalents, to demonstrate compliance.
7. The permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. [Modified Special Condition 5.G.]

**Notifications:**

The permittee shall notify the Air Pollution Control Program before initial startup of any modifications to the facility design that could impact the release parameters or emission rates as specified in the Memorandum from the Modeling Unit entitled "Ambient Air Quality Impact Analysis (AAQIA) for General Dynamics Ordnance and Tactical Systems (General dynamics)" (November 15, 2011). In the event that the Program determines that the changes are significant, The permittee shall submit an updated Ambient Air Quality Impact Analysis (AAQIA) to the Program that continues to demonstrate compliance with the Risk Assessment Levels for Hazardous Air Pollutants. [Special Condition 11]

**Reporting:**

1. Total Enclosure (EP05)

For each set of ten incidents of malfunction, including emergency safety releases, resulting in fugitive emissions of propellant combustion emissions during a 90-day consecutive period, The permittee shall submit to the Air Pollution Control Program's Compliance and Enforcement Section a written report within 30 calendar days of the 10th exceedance documenting the incidents, the results of the investigations, and the corrective measures taken. [Special Condition 7.E.2)]
2. Baghouse (CD-02)

If the duration of malfunction events exceed five percent of the total operating time recorded within a 6-month block period, The permittee shall submit to the Air Pollution Control Program's Compliance and Enforcement Section a written report within 30 calendar days at the end of the 6-month period that describes the causes of the baghouse malfunctions and the corrective actions taken to minimize these events. [Special Condition 9.F.]

3. The permittee shall report any exceedance of the limitations no later than ten days after an exceedance of the emission limitation.
4. The permittee shall report any deviations from the monitoring, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring and annual compliance certification reports required by Section V of this permit.
5. All reports and certifications shall be submitted to the Air Pollution Control Program’s Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 or [AirComplianceReporting@dnr.mo.gov](mailto:AirComplianceReporting@dnr.mo.gov).

| <b>Permit Condition 082015-007B</b>                                 |   |  |
|---|---|--|
| 10 CSR 10-6.060, Construction Permits Required                      |   |  |
| Construction Permit 082015-007, Issued August 12, 2015              |   |  |
| Construction Permit Amendment 082015-007A, Issued April 14, 2016    |   |  |
| Construction Permit Amendment 082015-007B, Issued September 6, 2016 |   |  |
| EP #  | Description   | Control Devices                                    |
| EP11  | Building #12 Nitrocellulose Propellant Thermal Treatment Facility (NCP TTU) | 1. Baghouse (CD-09) and<br>2. Wet Scrubber (CD-08) |

**Emission Limitations:**

1. The permittee shall emit less than 10.0 tons of Dibutyl Phthalate (DBP) (CAS 84- 74-2) and less than 5.0 of Diethylene Glycol Dinitrate (DEGDN) (CAS 693- 21-0) from the Nitrocellulose Based Propellant Treatment Unit (NCP TTU) stack (EP11) in any consecutive 12-month period. [082015-007, Special Condition 1.A.]
2. The permittee shall emit less than 0.01 tons of lead from the Nitrocellulose Based Propellant Treatment Unit (NCP TTU) stack (EP11) in any consecutive 12-month period. [082015-007A, Special Condition 1.A.]

**Operational Limitations:**

1. Wet Scrubber (CD-08) Requirements  
 The permittee shall control emissions from the NCP TTU using a wet scrubber consisting of a quench, a high-efficiency venturi and a cyclonic separator as specified in the permit application. [082015-007, Special Condition 2.A.]
2. Baghouse (CD-09) Requirements
  - a. The permittee shall control emissions from all equipment from the NCT TTU using a baghouse. [082015-007B, Special Condition 1.A.]
  - b. The baghouse shall be operated and maintained in accordance with the manufacturer’s specifications. The baghouse shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that the Department of Natural Resources’ employees may easily observe them. [082015-007B, Special Condition 1.B.]
  - c. Replacement filters for the baghouses shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance). [082015-007B, Special Condition 1.C.]

**Alternative Materials:**

1. When considering the thermal treatment of new propellants in NCP TTU (EP11), the permittee shall calculate the potential emissions that will be emitted from the NCP TTU. When determining potential emissions, a control efficiency of 99% shall be used for particulate HAPs and a value of 99.99% shall be used for poly organic hydrocarbons. [082015-007A, Special Condition 4.A.]
2. The permittee shall seek approval from the Air Pollution Control Program before treatment of any propellant that: [082015-007A, Special Condition 4.B.]
  - a. Contains a HAP other than the individual HAPs listed in Table 7 below or
  - b. That could increase the potential emissions of any pollutant above the levels stated in Table 7 below.
3. The permittee shall retain the SDS of all propellants treated in NCP TTU (EP11) and all potential emissions calculations required in Special Condition 4.A. [082015-007A, Special Condition 4.C.]
4. In the event the the permittee determines that the new propellant will increase the potential emissions above previously permitted levels as shown in Table 7 below, the permittee shall submit an application. The Air Pollution Control Program will determine from the submitted information whether an amendment or new permit is required. [082015-007A, Special Condition 4.C.]

**Table 6: Project Emissions (tons per year)**

| Pollutant               | Potential Emissions of the Project |
|-------------------------|------------------------------------|
| PM                      | 0.22                               |
| PM <sub>10</sub>        | 0.22                               |
| PM <sub>2.5</sub>       | 0.22                               |
| SO <sub>x</sub>         | N/D                                |
| NO <sub>x</sub>         | 12.12                              |
| VOC                     | N/D                                |
| CO                      | 3.68                               |
| GHG (CO <sub>2</sub> e) | 1733.32                            |
| GHG (mass)              | 1733.32                            |
| HAPs                    | <10.0                              |
| DBP                     | <10.0                              |
| DEGDN                   | <5.0                               |
| Lead compound           | <0.01                              |

**Monitoring:**

1. Wet Scrubber (CD-08) Requirements
  - a. The permittee shall develop and implement a control device monitoring plan to verify proper operation of the wet scrubber. The plan shall be documented and available for review by any Missouri Department of Natural Resources' personnel upon request. At a minimum, the plan shall include the following: [082015-007, Special Condition 2.B.]
    - i. A minimum pressure drop across the wet scrubber on a 60-minute rolling average; and [082015-007, Special Condition 2.B.1)]
    - ii. A minimum pH on a 60-minute rolling average; and [082015-007, Special Condition 2.B.2)]
    - iii. A minimum scrubber water flowrate on a 60-minute rolling average; and [082015-007, Special Condition 2.B.3)]

- iv. A maximum flue gas flowrate on a 60-minute rolling average. [082015-007, Special Condition 2.B.4)]
- 2. Baghouse (CD-09) Requirements  
The permittee shall monitor and record the operating pressure drop across the baghouses at least once every 24 hours of operation. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty. [082015-007B, Special Condition 1.D.]

**Recordkeeping:**

- 1. Wet Scrubber (CD-08) Requirements
  - a. The permittee shall record the monitoring parameters as specified in the plan developed according to Special Condition 2.B at least once per day. The monitored parameters shall be maintained within design conditions specified in the plan and developed during source testing as required in Special Condition 4.A. [082015-007, Special Condition 2.C.]
  - b. The permittee shall maintain an operating and maintenance log for the wet scrubber which shall include the following: [082015-007, Special Condition 2.D.]
    - i. Incidents of malfunction, with impact on emissions, time, date and duration of event, probable cause, and corrective actions; and [082015-007, Special Condition 2.D.1)]
    - ii. Maintenance activities, with inspection schedule, repair actions, and replacements, etc. [082015-007, Special Condition 2.D.2)]
- 2. Baghouse (CD-09) Requirements
  - a. The permittee shall maintain an operating and maintenance log for the baghouses which shall include the following: [082015-007B, Special Condition 1.E.]
    - i. Incidents of malfunction, with impact on emissions, time, date and duration of event, probable cause, and corrective actions; and [082015-007B, Special Condition 1.E.1)]
    - ii. Maintenance activities, with inspection schedule, repair actions, and replacements, etc. [082015-007B, Special Condition 1.E.2)]
- 3. The permittee shall develop and use forms (paper or electronic) to demonstrate compliance with Special Condition 1.A. The forms shall contain at a minimum the following information, [082015-007, Special Condition 1.B.]
  - a. Current month [082015-007, Special Condition 1.B.1)]
  - b. Current 12-month date range [082015-007, Special Condition 1.B.2)]
  - c. Amount and type of NCP treated (in tons) containing DBP or DEGD [082015-007, Special Condition 1.B.3)]
  - d. DBP emission factor and DEGDN emission factor developed from source testing as required by Special Condition 4.A, [082015-007, Special Condition 1.B.4)]
  - e. Current month's DBP emissions (in tons) as calculated using values from 3) and 4) of this special condition (in tons) [082015-007, Special Condition 1.B.5)]
  - f. Current month's DEGDN emissions (in tons) as calculated using values from 3) and 4) of this special condition (in tons) [082015-007, Special Condition 1.B.6)]
  - g. 12-month rolling total DBP emissions (in tons) [082015-007, Special Condition 1.B.7)]
  - h. 12-month rolling total DEGDN emissions (in tons) [082015-007, Special Condition 1.B.8)]
  - i. Indication of compliance status with Special Condition 1.A. [082015-007, Special Condition 1.B.9)]
- 4. The permittee shall develop and use forms (paper or electronic) to demonstrate compliance with Special Condition 1.A and 1.B. The forms shall contain at a minimum the following information, [082015-007A, Special Condition 1.C.]

