

Missouri Department of dnr.mo.gov

# NATURAL RESOURCES

Michael L. Parson, Governor

Carol S. Comer, Director

FEB 21 2019

Mr. Aaron Harlan  
Euticals, Inc.  
P.O. Box 1246  
Springfield, MO 65801

Re: Euticals, Inc., 077-0017  
Permit Number: OP2019-008

Dear Mr Harlan:

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:nwj

Enclosures

c: PAMS File: 2017-11-031



## 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:** OP2019-008  
**Expiration Date:** FEB 21 2024  
**Installation ID:** 077-0017  
**Project Number:** 2017-11-031

**Installation Name and Address**

Euticals, Inc.  
2460 West Bennett Street  
Springfield, MO 65801  
Greene County

**Parent Company's Name and Address**

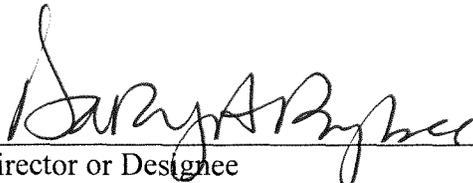
Euticals, Inc.  
P.O. Box 1246  
Springfield MO 65801

**Installation Description:**

Euticals, Inc. manufactures pharmaceutical, intermediates, bulk pharmaceutical chemicals (BPCs), and miscellaneous organic chemicals. Equipment in production areas include reactors, filters, distillation columns, dryers, milling and packaging. In addition to production areas, the installation also includes a wastewater neutralization/equalization tank, above ground tank farms, and utility systems needed for production, space heating and cooling. The facility also operates a pilot plant for Research and Development purposes and small-scale manufacturing. This facility is a major source of Volatile Organic Compounds (VOCs), and Hazardous Air Pollutants (HAPs).

FEB 21 2019

Effective Date

  
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.

Pharmaceutical Manufacturing Operations and Miscellaneous Organic Chemical Manufacturing  
Some process equipment can be used at different times under a different manufacturing scenario. For brevity of this operating permit and to maintain permit flexibility under Plant Wide Permit Condition PW001, the emission units for the pharmaceutical/chemical manufacturing operations are listed in Attachment F.

#### General Support Equipment

This section includes the emission units not directly involved in the manufacturing process, but have applicable unit specific limitations.

<u>Emission Unit #</u>	<u>Description of Emission Unit</u>
EP-01	24 MMBtu Dual Fired Boiler #1 (1985)
EP-02	48.5 MMBtu Dual Fired Boiler #2 (1985)
EP- 22E1	10 MMBtu Emergency Electrical Power Generator #1
EP-22E2	5 MMBtu Emergency Electrical Power Generator #2
RTO1A-C/RTO2 & 3	19.7 MMBtu Natural Gas Fired Thermal Oxidizer (See Attachment F)
EP22-F1-6	Six (6) Marley Cooling Towers (see Attachment F)

### 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.

<u>Emission Unit #</u>	<u>Description of Emission Unit</u>
EP-22A	8,300 gallon Fuel Oil storage tank
EP-22B	4,500 gallon Fuel Oil storage tank
EP-22C	500 gallon propane storage tank
EP-22D	Parts Washer
EP22G	Maintenance Spray Paint Hood
EP22-I	Vilter Chiller for Building S19C (see Attachment F)
EP-22J	Vilter Chiller for Building S14 (see Attachment F)
GWS	Groundwater Treatment System Equipment
EP04C-D	Building S-4 Roof Vents, Doors and Windows (fugitive emissions)
EP-5A	Wastewater Tank
EP5B	Wastewater fugitive emissions
EP12-D	Quality Control and Process Development Lab hoods
EP14C	DC2 Column fugitive emissions
EP14K-L	Building S-14 Roof Vents
EP28A-B	Building 28 Roof Vents fugitive emissions

## 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.

### **Permit Condition PW1**

10 CSR 10-6.060 Construction Permits Required

Plant Wide Applicability Limitation (PAL) Construction Permit 092011-004 Issued September 19, 2011

#### **Special Condition 1: Superseding Condition**

The conditions of this permit supersede all special conditions found in all previously issued construction permits and amendments from the Air Pollution Control Program and/or Springfield- Greene County Health Department Air Quality Control.

#### **Special Condition 2: Annual Emission Limitation – Plant Wide Applicability Limitation (PAL)**

1. The permittee shall emit less than 116.8 tons of Volatile Organic Compounds (VOCs) from the entire installation in any consecutive 12-month period. Emissions during periods of start-up, shutdown, and malfunction of the control device shall be counted towards the limit during the 12-month period.
2. The permittee shall track VOC emissions and calculate the monthly and consecutive 12-month VOC emissions from the entire installation. Attachment A, or equivalent forms approved by the permitting authority shall be used to demonstrate compliance with the 116.8 ton/year VOC limit.
3. The permittee shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, or [AirComplianceReporting@dnr.mo.gov](mailto:AirComplianceReporting@dnr.mo.gov) no later than ten (10) days after the end of the month during which records indicate that the source exceeds the 116.8 ton/year VOC limit.
4. The permittee shall keep documentation of any emission factors used to demonstrate compliance with the 116.8 ton/year VOC limit. Emission factors must be obtained from the most recent edition of AP-42, *Compilation of Air Pollutant Emission Factors*, the most recent stack performance test results, a mass balance approach using the Safety Data Sheets (SDS) of all materials, and/or by a method approved by the permitting authority. Documentation sufficient to support the emission factors must accompany Attachment A which is used to demonstrate compliance with the 116.8 ton/year VOC limit.
5. The permittee shall keep documentation of any overall control efficiencies used to demonstrate compliance with the 116.8 ton/year VOC limit. Overall control efficiency is the product of the capture efficiency and control efficiency of the pollution control device. Documentation sufficient to support the capture and control efficiencies must accompany Attachment A.
6. The permittee keep documentation of all data relied upon, including but not limited to, any quality assurance/quality control data, in calculating the monthly and annual VOC emissions. Records shall be kept for five years and made available to Department of Natural Resources' personnel upon request.

**Special Condition 3: Pre-Approved Operational and Equipment Modifications**

1. The permittee is authorized to perform the physical or operational changes, or changes deemed consistent with those physical or operational changes, listed in Attachment B, *Pre- Approved Changes*, without applying for or obtaining a construction permit or amendment from the permitting authority. Any increase or decrease in emissions of VOC resulting from the construction and operation of any of the above pre-approved changes are subject to the requirements listed in Special Condition 2. Any increase or decrease in emissions of non-VOC criteria air pollutants resulting from the construction and operation of any of the above pre- approved changes are subject to the requirements listed in Special Condition 22.
2. The permittee shall maintain a log of equipment installed and/or modified under the Pre- Approved Changes and the date on which construction and/or modification and operation began. In addition, the permittee shall maintain a log of equipment removed from the installation and the date on which it was removed. The log must account for all equipment present at the installation at any given time. Attachment C, or equivalent forms may be used for this purpose.
3. The permittee shall notify the permitting authority of all activities associated with any Pre-Approved Change according to Special Conditions 4 and 5.
4. If the permittee wishes to make physical or operational changes that are not deemed consistent with the physical or operational changes listed in Attachment B of this construction permit and are not exempt from the construction permit rule, then the permittee must first apply for and obtain a construction permit or amendment according to 10 CSR 10-6.060, *Construction Permits Required*.

**Special Condition 4: Notification of Actual Construction of Pre-Approved Change**

1. The permittee shall submit written notification to the permitting authority (including the regional office) at least ten days prior to the actual construction of any pre-approved change listed in Attachment B. The notification shall contain the following:
  - a) Detailed description of the physical or operational change including the effect on existing equipment;
  - b) A plant layout diagram with representation of existing equipment and physical or operational changes;
  - c) A schedule of construction activities related to the pre-approved change;
  - d) A statement of applicability for any New Source Performance Standard, National Emissions Standard of Hazardous Air Pollutants and/or state regulations not identified as core requirements in the operating permit;
  - e) An emissions calculation sheet for the pre-approved change including any modeling required by Special Condition 6;
  - f) A calculation sheet for the potential emissions of all criteria air pollutants except VOC for the pre-approved change;
  - g) A summation of the potential emissions from completed and proposed pre-approved changes;
  - h) A statement of verification that the physical or operational change will not result in installation emissions that exceed the limitations stated in Special Condition 2; and
  - i) A summary of the impact analysis on the capture efficiency as outlined in Special Condition 9.E.
2. This notification shall become an enforceable part of this construction permit upon receipt by the permitting authority and the permittee shall comply with the terms and conditions of the notification.
3. The permitting authority may disapprove any activity that has not been demonstrated to the satisfaction of the Program to be related to the pre-approved changes. At that time, the permittee

shall cease construction of the change until an appropriate authorization of the activities is obtained (such as a construction permit, if necessary).

**Special Condition 5: Notification of Actual Start-up of Pre-Approved Change**

1. The permittee shall submit written notification to the permitting authority (including the regional office) at least ten days prior to the actual start-up or operation of any pre-approved change listed in Attachment B. The notification shall contain the following:
  - a) Reference to the notification of actual construction including date of notification and brief description of change;
  - b) Verification that the physical or operational change was completed as described in the original notification; and
  - c) Scheduled date operations will be commenced.
2. It is a violation of this construction permit for the permittee to construct, modify or operate the installation not in accordance with the required notifications.

**Special Condition 6: Ambient Air Quality Analysis Requirement for Individual Hazardous Air Pollutant(s) (HAPs)**

1. Prior to submitting notification of a pre-approved change, the permittee must evaluate HAP emissions for the pre-approved change, not subject to a MACT, according to the following methodology:
2. For all HAPs listed in *Table of Hazardous Air Pollutants, Screen Model Action Levels and Risk Assessment Levels (current revision)* with a potential to emit greater than their respective threshold levels, the permittee shall perform screen modeling using the methods outlined in Special Condition 7 to determine the one-hour, eight-hour, 24-hour, and/or annual concentration of any individual HAP. The results of the screen modeling must be submitted with the notification required in Special Condition 4 for all pre-approved changes containing HAP, not subject to a MACT.
3. The eight-hour, 24-hour and/or annual concentrations shall be compared to the current, available Risk Assessment Levels for each HAP listed in *Table of Hazardous Air Pollutants, Screen Model Action Levels and Risk Assessment Levels (current revision)*.
4. If the screen modeling indicates that the emissions from the pre-approved change at the installation exceeds acceptable concentration levels as stated in the most current version of *Table of Hazardous Air Pollutants, Screen Model Action Levels and Risk Assessment Levels (current revision)* then the permittee must submit and obtain approval for either of the following options prior to submitting notification of construction (Special Condition 4):
  - a) Refined modeling, or
  - b) An amendment to the flexible construction permit to include a federally enforceable limit on HAP emissions.

**Special Condition 7: Screen Modeling Method for Individual HAPs**

1. The permittee shall use the preferred screening method stated in 40 CFR Part 51 Appendix W, "Guideline on Air Quality Models".
2. The emission rate to be used in the model shall be the potential to emit of the individual HAP. Stack parameters used in the model shall be representative of actual stack parameters including height, diameter, flow rate/velocity, temperature, etc. If the permittee wishes to use values other than the default values for any parameter with a default value, the permittee shall submit justification and obtain approval for the proposed value prior to use in the model.

**Special Condition 9: Capture and Control Equipment**

1. The specified control device (e.g. thermal oxidizer) must be in use at all times when a control efficiency is claimed for compliance with the VOC emissions limitation. When a control efficiency is claimed, the control device shall be operated and maintained in accordance with the manufacturer's specifications. The manufacturer's specifications shall be kept on site.
  - a) Thermal Oxidizer Requirements:
    - i. The operating temperature shall be continuously monitored and recorded every fifteen minutes when a control efficiency is claimed for compliance with the VOC emissions limitation. The operating temperature of the thermal oxidizer shall be maintained above the minimum operating temperature of the oxidizer recorded during the compliance test specified in Special Condition 10. The acceptable minimum temperature may be reestablished by performing a new set of emission tests. The most recent sixty months of records shall be maintained on-site and shall be made immediately available to Missouri Department of Natural Resources' personnel upon request.
    - ii. An assessment of thermal oxidizer valve operation and leakage shall be conducted as part of the maintenance and inspection activities, at least annually.
  - b) Scrubber Requirements
    - i. The scrubber shall be equipped with a gauge(s) or meter(s) that indicates the scrubber pH and recirculation flowrate.
    - ii. The scrubber pH and recirculation flowrate will be continuously monitored and recorded every fifteen minutes when the Thermal Oxidizer is operating for compliance with the VOC emissions limitation. The scrubber operating pH and recirculation flows shall be maintained above the minimum limits established during the compliance test specified in Special Condition 10.
  - c) Future Control Device Requirements
    - i. Any future control device shall be equipped with a gauge or meter to monitor appropriate parametric measurements as identified in the performance tests required by Special Condition 10.
    - ii. These parametric measurements shall be monitored and recorded at least once every 24 hours. The parametric measurements shall be maintained within the design conditions specified by the manufacturer's performance warranty. The manufacturer's performance warranty shall be kept on site.
  - d) Capture Equipment Requirements
    - i. The permittee shall evaluate all pre-approved changes that involve VOC emissions directed to emission control equipment for potential impacts to emission control equipment capture efficiency. This evaluation shall include the following:
      - A. An impact analysis of the pre-approved change on the capture efficiency;
      - B. An determination of the need for a new capture efficiency test based on the impact analysis;
      - C. A summary of the evaluation to be included in the Notification of Actual Construction as stated in Special Condition
    - ii. The permittee shall develop a monitoring plan for each capture system that:
      - A. Identifies the operating parameter(s) to be monitored to assure capture efficiency,
      - B. Explains why this parameter is appropriate for demonstrating ongoing compliance,
      - C. Identifies the specific monitoring procedures, and

- D. Specifies the operating parameter value or range of values (or the procedures for establishing the values) that shall be maintained to demonstrate capture efficiency is being maintained.
2. The permittee shall install and maintain, for any intermittently controllable work station, a system to monitor when bypass of the control device system occurs while the work station is in operation.
3. The permittee shall maintain an operating and maintenance log for the capture and control systems (enclosures and thermal oxidizers) for a period of (60) sixty months which shall include the following:
  - a) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
  - b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
  - c) A written record of regular inspection schedule, the date and results of all inspections including any actions or maintenance activities that result from that inspection.

**Special Condition 10: Performance Testing**

1. The permittee shall conduct performance tests on existing thermal oxidizer and any future control devices used for compliance with the PAL. The permittee shall determine the VOC and HAP destruction and/or removal efficiencies and operating parameters of these control devices when all the processes controlled by these devices are in normal operation. These control efficiencies will be used in Attachment A for compliance.
2. For each capture system, the permittee shall:
  - a) Confirm that the capture system continues to meet the requirements of EPA Method 204 from an approved performance test with no changes to operating parameters, or
  - b) Conduct a performance test to determine the capture efficiency and establish the value or range of values for the selected operating parameter(s) when all the processes controlled by these devices are in normal operation. These capture efficiencies shall be used in Attachment A for compliance.
3. Section 6 of EPA method 204 of 40 CFR Part 51, Appendix M shall be used to confirm that an enclosure meets the requirements for permanent total enclosures. If the enclosure meets the permanent total enclosure criteria and directs all VOC to a control device, a capture efficiency of 100 percent may be assumed.
4. By December 1, 2013, and, henceforth, within five years of the most recent performance tests, the permittee shall:
  - a) Conduct performance tests to verify the operating parameters and/or the control efficiencies of the control devices; and
  - b) Confirm the capture efficiencies of the total or partial enclosures by 1) and 2) above.
5. For any control device installed subsequent to the issuance of this construction permit, performance tests shall be performed within 60 days after installation, but not later than 180 days after initial start-up of the control equipment.
6. Testing shall be conducted in accordance with the procedures outlined in Special Condition 11. The permittee shall maintain a record of the results of all performance tests required 1) and 2) above. Conditions 10.A. and 10.B.

**Special Condition 11: Proposed Test Plan**

1. A completed Proposed Test Plan Form must be submitted to the Air Pollution Control Program, Compliance/Enforcement Section, within thirty days prior to the proposed test date so that the Air Pollution Control Program, Compliance/Enforcement Section, 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.
2. Two copies of a written report of the performance test results shall be submitted to the director within thirty days of completion of any required testing, unless an extension is requested and approved by the director. The extension must be submitted in writing at least ten days prior to the thirty day deadline. 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.
3. The test report is to fully account for all operational and emission parameters addressed both in the construction permit conditions as well as in any other applicable state or federal rules or regulations.

**Special Condition 12: Start-up, Shutdown, and Malfunction Requirement**

The permittee shall develop and implement an operation and maintenance plan to minimize the instances of excess emissions during start-up, shutdown and malfunction. The operation and maintenance plan shall detail procedures for maintaining, repairing and operating the various sources and their controls during all periods of operation, including start-up, shutdown and malfunction. The operation and maintenance plan shall also comply with the requirements of 10 CSR 10-6.050 *Start-Up, Shutdown and Malfunction Conditions*.

**Special Condition 13: Reopening of the Construction Permit**

1. The permitting authority may reopen this construction permit to accomplish the following actions:
  - a) Revise Special Condition 2 to reflect an increase in the PAL as outlined in Special Condition 18.
  - b) Reduce the PAL to reflect newly applicable federal and/or state requirements with compliance dates after the issuance of this construction permit.
  - c) Reduce the PAL if the permitting authority determines that a reduction is necessary to avoid causing or contributing to a National Ambient Air Quality Standard or Prevention of Significant Deterioration increment violation, or to an adverse impact on air quality in a Class I area.
2. All reopenings that increase the PAL level are required to be placed on public notice for at least a thirty day period for submittal of public comment.

**Special Condition 14: PAL Effective Period**

The PAL in Special Condition 2 will be effective for ten years. The PAL term commences on the date of issuance of this construction permit.

**Special Condition 15: Permit Application Submission Requirements**

1. Between six and eighteen months prior to the expiration of the PAL in Special Condition 2, the permittee shall submit a complete application for the renewal or expiration of the PAL in Special Condition 2. For PAL renewal, the permittee will be required to comply with Special Condition 16. For PAL expiration, the permittee will be required to comply with Special Condition 17.

2. Once a complete application is received by the permitting authority, the PAL in Special Condition 2 will remain in effect until a revised PAL or a revised permit incorporating allowable limits is issued by the permitting authority.
3. Failure to submit a complete application to the permitting authority at least six months prior to the expiration of the PAL is a violation of this construction permit and will result in the termination of the PAL on the date of expiration. At the time of termination, the permittee will be required to comply with Special Condition 17.

**Special Condition 16: PAL Renewal Requirements**

1. A complete application shall consist of written documentation and/or calculations for the following items:
  - a) A proposed PAL level;
  - b) A list of all emissions units with applicable federal or state requirements;
  - c) The potential emissions of all current equipment at the installation;
  - d) Identification of the baseline period;
  - e) Baseline actual emissions; and
  - f) A compliance plan for the proposed PAL.
2. The permitting authority will have the final authority to set the new plant wide emissions limitation based on the following guidelines:
  - a) If the baseline actual emissions at the time of renewal are equal to or greater than eighty percent of the PAL, the PAL may be renewed at the same level.
  - b) The PAL may not be set at a level that is greater than the potential to emit of the entire installation.
  - c) The PAL shall be adjusted to account for any applicable state or federal requirement with a compliance date that occurs during the effective period of this PAL.
  - d) A PAL level higher than the current PAL level cannot be approved unless otherwise approved through Special Condition 18.
3. Any request to renew the PAL level is required to be placed on public notice for at least a thirty day period for submittal of public comment.

**Special Condition 17: Expiration of the PAL**

1. If the permittee does not wish to renew the PAL of this construction permit, the permittee shall apply for and obtain a construction permit for each emissions unit (or each group of emissions units) that existed under the PAL.
2. A complete application shall consist of a proposed allowable emission limitation for each emissions unit (or each group of emissions units) by distributing the PAL allowable emissions for the installation among each of the emissions units that existed under the PAL. If the PAL had not yet been adjusted for an applicable requirement that became effective during the PAL effective period, such distribution shall be made as if the PAL had been adjusted.
3. The PAL in Special Condition 2 will remain in effect until a revised construction permit is issued by the permitting authority.
4. Any physical change or change in the method of operation at the installation that meets the definition of major modification will be subject to major construction permitting requirements.
5. The permittee shall continue to comply with any state or federal applicable requirements that may have applied either during the PAL effective period or prior to the PAL effective period except for the emissions limitations that are superseded in Special Condition 1.