- a. Current month [082015-007A, Special Condition 1.C.1)]
  - b. Current 12-month date range [082015-007A, Special Condition 1.C.2)]
  - c. Amount and type of NCP treated (in tons) containing lead or DNT, [082015-007A, Special Condition 1.C.3)]
  - d. Lead emission factor and DNT emission factor developed from source testing as required by Special Condition 3.A, [082015-007A, Special Condition 1.C.4)]
  - e. Current month's lead emissions (in tons) as calculated using values from 3) and 4) of this special condition (in tons) [082015-007A, Special Condition 1.C.5)]
  - f. Current month's DNT emissions (in tons) as calculated using values from 3) and 4) of this special condition (in tons) [082015-007A, Special Condition 1.C.6)]
  - g. 12-month rolling total lead emissions (in tons) [082015-007A, Special Condition 1.C.7)]
  - h. 12-month rolling total DNT emissions (in tons) [082015-007A, Special Condition 1.C.8)]
  - i. Indication of compliance status with Special Condition 1.A and 1.B. [082015-007A, Special Condition 1.C.9)]
5. The permittee shall use Attachment Operation and Maintenance Log, and Attachment Pressure Drop, or equivalents, to demonstrate compliance.
  6. The permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. [082015-007 Special Condition 3.A.] [082015-007A Special Condition 2.A.]

**Reporting:**

1. The permittee shall report any exceedance of the limitations no later than ten days after the end of the month during which any record required by this permit shows an exceedance of any limitation. [Special Condition 3.B.] [082015-007A Special Condition 2.B.]
2. The permittee shall report any exceedance of the limitations no later than ten days after an exceedance of the emission limitation.
3. The permittee shall report any deviations from the monitoring, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring and annual compliance certification reports required by Section V of this permit.
4. All reports and certifications shall be submitted to the Air Pollution Control Program's Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 or [AirComplianceReporting@dnr.mo.gov](mailto:AirComplianceReporting@dnr.mo.gov).

| <b>Permit Condition 082019-002</b>                    |  |   |
|---|--|---|
| 10 CSR 10-6.060, Construction Permits Required        |  |   |
| Construction Permit 082019-002, Issued August 9, 2019 |  |   |
| EP #  | Description  | Control Devices   |
| EP05  | Propellant Thermal Treatment System (PTTS) with two propellant Thermal Treatment Chambers (EU1 and EU2) - (Building 3) | 1. Dry Scrubber (CD-01),<br>2. Baghouse (CD-02), and<br>3. Wet Scrubber (CD-03) |

**Emission Limitations:**

1. The permittee shall not discharge hydrogen chloride into the atmosphere from the following stacks in excess of the listed amounts: [Special Condition 2.A.]

**Table 7: Hydrogen Chloride Emission Limitations**

| EP # | Description   | HCL Emission Limit (Lbs/hr) |
|------|---|-----------------------------|
| EP03 | Incinerator Stack (Building 6)  | 1.305                       |
| EP05 | Propellant Thermal Treatment System (PTTS) with two Propellant Thermal Treatment Chambers (PTTC) (EU1 and EU2) - (Building 3) | 2.640                       |
| EP06 | Static Kilns 1,2,3, and 4 (Building 1)  | 0.052                       |
| EP07 | Thermal Treatment Units 1 & 2 (Building 1)  | 0.190                       |
| EP08 | Thermal Treatment Units 3 & 4 (Building 1)  | 0.190                       |

**Operational Limitations:**

1. The permittee shall demonstrate continual compliance with these emission rates by using the HCl continuous emission monitoring system (CEMS) according to the provisions of Construction Permit 012012-001. [Special Condition 2.B.]
2. Propellant Thermal Treatment Chamber (PTTC) Operating and Maintenance Requirements
  - a. The permittee shall restrict the type of feed material to EU2 to M26 Multiple Launch Rocket System rocket motor segments. EU1 shall restrict feed materials to M26 Multiple Launch Rocket System rocket motor segments or inflators. [Special Condition 3.A.]
  - b. The permittee shall limit the feed rate of inflators to EU1 to 2 tons per hour and shall record the amount of inflators combusted each hour. [Special Condition 3.B.]
  - c. The permittee shall comply with all other requirements of Special Condition 6 of Construction Permit 012012-001. [Special Condition 3.C.]
3. Capture Device Requirements
  - a. The permittee shall design, construct, and operate each PTTC (EU1 and EU2) to function as a total enclosure such that all emissions associated with the thermal treatment are captured and exhausted to the air pollution control system (CD-1, CD-2, CD-3). [Special Condition 4.A.]
  - b. The permittee shall comply with all other requirements of Special Condition 7 of Construction Permit 012012-001. [Special Condition 4.B.]

**Monitoring:**

1. Dry Scrubber (CD-1) Requirements
  - a. The permittee shall develop and implement a control device monitoring plan to verify the proper operation of the dry scrubber. The plan shall be documented and made available for review by



any Missouri Department of Natural Resources’ personnel upon request. At a minimum, the plan shall include the following: [Special Condition 5.A.]

- i. When treating inflators in EU1, sorbent is not required. When treating M26 Multiple Launch Rocket System rocket motor segments in either EU1 or EU2: [Special Condition 5.A.1]
  - A. A minimum sorbent feed rate on a 60-minute rolling average; and [Special Condition 5.A.1)a)]
  - B. A sorbent blower operating signal; and [Special Condition 5.A.1)b)]
  - C. The sorbent specifications, including the brand (i.e. manufacturer) and type of sorbent used during the initial performance test. The sorbent may be substituted at any time after the initial performance test with a different brand or type of sorbent, provided that the replacement has equivalent or improved properties. The substitution shall be documented in the control device monitoring plan for the dry scrubber and also in the operating and maintenance logs for the PTTCs and the air pollution control system (CD-1, CD-2, CD-3). [Special Condition 5.A.1)c)]
- b. The permittee shall comply with all other requirements of Special Condition 8 of Construction Permit 012012-001. [Special Condition 5.B.]

**Recordkeeping:**

The permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources’ personnel upon request. [Special Condition 6.A.]

**Reporting:**

1. The permittee shall report no later than 10 days after the end of the month during which any record required by this permit shows an exceedance of a limitation imposed by this permit. [Special Condition 6.B.]
2. The permittee shall report any deviations from the monitoring, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring and annual compliance certification reports required by Section V of this permit.
3. All reports and certifications shall be submitted to the Air Pollution Control Program’s Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 or [AirComplianceReporting@dnr.mo.gov](mailto:AirComplianceReporting@dnr.mo.gov).

| <b>Permit Condition 6.220A<sup>1</sup></b>                          |  |  |
|---|--|--|
| 10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants |  |  |
| EP #  | Description                            | Control Device(s)  |
| EP01  | Storage Feed Handling Building Vent #1 | 1. Activated Carbon Filter (CD01), and<br>2. HEPA Filter (CD01A) |
| EP02  | Storage Feed Handling Building Vent #2 | 1. Activated Carbon Filter (CD02), and<br>2. HEPA Filter (CD02A) |

<sup>1</sup> This permit condition contains the applicable requirements from 10 CSR 10-6.220 as reflected in Missouri’s State Implementation Plan (SIP). This permit condition is federally enforceable until the current version of the regulation is incorporated into the SIP. Once the SIP is updated, this permit condition will no longer apply to the installation. A permit modification is not required for this change.

| <b>Permit Condition 6.220A<sup>1</sup></b>                          |   |  |
|---|---|--|
| 10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants |   |  |
| EP #  | Description   | Control Device(s)  |
| EP03  | Incinerator Stack:<br>1. Rotary Kiln Incinerator, natural gas fired, 4 MMBtu/hr<br>2. Car Bottom Furnace, natural gas fired, 3.6 MMBtu/hr | 1. Secondary Combustor, natural gas fired, 12 MMBtu/hr,<br>2. Spray Dryer (ME-104), and<br>3. Baghouse (ME-105A, B, and C) |
| EP05  | Propellant Thermal Treatment System (PTTS) with two propellant Thermal Treatment Chambers (EU1 and EU2) - (Building 3)                    | 1. Dry Scrubber (CD-01),<br>2. Baghouse (CD-02), and<br>3. Wet Scrubber (CD-03)  |
| EP06  | Static Kilns 1,2,3, and 4 (Building 1)  | 1. Cartridge Filter (CD-07) and<br>2. HEPA Filter (CD-01A)   |
| EP07  | Thermal Treatment Units 1 & 2 (Building 1)  | 1. Cartridge Filter (CD-07),<br>2. HEPA Filter (CD-01A)  |
| EP08  | Thermal Treatment Units 3 & 4 (Building 1)  | 1. Cartridge Filter (CD-07),<br>2. HEPA Filter (CD-01A)  |
| EP11  | Building #12 Nitrocellulose Propellant Thermal Treatment Facility (NCP TTU)   | 1. Baghouse (CD-09) and<br>2. Wet Scrubber (CD-08)   |
| HVAC-01   | HVAC System for Building #5 Storage Feed Handling System, natural gas fired, 1.2 MMBtu/hr   | None   |
| HVAC-02   | HVAC System for Building #6 Kiln Feed Room and Control Room, natural gas fired, 1.2 MMBtu/hr  | None   |
| HVAC-03   | HVAC System for Building #9 Field Office, natural gas fired, 0.4 MMBtu/hr   | None   |
| HVAC-04   | HVAC System for Building #4 CBU Demil, natural gas fired, 0.3 MMBtu/hr  | None   |
| HVAC-05   | HVAC System for Building #1 ICM/MLRS Demil, natural gas fired, 0.5 MMBtu/hr   | None   |
| HVAC-06   | HVAC System for Building #3 MLRS Motor Demil, natural gas fired, 0.4 MMBtu/hr   | None   |
| HVAC-07   | HVAC System for Building #2 MLRS Demil, natural gas fired, 0.4 MMBtu/hr   | None   |
| HVAC-08   | HVAC System for Building #10 Maintenance Building, natural gas fired, 0.2 MMBtu/hr  | None   |