**Special Condition 18: Increase of the PAL during the Effective Period**

1. If the permittee wishes to alter Special Condition 2 of this construction permit to allow the installation to emit more than 116.8 tons per year of VOC, the permittee shall submit a complete application to request an increase in the PAL meeting all the requirements for a major modification.
2. A complete application shall consist of written documentation and/or calculations to accomplish the following items:
  - a) Identify the emissions units contributing to the increase in emissions so as to cause the emissions to equal or exceed the PAL in Special Condition 2.
  - b) Determine the Best Available Control Technology (BACT) equivalent controls for each emission unit using current technology.
  - c) Demonstrate that the sum of the baseline actual emissions of the small emissions units, plus the sum of the baseline actual emissions of the significant and major emissions units assuming application of BACT equivalent controls, plus the sum of the allowable emissions of the new or modified emissions units exceeds the PAL.
  - d) Comply with the provisions of a current BACT analysis for all emissions unit(s) identified in 2.a) above in accordance with the requirements of 10 CSR 10-6.060 Section (8) regardless of the magnitude of the emissions increase resulting from them.
3. The revised PAL shall be effective on the day any emissions unit that is part of the PAL major modification becomes operational and begins to emit VOC.
4. The revised PAL level shall be placed on public notice for at least a thirty day period for submittal of public comment.

**Special Condition 19: Records Retention Requirement**

1. The permittee shall maintain all records required by this construction permit for not less than ten years unless otherwise specified in a special condition.
2. The permittee shall make these records available immediately to any Missouri Department of Natural Resources' personnel upon request.

**Special Condition 20: Reporting Requirement**

1. The permittee shall submit a semi-annual emissions report to the permitting authority within 30 days after the end of each reporting period.
2. The reporting periods are January 1 – June 30, and July 1 – December 31. The report shall contain the following information:
  - a) Identification of owner and operator and the permit number;
  - b) Total annual emissions in tons per year based on a 12-month rolling total for each month in the reporting period;
  - c) A summary of all data relied upon, including but not limited to, any Quality Assurance or Quality Control data, in calculating the monthly and annual VOC emissions;
  - d) A list of any emissions units modified or added to the installation during the preceding six-month period;
  - e) The number, duration, and cause of any deviations or monitoring malfunctions, and any corrective action taken;
  - f) A notification of shutdown of any monitoring system, whether the shutdown was permanent or temporary, the reason for the shutdown, the anticipated date that the monitoring system will be fully operational or replaced with another monitoring system, and whether the emissions unit

monitored by the monitoring system continued to operate, and the calculation of the emissions of VOC;

- g) A signed statement by the responsible official certifying the truth, accuracy, and completeness of the information provided in the report.
3. The permittee shall submit reports to the permitting authority within ten days of any deviations or exceedance of permitting requirements. The report shall contain the following information:
- a) The identification of owner and operator and the permit number;
  - b) The permit requirement that experienced the deviation or that was exceeded;
  - c) Emissions resulting from the deviation or the exceedance; and
  - d) A signed statement by the responsible official certifying the truth, accuracy, and completeness of the information provided in the report.

**Special Condition 21: Quality Assurance/Quality Control Plan**

1. The permittee shall maintain an operation and maintenance plan on site at all times. A table of contents of the plan shall be submitted to the permitting authority within 120 days of the issuance of this construction permit and updated within 60 days of receipt of the performance test reports required of Special Condition 10. The plan shall be a detailed, specific to the Euticals, Incorporated Plant and include the following information:
- a) A preventative maintenance program for avoidance of excess emissions which shall include all maintenance activities, with inspection schedule, repair actions, and replacements inventory.
  - b) A range of operating conditions and outlet variables for normal operation.
  - c) A summary of operating conditions and outlet variables for all control equipment that will be monitored for malfunction or breakdown and a description of the method of detecting and informing responsible personnel of any malfunction or breakdowns, including alarm systems, lights and other indicators.
  - d) A description of the generic corrective procedures that will be taken in the event of a malfunction or breakdown in order to restore compliance with the applicable emission limitations and permit conditions (e.g. reducing of production rate).

**Special Condition 22: Emission Limitation for Non-VOC pollutants**

1. The permittee shall maintain documentation of the summation of the potential emissions of all criteria air pollutants except VOC from completed and proposed pre- approved changes. Attachment D, or equivalent forms approved by the permitting authority shall be used for this purpose.
2. If the records indicate that the summation of potential emissions of any criteria air pollutant exceeds its respective de minimis level as indicated below, the permittee shall comply with the provisions of Special Condition 2.a)-c) below for that particular pollutant.
- a) The permittee shall emit less than the following amounts for each listed criteria air pollutant in any consecutive 12 month period from all equipment, which has been installed under the authority of pre-approved changes set forth in Special Condition 3 and listed in Attachment B, *Pre-Approved Changes*:

Pollutant	Limitation (tpy)
Particulate Matter less than 10 microns in diameter (PM <sub>10</sub> )	15.0
Particulate Matter less than 2.5 microns in diameter (PM <sub>2.5</sub> )	10.0
Sulfur Oxides (SO <sub>x</sub> )	40.0
Nitrogen Oxides (NO <sub>x</sub> )	40.0

Pollutant	Limitation (tpy)
Carbon Monoxide (CO)	100.0
Sulfur acid mist	7.0
Hydrogen Sulfide	10.0
Lead	0.6

- b) The permittee shall track and calculate the monthly emissions of the listed criteria air pollutants listed above from all equipment listed in Attachment B, *Pre-Approved Changes*. Attachment E, or equivalent forms approved by the permitting authority shall be used to demonstrate compliance condition 2.a).
- c) The permittee shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, or [AirComplianceReporting@dnr.mo.gov](mailto:AirComplianceReporting@dnr.mo.gov) no later than ten (10) days after the end of the month during which the records indicate that the source exceeds the limitation of condition 2.a).

**Special Condition 23: Operational Requirements from Previous Construction Permit #0992143D**

- 1. The permittee shall not burn Fuel Oil #2 more than 30 days per 12-month rolling period in the Regenerative Thermal Oxidizer (Equipment Permit ID RTO1A, EIQ VENT ID RTO1A located in the RTO Building).
- 2. The permittee shall record the days when Fuel Oil #2 is burned in the RTO in order to demonstrate compliance with condition 1.
- 3. The permittee shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, or [AirComplianceReporting@dnr.mo.gov](mailto:AirComplianceReporting@dnr.mo.gov) no later than ten (10) days after the end of the month during which the records indicate that the source exceeds the operational limitation above.

**Special Condition 24: Operational Requirements from Previous Construction Permit #109094D**

- 1. The permittee shall not burn Fuel Oil #2 for more than 30 days per 12-month rolling period in Boiler #2 (Equipment Permit ID 16-4-ATM, EIQ VENT ID EP02A&B located in Building 16A).
- 2. The permittee shall record the days when Fuel Oil #2 is burned in Boiler #2 in order to demonstrate compliance with condition 1.
- 3. The permittee shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, or [AirComplianceReporting@dnr.mo.gov](mailto:AirComplianceReporting@dnr.mo.gov) no later than ten (10) days after the end of the month during which the records indicate that the source exceeds the operational limitation above.

### 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.

Pharmaceutical Manufacturing and Miscellaneous Organic Chemical Manufacturing Operations The provisions of 40 CFR 63 Subpart GGG apply to pharmaceutical manufacturing operations that manufacture a pharmaceutical product as defined in §63.1251, and process, use, or produce HAP. Non-Pharmaceutical Manufacturing operations subject to 40 CFR 63 FFFF meet the requirements of the Miscellaneous Organic Chemical Manufacturing MACT by meeting the requirements of MACT GGG per §63.2535(d).

#### Permit Condition GGG - 1

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations  
Subpart GGG, National Emission Standards for Pharmaceuticals Production: **§63.1252 - Start-up, Shutdown and Malfunction**

**Applicability:** This permit condition applies to all pharmaceutical manufacturing operations. Please see the equipment list in Attachment F.

#### Emission/Operation Limitation:

1. Each provision set forth in Subpart GGG shall apply at all times except that the provisions set forth in §63.1255 (equipment leaks) shall not apply during periods of nonoperation of the PMPU (or specific portion thereof) in which the lines are drained and depressurized resulting in the cessation of the emissions to which §63.1255 applies. [§63.1250(g)(1)]
2. The permittee shall not shut down items of equipment that are required or utilized for compliance with the emissions limitations of Subpart GGG during times when emissions (or, where applicable, wastewater streams or residuals) are being routed to such items of equipment, if the shutdown would contravene emissions limitations of this subpart applicable to such items of equipment. This does not apply if the permittee must shut down the equipment to avoid damage to a PMPU or portion thereof. [§63.1250(g)(2)]
3. At all times, the permittee must operate and maintain any affected source subject to the requirements of Subpart GGG, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the director which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. This does not apply if the item of equipment is malfunctioning, or if the permittee must shut down the equipment to avoid damage due to a malfunction of the PMPU or portion thereof. [§63.1250(g)(3)]

#### Monitoring:

As specified in the Start-up, Shutdown and Malfunction Plan.

**Recordkeeping:**

1. The permittee shall comply with the recordkeeping requirements in Subpart A of Part 63 as specified in Table 1 of Part 63 Subpart GGG. [§63.1259(a)]
2. The permittee shall maintain records of the occurrence and duration of each malfunction of operation (i.e., process equipment), air pollution control equipment, or monitoring equipment. The permittee shall maintain records of actions taken during periods of malfunction to minimize emissions in accordance with §63.1250(g)(3), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [§63.1259(a)(3)]

**Reporting:**

1. The permittee shall submit a report of the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by the permittee during a malfunction of an affected source to minimize emissions in accordance with §63.1250(g)(3), including actions taken to correct a malfunction. The report shall be submitted on the same schedule as the periodic reports required under §63.1260(g). [§63.1260(i)]
2. *Submittal schedule.* Except as provided in §63.1260(g)(1)(i), (ii), and (iii), a permittee shall submit Periodic reports semi-annually. The first report shall be submitted no later than 240 days after the Notification of Compliance Status is due and shall cover the six-month period beginning on the date the Notification of Compliance Status is due. Each subsequent Periodic report shall cover the 6-month period following the preceding period. [§63.1260(g)(1)]
  - a) When the Director determines on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the affected source or; (§63.1260(g)(1)(i))
  - b) Quarterly reports shall be submitted when the source experiences an exceedance of a temperature limit monitored according to the provisions of §63.1258(b)(1)(iii) or an exceedance of the outlet concentration monitored according to the provisions of §63.1258(b)(1)(x) or (b)(5). Once an affected source reports quarterly, the affected source shall follow a quarterly reporting format until a request to reduce reporting frequency is approved. If the permittee submits a request to reduce the frequency of reporting, the provisions in §63.10(e)(3)(ii) and (iii) shall apply, except that the phrase “excess emissions and continuous monitoring system performance report and/or summary report” shall mean “Periodic report” for the purposes of this section. [§63.1260(g)(1)(ii)]
  - c) When a new operating scenario has been operated since the last report, in which case quarterly reports shall be submitted. (§63.1260(g)(1)(iii))
3. The permittee shall report to the Air Pollution Control Program’s Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, or AirComplianceReporting@dnr.mo.gov no later than ten days after any exceedance of any of the terms imposed by this regulation, or any malfunction which could possibly cause an exceedance of this regulation.
4. The permittee shall report any deviations from the monitoring, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring report and annual compliance certification.

<b>PERMIT CONDITION GGG - 2</b>	
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations 40 CFR Part 63, Subpart GGG – <b>§63.1253 Standards: Storage tanks</b>	
Storage Tanks are defined under this rule as:	
Small tanks	(1) A storage tank with a design capacity greater than or equal to 38 m <sup>3</sup> but less than 75 m <sup>3</sup> storing a liquid for which the maximum true vapor pressure of total HAP is greater than or equal to 13.1 kPa.
Large Tanks	(2) A storage tank with a design capacity greater than or equal to 75 m <sup>3</sup> storing a liquid for which the maximum true vapor pressure of total HAP is greater than or equal to 13.1 kPa.
<b>Applicability:</b> This permit condition applies to storage tanks meeting the above definition. Please see the equipment list in Attachment F.	
The Pollution Prevention Alternative is an optional compliance method in lieu of the requirements specified in §63.1253. These provisions are included in PERMIT CONDITION GGG – 07.	
Emissions Averaging Alternative: §63.1252(d) - The permittee may choose to meet the emissions averaging alternative requirement for any PMPU in lieu of the requirements specified in §63.1253. These provisions are included in PERMIT CONDITION GGG – 08.	
The <b>Monitoring</b> Requirements (§63.1258) for equipment/processes subject to this permit condition are found in PERMIT CONDITION GGG – 05.	
The <b>Recordkeeping</b> (§63.1259) & <b>Reporting</b> (§63.1260) Requirements for equipment/processes subject to this permit condition are found in PERMIT CONDITION GGG – 06.	

**Emission Limitation:**

1. Except as provided in §63.1253(d), (e), and (f), the permittee of a storage tank meeting the criteria of §63.1253(a)(1) is subject to the requirements of §63.1253(b) for small storage tanks. Except as provided in §63.1253(d), (e), and (f), the permittee of a storage tank meeting the criteria of §63.1253(a)(2) is subject to the requirements of §63.1253(c) for large storage tanks. Compliance with the provisions of §63.1253(b) and (c) is demonstrated using the initial compliance procedures in §63.1257(c) and the monitoring requirements in §63.1258. [§63.1253(a)]
  - a) A storage tank with a design capacity greater than or equal to 38 m<sup>3</sup> (10,000 gallons) but less than 75 m<sup>3</sup> (19,800 gallons) storing a liquid for which the maximum true vapor pressure of total HAP is greater than or equal to 13.1 kPa (1.9 psi). [§63.1253(a)(1)]
  - b) A storage tank with a design capacity greater than or equal to 75 m<sup>3</sup> (19,800 gallons) storing a liquid for which the maximum true vapor pressure of total HAP is greater than or equal to 13.1 kPa (1.9 psi). [§63.1253(a)(2)]
2. *Standard for small storage tanks:* The permittee of a storage tank shall equip the affected storage tank with either a fixed roof with internal floating roof, an external floating roof, an external floating roof converted to an internal floating roof, or a closed-vent system meeting the conditions of §63.1252(b) with a control device that meets any of the following conditions: [§63.1253(b)]
  - a) Reduces inlet emissions of total HAP by 90 percent by weight or greater; [§63.1253(b)(1)]
  - b) Reduces emissions to outlet concentrations less than or equal to 20 ppmv as TOC and less than or equal to 20 ppmv as hydrogen halides and halogens; [§63.1253(b)(2)]
  - c) Is an enclosed combustion device that provides a minimum residence time of 0.5 seconds at a minimum temperature of 760 °C; [§63.1253(b)(3)]

- d) Is a flare that meets the requirements of §63.11(b) or; [§63.1253(b)(4)]
- e) Is a control device specified in §63.1257(a)(4). [§63.1253(b)(5)]
- 3. *Standards for large storage tanks:* The permittee of a storage tank shall equip the affected storage tank with either a fixed roof with internal floating roof, an external floating roof, an external floating roof converted to an internal floating roof, or a closed-vent system meeting the conditions of §63.1252(b) with a control device that meets any of the following conditions: [§63.1253(c)]
  - a) Reduces inlet emissions of total HAP as specified in §63.1253(c)(1) (i) or (ii): [§63.1253(c)(1)]
    - i. By 95 percent by weight or greater or; [§63.1253(c)(1)(i)]
    - ii. *Grandfathering Provision:* If the permittee can demonstrate that a control device installed on a storage tank on or before April 2, 1997 is designed to reduce inlet emissions of total HAP by greater than or equal to 90 percent by weight but less than 95 percent by weight, then the control device is required to be operated to reduce inlet emissions of total HAP by 90 percent or greater. [§63.1253(c)(1)(ii)]
  - b) Reduces emissions to outlet concentrations less than or equal to 20 ppmv as TOC and less than or equal to 20 ppmv as hydrogen halides and halogens; [§63.1253(c)(2)]
  - c) Is an enclosed combustion device that provides a minimum residence time of 0.5 seconds at a minimum temperature of 760 °C; [§63.1253(c)(3)]
  - d) Is a flare that meets the requirements of §63.11(b) or; [§63.1253(c)(4)]
  - e) Is a control device specified in §63.1257(a)(4). [§63.1253(c)(5)]
- 4. *Alternative standard:* The permittee may comply with the storage tank standards by routing storage tank vents to a combustion control device achieving an outlet TOC concentration, as calibrated on methane or the predominant HAP, of 20 ppmv or less, and an outlet concentration of hydrogen halides and halogens of 20 ppmv or less. If the permittee is routing emissions to a noncombustion control device, it must achieve an outlet TOC concentration, as calibrated on methane or the predominant HAP, of 50 ppmv or less, and an outlet concentration of hydrogen halides and halogens of 50 ppmv or less. Compliance with the outlet concentrations shall be determined by the initial compliance procedures of §63.1257(c)(4) and the continuous emission monitoring requirements of §63.1258(b)(5). [§63.1253(d)]
- 5. *Planned routine maintenance.* The specifications and requirements in §63.1253(b) through (d) for control devices do not apply during periods of planned routine maintenance. Periods of planned routine maintenance of the control devices (including CCGD subject to §63.1252(h)), during which the control device does not meet the specifications of §63.1253(b) through (d), as applicable, shall not exceed 240 hours in any 365-day period. [§63.1253(e)]
- 6. *Vapor balancing alternative.* As an alternative to the requirements in §63.1253(b) and (c), the permittee may implement vapor balancing in accordance with §63.1253(f)(1) through (7). [§63.1253(f)]
  - a) The vapor balancing system must be designed and operated to route organic HAP vapors displaced from loading of the storage tank to the railcar or tank truck from which the storage tank is filled. [§63.1253(f)(1)]
  - b) Tank trucks and railcars must have a current certification in accordance with the U.S. Department of Transportation (DOT) pressure test requirements of 49 CFR Part 180 for tank trucks and 49 CFR 173.31 for railcars. [§63.1253(f)(2)]
  - c) Hazardous air pollutants must only be unloaded from tank trucks or railcars when vapor collection systems are connected to the storage tank's vapor collection system.

- [§63.1253(f)(3)]
- d) No pressure relief device on the storage tank, or on the railcar, or tank truck shall open during loading or as a result of diurnal temperature changes (breathing losses).  
[§63.1253(f)(4)]
- e) Pressure relief devices on affected storage tanks must be set to no less than 2.5 psig at all times to prevent breathing losses. The permittee shall record the setting as specified in §63.1259(b)(12) and comply with the requirements for each pressure relief valve in §63.1253(f)(5)(i) through (iii): [§63.1253(f)(5)]
- i. The pressure relief valve shall be monitored quarterly using the method described in §63.180(b). [§63.1253(f)(5)(i)]
  - ii. An instrument reading of 500 ppmv or greater defines a leak. [§63.1253(f)(5)(ii)]
  - iii. When a leak is detected, it shall be repaired as soon as practicable, but no later than 5 days after it is detected, and the permittee shall comply with the recordkeeping requirements of §63.1255(g)(4)(i) through (iv). [§63.1253(f)(5)(iii)]
- f) Railcars or tank trucks that deliver HAP to an affected storage tank must be reloaded or cleaned at a facility that utilizes one of the control techniques in §63.1253(f)(6)(i) through (ii): [§63.1253(f)(6)]
- i. The railcar or tank truck must be connected to a closed-vent system with a control device that reduces inlet emissions of HAP by 90 percent by weight or greater or; [§63.1253(f)(6)(i)]
  - ii. A vapor balancing system designed and operated to collect organic HAP vapor displaced from the tank truck or railcar during reloading must be used to route the collected HAP vapor to the storage tank from which the liquid being transferred originated. [§63.1253(f)(6)(ii)]
- g) The permittee of the facility where the railcar or tank truck is reloaded or cleaned must comply with the requirements in §63.1253(f)(7)(i) through (ii): [§63.1253(f)(7)]
- i. Submit to the permittee of the affected storage tank and to the Director a written certification that the reloading or cleaning facility will meet the requirements of §63.1253. The certifying entity may revoke the written certification by sending a written statement to the permittee of the affected storage tank giving at least 90 days' notice that the certifying entity is rescinding acceptance of responsibility for compliance with the requirements of §63.1253(f)(7). [§63.1253(f)(7)(i)]
  - ii. If complying with §63.1253(f)(6)(i), demonstrate initial compliance in accordance with §63.1257(c), demonstrate continuous compliance in accordance with §63.1258, keep records as specified in §63.1259, and prepare reports as specified in §63.1260. [§63.1253(f)(7)(ii)]

**PERMIT CONDITION GGG-3**

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations 40 CFR Part 63, Subpart GGG – **§63.1255 Standards: Equipment leaks.**

**Applicability:** This permit condition applies to all pharmaceutical manufacturing operations (with the exception of those unit(s) utilizing the Pollution Prevention Alternative Standard). Please see the equipment list in Attachment F.

*Equipment*, means each pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, and instrumentation system in organic hazardous air pollutant service; and any control devices or closed-vent systems required by this subpart.

§63.1255 Exceptions:

- Lines and equipment not containing process fluids are not subject to the provisions of this section. Utilities, and other nonprocess lines, such as heating and cooling systems which do not combine their materials with those in the processes they serve, are not considered to be part of a process. [§63.1255(a)(5)]
- The provisions of this section do not apply to bench-scale processes, regardless of whether the processes are located at the same plant site as a process subject to the provisions of this subpart. [§63.1255(a)(6)]
- Equipment that is in vacuum service is excluded from the requirements of this section. [§63.1255(a)(8)]
- Equipment that is in organic HAP service, but is in such service less than 300 hours per calendar year, is excluded from the requirements of this section if it is identified as required in paragraph (g)(9) of §63.1255. [§63.1255(a)(9)]

**Emission Limitation and Monitoring Requirements:**

1. *General Equipment Leak Requirements* [§63.1255(a)]
  - a) The provisions of §63.1255 apply to pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, instrumentation systems, control devices, and closed-vent systems that are intended to operate in organic hazardous air pollutant service 300 hours or more during the calendar year within a source subject to the provisions of Subpart GGG. [§63.1255(a)(1)]
  - b) Equipment to which the general equipment leak requirements apply shall be identified such that it can be distinguished readily from equipment that is not subject to the requirements. Identification of the equipment does not require physical tagging of the equipment. For example, the equipment may be identified on a plant site plan, in log entries, or by designation of process boundaries by some form of weatherproof identification. If changes are made to the affected source subject to the leak detection requirements, equipment identification for each type of component shall be updated, if needed, within 90 calendar days or by the next Periodic Report following the end of the monitoring period for that component, whichever is later. [§63.1255(a)(7)]
  - c) When each leak is detected by visual, audible, or olfactory means, or by monitoring as described in §63.180(b) or (c), the following requirements apply: [§63.1255(a)(10)]
    - i. A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. [§63.1255(a)(10)(i)]
    - ii. The identification on a valve in light liquid or gas/vapor service may be removed after it has been monitored as specified in §63.1255(e)(7)(iii), and no leak has been detected during the follow-up monitoring. [§63.1255(a)(10)(ii)]

- iii. The identification on equipment, except on a valve in light liquid or gas/vapor service, may be removed after it has been repaired. [§63.1255(a)(10)(iii)]
  - d) Except as provided in §63.1255(a)(11)(i), all terms in Subpart GGG that define a period of time for completion of required tasks (e.g., weekly, monthly, quarterly, annual) refer to the standard calendar periods unless specified otherwise in the section or paragraph that imposes the requirement. [§63.1255(a)(11)]
    - i. If the initial compliance date does not coincide with the beginning of the standard calendar period, a permittee may elect to utilize a period beginning on the compliance date, or may elect to comply in accordance with the provisions of §63.1255(a)(11)(ii) or (iii). [§63.1255(a)(11)(i)]
    - ii. Time periods specified in Subpart GGG for completion of required tasks may be changed by mutual agreement between the permittee and the director, as specified in Subpart A of Part 63. For each time period that is changed by agreement, the revised period shall remain in effect until it is changed. A new request is not necessary for each recurring period. [§63.1255(a)(11)(ii)]
    - iii. Except as provided in §63.1255(a)(11)(i) or (ii), where the period specified for compliance is a standard calendar period, if the initial compliance date does not coincide with the beginning of the calendar period, compliance shall be required according to the schedule specified in §63.1255(a)(11)(iii)(A) or (B), as appropriate. [§63.1255(a)(11)(iii)]
      - A. Compliance shall be required before the end of the standard calendar period within which the initial compliance date occurs if there remain at least 3 days for tasks that must be performed weekly, at least 2 weeks for tasks that must be performed monthly, at least 1 month for tasks that must be performed each quarter, or at least 3 months for tasks that must be performed annually or; [§63.1255(a)(11)(iii)(A)]
      - B. In all other cases, compliance shall be required before the end of the first full standard calendar period after the period within which the initial compliance date occurs. [§63.1255(a)(11)(iii)(B)]
    - iv. In all instances where a provision of Subpart GGG requires completion of a task during each of multiple successive periods, a permittee may perform the required task at any time during each period, provided the task is conducted at a reasonable interval after completion of the task during the previous period. [§63.1255(a)(11)(iv)]
  - e) In all cases where the provisions of Subpart GGG require a permittee to repair leaks by specified time after the leak is detected, it is a violation of §63.1255 to fail to take action to repair the leaks within the specified time. If action is taken to repair the leaks within the specified time, failure of that action to successfully repair the leak is not a violation of §63.1255. However, if the repairs are unsuccessful, a leak is detected and the permittee shall take further action as required by applicable provisions of §63.1255. [§63.1255(a)(12)]
2. *References.* (§63.1255(b))
- a) The permittee of a source shall comply with the provisions of Subpart H of Part 63, as specified in §63.1255(b)(2) through (4). The term "process unit" as used in Subpart H of Part 63 shall be considered to be defined the same as "group of processes" for sources subject to this subpart GGG. The term "fuel gas system," as used in Subpart H of Part 63, shall not apply for the purposes of this Subpart GGG. [§63.1255(b)(1)]

- b) §§63.160, 63.161, 63.162, 63.163, 63.167, 63.168, 63.170, 63.173, 63.175, 63.176, 63.181, and §63.182 shall not apply for the purposes of Subpart GGG. The permittee shall comply with the provisions specified in §63.1255(b)(2)(i) through (viii). [§63.1255(b)(2)]
- i. §§63.160 and 63.162 shall not apply; instead, the permittee shall comply with §63.1255(a); [§63.1255(b)(2)(i)]
  - ii. §63.161 shall not apply; instead, the permittee shall comply with §63.1251; [§63.1255(b)(2)(ii)]
  - iii. §§63.163 and 63.173 shall not apply; instead, the permittee shall comply with §63.1255(c); [§63.1255(b)(2)(iii)]
  - iv. §63.167 shall not apply; instead, the permittee shall comply with §63.1255(d); [§63.1255(b)(2)(iv)]
  - v. §63.168 shall not apply; instead, the permittee shall comply with §63.1255(e); [§63.1255(b)(2)(v)]
  - vi. §63.170 shall not apply; instead, the permittee shall comply with §63.1254; [§63.1255(b)(2)(vi)]
  - vii. 63.181 shall not apply; instead, the permittee shall comply with §63.1255(g) and; [§63.1255(b)(2)(vii)]
  - viii. §63.182 shall not apply; instead, the permittee shall comply with §63.1255(h). [§63.1255(b)(2)(viii)]
- c) The permittee shall comply with §§63.164, 63.165, 63.166, 63.169, 63.177, and 63.179 in their entirety, except that when these sections reference other sections of Subpart H of Part 63, the references shall mean the sections specified in §63.1255(b)(2) and (4). §63.164 applies to compressors. §63.165 applies to pressure relief devices in gas/vapor service. §63.166 applies to sampling connection systems. §63.169 applies to pumps, valves, connectors, and agitators in heavy liquid service; instrumentation systems; and pressure relief devices in liquid service. §63.177 applies to general alternative means of emission limitation. §63.179 applies to alternative means of emission limitation for enclosed-vented process units. [§63.1255(b)(3)]
- d) The permittee shall comply with §§63.171, 63.172, 63.174, 63.178, and 63.180, except as specified in §63.1255(b)(4)(i) through (vi). [§63.1255(b)(4)]
- i. §63.171 shall apply, except §63.171(a) shall not apply. Instead, delay of repair of equipment for which leaks have been detected is allowed if one of the conditions in §63.1255(b)(4)(i)(A) through (B) exists: [§63.1255(b)(4)(i)]
    - A. The repair is technically infeasible without a process shutdown. Repair of this equipment shall occur by the end of the next scheduled process shutdown. [§63.1255(b)(4)(i)(A)]
    - B. The permittee determines that repair personnel would be exposed to an immediate danger if attempting to repair without a process shutdown. Repair of this equipment shall occur by the end of the next scheduled process shutdown. [§63.1255(b)(4)(i)(B)]
  - ii. §63.172 shall apply for closed-vent systems used to comply with §63.1255, and for control devices used to comply with §63.1255 only, except: [§63.1255(b)(4)(ii)]
    - A. §§63.172(k) and (l) shall not apply. The permittee shall instead comply with §63.1255(f). [§63.1255(b)(4)(ii)(A)]
    - B. The permittee may, instead of complying with the provisions of §63.172(f), design a closed-vent system to operate at a pressure below atmospheric pressure. The

system shall be equipped with at least one pressure gage or other pressure measurement device that can be read from a readily accessible location to verify that negative pressure is being maintained in the closed-vent system when the associated control device is operating. [§63.1255(b)(4)(ii)(B)]

- C. The requirements apply at all times, except as specified in §63.1250(g). The permittee may not comply with the planned routine maintenance provisions in §63.1252(h). [§63.1255(b)(4)(ii)(C)]
- iii. §63.174 shall apply except: [§63.1255(b)(4)(iii)]
- A. §§63.174(f), (g), and (h) shall not apply. Instead of §63.174(f), (g), and (h), the permittee shall comply with §63.1255(f). §63.174(b)(3) shall not apply. Instead of §63.174(b)(3), the permittee shall comply with §63.1255(b)(4)(iii)(B) through (F). [§63.1255(b)(4)(iii)(A)]
- B. If the percent leaking connectors in a group of processes was greater than or equal to 0.5 percent during the initial monitoring period, monitoring shall be performed once per year until the percent leaking connectors is less than 0.5 percent. [§63.1255(b)(4)(iii)(B)]
- C. If the percent leaking connectors in the group of processes was less than 0.5 percent, but equal to or greater than 0.25 percent, during the initial or last required monitoring period, the permittee may elect to monitor once every four years. A permittee may comply with the requirements of this paragraph by monitoring at least 40 percent of the connectors in the first two years and the remainder of the connectors within the next two years. The percent leaking connectors will be calculated for the total of all required monitoring performed during the four-year period. [§63.1255(b)(4)(iii)(C)]
- D. Except as provided in §63.1255(b)(4)(iii)(B), if leaking connectors comprise at least 0.5 percent but less than 1.0 percent of the connectors during the last monitoring period, the permittee shall monitor at least once every two years for the next monitoring period. At the end of that two-year monitoring period, if the percent leaking connectors is greater than or equal to 0.5 percent, the permittee shall monitor once per year until the percent leaking connectors is less than 0.5 percent. If, at the end of a monitoring period, the percent leaking connectors is less than 0.5 percent, the permittee shall monitor in accordance with §63.1255(b)(4)(iii)(C) or (F), as appropriate. [§63.1255(b)(4)(iii)(D)]
- E. If a permittee determines that one percent or greater of the connectors in a group of processes are leaking, the permittee shall monitor the connectors once per year. The permittee may elect to use the provisions of §63.1255(b)(4)(iii)(C), (D), or (F), as appropriate, after a monitoring period in which less than 1 percent of the connectors are determined to be leaking. [§63.1255(b)(4)(iii)(E)]
- F. The permittee may elect to perform monitoring once every eight years if the percent leaking connectors in the group of processes was less than 0.25 percent during the initial or last required monitoring period. A permittee shall monitor at least 50 percent of the connectors in the first four years and the remainder of the connectors within the next four years. If the percent leaking connectors in the first four years is equal to or greater than 0.35 percent, the monitoring program shall revert at that time to the appropriate monitoring frequency specified in §63.1255(b)(4)(iii)(C), (D), or (E). [§63.1255(b)(4)(iii)(F)]

- iv. §63.178 shall apply except: [§63.1255(b)(4)(iv)]
    - A. §63.178(b), requirements for pressure testing, may be applied to all processes (not just batch processes) and to supply lines between storage and processing areas. [§63.1255(b)(4)(iv)(A)]
    - B. For pumps, the phrase "at the frequencies specified in Table 1 of Subpart GGG" in §63.178(c)(3)(iii) shall mean "quarterly" for the purposes Subpart GGG. [§63.1255(b)(4)(iv)(B)]
  - v. §63.180 shall apply except §63.180(b)(4)(ii)(A) through (C) shall not apply. Instead, calibration gases shall be a mixture of methane and air at a concentration of approximately, but less than, 10,000 parts per million methane for agitators; 2,000 parts per million for pumps; and 500 parts per million for all other equipment, except as provided in §63.180(b)(4)(iii). [§63.1255(b)(4)(v)]
  - vi. When §§63.171, 63.172, 63.174, 63.178, and 63.180 reference other sections in Subpart H of Part 63, the references shall mean those sections specified in §63.1255(b)(2) and (b)(4)(i) through (v), as applicable. [§63.1255(b)(4)(vi)]
3. *Standards for Pumps in Light Liquid Service and Agitators in Gas/Vapor Service and in Light Liquid Service.* [§63.1255(c)]
- a) The provisions of §63.1255 apply to each pump that is in light organic HAP liquid service, and to each agitator in organic HAP gas/vapor service or in light organic HAP liquid service. [§63.1255(c)(1)]
  - b) *Monitoring, Leak Definition and Visual Inspections* [§63.1255(c)(2)]
    - i. Each pump and agitator subject to §63.1255 shall be monitored quarterly to detect leaks by the method specified in §63.180(b) except as provided in §§63.177, 63.178, §63.1255(f), and §63.1255(c)(5) through (9). [§63.1255(c)(2)(i)]
    - ii. The instrument reading, as determined by the method as specified in §63.180(b), that defines a leak is: [§63.1255(c)(2)(ii)]
      - A. For agitators, an instrument reading of 10,000 parts per million or greater. [§63.1255(c)(2)(ii)(A)]
      - B. For pumps, an instrument reading of 2,000 parts per million or greater. [§63.1255(c)(2)(ii)(B)]
    - iii. *Visual Inspections.* Each pump and agitator shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump or agitator seal. If there are indications of liquids dripping from the pump or agitator seal at the time of the weekly inspection, the permittee shall follow the procedure specified in either §63.1255(c)(2)(iii)(A) or (B) prior to the next weekly inspection. [§63.1255(c)(2)(iii)]
      - A. The permittee shall monitor the pump or agitator by the method specified in §63.180(b). If the instrument reading indicates a leak as specified in §63.1255(c)(2)(ii), a leak is detected. [§63.1255(c)(2)(iii)(A)]
      - B. The permittee shall eliminate the visual indications of liquids dripping. [§63.1255(c)(2)(iii)(B)]
  - c) *Repair provisions.* [§63.1255(c)(3)]
    - i. When a leak is detected pursuant to §63.1255(c)(2)(i), (c)(2)(iii)(A), (c)(5)(iv)(A), or (c)(5)(vi)(B), it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §63.1255(b)(4)(i). [§63.1255(c)(3)(i)]
    - ii. A first attempt at repair shall be made no later than 5 calendar days after the leak is

detected. First attempts at repair include, but are not limited to, the following practices where practicable: [§63.1255(c)(3)(ii)]

- A. Tightening of packing gland nuts. [§63.1255(c)(3)(ii)(A)]
- B. Ensuring that the seal flush is operating at design pressure and temperature. [§63.1255(c)(3)(ii)(B)]

d) *Calculation of percent leakers.* [§63.1255(c)(4)]

- i. The permittee shall decide no later than the end of the first monitoring period what groups of processes will be developed. Once the permittee has decided, all subsequent percent calculations shall be made on the same basis. [§63.1255(c)(4)(i)]
- ii. If, calculated on a 1-year rolling average, the greater of either 10 percent or three of the pumps in a group of processes leak, the permittee shall monitor each pump once per month, until the calculated one-year rolling average value drops below 10 percent or three pumps, as applicable. [§63.1255(c)(4)(ii)]
- iii. The number of pumps in a group of processes shall be the sum of all the pumps in organic HAP service, except that pumps found leaking in a continuous process within one quarter after start-up of the pump shall not count in the percent leaking pumps calculation for that one monitoring period only. [§63.1255(c)(4)(iii)]
- iv. Percent leaking pumps shall be determined by the following Equation 3 of Subpart GGG: [§63.1255(c)(4)(iv)]

$$\%P_L = [(P_L - P_S) / (P_T - P_S)] \times 100 \text{ (Eq. 3)}$$

Where:

$\%P_L$  = percent leaking pumps

$P_L$  = number of pumps found leaking as determined through periodic monitoring as required in §63.1255(c)(2)(i) and (ii).

$P_T$  = total pumps in organic HAP service, including those meeting the criteria in §63.1255(c)(5) and (6).

$P_S$  = number of pumps in a continuous process leaking within 1 quarter of start-up during the current monitoring period.

e) *Exemptions.* Each pump or agitator equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of §63.1255(c)(1) through (c)(4)(iii), provided the following requirements are met: [§63.1255(c)(5)]

- i. Each dual mechanical seal system is: [§63.1255(c)(5)(i)]
  - A. Operated with the barrier fluid at a pressure that is at all times greater than the pump/agitator stuffing box pressure or; [§63.1255(c)(5)(i)(A)]
  - B. Equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of §63.1255(b)(4)(ii) or; [§63.1255(c)(5)(i)(B)]
  - C. Equipped with a closed-loop system that purges the barrier fluid into a process stream. [§63.1255(c)(5)(i)(C)]
- ii. The barrier fluid is not in light liquid service. [§63.1255(c)(5)(ii)]
- iii. Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both. [§63.1255(c)(5)(iii)]
- iv. Each pump/agitator is checked by visual inspection each calendar week for indications of liquids dripping from the pump/agitator seal. If there are indications of liquids dripping from the pump or agitator seal at the time of the weekly inspection, the

permittee shall follow the procedures specified in either §63.1255(c)(5)(iv)(A) or (B) prior to the next required inspection. [§63.1255(c)(5)(iv)]

A. The permittee shall monitor the pump or agitator using Method 21 in accordance with the procedures specified in 40 CFR 63.180(b) of Subpart H to determine if there is a leak of organic HAP in the barrier fluid. If the instrument reading indicates a leak, a leak is detected if an instrument reading of 10,000 parts per million or greater for agitators and 2,000 parts per million or greater for pumps is measured, as specified in §63.1255(c)(2)(ii) [§63.1255(c)(5)(iv)(A)]

B. The permittee shall eliminate the visual indications of liquids dripping. [§63.1255(c)(5)(iv)(B)]

v. Each sensor as described in §63.1255(c)(5)(iii) is observed daily or is equipped with an alarm unless the pump is located within the boundary of an unmanned plant site. [§63.1255(c)(5)(v)]

vi. The permittee determines, based on design considerations and operating experience, criteria applicable to the presence and frequency of drips and to the sensor that indicate failure of the seal system, the barrier fluid system, or both. If indications of liquids dripping from the pump/agitator seal exceed the criteria established above, or if, based on the criteria established above, the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected. [§63.1255(c)(5)(vi)(A) and (B)]

vii. When a leak is detected pursuant to §63.1255(c)(5)(iv)(A) or (B), the leak must be repaired as specified in §63.1255(c)(3). [§63.1255(c)(5)(vii)]

f) Any pump/agitator that is designed with no externally actuated shaft penetrating the pump/agitator housing is exempt from the requirements of §63.1255(c)(1) through (3). [§63.1255(c)(6)]

g) Any pump/agitator equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals back to the process or to a control device that complies with the requirements of §63.1255(b)(4)(ii) is exempt from the requirements of §63.1255(c)(2) through (5). [§63.1255(c)(7)]

h) Any pump/agitator that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of §63.1255(c)(2)(iii) and (c)(5)(iv), and the daily requirements of (§63.1255(c)(5)(v), provided that each pump/agitator is visually inspected as often as practicable and at least monthly. [§63.1255(c)(8)]

i) If more than 90 percent of the pumps in a group of processes meet the criteria in either §63.1255(c)(5) or (6), the group of processes is exempt from the requirements of §63.1255(c)(4). [§63.1255(c)(9)]

4. *Standards: Open-Ended Valves or Lines.* [§63.1255(d)]

a) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in §63.177 and §63.1255(d)(4) through (6). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line, or during maintenance or repair. The cap, blind flange, plug, or second valve shall be in place within one hour of cessation of operations requiring process fluid flow through the open-ended valve or line, or within one hour of cessation of maintenance or repair. The permittee is not required to keep a record documenting compliance with the one-hour requirement. [§63.1255(d)(1)(i) and (ii)]