**Emission Limitation:**

1. The permittee shall not cause or permit to be discharged into the atmosphere from these emission units any visible emissions with an opacity greater than 20 percent for any continuous six-minute period. [10 CSR 10-6.220(3)(A)1]

2. Exception: The permittee may discharge into the atmosphere from any emission unit visible emissions with an opacity up to 60 percent for one continuous six-minute period in any 60 minutes. [10 CSR 10-6.220(3)(A)2]
3. Failure to demonstrate compliance with 10 CSR 10-6.220(3)(A) solely because of the presences of uncombined water shall not be a violation. [10 CSR 10-6.220(3)(B)]

**Monitoring:**

1. Monitoring schedule:
  - a. The permittee shall conduct weekly observations for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then:
    - i. The permittee shall conduct observations once every two weeks for a period of eight weeks. If a violation is noted, the permittee shall revert to weekly monitoring. Should no violation of this regulation be observed during this period then:
      - A. The permittee shall conduct observations once per month. If a violation is noted, the permittee shall revert to weekly monitoring.
2. If the permittee reverts to weekly monitoring at any time, the monitoring schedule shall progress in an identical manner from the initial monitoring schedule.
3. Observations are only required when the emission units are operating and when the weather conditions allow.
4. Issuance of a new, amended, or modified operating permit does not restart the monitoring schedule.
5. The permittee shall conduct visible emissions observation on these emission units using the procedures contained in U.S. EPA Test Method 22. Each Method 22 observation shall be conducted for a minimum of six-minutes. If no visible emissions are observed from the emission unit using Method 22, then no Method 9 is required for the emission unit.
6. For emission units with visible emissions, the permittee shall have a certified Method 9 observer conduct a U.S. EPA Test Method 9 opacity observation. The permittee may choose to forego Method 22 observations and instead begin with a Method 9 opacity observation. The certified Method 9 observer shall conduct each Method 9 opacity observation for a minimum of 30-minutes.

**Recordkeeping:**

1. The permittee shall maintain records of all observation results for each emission unit using Attachment Method 9 and Attachment Method 22, or equivalents, to demonstrate compliance.
2. The permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.

**Reporting:**

1. The permittee shall report any exceedance of the limitations no later than ten days after an exceedance of the emission limitation.
2. The permittee shall report any deviations from the monitoring, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring and annual compliance certification reports required by Section V of this permit.
3. All reports and certifications shall be submitted to the Air Pollution Control Program's Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 or [AirComplianceReporting@dnr.mo.gov](mailto:AirComplianceReporting@dnr.mo.gov).

| <b>Permit Condition 6.220B<sup>2</sup></b>                          |   |  |
|---|---|--|
| 10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants |   |  |
| EP #  | Description   | Control Device(s)  |
| EP01  | Storage Feed Handling Building Vent #1  | 1. Activated Carbon Filter (CD01), and<br>2. HEPA Filter (CD01A)   |
| EP02  | Storage Feed Handling Building Vent #2  | 1. Activated Carbon Filter (CD02), and<br>2. HEPA Filter (CD02A)   |
| EP03  | Incinerator Stack:<br>1. Rotary Kiln Incinerator, natural gas fired, 4 MMBtu/hr<br>2. Car Bottom Furnace, natural gas fired, 3.6 MMBtu/hr | 1. Secondary Combustor, natural gas fired, 12 MMBtu/hr,<br>2. Spray Dryer (ME-104), and<br>3. Baghouse (ME-105A, B, and C) |
| EP05  | Propellant Thermal Treatment System (PTTS) with two propellant Thermal Treatment Chambers (EU1 and EU2) - (Building 3)                    | 1. Dry Scrubber (CD-01),<br>2. Baghouse (CD-02), and<br>3. Wet Scrubber (CD-03)  |
| EP06  | Static Kilns 1,2,3, and 4 (Building 1)  | 1. Cartridge Filter (CD-07) and<br>2. HEPA Filter (CD-01A)   |
| EP07  | Thermal Treatment Units 1 & 2 (Building 1)  | 1. Cartridge Filter (CD-07),<br>2. HEPA Filter (CD-01A)  |
| EP08  | Thermal Treatment Units 3 & 4 (Building 1)  | 1. Cartridge Filter (CD-07),<br>2. HEPA Filter (CD-01A)  |
| EP11  | Building #12 Nitrocellulose Propellant Thermal Treatment Facility (NCP TTU)   | 1. Baghouse (CD-09) and<br>2. Wet Scrubber (CD-08)   |

**Emission Limitation:**

1. The permittee shall not cause or permit to be discharged into the atmosphere from these emission units any visible emissions with an opacity greater than 20 percent for any continuous six-minute period. [10 CSR 10-6.220(3)(A)1]
2. Exception: The permittee may discharge into the atmosphere from any emission unit visible emissions with an opacity up to 60 percent for one continuous six-minute period in any 60 minutes. [10 CSR 10-6.220(3)(A)2]
3. Failure to demonstrate compliance with 10 CSR 10-6.220(3)(A) solely because of the presences of uncombined water shall not be a violation. [10 CSR 10-6.220(3)(B)]

**Monitoring:**

1. Monitoring schedule:

<sup>2</sup> This permit condition contains the applicable requirements from 10 CSR 10-6.220 as reflected in Missouri’s Code of State Regulations (CSR). This permit condition is state enforceable until the current version of the regulation is incorporated into the SIP. Once the SIP is updated, this permit condition will be both state and federally enforceable. A permit modification is not required for this change.

- a. The permittee shall conduct weekly observations for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then:
  - i. The permittee shall conduct observations once every two weeks for a period of eight weeks. If a violation is noted, the permittee shall revert to weekly monitoring. Should no violation of this regulation be observed during this period then:
    - A. The permittee shall conduct observations once per month. If a violation is noted, the permittee shall revert to weekly monitoring.
2. If the permittee reverts to weekly monitoring at any time, the monitoring schedule shall progress in an identical manner from the initial monitoring schedule.
3. Observations are only required when the emission units are operating and when the weather conditions allow.
4. Issuance of a new, amended, or modified operating permit does not restart the monitoring schedule.
5. The permittee shall conduct visible emissions observation on these emission units using the procedures contained in U.S. EPA Test Method 22. Each Method 22 observation shall be conducted for a minimum of six-minutes. If no visible emissions are observed from the emission unit using Method 22, then no Method 9 is required for the emission unit.
6. For emission units with visible emissions, the permittee shall have a certified Method 9 observer conduct a U.S. EPA Test Method 9 opacity observation. The permittee may choose to forego Method 22 observations and instead begin with a Method 9 opacity observation. The certified Method 9 observer shall conduct each Method 9 opacity observation for a minimum of 30-minutes.

**Recordkeeping:**

1. The permittee shall maintain records of all observation results for each emission unit using Attachment Method 9 and Attachment Method 22, or equivalents, to demonstrate compliance.
2. The permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.

**Reporting:**

1. The permittee shall report any exceedance of the limitations no later than ten days after an exceedance of the emission limitation.
2. The permittee shall report any deviations from the monitoring, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring and annual compliance certification reports required by Section V of this permit.
3. All reports and certifications shall be submitted to the Air Pollution Control Program's Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 or [AirComplianceReporting@dnr.mo.gov](mailto:AirComplianceReporting@dnr.mo.gov).

| <b>Permit Condition 6.260<sup>3</sup></b>                   |   |  |
|---|---|--|
| 10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds |   |  |
| EP #  | Description   | Control Device(s)  |
| EP03  | Incinerator Stack:<br>1. Rotary Kiln Incinerator, natural gas fired, 4 MMBtu/hr<br>2. Car Bottom Furnace, natural gas fired, 3.6 MMBtu/hr | 1. Secondary Combustor, natural gas fired, 12 MMBtu/hr,<br>2. Spray Dryer (ME-104), and<br>3. Baghouse (ME-105A, B, and C) |
| EP04  | Building #6 Emergency Generator, 676 hp, diesel fired (1994), Caterpillar/ 3412T  | None   |
| EP10  | Emergency Fire Water Pump, 173 hp, diesel fired (2010), Model JU6H-UEABL8   | None   |
| EP11  | Building #12 Nitrocellulose Propellant Thermal Treatment Facility (NCP TTU)   | 1. Baghouse (CD-09) and<br>2. Wet Scrubber (CD-08)   |

**Emission Limitation:**

The permittee shall not cause or permit the emission into the atmosphere gases containing more than five hundred parts per million by volume (500 ppmv) of sulfur dioxide of more than thirty-five milligrams per cubic meter (35 mg/m<sup>3</sup>) of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three hour time period.

**Operational Limitations:**

1. The Emergency Diesel Fire Water Pump (EP10) shall comply with the sulfur fuel requirements of Permit Condition NSPS IIII.
2. The Building #6 Emergency Diesel Generator (EP04) shall comply with the sulfur fuel requirements of Permit Condition 6.261.

**Monitoring/Recordkeeping:**

1. For EP04 and EP10, no additional recordkeeping is required to demonstrate compliance with this permit condition, see Statement of Basis.
2. For EP03 and EP11, the permittee shall maintain records quantifying the sulfur emissions in the units of the limitation. Compliance calculations shall use the most recent performance testing data.

**Reporting:**

1. The permittee shall report any exceedance of any of the terms imposed by this permit condition, or any malfunction which could cause an exceedance of any of the terms imposed by this permit condition, no later than ten days after the exceedance or event causing the exceedance. The permittee shall submit these reports to Missouri Compliance Coordinator, Air Branch; Enforcement and Compliance Assurance Division; EPA Region VII; 11201 Renner Blvd., Lenexa, KS 66219.
2. The permittee shall report any deviations from the monitoring, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring report (SAM) and annual

<sup>3</sup> This regulation was rescinded from the code of state regulations (CSR). However, this regulation is still contained in Missouri's State Implementation Plan (SIP). This regulation is a federally enforceable requirement until it is removed from the SIP. Once this regulation is removed from the SIP, this permit condition will no longer apply to the installation. A permit modification is not required for this change.

compliance certification (ACC). The permittee shall submit the SAM and ACC reports to both the EPA Region VII and Air Pollution Control Program’s Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 or [AirComplianceReporting@dnr.mo.gov](mailto:AirComplianceReporting@dnr.mo.gov).

| <b>Permit Condition 6.261<sup>4</sup></b>           |   |  |
|---|---|--|
| 10 CSR 10-6.261 Control of Sulfur Dioxide Emissions |   |  |
| EP #  | Description   | Control Device(s)  |
| EP03  | Incinerator Stack:<br>1. Rotary Kiln Incinerator, natural gas fired, 4 MMBtu/hr<br>2. Car Bottom Furnace, natural gas fired, 3.6 MMBtu/hr | 1. Secondary Combustor, natural gas fired, 12 MMBtu/hr,<br>2. Spray Dryer (ME-104), and<br>3. Baghouse (ME-105A, B, and C) |
| EP04  | Building #6 Emergency Generator, 676 hp, diesel fired (1994), Caterpillar/ 3412T  | None   |
| EP05  | Propellant Thermal Treatment System (PTTS) with two propellant Thermal Treatment Chambers (EU1 and EU2) - (Building 3)                    | 1. Dry Scrubber (CD-01),<br>2. Baghouse (CD-02), and<br>3. Wet Scrubber (CD-03)  |
| EP06  | Static Kilns 1,2,3, and 4 (Building 1)  | 1. Cartridge Filter (CD-07) and<br>2. HEPA Filter (CD-01A)   |
| EP07  | Thermal Treatment Units 1 & 2 (Building 1)  | 1. Cartridge Filter (CD-07),<br>2. HEPA Filter (CD-01A)  |
| EP08  | Thermal Treatment Units 3 & 4 (Building 1)  | 1. Cartridge Filter (CD-07),<br>2. HEPA Filter (CD-01A)  |
| EP11  | Building #12 Nitrocellulose Propellant Thermal Treatment Facility (NCP TTU)   | 1. Baghouse (CD-09) and<br>2. Wet Scrubber (CD-08)   |
| EP12  | Building #3 Heat Exchanger, natural gas fired, 3.5 MMBtu/hr   | None   |
| HVAC-01   | HVAC System for Building #5 Storage Feed Handling System, natural gas fired, 1.2 MMBtu/hr   | None   |
| HVAC-02   | HVAC System for Building #6 Kiln Feed Room and Control Room, natural gas fired, 1.2 MMBtu/hr  | None   |
| HVAC-03   | HVAC System for Building #9 Field Office, natural gas fired, 0.4 MMBtu/hr   | None   |
| HVAC-04   | HVAC System for Building #4 CBU Demil, natural gas fired, 0.3 MMBtu/hr  | None   |
| HVAC-05   | HVAC System for Building #1 ICM/MLRS Demil, natural gas fired, 0.5 MMBtu/hr   | None   |

<sup>4</sup> This permit condition contains the applicable requirements from 10 CSR 10-6.261 as reflected in Missouri’s Code of State Regulations (CSR). This permit condition is state enforceable until this regulation is incorporated into the SIP. Once the SIP is updated, this permit condition will be both state and federally enforceable. A permit modification is not required for this change.

| <b>Permit Condition 6.261<sup>4</sup></b>           |  |                   |
|---|--|-------------------|
| 10 CSR 10-6.261 Control of Sulfur Dioxide Emissions |  |                   |
| EP #  | Description  | Control Device(s) |
| HVAC-06   | HVAC System for Building #3 MLRS Motor Demil, natural gas fired, 0.4 MMBtu/hr      | None              |
| HVAC-07   | HVAC System for Building #2 MLRS Demil, natural gas fired, 0.4 MMBtu/hr            | None              |
| HVAC-08   | HVAC System for Building #10 Maintenance Building, natural gas fired, 0.2 MMBtu/hr | None              |

**Emission Limitation:**

1. For all units combusting natural gas, the permittee shall combust natural gas that meets the definition of 40 CFR 72.2. No other fuels shall be combusted in these units. [6.261(1)(A)]
2. For EP04, the permittee shall not use diesel fuel oil with a sulfur content greater than 8,812 ppm. [6.261(3)(C)]

**Monitoring/Recordkeeping:**

1. The permittee shall determine compliance using fuel delivery records. [6.261(3)(E)3.]
2. The permittee must maintain a record of fuel deliveries. [6.261(4)(A)3.]
3. The permittee must maintain the fuel supplier information to certify all fuel deliveries. Bills of lading and/or other fuel deliver documentation containing the following information for all fuel purchases or deliveries are deemed acceptable to comply with the requirements of this rule: [6.261(4)(C)]
  - a. The name, address, and contact information of the fuel supplier; [6.261(4)(C)(1)]
  - b. The type of fuel; [6.261(4)(C)(2)]
  - c. The sulfur content or maximum sulfur content expressed in percent sulfur by weight or in ppm sulfur; and [6.261(4)(C)(4)]
  - d. The heating value of the fuel. [6.261(4)(C)(5)]
4. The permittee must furnish the Director all data necessary to determine compliance status. [6.261(4)(G)]



## IV. Core Permit Requirements

The installation shall comply with each of the following regulations or codes. Consult the appropriate sections in the Code of Federal Regulations (CFR), the Code of State Regulations (CSR), and local ordinances for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued. The following are only excerpts from the regulation or code, and are 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) 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 to the director in writing at least ten days prior to any maintenance, start-up or shutdown activity 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, notice shall be given as soon as practicable prior to the activity.
- 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. The permittee shall retain the most current operating permit issued to this installation on-site. The permittee shall make such permit available within a reasonable period of time to any Missouri Department of Natural Resources personnel upon request.

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

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.

#### **10 CSR 10-6.110 Reporting of Emission Data, Emission Fees and Process Information**

- 1) The permittee shall submit a 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) 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.
- 3) 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.

#### **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 10-6.165 Restriction of Emission of Odors**

#### **This is a State Only permit requirement.**

No person may cause, permit or allow the emission of odorous matter in concentrations and frequencies or for durations that odor can be perceived when one volume of odorous air is diluted with seven volumes of odor-free air for two separate trials not less than 15 minutes apart within the period of one hour. This odor evaluation shall be taken at a location outside of the installation's property boundary.

### **10 CSR 10-6.170**

#### **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.
- 4) Issuance of a new, amended, or modified operating permit does not restart the monitoring schedule.

**Recordkeeping:**

The permittee shall document all readings on Attachment 6.170, 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 10-6.250 Asbestos Abatement Projects**

**Certification, Accreditation, and Business Exemption Requirements**

**This is a State Only permit requirement.**

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.

**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 at an installation:
  - 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.