- b) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [§63.1255(d)(2)]
  - c) When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with §63.1255(d)(1) at all other times. [§63.1255(d)(3)]
  - d) *Exception:* Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset; or open-ended valves or lines containing materials which would automatically polymerize or could cause an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in §63.1255(d)(1) through (d)(3) are exempt from the requirements of §63.1255(d)(1) through (d)(3). [§63.1255(d)(4), (5) & (6)]
5. *Standards: Valves in Gas/Vapor Service and in Light Liquid Service.* [§63.1255(e)]
- a) The provisions of 40 CFR 63.1255 of Subpart GGG apply to valves that are either in gas organic HAP service or in light liquid organic HAP service. A valve in gas/vapor service is a valve in organic hazardous air pollutant service containing a gas or vapor at operating conditions. A valve in light liquid service is a valve that is in organic hazardous air pollutant service and which contains a liquid at operating conditions with one or more organic compounds with a vapor pressure greater than 0.3 kilopascals at 20 °C determined by the methods described in 40 CFR 60.485(e)(1) and the total concentration of the pure organic compounds constituents having 0.3 kilopascals at 20 °C is equal to or greater than 20 percent by weight of the total process stream. [40 CFR 63.1251 – Definitions, & 63.1255(e)(1)]
  - b) All valves subject to §63.1255 shall be monitored, except as provided in §63.1255(f) and in §63.177, by no later than one year after the compliance date. [§63.1255(e)(2)]
  - c) *Monitoring.* The permittee of a source subject to §63.1255 shall monitor all valves, except as provided in §63.1255(f) and in §63.177, at the intervals specified in §63.1255(e)(4) and shall comply with all other provisions, except as provided in §63.1255(b)(4)(i), §§63.178 and 63.179. [§63.1255(e)(3)]
    - i. The valves shall be monitored to detect leaks by Method 21 in accordance with the procedures specified in 40 CFR 63.180(b) of Subpart H. [§63.1255(e)(3)(i)]
    - ii. An instrument reading of 500 parts per million or greater defines a leak. [§63.1255(e)(3)(ii)]
  - d) *Subsequent monitoring frequencies.* After conducting the initial survey required in §63.1255(e)(2), the permittee shall monitor valves for leaks at the intervals specified below: [§63.1255(e)(4)]
    - i. For a group of processes with two percent or greater leaking valves, calculated according to §63.1255(e)(6), the permittee shall monitor each valve once per month, except as specified in §63.1255(e)(9). [§63.1255(e)(4)(i)]
    - ii. For a group of processes with less than two percent leaking valves, the permittee shall monitor each valve once each quarter, except as provided in §63.1255(e)(4)(iii) through (e)(4)(v). [§63.1255(e)(4)(ii)]
    - iii. For a group of processes with less than 1 percent leaking valves, the permittee may elect to monitor each valve once every two quarters. [§63.1255(e)(4)(iii)]
    - iv. For a group of processes with less than 0.5 percent leaking valves, the permittee may elect to monitor each valve once every four quarters. [§63.1255(e)(4)(iv)]

- v. For a group of processes with less than 0.25 percent leaking valves, the permittee may elect to monitor each valve once every two years. [§63.1255(e)(4)(v)]
- e) *Calculation of percent leakers.* For a group of processes to which Subpart GGG applies, a permittee may choose to subdivide the valves in the applicable group of processes and apply the provisions of §63.1255(e)(4) to each subgroup. If the permittee elects to subdivide the valves in the applicable group of processes, then the provisions of §63.1255(e)(5)(i) through (e)(5)(viii) apply. (recordkeeping and reporting provisions under §63.1255(e)(5)(iv) through (vii) are listed in the Recordkeeping and Reporting sections, respectively). [§63.1255(e)(5)]
  - i. The overall performance of total valves in the applicable group of processes must be less than two percent leaking valves, as detected according to §63.1255(e)(3)(i) and (ii) and as calculated according to §63.1255(e)(6) (ii) and (iii). [§63.1255(e)(5)(i)]
  - ii. The initial assignment or subsequent reassignment of valves to subgroups shall be governed by the provisions of §63.1255(e)(5)(ii) (A) through (C). [§63.1255(e)(5)(ii)]
    - A. The permittee shall determine which valves are assigned to each subgroup. Valves with less than one year of monitoring data or valves not monitored within the last 12 months must be placed initially into the most frequently monitored subgroup until at least one year of monitoring data has been obtained. [§63.1255(e)(5)(ii)(A)]
    - B. Any valve or group of valves can be reassigned from a less frequently monitored subgroup to a more frequently monitored subgroup provided that the valves to be reassigned were monitored during the most recent monitoring period for the less frequently monitored subgroup. The monitoring results must be included with the less frequently monitored subgroup's monitoring event and associated next percent leaking valves calculation for that group. [§63.1255(e)(5)(ii)(B)]
    - C. Any valve or group of valves can be reassigned from a more frequently monitored subgroup to a less frequently monitored subgroup provided that the valves to be reassigned have not leaked for the period of the less frequently monitored subgroup (e.g., for the last 12 months, if the valve or group of valves is to be reassigned to a subgroup being monitored annually). Nonrepairable valves may not be reassigned to a less frequently monitored subgroup. [§63.1255(e)(5)(ii)(C)]
  - iii. The permittee shall determine every six months if the overall performance of total valves in the applicable group of processes is less than two percent leaking valves and so indicate the performance in the next periodic report. If the overall performance of total valves in the applicable group of processes is two percent leaking valves or greater, the permittee shall revert to the program required in §63.1255(e)(2) through (e)(4). The overall performance of total valves in the applicable group of processes shall be calculated as a weighted average of the percent leaking valves of each subgroup according to the following Equation 4 of Subpart GGG: (§63.1255(e)(5)(iii))

$$\%V_{IO} = \frac{\sum_{i=1}^n (\%V_{Li} \times V_i)}{\sum_{i=1}^n V_i} \quad (\text{Eq. 4})$$

Where:

$\%V_{LO}$  = overall performance of total valves in the applicable process or group of processes

$\%V_{Li}$  = percent leaking valves in subgroup i, most recent value calculated according to the procedures in §63.1255(e)(6)(ii) and (iii).

$V_i$  = number of valves in subgroup i

- iv. To determine the monitoring frequency for each subgroup, the calculation procedures of §63.1255(e)(6)(iii) shall be used. [§63.1255(e)(5)(vii)]
- v. Except for the overall performance calculations required by §63.1255(e)(5)(i) and (e)(5)(iii), each subgroup shall be treated as if it were a process for the purposes of applying the provisions of §63.1255. [§63.1255(e)(5)(viii)]
- vi. The permittee shall decide no later than the implementation date of Subpart GGG or upon revision of an operating permit how to group the processes. Once the permittee has decided, all subsequent percentage calculations shall be made on the same basis. Percent leaking valves for each group of processes or subgroup shall be determined by the following Equation 5 of Subpart GGG: [§63.1255(e)(6)(i) and (ii)]

$$\%V_L = [V_i/V_T] \times 100 \quad (\text{Eq. 5})$$

Where:

$\%V_L$  = percent leaking valves as determined through periodic monitoring required in §63.1255(e)(2) through (4).

$V_T$  = total valves monitored, in a monitoring period excluding valves monitored as required by §63.1255(e)(7)(iii).

- vii. When determining monitoring frequency for each group of processes or subgroup subject to monthly, quarterly, or semi-annual monitoring frequencies, the percent leaking valves shall be the arithmetic average of the percent leaking valves from the last two monitoring periods. When determining monitoring frequency for each group of processes or subgroup subject to annual or biennial (once every 2 years) monitoring frequencies, the percent leaking valves shall be the arithmetic average of the percent leaking valves from the last three monitoring periods. [§63.1255(e)(6)(iii)]
  - viii. Nonrepairable valves shall be included in the calculation of percent leaking valves the first time the valve is identified as leaking and nonrepairable and as required to comply with §63.1255(e)(6)(iv)(B). Otherwise, a number of nonrepairable valves (identified and included in the percent leaking calculation in a previous period) up to a maximum of one percent of the total number of valves in organic HAP service at a process may be excluded from calculation of percent leaking valves for subsequent monitoring periods. (B) If the number of nonrepairable valves exceeds one percent of the total number of valves in organic HAP service at a process, the number of nonrepairable valves exceeding 1 percent of the total number of valves in organic HAP service shall be included in the calculation of percent leaking valves. [§63.1255(e)(6)(iv)(A) and (B)]
- f) *Repair provisions.* [§63.1255(e)(7)]
- i. When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in

- §63.1255(b)(4)(i) stated below. [§63.1255(e)(7)(i)]
- A. The repair is technically infeasible without a process shutdown. Repair of this equipment shall occur by the end of the next scheduled process shutdown. [§63.1255(b)(4)(i)(A)]
  - ii. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [§63.1255(e)(7)(ii)]
  - iii. When a leak is repaired, the valve shall be monitored at least once within the first three months after its repair. Days that the valve is not in organic HAP service shall not be considered part of this three month period. The monitoring required by this paragraph is in addition to the monitoring required to satisfy the definitions of "repaired" and "first attempt at repair." [§63.1255(e)(7)(iii)]
    - A. The monitoring shall be conducted as specified in §63.180(b) and (c) as appropriate to determine whether the valve has resumed leaking. [§63.1255(e)(7)(iii)(A)]
    - B. Periodic monitoring required by §63.1255(e)(2) through (4) may be used to satisfy the requirements of §63.1255(e)(7)(iii), if the timing of the monitoring period coincides with the time specified in §63.1255(e)(7)(iii). Alternatively, other monitoring may be performed to satisfy the requirements of §63.1255(e)(7)(iii), regardless of whether the timing of the monitoring period for periodic monitoring coincides with the time specified in §63.1255(e)(7)(iii). [§63.1255(e)(7)(iii)(B)]
    - C. If a leak is detected by monitoring that is conducted pursuant to §63.1255(e)(7)(iii), the permittee shall follow the provisions of §63.1255(e)(7)(iii)(C)(1) and (2) to determine whether that valve must be counted as a leaking valve for purposes of §63.1255(e)(6). [§63.1255(e)(7)(iii)(C)]
      - 1) If the permittee elects to use periodic monitoring required by §63.1255(e)(2) through (4) to satisfy the requirements of §63.1255(e)(7)(iii), then the valve shall be counted as a leaking valve. [§63.1255(e)(7)(iii)(C)(1)]
      - 2) If the permittee elects to use other monitoring prior to the periodic monitoring required by §63.1255(e)(2) through (4) to satisfy the requirements of §63.1255(e)(7)(iii), then the valve shall be counted as a leaking valve unless it is repaired and shown by periodic monitoring not to be leaking. [§63.1255(e)(7)(iii)(C)(2)]
- g) First attempts at repair include, but are not limited to, the following practices where practicable: [§63.1255(e)(8)]
- i. Tightening of bonnet bolts, [§63.1255(e)(8)(i)]
  - ii. Replacement of bonnet bolts, [§63.1255(e)(8)(ii)]
  - iii. Tightening of packing gland nuts, and [§63.1255(e)(8)(iii)]
  - iv. Injection of lubricant into lubricated packing. [§63.1255(e)(8)(iv)]
- h) Any equipment located at a plant site with fewer than 250 valves in organic HAP service in the affected source is exempt from the requirements for monthly monitoring specified in §63.1255(e)(4)(i). Instead, the permittee shall monitor each valve in organic HAP service for leaks once each quarter, or comply with §63.1255(e)(4)(iii), (iv), or (v), except as provided in §63.1255(f). [§63.1255(e)(9)]
6. *Unsafe to monitor/inspect, difficult to monitor/inspect, and inaccessible equipment.* (§63.1255(f))
- a) Equipment that is designated as unsafe to monitor, unsafe to inspect, difficult to monitor, difficult to inspect, or inaccessible is exempt from the monitoring requirements as specified

in §63.1255(f)(1)(i) through (iv) provided the permittee meets the requirements specified in §63.1255(f)(2), (3), or (4), as applicable. All equipment must be assigned to a group of processes. Ceramic or ceramic-lined connectors are subject to the same requirements as inaccessible connectors. [§63.1255(f)(1)]

- i. For pumps and agitators, §63.1255(c)(2), (3), and (4) do not apply. [§63.1255(f)(1)(i)]
  - ii. For valves, §63.1255(e)(2) through (7) do not apply. [§63.1255(f)(1)(ii)]
  - iii. For connectors, §63.174(b) through (e) and §63.1255(b)(4)(iii)(B) through (F) do not apply. [§63.1255(f)(1)(iii)]
  - iv. For closed-vent systems, §63.172(f)(1) and (2) and §63.172(g) do not apply. [§63.1255(f)(1)(iv)]
- b) *Equipment that is unsafe to monitor or unsafe to inspect.* [§63.1255(f)(2)]
- i. Valves, connectors, agitators, and pumps may be designated as unsafe to monitor if the permittee determines that monitoring personnel would be exposed to an immediate danger as a consequence of complying with the monitoring requirements referred to in §63.1255(f)(1)(i) through (iii). [§63.1255(f)(2)(i)]
  - ii. Any part of a closed-vent system may be designated as unsafe to inspect if the permittee determines that monitoring personnel would be exposed to an immediate danger as a consequence of complying with the monitoring requirements referred to in §63.1255(f)(1)(iv). [§63.1255(f)(2)(ii)]
  - iii. The permittee of equipment that is designated as unsafe to monitor must have a written plan that requires monitoring of the equipment as frequently as practicable during safe to monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable to the group of processes in which the equipment is located. [§63.1255(f)(2)(iii)]
  - iv. For any parts of a closed-vent system designated as unsafe to inspect, the permittee must have a written plan that requires inspection of the closed-vent systems as frequently as practicable during safe to inspect times, but not more frequently than annually. [§63.1255(f)(2)(iv)]
- c) *Equipment that is difficult to monitor or difficult to inspect.* [§63.1255(f)(3)]
- i. A valve, agitator, or pump may be designated as difficult to monitor if the permittee determines that the valve, agitator, or pump cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface, or it is not accessible in a safe manner when it is in organic HAP service. [§63.1255(f)(3)(i)]
  - ii. Any part of a closed-vent system may be designated as difficult to inspect if the permittee determines that the equipment cannot be inspected without elevating the monitoring personnel more than 2 meters above a support surface, or it is not accessible in a safe manner when it is in organic HAP service. [§63.1255(f)(3)(ii)]
  - iii. At an existing source, any valve, agitator or pump within a group of processes that meets the criteria of §63.1255(f)(3)(i) may be designated as difficult to monitor, and any parts of a closed-vent system that meet the requirements of §63.1255(f)(3)(ii) may be designated as difficult to inspect. At a new affected source, a permittee may designate no more than 3 percent of valves as difficult to monitor. (§63.1255(f)(3)(iii))
  - iv. The permittee of valves, agitators, or pumps designated as difficult to monitor must have a written plan that requires monitoring of the equipment at least once per calendar year or on the periodic monitoring schedule otherwise applicable to the group of processes in which the equipment is located, whichever is less frequent. For any

part of a closed-vent system designated as difficult to inspect, the permittee must have a written plan that requires inspection of the closed-vent system at least once every 5 years. [§63.1255(f)(3)(iv)]

- d) *Inaccessible, ceramic, or ceramic-lined connectors.* [§63.1255(f)(4)]
- i. A connector may be designated as inaccessible if it is: [§63.1255(f)(4)(i)]
    - A. Buried; [ §63.1255(f)(4)(i)(A)]
    - B. Insulated in a manner that prevents access to the connector by a monitor probe; [§63.1255(f)(4)(i)(B)]
    - C. Obstructed by equipment or piping that prevents access to the connector by a monitor probe; [§63.1255(f)(4)(i)(C)]
    - D. Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold which would allow access to equipment up to 7.6 meters (25 feet) above the ground; or [§63.1255(f)(4)(i)(D)]
    - E. Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment. [§63.1255(f)(4)(i)(E)]
  - ii. A connector may be designated as inaccessible if it would require elevating the monitoring personnel more than two meters above a permanent support surface or would require the erection of scaffold. [§63.1255(f)(4)(ii)]
  - iii. At an existing source, any connector that meets the criteria of §63.1255(f)(4)(i) or (ii) may be designated as inaccessible. At a new affected source, a permittee may designate no more than three percent of connectors as inaccessible. [§63.1255(f)(4)(iii)]
  - iv. If any inaccessible, ceramic, or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the leak shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in §63.1255(b)(4)(i). [§63.1255(f)(4)(iv)]
  - v. Any connector that is inaccessible or that is ceramic or ceramic-lined is exempt from the recordkeeping and reporting requirements of §63.1255(g) and (h). [§63.1255(f)(4)(v)]

**Monitoring Test Methods and Procedures:**

1. Monitoring shall comply with the following requirements: [§63.180(b)]
  - a) Monitoring shall comply with Method 21 of 40 CFR Part 60, Appendix A. [§63.180(b)(1)]
    - i) Except as provided for in §63.180(b)(2)(ii), the detection instrument shall meet the performance criteria of Method 21 of 40 CFR Part 60, Appendix A, except the instrument response factor criteria in Section 3.1.2(a) of Method 21 shall be for the average composition of the process fluid not each individual VOC in the stream. For process streams that contain nitrogen, water, air or other inerts which are not organic HAPs or VOCs, the average stream response factor may be calculated on an inert-free basis. The response factor may be determined at any concentration for which monitoring for leaks will be conducted. [§63.180(b)(2)(i)]
    - ii) If no instrument is available at the plant site that will meet the performance criteria specified in §63.180(b)(2)(i), the instrument readings may be adjusted by multiplying the

- average response factor of the process fluid, calculated on an inert-free basis as described in §63.180(b)(2)(i). [§63.180(b)(2)(ii)]
- b) The instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR Part 60, Appendix A. [§63.180(b)(3)]
- c) Calibration gases shall be: [§63.180(b)(4)]
- i. Zero air (less than 10 parts per million of hydrocarbon in air); and (§63.180(b)(4)(i))
  - ii. Mixtures of methane in air at the concentrations specified in §63.180(b)(4)(ii)(A) – (C). A calibration gas other than methane in air may be used if the instrument does not respond to methane or if the instrument does not meet the performance criteria specified in §63.180(b)(2)(i). In such cases, the calibration gas may be a mixture of one or more of the compounds to be measured in air. [§63.180(b)(4)(ii)]
    - A. For Phase I, a mixture of methane or other compounds, as applicable, in air at a concentration of approximately, but less than, 10,000 parts per million. [§63.180(b)(4)(ii)(A)]
    - B. For Phase II, a mixture of methane or other compounds, as applicable, and air at a concentration of approximately, but less than, 10,000 parts per million for agitators, 5000 parts per million for pumps, and 500 parts per million for all other equipment, except as provided in §63.180(b)(4)(iii). [§63.180(b)(4)(ii)(B)]
    - C. For Phase III, a mixture of methane or other compounds, as applicable and air at a concentration of approximately, but less than, 10,000 parts per million methane for agitators; 2000 parts per million for pumps in food/medical service; 5000 parts per million for pumps in polymerizing monomer service; 1000 parts per million for all other pumps; and 500 parts per million for all other equipment excepts as provided in §63.180(b)(4)(iii). [§63.180(b)(4)(ii)(C)]
  - iii. The instrument may be calibrated at a higher methane concentration than the concentration specified for that piece of equipment. The concentration of the calibration gas may exceed the concentration specified as a leak by not more than 2000 parts per million. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2000 parts per million above the concentration specified as a leak and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 parts per million. If only one scale on an instrument will be used during monitoring, the permittee need not calibrate the scales that will not be used during that day's monitoring. [§63.180(b)(4)(iii)]
- d) Monitoring shall be performed when the equipment is in organic HAP service, in use with an acceptable surrogate volatile organic compound which is not an organic HAP, or is in use with other detectable gas or vapor. [§63.180(b)(5)]
- e) Monitoring data that do not meet the criteria specified in §63.180(b)(1)-(5) may be used to qualify for less frequent monitoring under the provisions in §63.168(d)(2) and (d)(3) or §63.174(b)(3)(ii) or (b)(3)(iii) provided the data meet the conditions specified in §63.180(b)(6)(i) and (b)(6)(ii). [§63.180(b)(6)]
- i. The data were obtained before April 22, 1994. [§63.180(b)(6)(i)]
  - ii. The departures for the criteria specified in §63.180(b)(1)-(b)(5) or from the specified monitoring frequency of §63.168(c) are minor and do not significantly affect the quality of data. Examples of minor departures are monitoring at a slightly different

frequency (such as every six weeks instead of monthly or quarterly), following the performance criteria of Section 3.1.2(a) of Method 21 of Appendix A of 40 CFR Part 60 instead of §63.180(b)(2), or monitoring at a different leak definition if the data would indicate the presence or absence of a leak at the concentration specified in this subpart. Failure to use a calibrated instrument is not considered a minor departure. [§63.180(b)(6)(ii)]

**Recordkeeping:**

1. *Records of equipment leak detection and repair programs.* The permittee implementing the leak detection and repair (LDAR) program specified in §63.1255 of Subpart GGG, shall implement the recordkeeping requirements in §63.1255. [§63.1259(d)]
2. The following recordkeeping requirements apply under §63.1255(g): [§63.1255(g)]
  - a) A permittee of more than one group of processes subject to the provisions of §63.1255 may comply with the recordkeeping requirements for the groups of processes in one recordkeeping system if the system identifies with each record the program being implemented (e.g., quarterly monitoring) for each type of equipment. All records and information required by §63.1255 shall be maintained in a manner that can be readily accessed at the plant site. This could include physically locating the records at the plant site or accessing the records from a central location by computer at the plant site. (§63.1255(g)(1))
  - b) *General recordkeeping.* Except as provided in §63.1255(g)(5)(i) and in §63.1255(a)(9), the following information pertaining to all equipment subject to the requirements in §63.1255 shall be recorded: [§63.1255(g)(2)]
    - i. §63.1255(g)(2)(i):
      - A. A list of identification numbers for equipment (except connectors that are subject to
      - B. §63.1255(f)(4)) subject to the requirements of §63.1255. Except for equipment subject to the recordkeeping requirements in §63.1255(g)(2)(ii) through (viii) (underlined below), equipment need not be individually identified if, for a particular type of equipment, all items of that equipment in a designated area or length of pipe subject to the provisions of §63.1255 are identified as a group, and the number of subject items of equipment is indicated. The list for each type of equipment shall be completed no later than the completion of the initial survey required for that component. The list of identification numbers shall be updated, if needed, to incorporate equipment changes identified during the course of each monitoring period within 90 calendar days, or by the next Periodic Report, following the end of the monitoring period for the type of equipment component monitored, whichever is later. [§63.1255(g)(2)(i)(A)]
      - C. A schedule for monitoring connectors subject to the provisions of §63.174(a) and valves subject to the provisions of §63.1255(e)(4). [§63.1255(g)(2)(i)(B)]
      - D. Physical tagging of the equipment to indicate that it is in organic HAP service is not required. Equipment subject to the provisions of §63.1255 may be identified on a plant site plan, in log entries, or by other appropriate methods. [§63.1255(g)(2)(i)(C)]
    - ii) §63.1255(g)(2)(ii):
      - A) A list of identification numbers for equipment that the permittee elects to equip with a closed-vent system and control device, under the provisions of §63.1255(c)(7),

- §63.164(h), or §63.165(c). [§63.1255(g)(2)(ii)(A)]
- B) A list of identification numbers for compressors that the permittee elects to designate as operating with an instrument reading of less than 500 parts per million above background, under the provisions of §63.164(i). [§63.1255(g)(2)(ii)(B)]
- iii) §63.1255(g)(2)(iii):
- A) A list of identification numbers for pressure relief devices subject to the provisions in §63.165(a). [§63.1255(g)(2)(iii)(A)]
- B) A list of identification numbers for pressure relief devices equipped with rupture disks, under the provisions of §63.165(d). [§63.1255(g)(2)(iii)(B)]
- iv. Identification of instrumentation systems subject to the provisions of §63.1255. Individual components in an instrumentation system need not be identified. [§63.1255(g)(2)(iv)]
- v. The following information shall be recorded for each dual mechanical seal system: [§63.1255(g)(2)(v)]
- A. Design criteria required by §63.1255(c)(5)(vi)(A) and § 63.164(e)(2), and an explanation of the design criteria; and [§63.1255(g)(2)(v)(A)]
- B. Any changes to these criteria and the reasons for the changes. [§63.1255(g)(2)(v)(B)]
- vi. A list of equipment designated as unsafe to monitor/inspect or difficult to monitor/inspect under §63.1255(f) and a copy of the plan for monitoring or inspecting this equipment. [§63.1255(g)(2)(vi)]
- vii. A list of connectors removed from and added to the process, as described in §63.174(i)(1), and documentation of the integrity of the weld for any removed connectors, as required in §63.174(j). This is not required unless the net credit for removed connectors is expected to be used. [§63.1255(g)(2)(vii)]
- viii. For equipment that the permittee elects to monitor as provided under §63.178(c), a list of equipment added to batch product processes since the last monitoring period required in §63.178(c)(3)(ii) and (iii). This list must be completed for each type of equipment within 90 calendar days, or by the next Periodic Report, following the end of the monitoring period for the type of equipment monitored, whichever is later. Also, if the permittee elects to adjust monitoring frequency by the time in use, as provided in §63.178(c)(3)(iii), records demonstrating the proportion of the time during the calendar year the equipment is in use in a manner subject to the provisions of §63.1255 are required. Examples of suitable documentation are records of time in use for individual pieces of equipment or average time in use for the process unit. [§63.1255(g)(2)(viii)]
- c) *Records of visual inspections.* For visual inspections of equipment subject to the provisions of §63.1255(c)(2)(iii) and (c)(5)(iv), the permittee shall document that the inspection was conducted and the date of the inspection. The permittee shall maintain records as specified in §63.1255(g)(4) for leaking equipment identified in this inspection, except as provided in §63.1255(g)(5). These records shall be retained for 5 years. [§63.1255(g)(3)]
- d) *Monitoring records.* When each leak is detected as specified in §63.1255(c) and §63.164, §63.1255(e) and §63.169, and §§63.172 and 63.174, the following information shall be recorded and kept for 5 years (at least 2 years onsite, with the remaining 3 years either onsite or offsite): [§63.1255(g)(4)]
- i. The instrument and the equipment identification number and the operator name, initials, or identification number. [§63.1255(g)(4)(i)]
- ii. The date the leak was detected and the date of the first attempt to repair the

- leak. [§63.1255(g)(4)(ii)]
  - iii. The date of successful repair of the leak. [§63.1255(g)(4)(iii)]
  - iv. The maximum instrument reading measured by Method 21 of 40 CFR Part 60, Appendix A, after the leak is successfully repaired or determined to be nonreparable. [§63.1255(g)(4)(iv)]
  - v. "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak. [§63.1255(g)(4)(v)]
    - A. The permittee may develop a written procedure that identifies the conditions that justify a delay of repair. The written procedures shall be included either as part of the start-up/shutdown/malfunction plan, required by §63.1259(a)(3), or in a separate document that is maintained at the plant site. Reasons for delay of repair may be documented by citing the relevant sections of the written procedure. [§63.1255(g)(4)(v)(A)]
    - B. If delay of repair was caused by depletion of stocked parts, there must be documentation that the spare parts were sufficiently stocked onsite before depletion and the reason for depletion. [§63.1255(g)(4)(v)(B)]
  - vi. If repairs were delayed, dates of process shutdowns that occur while the equipment is unrepaired. [§63.1255(g)(4)(vi)]
  - vii. If the alternative in 40 CFR §63.174(c)(1)(ii) of Subpart H is not in use for the monitoring period, identification, either by list, location (area or grouping), or tagging of connectors disturbed since the last monitoring period required in 40 CFR §63.174(b) of Subpart H, as described in 40 CFR §63.174(c)(1) of Subpart H; the date and results of follow-up monitoring as required in 40 CFR §63.174(c)(1)(i) and (c)(2)(ii) of Subpart H. If identification of disturbed connectors is made by location, then all connectors within the designated location shall be monitored. [§63.1255(g)(4)(vii)(A) and (B)]
  - viii. The date and results of the monitoring required in 40 CFR §63.178(c)(3)(i) for equipment added to a batch process since the last monitoring period required in 40 CFR §63.178(c)(3)(ii) and (iii). If no leaking equipment is found in this monitoring, the permittee shall record that the inspection was performed. Records of the actual monitoring results are not required. [§63.1255(g)(4)(viii)]
  - ix. Copies of the periodic reports as specified in §63.1255(h)(3), if records are not maintained on a computerized data base capable of generating summary reports from the records. [§63.1255(g)(4)(ix)]
- e) *Records of pressure tests.* The permittee who elects to pressure test a process equipment train or supply lines between storage and processing areas to demonstrate compliance with §63.1255 is exempt from the requirements of §63.1255(g)(2), (3), (4), and (6). Instead, the permittee shall maintain records of the following information: [§63.1255(g)(5)]
- i. The identification of each product, or product code, produced during the calendar year. It is not necessary to identify individual items of equipment in the process equipment train. [§63.1255(g)(5)(i)]
  - ii. Physical tagging of the equipment to identify that it is in organic HAP service and subject to the provisions of §63.1255 is not required. Equipment in a process subject to the provisions of §63.1255 may be identified on a plant site plan, in log entries, or by other appropriate methods. [§63.1255(g)(5)(ii)]
  - iii. The dates of each pressure test required in §63.178(b), the test pressure, and the

- pressure drop observed during the test. [§63.1255(g)(5)(iii)]
- iv. Records of any visible, audible, or olfactory evidence of fluid loss. [§63.1255(g)(5)(iv)]
- v. When a process equipment train does not pass two consecutive pressure tests, the following information shall be recorded in a log and kept for 2 years:  
[§63.1255(g)(5)(v)]
  - A. The date of each pressure test and the date of each leak repair attempt.  
[§63.1255(g)(5)(v)(A)]
  - B. Repair methods applied in each attempt to repair the leak. [§63.1255(g)(5)(v)(B)]
  - C. The reason for the delay of repair. [§63.1255(g)(5)(v)(C)]
  - D. The expected date for delivery of the replacement equipment and the actual date of delivery of the replacement equipment. [§63.1255(g)(5)(v)(D)]
  - E. The date of successful repair. [§63.1255(g)(5)(v)(E)]
- f) *Records of compressor and relief device compliance tests.* The dates and results of each compliance test required for compressors subject to the provisions in 40 CFR §63.164(i) and the dates and results of the monitoring following a pressure release for each pressure relief device subject to the provisions in §§63.165(a) and (b). The results shall include:  
[§63.1255(g)(6)]
  - i. The background level measured during each compliance test. [§63.1255(g)(6)(i)]
  - ii. The maximum instrument reading measured at each piece of equipment during each compliance test. [§63.1255(g)(6)(ii)]
- g) *Records for closed-vent systems.* The permittee shall maintain records of the information specified in §63.1255(g)(7)(i) through (iii) for closed-vent systems and control devices subject to the provisions of §63.1255(b)(4)(ii). The records specified in §63.1255(g)(7)(i) shall be retained for the life of the equipment. The records specified in §63.1255(g)(7)(ii) and (g)(7)(iii) shall be retained for five years. [§63.1255(g)(7)]
  - i. The design specifications and performance demonstrations specified in §63.1255(g)(7)(i)(A) through (g)(7)(i)(D). [§63.1255(g)(7)(i)]
    - A. Detailed schematics, design specifications of the control device, and piping and instrumentation diagrams. [§63.1255(g)(7)(i)(A)]
    - B. The dates and descriptions of any changes in the design specifications. [§63.1255(g)(7)(i)(B)]
    - C. The flare design (i.e., steam assisted, air assisted, or nonassisted) and the results of the compliance demonstration required by §63.11(b). [§63.1255(g)(7)(i)(C)]
    - D. A description of the parameter or parameters monitored, as required in §63.1255(b)(4)(ii), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring. [§63.1255(g)(7)(i)(D)]
  - ii. Records of operation of closed-vent systems and control devices.  
[§63.1255(g)(7)(ii)]
    - A. Dates and durations when the closed-vent systems and control devices required in §63.1255(c) and §§63.164 through 63.166 are not operated as designed as indicated by the monitored parameters, including periods when a flare pilot light system does not have a flame. [§63.1255(g)(7)(ii)(A)]
    - B. Dates and durations during which the monitoring system or monitoring device is inoperative. [§63.1255(g)(7)(ii)(B)]
    - C. Dates and durations of start-ups and shutdowns of control devices required in

- §63.1255(c)(7) and §§63.164 through 63.166. [§63.1255(g)(7)(ii)(C)]
- iii. Records of inspections of closed-vent systems subject to the provisions of 40 CFR §63.172. [§63.1255(g)(7)(iii)]
    - A. For each inspection conducted in accordance with the provisions of §63.172(f)(1) or (f)(2) during which no leaks were detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [§63.1255(g)(7)(iii)(A)]
    - B. For each inspection conducted in accordance with the provisions of §63.172(f)(1) or (f)(2) during which leaks were detected, the information specified in §63.1255(g)(4) shall be recorded. [§63.1255(g)(7)(iii)(B)]
  - h) *Records for components in heavy liquid service.* Information, data, and analysis used to determine that a piece of equipment or process is in heavy liquid service shall be recorded. Such a determination shall include an analysis or demonstration that the process fluids do not meet the criteria of "in light liquid or gas service." Examples of information that could document this include, but are not limited to, records of chemicals purchased for the process, analyses of process stream composition, engineering calculations, or process knowledge. [§63.1255(g)(8)]
  - i) *Records of exempt components.* Identification, either by list, location (area or group) of equipment in organic HAP service less than 300 hours per year subject to the provisions of §63.1255. [§63.1255(g)(9)]
  - j) *Records of alternative means of compliance determination.* The permittee choosing to comply with the requirements of 40 CFR §63.179 shall maintain the following records: [§63.1255(g)(10)]
    - i. Identification of the process(es) and the organic HAP they handle. [§63.1255(g)(10)(i)]
    - ii. A schematic of the process, enclosure, and closed-vent system. [§63.1255(g)(10)(ii)]
    - iii. A description of the system used to create a negative pressure in the enclosure to ensure that all emissions are routed to the control device. [§63.1255(g)(10)(iii)]
  - k) *Recordkeeping for Valves in Gas/Vapor Service and in Light Liquid Service* In addition to records required by §63.1255(g), the permittee shall maintain records specified in §63.1255(e)(5)(iv)(A) through (D). [§63.1255(e)(5)(iv)]
    - i. Which valves are assigned to each subgroup, [§63.1255(e)(5)(iv)(A)]
    - ii. Monitoring results and calculations made for each subgroup for each monitoring period, [§63.1255(e)(5)(iv)(B)]
    - iii. Which valves are reassigned and when they were reassigned, and [§63.1255(e)(5)(iv)(C)]
    - iv. The results of the semi-annual overall performance calculation required in §63.1255(e)(5)(iii). [§63.1255(e)(5)(iv)(D)]

**Reporting:**

- 1. *Reporting Requirements.* [§63.1255(h)]
  - a) Each permittee of a source subject to §63.1255 shall submit the reports listed in §63.1255(h)(1)(i) through (ii). [§63.1255(h)(1)]
    - i. A Notification of Compliance Status Report described in §63.1255(h)(2), [§63.1255(h)(1)(i)]
    - ii. Periodic reports described in §63.1255(h)(3). [§63.1255(h)(1)(ii)]

- b) *Notification of compliance status report.* Each permittee of a source subject to §63.1255 shall submit the information specified in §63.1255(h)(2)(i) through (iii) in the Notification of Compliance Status Report described in §63.1260(f). (§63.1255(h)(2))
- i) The notification shall provide the information listed in §63.1255(h)(2)(i)(A) through (C) for each process subject to the requirements of §63.1255(b) through (g). (§63.1255(h)(2)(i))
    - A. Process group identification. (§63.1255(h)(2)(i)(A))
    - B. Number of each equipment type (e.g., valves, pumps) in organic HAP service, excluding equipment in vacuum service. (§63.1255(h)(2)(i)(B))
    - C. Method of compliance with the standard (for example, "monthly leak detection and repair" or "equipped with dual mechanical seals"). (§63.1255(h)(2)(i)(C))
  - ii) The notification shall provide the information listed in §63.1255(h)(2)(ii)(A) and (B) for each process subject to the requirements of §63.1255(b)(4)(iv) and § 63.178(b). (§63.1255(h)(2)(ii))
    - A. Products or product codes subject to the provisions of §63.1255, and (§63.1255(h)(2)(ii)(A))
    - B. Planned schedule for pressure testing when equipment is configured for production of products subject to the provisions of §63.1255. (§63.1255(h)(2)(ii)(B))
  - iii) The notification shall provide the information listed in §63.1255(h)(2)(iii)(A) and (B) for each process subject to the requirements in §63.179. (§63.1255(h)(2)(iii))
    - A. Process identification. (§63.1255(h)(2)(iii)(A))
    - B. A description of the system used to create a negative pressure in the enclosure and the control device used to comply with the requirements of §63.1255(b)(4)(ii). (§63.1255(h)(2)(iii)(B))
  - iv) §63.9(j) shall not apply to the Notification of Compliance Status report described in this §63.1255(h)(2). (§63.1255(h)(2)(iv))
- c) *Periodic reports.* The permittee of a source subject to §63.1255 shall submit Periodic Reports. [§63.1255(h)(3)]
- i) A report containing the information in §63.1255(h)(3)(ii), (iii), and (iv) shall be submitted semi-annually. The first report shall be submitted no later than 240 days after the Notification of Compliance Status Report is due and shall cover the six-month period beginning on the date the Notification of Compliance Status Report is due. Each subsequent report shall cover the six-month period following the preceding period. [§63.1255(h)(3)(i)]
  - ii) For equipment complying with the provisions of §63.1255(b) through (g), except §63.1255(b)(4)(iv) and §63.179, the summary information listed in §63.1255(h)(3)(ii)(A) through (L) for each monitoring period during the 6-month period. [§63.1255(h)(3)(ii)]
    - A. The number of valves for which leaks were detected as described in §63.1255(e)(3), the percent leakers, and the total number of valves monitored; [§63.1255(h)(3)(ii)(A)]
    - B. The number of valves for which leaks were not repaired as required in §63.1255(e)(7), identifying the number of those that are determined nonreparable; [§63.1255(h)(3)(ii)(B)]

- C. Separately, the number of pumps and agitators for which leaks were detected as described in §63.1255(c)(2), the total number of pumps and agitators monitored, and, for pumps, the percent leakers; [§63.1255(h)(3)(ii)(C)]
- D. Separately, the number of pumps and agitators for which leaks were not repaired as required in §63.1255(c)(3); [§63.1255(h)(3)(ii)(D)]
- E. The number of compressors for which leaks were detected as described in §63.164(f); [§63.1255(h)(3)(ii)(E)]
- F. The number of compressors for which leaks were not repaired as required in §63.164(g); [§63.1255(h)(3)(ii)(F)]
- G. The number of connectors for which leaks were detected as described in §63.174(a), the percent of connectors leaking, and the total number of connectors monitored; [§63.1255(h)(3)(ii)(G)]
- H. The number of connectors for which leaks were not repaired as required in §63.174(d), identifying the number of those that are determined nonrepairable; [§63.1255(h)(3)(ii)(H)]
- I. The facts that explain any delay of repairs and, where appropriate, why a process shutdown was technically infeasible. [§63.1255(h)(3)(ii)(I)]
- J. The results of all monitoring to show compliance with §§63.164(i), 63.165(a), and 63.172(f) conducted within the semi-annual reporting period. [§63.1255(h)(3)(ii)(J)]
- K. If applicable, the initiation of a monthly monitoring program under either §63.1255(c)(4)(ii) or §63.1255(e)(4)(i). [§63.1255(h)(3)(ii)(K)]
- L. If applicable, notification of a change in connector monitoring alternatives as described in §63.174(c)(1). [§63.1255(h)(3)(ii)(L)]
- iii. For the permittee electing to meet the requirements of §63.178(b), the report shall include the information listed in §63.1255(h)(3)(iii)(A) through (E) for each process. [§63.1255(h)(3)(iii)]
  - A. Product process equipment train identification; [§63.1255(h)(3)(iii)(A)]
  - B. The number of pressure tests conducted; [§63.1255(h)(3)(iii)(B)]
  - C. The number of pressure tests where the equipment train failed either the retest or two consecutive pressure tests; [§63.1255(h)(3)(iii)(C)]
  - D. The facts that explain any delay of repairs and; [§63.1255(h)(3)(iii)(D)]
  - E. The results of all monitoring to determine compliance with §63.172(f) of Subpart H. [§63.1255(h)(3)(iii)(E)]
- iv. Any revisions to items reported in earlier Notification of Compliance Status report, if the method of compliance has changed since the last report. (§63.1255(h)(3)(iv))
- d) In addition to the reporting requirements under §63.1255(h), the permittee shall notify the director no later than 30 days prior to the beginning of the next monitoring period of the decision to subgroup valves. The notification shall identify the participating processes and the valves assigned to each subgroup. [§63.1255(e)(5)(v)]
- e) *Semi-annual reports*. In addition to the information required by §63.1255(h)(3), the permittee shall submit in the periodic reports the information specified in §63.1255(e)(5)(vi)(A) and (B).
  - i. Valve reassignments occurring during the reporting period, and [§63.1255(e)(5)(vi)(A)]
  - ii. Results of the semi-annual overall performance calculation required by §63.1255(e)(5)(iii). [§63.1255(e)(5)(vi)(B)]

2. The permittee shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, or AirComplianceReporting@dnr.mo.gov no later than ten days after any exceedance of any of the terms imposed by this regulation, or any malfunction which could possibly cause an exceedance of this regulation.
3. The permittee shall report any deviations from the monitoring, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring report and annual compliance certification.