#### **40 CFR Part 82 Protection of Stratospheric Ozone (Title VI)**

- 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 40 CFR §82.106.
  - b) The placement of the required warning statement must comply with the requirements of 40 CFR §82.108.
  - c) The form of the label bearing the required warning statement must comply with the requirements of 40 CFR §82.110.
  - d) No person may modify, remove, or interfere with the required warning statement except as described in 40 CFR §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 of 40 CFR Part 82:
  - a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices described in 40 CFR §82.156.
  - b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment described in 40 CFR §82.158.
  - c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR §82.161.
  - d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with the record keeping requirements of 40 CFR §82.166. ("MVAC-like" appliance as defined at 40 CFR §82.152).
  - e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to 40 CFR §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 40 CFR §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 contained 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.*
- .

## 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

### Permit Duration

#### 10 CSR 10-6.065(5)(C)1.B, 10 CSR 10-6.065(5)(E)3.C

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. If a timely and complete application for a permit renewal is submitted, but the Air Pollution Control Program fails to take final action to issue or deny the renewal permit before the end of the term of this permit, this permit shall not expire until the renewal permit is issued or denied.

### General Record Keeping and Reporting Requirements

#### 10 CSR 10-6.065(5)(C)1.C

- 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 available within a reasonable period of time to any Missouri Department of Natural Resources' personnel upon request.
- 2) Reporting
  - a) All reports shall be submitted to the Air Pollution Control Program, Compliance and Enforcement Section, P. O. Box 176, Jefferson City, MO 65102 or [AirComplianceReporting@dnr.mo.gov](mailto:AirComplianceReporting@dnr.mo.gov).
  - b) The permittee shall submit a report of all required monitoring by:
    - i) October 1st for monitoring which covers the January through June time period, and
    - ii) April 1st for monitoring which covers the July through December time period.
  - c) Each report shall identify any deviations from emission limitations, monitoring, record keeping, reporting, or any other requirements of the permit, this includes deviations or Part 64 exceedances.
  - d) Submit supplemental reports as required or as needed. 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 (5)(C)7.A of 10 CSR 10-6.065 (Emergency Provisions) shall be submitted to the permitting authority either verbally or in writing within two working days after the date on which the emission limitation is exceeded due to the emergency, if the permittee wishes to assert an affirmative defense. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that indicate an emergency occurred and the permittee can identify the cause(s) of the emergency. The permitted installation must show that it was operated properly at the time and that during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or requirements in the permit. The notice

must contain a description of the emergency, the steps taken to mitigate emissions, and the corrective actions taken.

- ii) Any deviation that poses an imminent and substantial danger to public health, safety or the environment shall be reported as soon as practicable.
- iii) Any other deviations identified in the permit as requiring more frequent reporting than the permittee's semiannual report shall be reported on the schedule specified in this permit.
- 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.

### **Risk Management Plan Under Section 112(r)**

#### **10 CSR 10-6.065(5)(C)1.D**

If the installation is required to develop and register a risk management plan pursuant to Section 112(r) of the Act, the permittee will verify that it has complied with the requirement to register the plan.

### **Severability Clause**

#### **10 CSR 10-6.065(5)(C)1.F**

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

### **General Requirements**

#### **10 CSR 10-6.065(5)(C)1.G**

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



### **Incentive Programs Not Requiring Permit Revisions**

#### **10 CSR 10-6.065(5)(C)1.H**

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

### **Reasonably Anticipated Operating Scenarios**

#### **10 CSR 10-6.065(5)(C)1.I**

There are no reasonably anticipated operating scenarios.

### **Compliance Requirements**

#### **10 CSR 10-6.065(5)(C)3**

- 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 Missouri Compliance Coordinator, Air Branch; Enforcement and Compliance Assurance Division; EPA Region VII; 11201 Renner Blvd., Lenexa, KS 66219, as well as the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 or [AirComplianceReporting@dnr.mo.gov](mailto:AirComplianceReporting@dnr.mo.gov). All deviations and Part 64 exceedances and excursions must be included in the compliance certifications. The compliance certification shall include the following:
  - a) The identification of each term or condition of the permit that is the basis of the certification;

- b) The current compliance status, as shown by monitoring data and other information reasonably available to the installation;
- c) Whether compliance was continuous or intermittent;
- d) The method(s) used for determining the compliance status of the installation, both currently and over the reporting period; and
- e) Such other facts as the Air Pollution Control Program will require in order to determine the compliance status of this installation.

### **Permit Shield**

#### **10 CSR 10-6.065(5)(C)6**

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

### **Emergency Provisions**

#### **10 CSR 10-6.065(5)(C)7**

- 1) An emergency or upset as defined in 10 CSR 10-6.065(5)(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.

## **Operational Flexibility**

### **10 CSR 10-6.065(5)(C)8**

An installation that has been issued a Part 70 operating permit is not required to apply for or obtain a permit revision in order to make any of the changes to the permitted installation described below if the changes are not Title I modifications, the changes do not cause emissions to exceed emissions allowable under the permit, and the changes do not result in the emission of any air contaminant not previously emitted. The permittee shall notify the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 or AirComplianceReporting@dnr.mo.gov, as well as Missouri Compliance Coordinator, Air Branch; Enforcement and Compliance Assurance Division; EPA Region VII; 11201 Renner Blvd., Lenexa, KS 66219, at least seven days in advance of these changes, except as allowed for emergency or upset conditions. Emissions allowable under the permit means a federally enforceable permit term or condition determined at issuance to be required by an applicable requirement that establishes an emissions limit (including a work practice standard) or a federally enforceable emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject.

- 1) Section 502(b)(10) changes. Changes that, under section 502(b)(10) of the Act, contravene an express permit term may be made without a permit revision, except for changes that would violate applicable requirements of the Act or contravene federally enforceable monitoring (including test methods), record keeping, reporting or compliance requirements of the permit.
  - a) Before making a change under this provision, The permittee shall provide advance written notice to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 or AirComplianceReporting@dnr.mo.gov, as well as Missouri Compliance Coordinator, Air Branch; Enforcement and Compliance Assurance Division; EPA Region VII; 11201 Renner Blvd., Lenexa, KS 66219, describing the changes to be made, the date on which the change will occur, and any changes in emission and any permit terms and conditions that are affected. The permittee shall maintain a copy of the notice with the permit, and the APCP shall place a copy with the permit in the public file. Written notice shall be provided to the EPA and the APCP as above at least seven days before the change is to be made. If less than seven days notice is provided because of a need to respond more quickly to these unanticipated conditions, the permittee shall provide notice to the EPA and the APCP as soon as possible after learning of the need to make the change.
  - b) The permit shield shall not apply to these changes.

## **Off-Permit Changes**

### **10 CSR 10-6.065(5)(C)9**

- 1) Except as noted below, the permittee may make any change in its permitted operations, activities or emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a permit revision. Insignificant activities listed in the permit, but not otherwise addressed in or prohibited by this permit, shall not be considered to be constrained by this permit for purposes of the off-permit provisions of this section. Off-permit changes shall be subject to the following requirements and restrictions:
  - a) The change must meet all applicable requirements of the Act and may not violate any existing permit term or condition; the permittee may not change a permitted installation without a permit revision if this change is subject to any requirements under Title IV of the Act or is a Title I modification;
  - b) The permittee must provide contemporaneous written notice of the change to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO

65102 or AirComplianceReporting@dnr.mo.gov, as well as Missouri Compliance Coordinator, Air Branch; Enforcement and Compliance Assurance Division; EPA Region VII; 11201 Renner Blvd., Lenexa, KS 66219. This notice shall not be required for changes that are insignificant activities under 10 CSR 10-6.065(5)(B)3 of this rule. This written notice shall describe each change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply as a result of the change.

- c) The permittee shall keep a record describing all changes made at the installation that result in emissions of a regulated air pollutant subject to an applicable requirement and the emissions resulting from these changes; and
- d) The permit shield shall not apply to these changes.

### **Responsible Official**

#### **10 CSR 10-6.020(2)(R)34**

The application utilized in the preparation of this permit was signed by David R. Zoghby, Senior Director Marketing & Commercial Contracts. 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.

### **Reopening-Permit for Cause**

#### **10 CSR 10-6.065(5)(E)6**

This permit shall be reopened for cause if:

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

- 5) MoDNR or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.

**Statement of Basis**

**10 CSR 10-6.065(5)(E)1.C**

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 Method 22**  
 Visible Emission Observations

| Method 22 Visible Emissions Observations  |                                     |    |                |    |          |
|---|-------------------------------------|----|----------------|----|----------|
| Installation Name   |                                     |    | Observer Name  |    |          |
| Location  |                                     |    | Date           |    |          |
| Sky Conditions  |                                     |    | Wind Direction |    |          |
| Precipitation   |                                     |    | Wind Speed     |    |          |
| Time  |                                     |    | Emission unit  |    |          |
| Sketch emission unit: indicate observer position relative to emission unit; indicate potential emission points and/or actual emission points. |                                     |    |                |    |          |
| Minute  | Seconds                             |    |                |    | Comments |
|   | 0                                   | 15 | 30             | 45 |          |
|   | Visible Emissions Yes (Y) or No (N) |    |                |    |          |
| 0   |                                     |    |                |    |          |
| 1   |                                     |    |                |    |          |
| 2   |                                     |    |                |    |          |
| 3   |                                     |    |                |    |          |
| 4   |                                     |    |                |    |          |
| 5   |                                     |    |                |    |          |
| 6   |                                     |    |                |    |          |

If visible emissions are observed, the installation is not required to complete the entire six-minute observation. The installation shall note when the visible emissions were observed and shall conduct a Method 9 opacity observation.

**Attachment Method 9**  
 Method 9 Opacity Observations

| Method 9 Opacity Observations                                 |   |                     |
|---|---|---------------------|
| Installation Name:  | Sketch of the observer's position relative to the emission unit |                     |
| Emission Point:   |   |                     |
| Emission Unit:  |   |                     |
| Observer Name and Affiliation:                                |   |                     |
| Observer Certification Date:                                  |   |                     |
| Method 9 Observation Date:                                    |   |                     |
| Height of Emission Point:                                     |   |                     |
| Time:   | Start of observations   | End of observations |
| Distance of Observer from Emission Point:                     |   |                     |
| Observer Direction from Emission Point:                       |   |                     |
| Approximate Wind Direction:                                   |   |                     |
| Estimated Wind Speed:   |   |                     |
| Ambient Temperature:  |   |                     |
| Description of Sky Conditions (Presence and color of clouds): |   |                     |
| Plume Color:  |   |                     |
| Approximate Distance Plume is Visible from Emission Point:    |   |                     |



**Attachment Method 9 (Continued)**  
 Method 9 Opacity Observations

| Minute | Seconds                                   |    |    |    | 1-<br>minute<br>Avg. %<br>Opacity <sup>5</sup> | 6-<br>minute<br>Avg. %<br>Opacity <sup>6</sup> | Steam Plume (check<br>if applicable) |          | Comments |
|--------|---|----|----|----|--|--|--------------------------------------|----------|----------|
|        | 0   | 15 | 30 | 45 |  |  | Attached                             | Detached |          |
|        | Opacity Readings (% Opacity) <sup>7</sup> |    |    |    |  |  |                                      |          |          |
| 0      |   |    |    |    |  | N/A  |                                      |          |          |
| 1      |   |    |    |    |  | N/A  |                                      |          |          |
| 2      |   |    |    |    |  | N/A  |                                      |          |          |
| 3      |   |    |    |    |  | N/A  |                                      |          |          |
| 4      |   |    |    |    |  | N/A  |                                      |          |          |
| 5      |   |    |    |    |  |  |                                      |          |          |
| 6      |   |    |    |    |  |  |                                      |          |          |
| 7      |   |    |    |    |  |  |                                      |          |          |
| 8      |   |    |    |    |  |  |                                      |          |          |
| 9      |   |    |    |    |  |  |                                      |          |          |
| 10     |   |    |    |    |  |  |                                      |          |          |
| 11     |   |    |    |    |  |  |                                      |          |          |
| 12     |   |    |    |    |  |  |                                      |          |          |
| 13     |   |    |    |    |  |  |                                      |          |          |
| 14     |   |    |    |    |  |  |                                      |          |          |
| 15     |   |    |    |    |  |  |                                      |          |          |
| 16     |   |    |    |    |  |  |                                      |          |          |
| 17     |   |    |    |    |  |  |                                      |          |          |
| 18     |   |    |    |    |  |  |                                      |          |          |
| 19     |   |    |    |    |  |  |                                      |          |          |
| 20     |   |    |    |    |  |  |                                      |          |          |
| 21     |   |    |    |    |  |  |                                      |          |          |
| 22     |   |    |    |    |  |  |                                      |          |          |
| 23     |   |    |    |    |  |  |                                      |          |          |
| 24     |   |    |    |    |  |  |                                      |          |          |
| 25     |   |    |    |    |  |  |                                      |          |          |
| 26     |   |    |    |    |  |  |                                      |          |          |
| 27     |   |    |    |    |  |  |                                      |          |          |
| 28     |   |    |    |    |  |  |                                      |          |          |
| 29     |   |    |    |    |  |  |                                      |          |          |
| 30     |   |    |    |    |  |  |                                      |          |          |

The emission unit is in compliance if each six-minute average opacity is less than or equal to 20 %. Exception:  
 The emission unit is in compliance if one six-minute average opacity is greater than 20 %, but less than 60 %.  
 Was the emission unit in compliance at the time of evaluation (yes or no)?

\_\_\_\_\_  
 Signature of Observer

<sup>5</sup> 1-minute avg. % opacity is the average of the four 15 second opacity readings during the minute.

<sup>6</sup> 6-minute avg. % opacity is the average of the six most recent 1-minute avg. % opacities.

<sup>7</sup> Each 15 second opacity reading shall be recorded to the nearest 5% opacity as stated within Method 9.

**Attachment MACT EEE**

**Table 8: Automatic Feed Waste Cutoff (AFWCO) Summary**

| Operating Parameter   | MACT Setpoint                       | Monitoring Device Location              |
|---|-------------------------------------|---|
| Maximum Hazardous Waste Feed  | 3,109 lbs/hr                        | ME-108 A/B Feed Room                    |
| Rotary Kiln Pressure  | -0.0" wc Instantaneous              | PA – 105 Kiln Feed Housing              |
| Low Secondary Combustor Temperature   | 1818°F (HRA)                        | TT – 268 Secondary Combustor            |
| Minimum Soda Ash Solution Rate  | 0.3 gpm or calculation rate         | FT – 313 Soda Ash Pump                  |
| High Spray Dryer Exit Temperature   | 360°F (HRA)                         | TT – 308 Spray Dryer Exit               |
| Baghouse Differential Pressure  | <5.8 “ wc (HRA)<br>>12.0 “ wc (HRA) | DP – 359 Duct (before & after) Baghouse |
| Baghouse Bypass Damper  | Open                                | ZS – 358 Bypass Damper                  |
| Broken Bag Detector   | 100                                 | XS–355, 362, 372 Outlet of each chamber |
| High Gas Flow Rate  | 654,795 scfh (HRA)                  | FT – 412 Stack                          |
| CO  | 100 ppmv (HRA)                      | AT – 407 Stack                          |
| O2  | 3% (HRA)                            | AT – 409 Stack                          |
| Total Chlorine Feed   | 106.6 lb/hr (12HRA)                 | CMS                                     |
| Total Ash Feed  | 401.9 lb/hr (12HRA)                 | CMS                                     |
| Total Lead Feed   | 35.4 lb/hr (12HRA)                  | CMS                                     |
| Total Lead Feed from lead compounds in unconfined wastes  | 4.0 lb/hr (12HRA)                   | CMS                                     |
| Total Cadmium Feed  | 2.8 lb/hr (12HRA)                   | CMS                                     |
| Total Chromium Feed   | 28.4 lb/hr (12HRA)                  | CMS                                     |
| Total Beryllium Feed  | 20.2 lb/hr (12HRA)                  | CMS                                     |
| Total Mercury Feed  | 0.0016 gr/hr (12HRA)                | CMS                                     |
| SVM Emissions   | 0.230 mg/dscm (12HRA)               | CMS                                     |
| LVM Emissions   | 0.092 mg/dscm (12HRA)               | CMS                                     |
| Mercury Emissions   | 0.130 mg/dscm (12HRA)               | CMS                                     |
| AWFCO Parameters from Notice of Compliance and the Report for the Comprehensive Performance Test completed on February 2, 2017. |                                     |   |



**Attachment HCL Emissions**

Month/Year: \_\_\_\_\_

|   |  |
|---|--|
| HCL Emissions for the current month (tons):       |  |
| SSM HCL Emissions for the current month (tons):   |  |
| Total HCL Emissions for the current month (tons): |  |
| Consecutive 12 month total HCL Emissions (tons):  |  |

HCL Emissions are calculated using CEMS data (HCL concentration, actual stack gas temperature, actual stack gas flow rate) according to the following formula:

$$HCL\ Emissions = (X\ ppmv) \times \left(36.45 \frac{lb}{lb\ mol}\right) \times \left(2.595 \times 10^{-9} \frac{lb\ mol}{dscfm}\right) \times (Y\ dscfm)$$

Where:

X ppmv = measured concentration of HCL in exhaust stack gas (EP05) in parts per million by volume

$36.45 \frac{lb}{lb\ mol}$  = molecular weight of HCL

Y dscfm = measured exhaust stack (EP05) gas volumetric flow corrected to dry standard cubic feet per minute (dscfm)

$2.595 \times 10^{-9} \frac{lb\ mol}{dscfm}$  = conversion factor

All SSM Emissions must be included in the monthly totals. **A consecutive 12 month total less than 10.0 tons indicates compliance.**



## STATEMENT OF BASIS

### Installation Description

EBV Explosives Environmental Company dba General Dynamics Ordnance and Tactical Systems Munition Services (GD-OTS MS) is a reactive waste management facility located in Jasper County. The facility has two incinerators; the rotary kiln and the car bottom furnace. The rotary kiln is fed a wide variety of solid explosive waste materials via a continuous feed system while the car bottom furnace (CBF) is loaded batch-wise. The rotary kiln or CBF can be operated alone or at the same time and both are fired with natural gas. The secondary combustor provides the second stage in the final combustion of the exhaust gases from either the kiln or the CBF, depending on which primary combustion unit is operating. In addition to the pollution control function that the secondary combustor provides, these units utilize a two-stage air pollution control system (APCS). The first stage of this system is the spray dryer where the exhaust gases from the secondary combustor immediately enter the spray dryer where they are quenched with a dilute soda ash/water solution. The temperature of the exhaust gas from the spray dryer is maintained by controlling the flow of quench water fed to the spray dryer. Concurrent with vaporization of the water, the soda ash reacts with sulfur oxides and/or hydrochloric acid, if present, to form sodium salts. These reaction products, together with the unreacted soda ash, become entrained in the gas within the spray dryer as solid particulate matter. The second stage of the APCS is the three-section baghouse. The pollution control system is designed to operate with just two of the baghouse sections on-line.