**PERMIT CONDITION GGG-4**

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations 40 CFR Part 63, Subpart GGG - §63.1254 Standards: Process Vents.

*Process vent* means a vent from a unit operation or vents from multiple unit operations within a process that are manifolded together into a common header, through which a HAP-containing gas stream is, or has the potential to be, released to the atmosphere. Process vents do not include vents on storage tanks regulated under §63.1253, vents on wastewater emission sources regulated under §63.1256, or pieces of equipment regulated under §63.1255.

*Process tank* means a tank that is used to collect material discharged from a feedstock storage tank or unit operation and to transfer this material to another unit operation within the process or to a product storage tank. Surge control vessels and bottoms receivers that fit these conditions are considered process tanks. Product storage tanks are considered process tanks and are part of the PMPU that produce the stored material. For the purposes of Subpart GGG, vents from process tanks are considered process vents.

The **Monitoring Requirements** (§63.1258) for equipment/processes subject to this permit condition are found in PERMIT CONDITION GGG – 05.

The **Recordkeeping** (§63.1259) & **Reporting** (§63.1260) **Requirements** for equipment/processes subject to this permit condition are found in PERMIT CONDITION GGG – 06.

**Emission Limitations:**

1. **Emissions Averaging Alternative:** The permittee may choose to meet the emissions averaging alternative requirement (see PERMIT CONDITION GGG – 08) for any PMPU in lieu of the requirements specified in §63.1254. [§63.1252(d)]
2. **Pollution Prevention Alternative:** A permittee may choose to meet the pollution prevention alternative requirement (see PERMIT CONDITION GGG – 07) for any PMPU in lieu of the requirements specified in §63.1254. [§63.1252(e)]
3. **Existing Affected Facility:** For each process, the permittee of an existing affected source must comply with the requirements in §63.1254(a)(1) and (3) or §63.1254(a)(2) and (3). Continuous compliance is demonstrated in accordance with the monitoring requirements described in §63.1258. [§63.1254(a)]
  - a.) *Process-based emission reduction requirement.* [§63.1254(a)(1)]
    - i) Uncontrolled HAP emissions from the sum of all process vents within a process that are not subject to the requirements of §63.1254(a)(3) shall be reduced by 93 percent or greater by weight, or as specified in §63.1254(a)(1)(ii). Notification of changes in the compliance method shall be reported according to the procedures in §63.1260(h). [§63.1254(a)(1)(i)]
    - ii) The following requirement applies to both existing and new facilities: Any one or more vents within a process may be controlled in accordance with any of the procedures in

§63.1254(a)(1)(ii)(A) through (D). All other vents within the process must be controlled as specified in §63.1254(a)(1)(i). [§63.1254(a)(1)(ii)]

- A. To outlet concentrations less than or equal to 20 ppmv as TOC and less than or equal to 20 ppmv as hydrogen halides and halogens; [§63.1254(a)(1)(ii)(A)]
- B. By a flare that meets the requirements of §63.11(b); [§63.1254(a)(1)(ii)(B)]
- C. By a control device specified in §63.1257(a)(4); or [§63.1254(a)(1)(ii)(C)]
- D. In accordance with the alternative standard specified in §63.1254(c). [§63.1254(a)(1)(ii)(D)]

b) *Process-based annual mass limit.* [§63.1254(a)(2)]

- i) Actual HAP emissions from the sum of all process vents within a process must not exceed 900 kilograms (kg) in any 365-day period. [§63.1254(a)(2)(i)]
- ii) Actual HAP emissions from the sum of all process vents within processes complying with §63.1254(a)(2)(i) are limited to a maximum of 1,800 kg in any 365-day period. [§63.1254(a)(2)(ii)]
- iii) Emissions from vents that are subject to the requirements of §63.1254(a)(3) and emissions from vents that are controlled in accordance with the procedures in §63.1254(c) may be excluded from the sums calculated in §63.1254(a)(2)(i) and (ii). [§63.1254(a)(2)(iii)]
- iv) The permittee may switch from compliance with §63.1254(a)(2) to compliance with §63.1254(a)(1) only after at least one year of operation in compliance with §63.1254(a)(2). Notification of such a change in the compliance method shall be reported according to the procedures in §63.1260(h). [§63.1254(a)(2)(iv)]

c) *Individual vent emission reduction requirements.* [§63.1254(a)(3)]

- i) Except as provided in §63.1254(a)(3)(ii), uncontrolled HAP emissions from a process vent must be reduced by 98 percent or in accordance with any of the procedures in §63.1254(a)(1)(ii)(A) through (D) if the uncontrolled HAP emissions from the vent exceed 25 tons per year, and the flow-weighted average flowrate (FR<sub>a</sub>) calculated using Equation 1 of Subpart GGG is less than or equal to the flowrate index (FRI) calculated using Equation 2 of Subpart GGG. [§63.1254(a)(3)(i)]

$$FR_a = \frac{\sum_{i=1}^n (D_i)(FR_i)}{\sum_{i=1}^n (D_i)} \quad (Eq. 1)$$

$$FRI = 0.02 * (HL) - 1,000 \quad (Eq. 2)$$

Where:

- FR<sub>a</sub> = flow-weighted average flowrate for the vent, scfm
- D<sub>i</sub> = duration of each emission event, min
- FR<sub>i</sub> = flowrate of each emission event, scfm
- n = number of emission events
- FRI = flowrate index, scfm

- HL = annual uncontrolled HAP emissions, lb/yr, as defined in §63.1251
- ii) *Grandfathering provisions.* As an alternative to the requirements in §63.1254(a)(3)(i), the permittee may comply with the provisions in §63.1254(a)(3)(ii)(A), (B), or (C), if applicable. [§63.1254(a)(3)(ii)]
- A. *Control device operation.* If the permittee can demonstrate that a process vent is controlled by a control device meeting the criteria specified in §63.1254(a)(3)(ii)(A)(1), then the control device is required to be operated according to §63.1254(a)(3)(ii)(A)(2), (3), and (4): [§63.1254(a)(3)(ii)(A)]
- 1) The control device was installed on any process vent that met the conditions of §63.1254(a)(3)(i) on or before April 2, 1997, and was operated to reduce uncontrolled emissions of total HAP by greater than or equal to 93 percent by weight, but less than 98 percent by weight; [§63.1254(a)(3)(ii)(A)(1)]
  - 2) The device must be operated to reduce inlet emissions of total HAP by 93 percent or by the percent reduction specified for that control device in any preconstruction permit issued pursuant to regulations approved or promulgated through rulemaking under title I (including parts C or D) of the Clean Air Act, whichever is greater; [§63.1254(a)(3)(ii)(A)(2)]
  - 3) The device must be replaced or upgraded to achieve at least 98 percent reduction of HAP or meet any of the conditions specified in §63.1254(a)(1)(ii)(A) through (D) upon reconstruction or replacement. [§63.1254(a)(3)(ii)(A)(3)]
  - 4) The device must be replaced or upgraded to achieve at least 98 percent reduction of HAP or meet any of the conditions specified in §63.1254(a)(1)(ii)(A) through (D) by April 2, 2007, or 15 years after issuance of the preconstruction permit, whichever is later. [§63.1254(a)(3)(ii)(A)(4)]
- B. *Process operations.* If a process meets all of the conditions specified in §63.1254(a)(3)(ii)(B)(1) through (3), the required level of control for the process is the level that was achieved on or before April 2, 1997. This level of control is demonstrated using the same procedures that are used to demonstrate compliance with §63.1254(a)(1). [§63.1254(a)(3)(ii)(B)]
- 1) At least one vent in the process met the conditions of §63.1254(a)(3)(i) on or before April 2, 1997; and; [§63.1254(a)(3)(ii)(B)(1)]
  - 2) The overall control for the process on or before April 2, 1997 was greater than or equal to 93 percent by weight, but less than 98 percent by weight and; [§63.1254(a)(3)(ii)(B)(2)]
  - 3) The production-indexed HAP consumption factor for the 12-month period in which the process was operated prior to the compliance date is less than one-half of the 3- year average baseline value established no earlier than the 1987 through 1989 calendar years. [§63.1254(a)(3)(ii)(B)(3)]
- C. *Hydrogenation vents.* Processes meeting the conditions of §63.1254(a)(3)(ii)(C)(1) through (3) are required to be operated to maintain the level of control achieved on or before April 2, 1997. For all other processes meeting the conditions of §63.1254(a)(3)(ii)(C)(3), uncontrolled HAP emissions from the sum of all process vents within the process must be reduced by 95 percent or greater by weight. [§63.1254(a)(3)(ii)(C)]
- 1) Processes containing a process vent that met the conditions of §63.1254(a)(3)(i) on or before April 2, 1997 and; [§63.1254(a)(3)(ii)(C)(1)]

- 2) Processes that are controlled to greater than or equal to 93 percent by weight, but less than 98 percent by weight and; [§63.1254(a)(3)(ii)(C)(2)]
- 3) Processes with a hydrogenation vent that, in conjunction with all other process vents from the process that do not meet the conditions of §63.1254(a)(3)(i), cannot meet the requirements of §63.1254(a)(1) or (2).  
[§63.1254(a)(3)(ii)(C)(2)]
- d) *Planned routine maintenance.* For each PMPU that is controlled with a CCCD, the permittee must comply with the provisions specified in either §63.1254(a)(4)(i), (ii), or (iii) during periods of planned routine maintenance of the CCCD. The permittee is not required to comply with the same provision for all of the PMPU's controlled by the CCCD. [§63.1254(a)(4)]
  - i. Shutdown the affected process. [§63.1254(a)(4)(i)]
  - ii. Comply with the requirements of §63.1254(a)(1) through (3) by using other means. [§63.1254(a)(4)(ii)]
  - iii. For a non-dedicated PMPU, implement the procedures described in §63.1254(a)(4)(iii)(A) through (C) for those process vents that are normally controlled by the CCCD. This option is not available for process vents from dedicated PMPU's. [§63.1254(a)(4)(iii)]
    - A. If the permittee uses a CCCD to comply with the 93 percent reduction requirement in §63.1254(a)(1)(i) or (ii), the outlet concentration limit in §63.1254(a)(1)(ii)(A), the alternative standard as specified in §63.1254(a)(1)(ii)(D) and (C), or the annual mass limit in §63.1254(a)(2), implement the provisions in §63.1252(h) during planned routine maintenance of the CCCD. [§63.1254(a)(4)(iii)(A)]
    - B. If the permittee reduces HAP emissions from process vents by using a CCCD that is also a control device specified in §63.1257(a)(4), implement the provisions in §63.1252(h) during planned routine maintenance of the CCCD. [§63.1254(a)(4)(iii)(B)]
    - C. If the permittee uses a CCCD to reduce emissions from a process vent subject to §63.1254(a)(3), implement the planned routine maintenance provisions in §63.1252(h) for that vent only if the reason the planned routine maintenance is needed, and the reason it cannot be performed at a time when the vent subject to §63.1254(a)(3) is not operating, has been described in the Notification of Compliance Status Report or a periodic report submitted before the planned routine maintenance event. (§63.1254(a)(4)(iii)(C))
4. *New sources.* The following requirements apply to new sources only. (§63.1254(b))
  - a) Except as provided in §63.1254(b)(2), uncontrolled HAP emissions from the sum of all process vents within a process at a new affected source shall be reduced by 98 percent or greater by weight or controlled in accordance with any of requirements of §63.1254(a)(1)(ii)(A) through (D). Initial compliance with the required emission limit or reduction is demonstrated in accordance with the initial compliance procedures in §63.1257(d), and continuous compliance is demonstrated in accordance with the monitoring requirements described in §63.1258. [§63.1254(b)(1)]
  - b) *Annual mass limit.* The actual HAP emissions from the sum of all process vents for which the permittee is not complying with §63.1254(b)(1) are limited to 900 kg in any 365-day period. [§63.1254(b)(2)]
5. *Alternative standard.* As an alternative standard, the permittee of an existing or new affected source may comply with the process vent standards by routing vents from a process to a

combustion control device achieving an outlet TOC concentration, as calibrated on methane or the predominant HAP, of 20 ppmv or less, and an outlet concentration of hydrogen halides and halogens of 20 ppmv or less. If the permittee is routing emissions to a noncombustion control device, it must achieve an outlet TOC concentration, as calibrated on methane or the predominant HAP, of 50 ppmv or less, and an outlet concentration of hydrogen halides and halogens of 50 ppmv or less. Any process vents within a process that are not routed to this control device must be controlled in accordance with the provisions of §63.1254(a) or (b), as applicable. Initial compliance with the outlet concentrations is demonstrated in accordance with the initial compliance procedures described in §63.1257(d)(1)(iv), and continuous compliance is demonstrated in accordance with the emission monitoring requirements described in §63.1258(b)(5). [§63.1254(c)]

**PERMIT CONDITION GGG - 5**

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations 40 CFR Part 63, Subpart GGG – **§63.1258 - Monitoring Requirements.**

*Monitoring Requirements for Storage Tank (§63.1253) & Process Vent (§63.1254) Standards*

**Monitoring Requirements:**

1. The permittee shall provide evidence of continued compliance with the standard. [§63.1258(a)]
2. *Monitoring for control devices.* [§63.1258(b)]
  - a) *Parameters to monitor.* Except as specified in §63.1258(b)(1)(i), for each control device, the permittee shall install and operate monitoring devices and operate within the established parameter levels to ensure continued compliance with the standard. Monitoring parameters are specified for control scenarios in Table 4 of Subpart GGG and in §63.1258(b)(1)(ii) through (xi). [§63.1258(b)(1)]
    - i. *Periodic verification.* For control devices that control vent streams totaling less than one ton/yr HAP emissions, before control, monitoring shall consist of a daily verification that the device is operating properly. If the control device is used to control batch process vents alone or in combination with other streams, the verification may be on a per batch basis. This verification shall include, but not be limited to, a daily or per batch demonstration that the unit is working as designed and may include the daily measurements of the parameters described in §63.1258(b)(1)(ii) through (x). [§63.1258(b)(1)(i)]
    - ii. *Scrubbers.* For affected sources using liquid scrubbers, the permittee shall establish a minimum scrubber liquid flow rate or pressure drop as a site-specific operating parameter which must be measured and recorded every 15 minutes during the period in which the scrubber is functioning in achieving the HAP removal required by Subpart GGG. If the scrubber uses a caustic solution to remove acid emissions, the permittee shall establish a minimum pH of the effluent scrubber liquid as a site-specific operating parameter which must be monitored at least once a day. The minimum scrubber flowrate or pressure drop shall be based on the conditions anticipated under worst-case conditions, as defined in §63.1257(b)(8)(i). [§63.1258(b)(1)(ii)]
      - A. The monitoring device used to determine the pressure drop shall be certified by the manufacturer to be accurate to within a gage pressure of  $\pm 10$  percent of the maximum pressure drop measured. [§63.1258(b)(1)(ii)(A)]
      - B. The monitoring device used for measurement of scrubber liquid flowrate shall

- be certified by the manufacturer to be accurate within  $\pm 10$  percent of the design scrubber liquid flowrate. [§63.1258(b)(1)(ii)(B)]
- C. The monitoring device shall be calibrated annually. [§63.1258(b)(1)(ii)(C)]
- iii. *Condensers.* For each condenser, the permittee shall establish the maximum condenser outlet gas temperature as a site-specific operating parameter which must be measured and recorded at least every 15 minutes during the period in which the condenser is functioning in achieving the HAP removal required by Subpart GGG. [§63.1258(b)(1)(iii)]
- A. The temperature monitoring device must be accurate to within  $\pm 2$  percent of the temperature measured in degrees Celsius or  $\pm 2.5$  °C, whichever is greater. [§63.1258(b)(1)(iii)(A)]
- B. The temperature monitoring device must be calibrated annually. [§63.1258(b)(1)(iii)(B)]
- iv. *Thermal incinerators.* For each thermal incinerator, the permittee shall establish the minimum temperature of the gases exiting the combustion chamber as the site-specific operating parameter which must be measured and recorded at least once every 15 minutes during the period in which the combustion device is functioning in achieving the HAP removal required by Subpart GGG. [§63.1258(b)(1)(vii)]
- A. The temperature monitoring device must be accurate to within  $\pm 0.75$  percent of the temperature measured in degrees Celsius or  $\pm 2.5$  °C, whichever is greater. [§63.1258(b)(1)(vii)(A)]
- B. The monitoring device must be calibrated annually. [§63.1258(b)(1)(vii)(B)]
- v. *Continuous emission monitor.* As an alternative to the parameters specified in §63.1258(b)(1)(ii) through (ix), the permittee may monitor and record the outlet HAP concentration or both the outlet TOC concentration and outlet hydrogen halide and halogen concentration every 15 minutes during the period in which the control device is functioning in achieving the HAP removal required by Subpart GGG. The permittee need not monitor the hydrogen halide and halogen concentration if, based on process knowledge, the permittee determines that the emission stream does not contain hydrogen halides or halogens. The HAP or TOC monitor must meet the requirements of Performance Specification 8 or 9 of Appendix B of part 60 and must be installed, calibrated, and maintained, according to §63.8. As part of the QA/QC Plan, calibration of the device must include, at a minimum, quarterly cylinder gas audits. [§63.1258(b)(1)(x)]
- vi. *CVS visual inspections.* The permittee shall perform monthly visual inspections of each closed vent system as specified in §63.1252(b). [§63.1258(b)(1)(xi)]
- b) *Averaging periods.* Averaging periods for parametric monitoring levels shall be established according to §63.1258(b)(2)(i) through (iii). [§63.1258(b)(2)]
- i. Except as provided in §63.1258(b)(2)(iii), a daily (24-hour) or block average shall be calculated as the average of all values for a monitored parameter level set according to the procedures in §63.1258(b)(3)(iii) recorded during the operating day or block. [§63.1258(b)(2)(i)]
- ii. The operating day or block shall be defined in the Notification of Compliance Status report. The daily average may be from midnight to midnight or another continuous 24-hour period. The block average is limited to a period of time that is, at a maximum, equal to the time from the beginning to end of a batch process. [§63.1258(b)(2)(ii)]
- iii. Monitoring values taken during periods in which the control devices are not

functioning in controlling emissions, as indicated by periods of no flow, shall not be considered in the averages. Where flow to the device could be intermittent, the permittee shall install, calibrate and operate a flow indicator at the inlet or outlet of the control device to identify periods of no flow. [§63.1258(b)(2)(iii)]

c) *Procedures for setting parameter levels for control devices used to control emissions.*

[§63.1258(b)(3)]

- i. *Small control devices.* Except as provided in §63.1258(b)(1)(i), for devices controlling less than ten tons per year of HAP for which a performance test is not required, the parametric levels shall be set based on the design evaluation required in §63.1257(d)(3)(i). If a performance test is conducted, the monitoring parameter level shall be established according to the procedures in §63.1258(b)(3)(ii).  
[§63.1258(b)(3)(i)]
- ii. *Large control devices.* For devices controlling greater than 10 tons per year of HAP for which a performance test is required, the parameter level must be established as follows: [§63.1258(b)(3)(ii)]
  - A. If the operating parameter level to be established is a maximum, it must be based on the average of the values from each of the three test runs.  
[§63.1258(b)(3)(ii)(A)]
  - B. If the operating parameter level to be established is a minimum, it must be based on the average of the values from each of the three test runs.  
[§63.1258(b)(3)(ii)(B)]
  - C. The permittee may establish the parametric monitoring level(s) based on the performance test supplemented by engineering assessments and manufacturer's recommendations. Performance testing is not required to be conducted over the entire range of expected parameter values. The rationale for the specific level for each parameter, including any data and calculations used to develop the level(s) and a description of why the level indicates proper operation of the control device shall be provided in the Precompliance report. The procedures specified in §63.1258 have not been approved by the director and determination of the parametric monitoring level using these procedures is subject to review and approval by the director.  
[§63.1258(b)(3)(ii)(C)]
- iii. *Parameters for control devices controlling batch process vents.* For devices controlling batch process vents alone or in combination with other streams, the parameter level(s) shall be established in accordance with §63.1258(b)(3)(iii)(A) or (B).  
[§63.1258(b)(3)(iii)]
  - A. If more than one batch emission episode has been selected to be controlled, a single level for the batch process(es) shall be determined from the initial compliance demonstration. [§63.1258(b)(3)(iii)(A)]
  - B. Instead of establishing a single level for the batch process(es), as described in §63.1258(b)(3)(iii)(A), a permittee may establish separate levels for each batch emission episode, selected to be controlled. If separate monitoring levels are established, the permittee must provide a record indicating at what point in the daily schedule or log of processes required to be recorded per the requirements of §63.1259(b)(9) the parameter being monitored changes levels and must record at least one reading of the new parameter level, even if the duration of monitoring for the new parameter is less than 15- minutes. [§63.1258(b)(3)(iii)(B)]

- d) *Request approval to monitor alternative parameters.* A permittee may request approval to monitor parameters other than those required by §63.1258(b)(1)(ii) through (ix) . The request shall be submitted according to the procedures specified in §63.8(f) or included in the Precompliance report. [§63.1258(b)(4)]
- e) **Monitoring for the alternative standards.** [§63.1258(b)(5)]
- i. For control devices that are used to comply with the provisions of §63.1253(d) or §63.1254(c), the permittee shall monitor and record the outlet TOC concentration and the outlet hydrogen halide and halogen concentration every 15 minutes during the period in which the device is functioning in achieving the HAP removal required by Subpart GGG using CEMS as specified in §63.1258(b)(5)(i)(A) through (D). [§63.1258(b)(5)(i)]
    - A. A TOC monitor meeting the requirements of EPA Performance Specification 8, 9, or 15 of Appendix B of 40 CFR Part 60 shall be installed, calibrated, and maintained according to §63.8. [§63.1258(b)(5)(i)(A)]
    - B. Except as specified in §63.1258(b)(5)(i)(C) and (D), the permittee must monitor HCl using either a FTIR CEMS that meets Performance Specification 15 of Appendix B of part 60 or any other CEMS capable of measuring HCl for which a performance specification has been promulgated in Appendix B of part 60. To monitor HCl with a CEMS for which a performance specification has not been promulgated, the permittee must prepare a monitoring plan and submit it for approval in accordance with the procedures specified in §63.8. [§63.1258(b)(5)(i)(B)]
    - C. As an alternative to using a CEMS as specified in §63.1258(b)(5)(i)(B) to monitor halogenated vent streams that are controlled by a combustion device followed by a scrubber, the permittee may elect to monitor scrubber operating parameters as specified in §63.1258(b)(1)(ii) that demonstrate the HCl emissions are reduced by at least 95 percent by weight. [§63.1258(b)(5)(i)(C)]
    - D. The permittee need not monitor the hydrogen halide and halogen concentration if, based on process knowledge, the permittee determines that the emission stream does not contain hydrogen halides or halogens. [§63.1258(b)(5)(i)(D)]
  - ii. The permittee complying with the alternative standard using control devices in which supplemental gases are added to the vents or manifolds must either correct for supplemental gases as specified in §63.1257(a)(3) or comply with the requirements of §63.1258(b)(5)(ii)(A) or (B). If the permittee corrects for supplemental gases as specified in §63.1257(a)(3)(ii) for noncombustion control devices, the flow rates must be evaluated as specified in §63.1258(b)(5)(ii)(C). [§63.1258(b)(5)(ii)]
    - A. *Provisions for combustion devices.* As an alternative to correcting for supplemental gases as specified in §63.1257(a)(3), the permittee may monitor residence time and firebox temperature according to the requirements of §63.1258(b)(5)(ii)(A)(1) and (2). Monitoring of residence time may be accomplished by monitoring flowrate into the combustion chamber. [§63.1258(b)(5)(ii)(A)]
      1. If complying with the alternative standard instead of achieving a control efficiency of 95 percent or less, the permittee must maintain a minimum residence time of 0.5 seconds and a minimum combustion chamber temperature of 760 °C. [§63.1258(b)(5)(ii)(A)(1)]
      2. If complying with the alternative standard instead of achieving a control efficiency of 98 percent, the permittee must maintain a minimum residence

time of 0.75 seconds and a minimum combustion chamber temperature of 816 °C. [§63.1258(b)(5)(ii)(A)(2)]

- B. *Provisions for dense gas systems.* As an alternative to correcting for supplemental gases as specified in §63.1257(a)(3), for noncombustion devices used to control emissions from dense gas systems, as defined in §63.1251, the permittee shall monitor flowrate as specified in §63.1258(b)(5)(ii)(B)(1) through (4).

[§63.1258(b)(5)(ii)(B)]

- 1) Use Equation 63 of Subpart GGG to calculate the system flowrate setpoint at which the average concentration is 5,000 ppmv TOC:

[§63.1258(b)(5)(ii)(B)(1)]

$$F_s = \frac{721 \times E_{an}}{5,000} \quad (\text{Eq. 63})$$

Where:

$F_s$  = system flowrate setpoint, scfm

$E_{an}$  = annual emissions entering the control device, lbmols/yr

- 2) Annual emissions used in Equation 63 of Subpart GGG must be based on the actual mass of organic compounds entering the control device, as calculated from the most representative emissions inventory data submitted within the five years before the Notification of Compliance Status report is due. The permittee must recalculate the system flowrate setpoint once every five years using the annual emissions from the most representative emissions inventory data submitted during the five-year period after the previous calculation. Results of the initial calculation must be included in the Notification of Compliance Status report, and recalculated values must be included in the next Periodic report after each recalculation. For all calculations after the initial calculation, to use emissions inventory data calculated using procedures other than those specified in §63.1257(d), the permittee must submit the emissions inventory data calculations and rationale for their use in the Notification of Process Change report or an application for a part 70 permit renewal or revision.

[§63.1258(b)(5)(ii)(B)(2)]

- 3) In the Notification of Compliance Status report, the permittee may elect to establish both a maximum daily average operating flowrate limit above the flowrate setpoint and a reduced outlet concentration limit corresponding to this flowrate limit. The permittee may also establish reduced outlet concentration limits for any daily average flowrates between the flowrate setpoint and the flowrate limit. The correlation between these elevated flowrates and the corresponding outlet concentration limits must be established using Equation 64 of Subpart GGG: [§63.1258(b)(5)(ii)(B)(3)]

$$C_a = \frac{F_s}{F_a} \times 50 \quad (\text{Eq. 64})$$

Where:

$C_a$  = adjusted outlet concentration limit, dry basis, ppmv

50 = outlet concentration limit associated with the flowrate setpoint, dry basis, ppmv

$F_s$  = system flowrate setpoint, scfm

$F_a$  = actual system flowrate limit, scfm

- 4) The permittee must install and operate a monitoring system for measuring system flowrate. The flowrate into the control device must be monitored and recorded at least once every hour. The system flowrate must be calculated as the average of all values measured during each 24-hour operating day. The flowrate monitoring device must be accurate to within 5 percent of the system flowrate setpoint, and the flowrate monitoring device must be calibrated annually.

[§63.1258(b)(5)(ii)(B)(4)]

- C. *Flow rate evaluation for noncombustion devices.* To demonstrate continuous compliance with the requirement to correct for supplemental gases as specified in §63.1257(a)(3)(ii) for noncombustion devices, the permittee must evaluate the volumetric flow rate of supplemental gases,  $V_s$ , and the volumetric flow rate of all gases,  $V_a$ , each time a new operating scenario is implemented based on process knowledge and representative operating data. The procedures used to evaluate the flow rates, and the resulting correction factor used in Equation 7B of Subpart GGG, must be included in the Notification of Compliance Status report and in the next Periodic report submitted after an operating scenario change.

[§63.1258(b)(5)(ii)(C)]

- f) *Exceedances of operating parameters.* An exceedance of an operating parameter is defined as one of the following: [§63.1258(b)(6)]
  - i) If the parameter, averaged over the operating day or block, is below a minimum value established during the initial compliance demonstration. [§63.1258(b)(6)(i)]
  - ii) If the parameter, averaged over the operating day or block, is above the maximum value established during the initial compliance demonstration. [§63.1258(b)(6)(ii)]
  - iii) Each loss of all pilot flames for flares. [§63.1258(b)(6)(iii)]
- g) *Excursions.* Excursions are defined by either of the two cases listed in §63.1258(b)(7)(i) or (ii). [§63.1258(b)(7)]
  - i. When the period of control device operation is four hours or greater in an operating day and monitoring data are insufficient to constitute a valid hour of data, as defined in §63.1258(b)(7)(iii), for at least 75 percent of the operating hours. [§63.1258(b)(7)(i)]
  - ii. When the period of control device operation is less than 4 hours in an operating day and more than one of the hours during the period of operation does not constitute a valid hour of data due to insufficient monitoring data. [§63.1258(b)(7)(ii)]
  - iii. Monitoring data are insufficient to constitute a valid hour of data, as used in §63.1258(b)(7)(i) and (ii), if measured values are unavailable for any of the required 15-minute periods within the hour. [§63.1258(b)(7)(iii)]
- h) *Violations.* Exceedances of parameters monitored according to the provisions of §63.1258(b)(1)(ii), (iv) through (ix), and §63.1258(b)(5)(ii)(A) and (B), or excursions as defined by §63.1258(b)(7)(i) through (iii), constitute violations of the operating limit according to §63.1258(b)(8)(i), (ii), and (iv). Exceedances of the temperature limit monitored according to the

provisions of §63.1258(b)(1)(iii) or exceedances of the outlet concentrations monitored according to the provisions of §63.1258(b)(1)(x) constitute violations of the emission limit according to §63.1258(b)(8)(i), (ii), and (iv). Exceedances of the outlet concentrations monitored according to the provisions of §63.1258(b)(5) constitute violations of the emission limit according to the provisions of §63.1258(b)(8)(iii) and (iv). [§63.1258(b)(8)]

- i) Except as provided in §63.1258(b)(8)(iv), for episodes occurring more than once per day, exceedances of established parameter limits or excursions will result in no more than one violation per operating day for each monitored item of equipment utilized in the process. [§63.1258(b)(8)(i)]
  - i) Except as provided in §63.1258(b)(8)(iv), for control devices used for more than one process in the course of an operating day, exceedances or excursions will result in no more than one violation per operating day, per control device, for each process for which the control device is in service. [§63.1258(b)(8)(ii)]
  - ii) Except as provided in §63.1258(b)(8)(iv), exceedances of the 20 or 50 ppmv TOC outlet emission limit, averaged over the operating day, will result in no more than one violation per day per control device. Except as provided in §63.1258(b)(8)(iv), exceedances of the 20 or 50 ppmv hydrogen halide or halogen outlet emission limit, averaged over the operating day, will result in no more than one violation per day per control device. [§63.1258(b)(8)(iii)]
3. *Monitoring for emission limits.* The permittee of any affected source complying with the provisions of §63.1254(a)(2) shall demonstrate continuous compliance with the 900 and 1,800 kg/yr emission limits by calculating daily 365-day rolling summations of emissions. During periods of planned routine maintenance when emissions are controlled as specified in §63.1252(h), the permittee must calculate controlled emissions assuming the HAP emissions are reduced by 93 percent. For any permittee opting to switch compliance strategy from the 93 percent control requirement to the annual mass emission limit method, as described in §63.1254(a)(1)(i), the rolling summations, beginning with the first day after the switch, must include emissions from the past 365 days. [§63.1258(c)]
4. *Leak inspection provisions for vapor suppression equipment.* [§63.1258(h)]
- a) Except as provided in §63.1258(h)(9) and (10), for each vapor collection system, closed-vent system, fixed roof, cover, or enclosure required to comply with §63.1258, the permittee shall comply with the requirements of §63.1258(h)(2) through (8).
  - b) Except as provided in §63.1258(h)(6) and (7), each vapor collection system and closed-vent system shall be inspected according to the procedures and schedule specified in §63.1258(h)(2)(i) and (ii). [§63.1258(h)(2)]
    - i) If the vapor collection system or closed-vent system is constructed of hard-piping, the permittee shall: [§63.1258(h)(2)(i)]
      - A. Conduct an initial inspection according to the procedures in §63.1258(h)(3) and; [§63.1258(h)(2)(i)(A)]
      - B. Conduct annual visual inspections for visible, audible, or olfactory indications of leaks. [§63.1258(h)(2)(i)(B)]
    - ii) If the vapor collection system or closed-vent system is constructed of ductwork, the permittee shall: [§63.1258(h)(1)(ii)]
      - A. Conduct an initial inspection according to the procedures in §63.1258(h)(3) and, [§63.1258(h)(2)(ii)(A)]
      - B. Conduct annual inspections according to the procedures in

- §63.1258(h)(3). [§63.1258(h)(1)(ii)(B)]
- C. Conduct annual visual inspections for visible, audible, or olfactory indications of leaks. [§63.1258(h)(2)(ii)(C)]
- c) Each vapor collection system and closed-vent system shall be inspected according to the procedures specified in §63.1258(h)(3)(i) through (v). (§63.1258(h)(3))
- i. Inspections shall be conducted in accordance with Method 21 of 40 CFR Part 60, Appendix A. [§63.1258(h)(3)(i)]
  - ii. *Detection instrument performance criteria.* [§63.1258(h)(3)(ii)]
    - A. Except as provided in §63.1258(h)(3)(ii)(B), the detection instrument shall meet the performance criteria of Method 21 of 40 CFR Part 60, Appendix A, except the instrument response factor criteria in Section 3.1.2(a) of Method 21 shall be for the average composition of the process fluid not each individual VOC in the stream. For process streams that contain nitrogen, air, or other inerts which are not organic HAP or VOC, the average stream response factor shall be calculated on an inert-free basis. [§63.1258(h)(3)(ii)(A)]
    - B. If no instrument is available at the plant site that will meet the performance criteria specified in §63.1258(h)(3)(ii)(A), the instrument readings may be adjusted by multiplying by the average response factor of the process fluid, calculated on an inert-free basis as described in §63.1258(h)(3)(ii)(A). [§63.1258(h)(3)(ii)(B)]
  - iii. The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR Part 60, Appendix A. [§63.1258(h)(3)(iii)]
  - iv. Calibration gases shall be as follows: (§63.1258(h)(3)(iv))
    - A. Zero air (less than 10 parts per million hydrocarbon in air) and; [§63.1258(h)(3)(iv)(A)]
    - B. Mixtures of methane in air at a concentration less than 10,000 parts per million. A calibration gas other than methane in air may be used if the instrument does not respond to methane or if the instrument does not meet the performance criteria specified in §63.1258(h)(2)(ii)(A). In such cases, the calibration gas may be a mixture of one or more of the compounds to be measured in air. [§63.1258(h)(3)(iv)(B)]
  - v. A permittee may elect to adjust or not adjust instrument readings for background. If a permittee elects to not adjust readings for background, all such instrument readings shall be compared directly to the applicable leak definition to determine whether there is a leak. If a permittee elects to adjust instrument readings for background, the permittee shall measure background concentration using the procedures in §63.180(b) and (c). The permittee shall subtract background reading from the maximum concentration indicated by the instrument. [§63.1258(h)(3)(v)]
  - vi. The background level shall be determined according to the procedures in Method 21 of 40 CFR Part 60 Appendix A. [§63.1258(h)(3)(vi)]
  - vii. The arithmetic difference between the maximum concentration indicated by the instrument and the background level shall be compared with 500 parts per million for determining compliance. [§63.1258(h)(3)(vii)]
- d) Leaks, as indicated by an instrument reading greater than 500 parts per million above

background or by visual inspections, shall be repaired as soon as practicable, except as provided in §63.1258(h)(5). [§63.1258(h)(4)]

- i. A first attempt at repair shall be made no later than five calendar days after the leak is detected. [§63.1258(h)(4)(i)]
  - ii. Repair shall be completed no later than 15 calendar days after the leak is detected, except as provided in §63.1258(h)(4)(iii). [§63.1258(h)(4)(ii)]
  - iii. For leaks found in vapor collection systems used for transfer operations, repairs shall be completed no later than 15 calendar days after the leak is detected or at the beginning of the next transfer loading operation, whichever is later. [§63.1258(h)(4)(iii)]
- e) Delay of repair of a vapor collection system and closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a shutdown, as defined in §63.1251, or if the permittee determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next shutdown. [§63.1258(h)(5)]
- f) Any parts of the vapor collection system and closed-vent system that are designated, as described in §63.1258(h)(8), as unsafe to inspect are exempt from the inspection requirements of §63.1258(h)(2)(i), (ii), and (iii) if: [§63.1258(h)(6)]
- i. The permittee determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with §63.1258 (h)(2)(i), (ii), or (iii) and; [§63.1258(h)(6)(i)]
  - ii. The permittee has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times. [§63.1258(h)(6)(ii)]
- g) Any parts of the vapor collection system, closed-vent system, fixed roof, cover, or enclosure that are designated, as described in §63.1258(h)(8), as difficult to inspect are exempt from the inspection requirements of §63.1258(h)(2)(i), (ii), and (iii)(A) if: [§63.1258(h)(7)]
- i. The permittee determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface and; [§63.1258(h)(7)(i)]
  - ii. The permittee has a written plan that requires inspection of the equipment at least once every 5 years. [§63.1258(h)(7)(ii)]
- h) If a closed-vent system subject to §63.1258 is also subject to the equipment leak provisions of §63.1255, the permittee shall comply with the provisions of §63.1255 and is exempt from the requirements. [§63.1258(h)(9)]
- i) Instead of complying with the provisions of §63.1258(h)(2) through (8), a permittee may design a closed-vent system to operate at a pressure below atmospheric pressure. The system shall be equipped with at least one pressure gauge or other pressure measurement device that can be read from a readily accessible location to verify that negative pressure is being maintained in the closed-vent system when the associated control device is operating. [§63.1258(h)(10)]
5. *Planned routine maintenance.* During periods of planned routine maintenance when organic HAP emissions are controlled as specified in §63.1252(h)(2), the permittee must monitor the condenser outlet gas temperature according to the procedures specified in §63.1258(b)(1)(iii). During periods of planned routine maintenance when HCl emissions are controlled as specified in §63.1252(h)(3), the permittee must monitor the pH of the scrubber effluent once per day. [§63.1258(i)]

6. The permittee shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, or AirComplianceReporting@dnr.mo.gov no later than ten days after any exceedance of any of the terms imposed by this regulation, or any malfunction which could possibly cause an exceedance of this regulation.
7. The permittee shall report any deviations from the monitoring, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring report and annual compliance certification.