The facility also utilizes 12 thermal treatment units for reactive wastes. Building #1 has four static kilns for the thermal treatment of fuzes with a dedicated APCS consisting of a cartridge filter and a HEPA filter (EP06). Building #1 also has four contained thermal treatment units for treatment of submunitions with two APCSs that handle two thermal treatment units each. These APCSs consist of a cartridge filter and a HEPA filter (EP07 and EP08). Building #3 has two propellant thermal treatment units with a dedicated APCS consisting of a dry scrubber, six baghouses and, a wet scrubber (EP05). Building #12 has two thermal treatment units with an APCS consisting of a baghouse and wet scrubber. (EP11)

Supporting the operation of these units are Storage Magazines, a Storage/Feed Handling Building, a Feed/Control Building, diesel powered emergency generators, a diesel powered emergency fire water pump and residual/ash handling systems. The previous five years of actual emissions and the installation's potential to emit are shown in the table below. The installation has potential to emit greater than the major source thresholds for Volatile Organic Compounds (VOC), Nitrogen Oxides (NO<sub>x</sub>), Carbon Monoxide (CO), as well as individual and total Hazardous Air Pollutants (HAPs).

**Table 9: Emissions Profile, tons per year**

| Pollutants   | Reported Emissions |      |      |      |      | Potential Emissions |
|--|--------------------|------|------|------|------|---------------------|
|  | 2014               | 2015 | 2016 | 2017 | 2018 |                     |
| Particulate Matter<br>≤ Ten Microns (PM <sub>10</sub> )  | 0.49               | 0.56 | 0.52 | 3.48 | 2.24 | <15                 |
| Particulate Matter<br>≤ 2.5 Microns (PM <sub>2.5</sub> ) | 0.21               | 0.23 | 0.25 | 3.48 | 1.12 | <10                 |
| Sulfur Oxides<br>(SO <sub>x</sub> )                      | 0.11               | 0.07 | 0.08 | 0.08 | 0.14 | <40                 |

| Pollutants                         | Reported Emissions |       |       |       |       | Potential Emissions |
|------------------------------------|--------------------|-------|-------|-------|-------|---------------------|
|                                    | 2014               | 2015  | 2016  | 2017  | 2018  |                     |
| Nitrogen Oxides (NO <sub>x</sub> ) | 47.22              | 47.16 | 47.81 | 45.71 | 68.87 | >100                |
| Volatile Organic Compounds (VOC)   | 0.42               | 0.70  | 1.03  | 0.90  | 0.69  | >100                |
| Carbon Monoxide (CO)               | 10.85              | 11.68 | 14.10 | 9.04  | 12.10 | >100                |
| Hazardous Air Pollutants (HAPs)    | 0.78               | 0.97  | 0.97  | 0.89  | 0.61  | >10/25              |
| Hydrogen Chloride                  |                    |       |       |       |       | >10.0               |
| Lead                               |                    |       |       |       |       | <0.6                |
| Dibutyl Phthalate                  |                    |       |       |       |       | <10.0               |
| Diethylene Glycol Dinitrate        |                    |       |       |       |       | <5.0                |

**Permit Reference Documents**

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

1. Part 70 Operating Permit Application, received March 9, 2018;
2. 2018 Emissions Inventory Questionnaire, received April 29, 2019;
3. U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition;
4. webFIRE; and
5. All documents listed in Construction Permit History

**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.

**Other Air Regulations Determined Not to Apply to the Operating Permit**

The Air Pollution Control Program has determined the following requirements to not be 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.

### **Construction Permit History**

The following construction permits were issued to this installation:

Construction Permit 0990-002, Issued September 13, 1990

Construction Permit Amendment 0990-002A, Issued February 25, 1991

Construction Permit Amendment 0990-002B, Issued November 12, 1997

The initial construction permit is for the installation of the rotary kiln incinerator, car bottom furnace, and secondary combustor (all under EP03). The initial permit contains special conditions that were replaced with the first amendment in 1991. These amended special conditions were subsequently replaced in the second amendment in 1997. Construction Permit Amendment 0990-002B contains all the special conditions that apply to these units. Special conditions 1 and 2 contain one time testing requirements that have been satisfied, therefore they are not included in the operating permit. All other special conditions appear in Permit Condition 0990-002B. Some special conditions have been modified to reflect the original intent and current interpretations.

Construction Permit 1293-010, Issued October 28, 1993

This permit was issued for the construction of the Storage Feed Handling Building. All special conditions of this permit appear in Permit Condition 1293-010.

Construction Permit 0894-007, Issued July 27, 1994

This construction permit is for the installation of the Building #6 Emergency Generator (EP04). All special conditions appear in Permit Condition 0894-007. Some special conditions have been modified to reflect the original intent.

Construction Permit 072009-004, Issued July 2, 2009

Construction Permit Amendment 072009-004A, Issued July 2, 2009

The initial construction permit is for the installation of the Propellant Thermal Treatment Facility (PTTF) (EP05). All special conditions from the initial permit and the amendment were superseded by Construction Permit 012012-001.

Construction Permit 012012-001, Issued January 4, 2012

This permit was issued for the modification of the Propellant Thermal Treatment Facility (PTTF) (EP05) initially permitted under Construction Permit 072009-004. This permit supersedes Construction Permit 072009-004 and amendment 072009-004A. All special conditions appear in the operating permit as Permit Condition 012012-001. The previous operating permit contains a reference to Construction Permit Amendment 012012-001A. According to program records, this amendment was never issued.

Construction Permit 082015-007, Issued August 12, 2015

Construction Permit Amendment 082015-007A, Issued April 14, 2016

Construction Permit Amendment 082015-007B, Issued September 6, 2016

This initial construction permit was issued for the installation of a Nitrocellulose Propellant Thermal Treatment Facility (NCP TTU) (EP11). The NCP TTU includes a Receiving Bay, Drum Handling Room, Safety Cell, and two Thermal Treatment Chambers (TTC), EU1 and EU2, with a an Air Pollution Control System (APCS). The APCS consists of a wet scrubber. Amendment B added a baghouse prior to the wet scrubber for emissions control. Amendment A authorized the treatment of different materials.



The original permit and both amendments contained performance testing requirements. Those one time requirements have been satisfied, therefore they are not included in the operating permit. All other special conditions appear as Permit Condition 082015-007B.

Construction Permit 082019-002, Issued August 9, 2019

This permit is for the modification of Building #3 Propellant Thermal Treatment Unit Treatment Chamber EU1 and associated equipment to allow treatment of inflators. This permit supersedes Construction Permit 012012-001, Special Conditions 3.A., 6.B., 7.A., and 8.B. All special conditions appear in the operating permit as Permit Condition 082019-002.

Construction Permit 082019-008, Issued August 28, 2019

This permit increases the throughput of Building 12 Nitrocellulose Based Propellant Treatment Unit. This permit supersedes Construction Permit 082015-007A, Special Condition 1.B. and does not contain any other special conditions.

#### **New Source Performance Standards (NSPS) Applicability**

40 CFR Part 60 Subpart IIII, Stationary Compression Ignition Internal Combustion Engines

This regulation applies to CI engines constructed after various dates. EP10 is subject to this regulation. This regulation appears in the operating permit as Permit Condition NSPS IIII.

40 CFR Part 60 Subpart JJJJ, Stationary Spark Ignition Internal Combustion Engines

This regulation does not apply, as the internal combustion engines are not spark ignition engines.

#### **Maximum Achievable Control Technology (MACT) Applicability**

40 CFR Part 63, Subpart EEE, National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors. This regulation applies to EP03 and appears in the operating permit as Permit Condition MACT EEE. The unit complies with the MACT EEE replacement standards under §63.1219.

This regulation does not apply to the PTTS (EP-05), Static Kiln (EP-06), Thermal Treatment Units (EP-07 & EP-08), and the Nitrocellulose Propellant Thermal Treatment Facility (EP11) because the units do not meet the 40 CFR 260.10 definition of an incinerator as referenced in this regulation.

40 CFR Part 63 Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

This regulation applies to new and existing units located at both area and major HAP sources. EP10 is considered a new engine and complies with NSPS IIII to demonstrate compliance with this regulation. EP04 meets the conditions of §63.6590(3)(iii), which states engines that do not operate according to §63.6640(f)(2)(ii) and (iii) are not subject to this regulation. Operation under the provisions of §63.6640(f)(2)(ii) and (iii) is not permitted, as these provisions have been vacated by EPA. Therefore this regulation does not apply to EP04.

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

The provisions of this subpart apply to various industrial, commercial, or institutional boiler or process heaters located at major sources of HAPs. This regulation applies to EP12 and appears in the permit as Permit Condition MACT DDDDD.

#### **National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

40 CFR Part 61 Subpart C, National Emission Standard for Beryllium

This regulation applies to the installation and appears as Permit Condition NEHSAP C. Performance testing and reporting requirements have been gap filled to demonstrate compliance with the provisions of Subpart C and relevant provisions of 10 CSR 10-6.065, Operating Permits.

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

This regulation applies to the installation and appears in the Core Permit Requirements section of the Operating Permit.

#### **Compliance Assurance Monitoring (CAM) Applicability**

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

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

- Is subject to an emission limitation or standard, and
- Uses a control device to achieve compliance, and
- Has pre-control emissions that exceed or are equivalent to the major source threshold.

The permittee is required to perform continuous monitoring on all control devices that may meet CAM applicability. These units meet exemption §64.2(b)(vi). The control devices associated with EP05 also meet exemption §64.2(b)(i) as they are subject to MACT EEE. Therefore CAM does not apply.

#### **Greenhouse Gas Emissions**

Note that this source may be subject to the Greenhouse Gas Reporting Rule. However, the preamble of the GHG Reporting Rule clarifies that Part 98 requirements do not have to be incorporated in Part 70 permits operating permits at this time. In addition, Missouri regulations do not require the installation to report CO<sub>2</sub> emissions in their Missouri Emissions Inventory Questionnaire; therefore, the installation's CO<sub>2</sub> emissions were not included within this permit. If required to report, the applicant is required to report the data directly to EPA. The public may obtain CO<sub>2</sub> emissions data by visiting <http://epa.gov/ghgreporting/ghgdata/reportingdatasets.html>.

#### **Other Regulatory Determinations**

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

This regulation applies to all sources of visible emissions. This operating permit contains two permit conditions to represent two versions of this regulation: the version that is incorporated into the SIP (state final date 8/31/2008) and the version that currently appears in the CSR (state final date 3/30/19). There are various differences between these two versions, the impactful changes for this installation are found in the applicability section. The emission limitations, monitoring, recordkeeping, and reporting are the same for both permit conditions.

The CSR version contains the following exemptions that may apply to the installation; however these exemptions are not in the SIP version: (1)(J) specific units subject to MACT Subpart DDDDD, (L) units

combusting solely natural gas or other specific fuels, (O) units that emit only within a building, and (P) units subject to an equivalent limit in a MACT or federally enforceable permit.

#### 10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds

This regulation applies to all sources that emit sulfur compounds. This regulation is incorporated into the SIP, but has been removed from the CSR. It is a federally enforceable requirement until removed from the SIP, therefore it must be evaluated for this permit.

#### 10 CSR 10-6.261 Control of Sulfur Dioxide Emissions

This regulation applies to all sources that emit sulfur dioxide. Section (1)(A) contains an exception for natural gas fired units under specific conditions, with associated recordkeeping to maintain the exception. The natural gas fired units at this installation meet this exception as detailed in the permit condition.

Section (1)(C) contains an exception for units subject to a more restrictive limitation in NSPS or any federally enforceable permit; without any additional recordkeeping. EP10 engines meet this exception as they are subject to a fuel sulfur content limit of 15 ppm in NSPS IIII. EP04 engine does not meet the exception in (1)(C) and is subject to the fuel sulfur content limitation found in section (3)(C).

Compliance with the fuel sulfur content limit found in 10 CSR 10-6.261 demonstrates compliance with the sulfur compound emissions limits found in 10 CSR 10-6.260 as shown by the following calculations:

#### SO<sub>2</sub>

$$\text{Distillate Oil SO}_2 \text{ emission factor (lb/MMBtu)} = \frac{142 (0.8812) \text{ lb}/_{10^3 \text{ gal}}}{140 \text{ MMBtu}/_{10^3 \text{ gal}}} = 0.894 \text{ lb/MMBtu}$$

(AP-42 Table 1.3-1(9/98))

$$\begin{aligned} \text{ppm}_v \text{ SO}_2 &= \left( \frac{0.894 \text{ lb}}{\text{MMBtu}} \right) \times \left( \frac{\text{MMBtu}}{10,320 \text{ wscf}} \right) \times \left( \frac{\text{ppm}_w}{1.660 \times 10^{-7} \text{ lb/scf}} \right) \times \left( \frac{0.45 \text{ ppm}_v}{\text{ppm}_w} \right) \\ &= 234.78 \text{ ppm}_v \end{aligned}$$

(Appendix A-7 to 40 CFR Part 60)

#### SO<sub>3</sub>

$$\text{Distillate Oil SO}_3 \text{ emission factor (lb/MMBtu)} = \frac{2(0.8812) \text{ lb}/_{10^3 \text{ gal}}}{140 \text{ MMBtu}/_{10^3 \text{ gal}}} = 0.013 \text{ lb/MMBtu}$$

(AP-42 Table 1.3-1(9/98))

$$\text{ppm}_v \text{ SO}_3 = \left( \frac{0.013 \text{ lb}}{\text{MMBtu}} \right) \times \left( \frac{\text{MMBtu}}{10,320 \text{ wscf}} \right) \times \left( \frac{1.602 \times 10^7 \text{ mg ft}^3}{\text{lb m}^3} \right) = 19.54 \text{ mg}/_{\text{m}^3}$$

(Appendix A-7 to 40 CFR Part 60)

10 CSR 10-6.390 Control of NO<sub>x</sub> Emissions From Large Stationary Internal Combustion Engines  
 This regulation applies to engines greater than 1,300 HP located in specific counties. This installation is not located in the specific counties, therefore this regulation does not apply.

10 CSR 10-6.400, Restriction of Emission of Particulate Matter From Industrial Processes  
 This regulation applies to all sources of particulate matter, with various exemptions. All emission units qualify for exemptions as shown in the table below. Therefore, this regulation does not apply.

**Table 10: Applicability of 10 CSR 10-6.400**

| EP # | Description   | Applicability of 6.400  |
|------|---|---|
| EP01 | Storage Feed Handling Building Vent #1  | Meets exemption (1)(B)15. Control systems with a federally enforceable requirement and a minimum 90% control of particulate. Permit Condition 1293-010 is the federally enforceable requirement.  |
| EP02 | Storage Feed Handling Building Vent #2  |   |
| EP03 | Incinerator Stack (includes Rotary Kiln Incinerator, Car Bottom Furnace, and Secondary Combustor) | Meets (1)(C), subject to a more restrictive PM emission standard in Permit Condition MACT EEE.  |
| EP04 | Building #6 Emergency Diesel Generator  | Liquid fuels do not meet the definition of process weight   |
| EP05 | Building #3 Propellant Thermal Treatment Units 1 and 2  | Meets exemption (1)(B)15. Control systems with a federally enforceable requirement and a minimum 90% control of particulate. Permit Condition 012012-001 is the federally enforceable requirement.  |
| EP06 | Static Kilns 1,2,3, and 4 (Building 1)  | Meets exemption (1)(B)15. Control systems with a federally enforceable requirement and a minimum 90% control of particulate. The RCRA Permit contains the federally enforceable requirement. See Special Permit Conditions II.B.1, II.B.2., and II.F. |
| EP07 | Building #1 Thermal Treatment Units 1 and 2   |   |
| EP08 | Building #1 Thermal Treatment Units 3 and 4   |   |
| EP10 | Emergency Diesel Fire Water Pump  | Liquid fuels do not meet the definition of process weight   |
| EP11 | Building #12 Nitrocellulose Propellant Thermal Treatment Chamber 1 and 2                          | Meets exemption (1)(B)15. Control systems with a federally enforceable requirement and a minimum 90% control of particulate. Permit Condition 082015-007A is the federally enforceable requirement.   |

| EP #    | Description   | Applicability of 6.400                                      |
|---------|---|---|
| EP12    | Building #3 Heat Exchanger                                  | Gaseous fuels do not meet the definition of process weight. |
| HVAC-01 | HVAC System for Building #5 Storage Feed Handling System    |   |
| HVAC-02 | HVAC System for Building #6 Kiln Feed Room and Control Room |   |
| HVAC-03 | HVAC System for Building #9 Field Office                    |   |
| HVAC-04 | HVAC System for Building #4 CBU Demil                       |   |
| HVAC-05 | HVAC System for Building #1 ICM/MLRS Demil                  |   |
| HVAC-06 | HVAC System for Building #3 MLRS Motor Demil                |   |
| HVAC-07 | HVAC System for Building #2 MLRS Demil                      |   |
| HVAC-08 | HVAC System for Building #10 Maintenance Building           |   |

10 CSR 10-6.405, Restriction of Particulate Matter Emissions From Fuel Burning Equipment Used for Indirect Heating. All combustion units at this installation are direct heating units, the products of combustion contact the process materials. Therefore this regulation does not apply.

**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).

## **Response to Public Comments**

The draft Part 70 Operating Permit for EBV Explosives Environmental Company dba GD-OTS Munition Services was placed on public notice January 31, 2020 for a 30-day comment period. The public notice was published on the Department of Natural Resources' Air Pollution Control Program's web page at: <https://dnr.mo.gov/env/apcp/permit-public-notices.htm>. No public comments were received.