**PERMIT CONDITION GGG - 6**

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations

40 CFR Part 63 Subpart GGG – **Recordkeeping (§63.1259) & Reporting (§63.1260) Requirements**

**Applicability:** Recordkeeping & Reporting Requirements for the Storage Tank (§63.1253) & Process Vent (§63.1254) Standards

**Recordkeeping:**

1. *Requirements of Subpart A of Part 63.* The permittee of an affected source shall comply with the recordkeeping requirements in Subpart A of 40 CFR Part 63 as specified in Table 1 of Subpart GGG and in §63.1259(a)(1) through (5). [§63.1259(a)]
  - a) *Data retention.* Each permittee of an affected source shall keep copies of all records and reports required by Subpart GGG for at least five years, as specified in §63.10(b)(1). [§63.1259(a)(1)]
  - b) *Records of applicability determinations.* The permittee of a stationary source that is not subject to Subpart GGG shall keep a record of the applicability determination, as specified in §63.10(b)(3). [§63.1259(a)(2)]
  - c) *Start-up, shutdown, and malfunction plan.* See Plant Wide Condition PW1. [§63.1259(a)(3)]
  - d) *Recordkeeping requirements for sources with continuous monitoring systems.* The permittee of an affected source who elects to install a continuous monitoring system shall maintain records specified in §63.10(c)(1) through (14). [§63.1259(a)(4)]
  - e) *Application for approval of construction or reconstruction.* For new affected sources, each permittee shall comply with the provisions in §63.5 regarding construction and reconstruction, excluding the provisions specified in §63.5(d)(1)(ii)(H), (d)(2), and (d)(3)(ii). (§63.1259(a)(5))
2. *Records of equipment operation.* The permittee must keep the following records up-to-date and readily accessible: [§63.1259(b)]
  - a) Each measurement of a control device operating parameter monitored in accordance with §63.1258. [§63.1259(b)(1)]
  - b) For each continuous monitoring system used to comply with Subpart GGG, records documenting the completion of calibration checks and maintenance of continuous monitoring systems. [§63.1259(b)(3)]
  - c) For purposes of compliance with the annual mass limits of §63.1254(a)(2), daily records of the rolling annual total emissions. [§63.1259(b)(4)]
  - d) Records of the following, as appropriate: [§63.1259(b)(5)]
    - i) For processes that are in compliance with the percent reduction requirements of §63.1254(a)(1) and that contain vents controlled to less than the percent reduction requirement, the records specified in §63.1259(b)(5)(i)(A) through (C) are required. [§63.1259(b)(5)(i)]
      - A. Standard batch uncontrolled and controlled emissions for each process; [§63.1259(b)(5)(i)(A)]

- B. Actual uncontrolled and controlled emissions for each nonstandard batch and; [§63.1259(b)(5)(i)(B)]
  - C. A record whether each batch operated was considered a standard batch. [§63.1259(b)(5)(i)(C)]
  - D. For processes in compliance with the annual mass limits of §63.1254(a)(2), the following records are required: [§63.1259(b)(5)(ii)]
    - 1) The number of batches per year for each batch process; [§63.1259(b)(5)(ii)(A)]
    - 2) The operating hours per year for continuous processes; [§63.1259(b)(5)(ii)(B)]
    - 3) Standard batch uncontrolled and controlled emissions for each process; [§63.1259(b)(5)(ii)(C)]
    - 4) Actual controlled emissions for each batch operated during periods of planned routine maintenance of a CCGD, calculated according to §63.1258(c). [§63.1259(b)(5)(ii)(D)]
    - 5) Actual uncontrolled and controlled emissions for each nonstandard batch; [§63.1259(b)(5)(ii)(E)]
    - 6) A record whether each batch operated was considered a standard batch. [§63.1259(b)(5)(ii)(F)]
  - e) Wastewater concentration per POD or process, except as provided in §63.1256(a)(1)(ii). [§63.1259(b)(6)]
  - f) Number of storage tank turnovers per year, if used in an emissions average. [§63.1259(b)(7)]
  - g) A schedule or log of each operating scenario updated daily or, at a minimum, each time a different operating scenario is put into operation. [§63.1259(b)(8)]
  - h) Description of worst-case operating conditions as required in §63.1257(b)(8). [§63.1259(b)(9)]
  - i) Periods of planned routine maintenance as described in §§63.1252(h) and 63.1257(c)(5). [§63.1259(b)(10)]
  - j) If the permittee elects to comply with §63.1253(b) or (c) by installing a floating roof (technology standard), the permittee must keep records of each inspection and seal gap measurement in accordance with §63.123(c) through (e) as applicable. [§63.1259(b)(11)]
  - k) If the permittee elects to comply with the vapor balancing alternative in §63.1253(f), the permittee must keep records of the DOT certification required by §63.1253(f)(2) and the pressure relief vent setting and the leak detection records specified in § 63.1253(f)(5). [§63.1259(b)(12)]
  - l) All maintenance performed on the air pollution control equipment. [§63.1259(b)(13)]
3. *Records of operating scenarios.* The permittee of an affected source shall keep records of each operating scenario which demonstrates compliance with Subpart GGG. [§63.1259(c)]
4. *Records of inspections.* The permittee shall keep records specified in §63.1259(i)(4) through (9). [§63.1259(i)]
- a) A record that each waste management unit inspection required by §63.1256(b) through (f) was performed. [§63.1259(i)(1)]
  - b) A record that each inspection for control devices required by §63.1256(h) was performed. [§63.1259(i)(2)]
  - c) A record of the results of each seal gap measurement required by §63.1256(b)(5) and (f)(3). The records shall include the date of measurement, the raw data obtained in the measurement, and the calculations described in §63.120(b)(2) through (4). [§63.1259(i)(3)]

- d) Records identifying all parts of the vapor collection system, closed-vent system fixed roof, cover, or enclosure that are designated as unsafe to inspect in accordance with §63.1258(h)(6), an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment. [§63.1259(i)(4)]
- e) Records identifying all parts of the vapor collection system, closed-vent system, fixed roof, cover, or enclosure that are designated as difficult to inspect in accordance with §63.1258(h)(7), an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment. [§63.1259(i)(5)]
- f) For each vapor collection system or closed-vent system that contains bypass lines that could divert a vent stream away from the control device and to the atmosphere, the permittee shall keep a record of the information specified in either §63.1259(i)(6)(i) or (ii). [§63.1259(i)(6)]
  - i) Hourly records of whether the flow indicator specified under §63.1252(b)(1) was operating and whether a diversion was detected at any time during the hour, as well as records of the times and durations of all periods when the vent stream is diverted from the control device or the flow indicator is not operating. [§63.1259(i)(6)(i)]
  - ii) Where a seal mechanism is used to comply with §63.1252(b)(2), hourly records of flow are not required. In such cases, the permittee shall record that the monthly visual inspection of the seals or closure mechanisms has been done, and shall record the occurrence of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out, and records of any car-seal that has broken. [§63.1259(i)(6)(ii)]
- g) For each inspection conducted in accordance with §63.1258(h)(2) and (3) during which a leak is detected, a record of the information specified in §63.1259(i)(7)(i) through (ix). [§63.1259(i)(7)]
  - i) Identification of the leaking equipment. [§63.1259(i)(7)(i)]
  - ii) The instrument identification numbers and operator name or initials, if the leak was detected using the procedures described in §63.1258(h)(3); or a record that the leak was detected by sensory observations. [§63.1259(i)(7)(ii)]
  - iii) The date the leak was detected and the date of the first attempt to repair the leak. [§63.1259(i)(7)(iii)]
  - iv) Maximum instrument reading measured by the method specified in §63.1258(h)(4) after the leak is successfully repaired or determined to be nonrepairable. [§63.1259(i)(7)(iv)]
  - v) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak. [§63.1259(i)(7)(v)]
  - vi) The name, initials, or other form of identification of the permittee (or designee) whose decision it was that repair could not be effected without a shutdown. [§63.1259(i)(7)(vi)]
  - vii) The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days. [§63.1259(i)(7)(vii)]
  - viii) Dates of shutdowns that occur while the equipment is unrepaired [§63.1259(i)(7)(viii)]
  - ix) The date of successful repair of the leak. [§63.1259(i)(7)(ix)]
- h) For each inspection conducted in accordance with §63.1258(h)(3) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [§63.1259(i)(8)]

- i) For each visual inspection conducted in accordance with §63.1258(h)(2)(i)(B) or (h)(2)(iii)(B) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [§63.1259(i)(9)]

**Reporting:**

1. The permittee of an affected source shall comply with the reporting requirements of §63.1260(b) through (l). Applicable reporting requirements of §§63.9 and 63.10 are also summarized in Table 1 of Subpart GGG. [§63.1260(a)]
2. *Periodic reports.* A permittee shall prepare Periodic reports in accordance with §63.1260(g)(1) and (2) and submit them to the Director. [§63.1260(g)]
  - a) *Submittal schedule.* Except as provided in §63.1260(g)(1)(i), (ii), and (iii), a permittee shall submit Periodic reports semi-annually. The first report shall be submitted no later than 240 days after the Notification of Compliance Status is due and shall cover the 6-month period beginning on the date the Notification of Compliance Status is due. Each subsequent Periodic report shall cover the 6-month period following the preceding period. [§63.1260(g)(1)]
    - i) When the Director determines on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the affected source or; [§63.1260(g)(1)(i)]
    - ii) Quarterly reports shall be submitted when the source experiences an exceedance of a temperature limit monitored according to the provisions of §63.1258(b)(1)(iii) or an exceedance of the outlet concentration monitored according to the provisions of §63.1258(b)(1)(x) or (b)(5). Once an affected source reports quarterly, the affected source shall follow a quarterly reporting format until a request to reduce reporting frequency is approved. If a permittee submits a request to reduce the frequency of reporting, the provisions in §63.10(e)(3)(ii) and (iii) shall apply, except that the phrase "excess emissions and continuous monitoring system performance report and/or summary report" shall mean "Periodic report" for the purposes of §63.1260. [§63.1260(g)(1)(ii)]
    - iii) When a new operating scenario has been operated since the last report, in which case quarterly reports shall be submitted. [§63.1260(g)(1)(iii)]
  - b) *Content of Periodic report.* The permittee shall include the information in §63.1260(g)(2)(i) through (vii), as applicable. [§63.1260(g)(2)]
    - i) Each Periodic report must include the information in §63.10(e)(3)(vi)(A) through (I) and (K) through (M). For each continuous monitoring system, the Periodic report must also include the information in §63.10(e)(3)(vi)(J). [§63.1260(g)(2)(i)]
    - ii) If the total duration of excess emissions, parameter exceedances, or excursions for the reporting period is 1 percent or greater of the total operating time for the reporting period, or the total continuous monitoring system downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the Periodic report must include the information in §63.1260(g)(2)(ii)(A) through (D). [§63.1260(g)(2)(ii)]
      - A. Monitoring data, including 15-minute monitoring values as well as daily average values of monitored parameters, for all operating days when the average values were outside the ranges established in the Notification of Compliance Status report or operating permit. [§63.1260(g)(2)(ii)(A)]
      - B. Duration of excursions, as defined in §63.1258(b)(7). (§63.1260(g)(2)(ii)(B))

- C. Operating logs and operating scenarios for all operating scenarios for all operating days when the values are outside the levels established in the Notification of Compliance Status report or operating permit. [§63.1260(g)(2)(ii)(C)]
- D. When a continuous monitoring system is used, the information required in §63.10(c)(5) through (13). [§63.1260(g)(2)(ii)(D)]
- iii) For each inspection conducted in accordance with §63.1258(h)(2) or (3) during which a leak is detected, the records specified in §63.1259(i)(7) must be included in the next Periodic report. [§63.1260(g)(2)(iii)]
- iv) For each vapor collection system or closed vent system with a bypass line subject to §63.1252(b)(1), records required under §63.1259(i)(6)(i) of all periods when the vent stream is diverted from the control device through a bypass line. For each vapor collection system or closed vent system with a bypass line subject to §63.1252(b)(2), records required under §63.1259(i)(6)(ii) of all periods in which the seal mechanism is broken, the bypass valve position has changed, or the key to unlock the bypass line valve was checked out. [§63.1260(g)(2)(iv)]
- v) The information in §63.1260(g)(2)(v)(A) through (D) shall be stated in the Periodic report, when applicable. [§63.1260(g)(2)(v)]
  - A. No excess emissions. [§63.1260(g)(2)(v)(A)]
  - B. No exceedances of a parameter. [§63.1260(g)(2)(v)(B)]
  - C. No excursions. [§63.1260(g)(2)(v)(C)]
  - D. No continuous monitoring system has been inoperative, out of control, repaired, or adjusted. [(§63.1260(g)(2)(v)(D)]
- vi) The information specified in §63.1260(g)(2)(vi)(A) through (C) for periods of planned routine maintenance. [§63.1260(g)(2)(vi)]
  - A. For each storage tank subject to control requirements, periods of planned routine maintenance during which the control device does not meet the specifications of §63.1253(b) through (d). [§63.1260(g)(2)(vi)(A)]
  - B. For a CCCD subject to §63.1252(h), periods of planned routine maintenance during the current reporting period and anticipated periods of planned routine maintenance during the next reporting period. ( §63.1260(g)(2)(vi)(B))
  - C. Rationale for why planned routine maintenance of a CCCD subject to §63.1252(h) must be performed while a process with a vent subject to §63.1254(a)(3) will be operating, if applicable. This requirement applies only if the rationale is not in, or differs from that in, the Notification of Compliance Status report. ( §63.1260(g)(2)(vi)(C))
- vii) Each new operating scenario which has been operated since the time period covered by the last Periodic report. For each new operating scenario, the permittee shall provide verification that the operating conditions for any associated control or treatment device have not been exceeded, and that any required calculations and engineering analyses have been performed. For the initial Periodic report, each operating scenario for each process operated since the due date of the Notification of Compliance Status Report shall be submitted. [§63.1260(g)(2)(vii)]

3. *Notification of process change.* [§63.1260(h)]
  - a) Except as specified in §63.1260(h)(2), whenever a process change is made, or a change in any of the information submitted in the Notification of Compliance Status Report, the permittee shall submit the information specified in §63.1260(h)(1)(i) through (iv) with the next Periodic report required under §63.1260(g). [§63.1260(h)(1)]
    - i) A brief description of the process change. [§63.1260(h)(1)(i)]
    - ii) A description of any modifications to standard procedures or quality assurance procedures. [§63.1260(h)(1)(ii)]
    - iii) Revisions to any of the information reported in the original Notification of Compliance Status Report under §63.1260(f). (§63.1260(h)(1)(iii))
    - iv) Information required by the Notification of Compliance Status Report under §63.1260(f) for changes involving the addition of processes or equipment. [§63.1260(h)(1)(iv)]
  - b) A permittee must submit a report 60 days before the scheduled implementation date of either of the following: [§63.1260(h)(2)]
    - i) Any change in the activity covered by the Precompliance report. [§63.1260(h)(2)(i)]
    - ii) A change in the status of a control device from small to large. [§63.1260(h)(2)(ii)]
    - iii) Reports of start-up, shutdown, and malfunction. [§63.1260(i)]
4. *Notification of performance test and test plan.* The permittee of an affected source shall notify the director of the planned date of a performance test at least 60 days before the test in accordance with §63.7(b). The permittee also must submit the test plan required by §63.7(c) and the emission profile required by §63.1257(b)(8)(ii) with the notification of the performance test to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, or AirComplianceReporting@dnr.mo.gov. [§63.1260(l)]

**PERMIT CONDITION GGG - 7**

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations  
40 CFR Part 63, Subpart GGG - **§63.1252(e) - Pollution Prevention Alternative**

The Pollution Prevention Alternative is an optional compliance method in lieu of the requirements specified in §63.1253 (*Tanks*), §63.1254 (*Process Vents*), §63.1255 (*Equipment Leaks*), and §63.1256 (*Wastewater*).

**Emission Limitation:**

1. Except as provided in § 63.1252 (e)(1), a permittee may choose to meet the pollution prevention alternative requirement specified in either §63.1252 (e)(2) or (3) for any PMPU or for any situation described in §63.1252 (e)(4), in lieu of the requirements specified in §§63.1253, 63.1254, 63.1255, and 63.1256. Compliance with §§63.1252 (e)(2) and (3) shall be demonstrated through the procedures in § 63.1257(f). Any PMPU for which the permittee seeks to comply by using the pollution prevention alternative shall begin with the same starting material(s) and end with the same product(s). The permittee may not comply with the pollution prevention alternative by eliminating any steps of a process by transferring the step offsite (to another manufacturing location). [§63.1252(e)]
  - a) The HAP that are generated in the PMPU that are not part of the production-indexed consumption factor must be controlled according to the requirements of §§ 63.1253, 63.1254, 63.1255, and 63.1256. The HAPs that are generated as a result of combustion control of emissions must be controlled according to the requirements of § 63.1252 (g). The

hydrogen halides that are generated as a result of combustion control of emissions must be controlled according to the requirements of § 63.1252 (g)(1). [§63.1252(e)(1)]

- b) The production-indexed HAP consumption factor (kg HAP consumed/kg produced) shall be reduced by at least 75 percent from a three year average baseline established no earlier than the 1987 calendar year, or for the time period from start-up of the process until the present in which the PMPU was operational and data are available, whichever is the lesser time period. If a time period less than three years is used to set the baseline, the data must represent at least one year's worth of data. For any reduction in the HAP factor achieved by reducing a HAP that is also a VOC, an equivalent reduction in the VOC factor is also required. For any reduction in the HAP factor that is achieved by reducing a HAP that is not a VOC, the VOC factor may not be increased. [§63.1252(e)(2)]
- c) Both requirements specified in §§ 63.1252 (e)(3)(i) and (ii) below are met. [§63.1252(e)(3)]
- i) The production-indexed HAP consumption factor (kg HAP consumed/kg produced) shall be reduced by at least 50 percent from a three-year average baseline established no earlier than the 1987 calendar year, or for the time period from start-up of the process until the present in which the PMPU was operational and data are available, whichever is less. If a time period less than three years is used to set the baseline, the data must represent at least one year's worth of data. For any reduction in the HAP factor achieved by reducing a HAP that is also a VOC, an equivalent reduction in the VOC factor is also required. For any reduction in the HAP factor that is achieved by reducing a HAP that is not a VOC, the VOC factor may not be increased. [§63.1252(e)(3)(i)]
- ii) The total PMPU HAP emissions shall be reduced by an amount, in kg/yr, that, when divided by the annual production rate, in kg/yr, and added to the reduction of the production-indexed HAP consumption factor, in kg/kg, yields a value of at least 75 percent of the average baseline HAP production-indexed consumption factor established according to §63.1252 (e)(3)(i) according to the equation provided in §63.1257(f)(2)(ii)(A). The total PMPU VOC emissions shall be reduced by an amount calculated according to the equation provided in §63.1257(f)(2)(ii)(B). The annual reduction in HAP and VOC air emissions must be due to the use of the following control devices: [§63.1252(e)(3)(ii)]
- A. Combustion control devices such as incinerators, flares or process heaters. [§63.1252(e)(3)(ii)(A)]
- B. Control devices such as condensers and carbon adsorbers whose recovered product is destroyed or shipped offsite for destruction. [§63.1252(e)(3)(ii)(B)]
- C. Any control device that does not ultimately allow for recycling of material back to the PMPU. [§63.1252(e)(3)(ii)(C)]
- D. Any control device for which the permittee can demonstrate that the use of the device in controlling HAP emissions will have no effect on the production-indexed consumption factor for the PMPU. [§63.1252(e)(3)(ii)(D)]
- d) The permittee may comply with the requirements in either §63.1252 (e)(2) or (3) for a series of processes, including situations where multiple processes are merged, subject to the following conditions: [§63.1252(e)(4)]
- i) The baseline period shall be a single year beginning no earlier than the 1992 calendar year. [§63.1252(e)(4)(i)]
- ii) The term "PMPU" shall have the meaning provided in §63.1251 except that the

baseline and modified PMPU may include multiple processes (i.e., precursors, active ingredients, and final dosage form) if the permittee demonstrates to the satisfaction of the Director that the multiple processes were merged after the baseline period into an existing process or processes. [§63.1252(e)(4)(ii)]

- iii) Non-dedicated formulation and solvent recovery processes may not be merged with any other processes. [§63.1252(e)(4)(iii)]

**Test Methods and Compliance Demonstration:**

1. The permittee shall demonstrate compliance with §63.1252(e)(2) using the procedures described below in §§63.1257 (f)(1) and (f)(3). The permittee shall demonstrate compliance with §63.1252(e)(3) using the procedures described below in §§63.1257 (f)(2) and (f)(3). [§63.1257)(f)]

a) Compliance is demonstrated when the annual kg/kg factor, calculated according to the procedure in §§63.1257(f)(1)(i) and (iii), is reduced by at least 75 percent as calculated according to the procedure in §§63.1257(f)(1)(i) and (ii). [§63.1257)(f)(1)]

i) The production-indexed HAP consumption factors shall be calculated by dividing annual consumption of total HAP by the annual production rate, per process. The production-indexed total VOC consumption factor shall be calculated by dividing annual consumption of total VOC by the annual production rate, per process. [§63.1257)(f)(1)(i)]

ii) The baseline factor is calculated from yearly production and consumption data for the first 3- year period in which the PMPU was operational, beginning no earlier than the 1987 calendar year, or for a minimum period of 12 months from start-up of the process until the present in which the PMPU was operational and data are available, beginning no earlier than the 1987 calendar year. [§63.1257)(f)(1)(ii)]

iii) The annual factor is calculated on the following bases: [§63.1257)(f)(1)(iii)]

A. For continuous processes, the annual factor shall be calculated every 30 days for the 12- month period preceding the 30th day (30-day rolling average). [§63.1257)(f)(1)(iii)(A)]

B. For batch processes, the annual factor shall be calculated either every ten batches for the 12-month period preceding the tenth batch (ten-batch rolling average) or a maximum of once per month, if the number of batches is greater than ten batches per month. The annual factor shall be calculated every five batches if the number of batches is less than ten for the 12-month period preceding the 10th batch and shall be calculated every year if the number of batches is less than five for the 12-month period preceding the fifth batch. [§63.1257)(f)(1)(iii)(B)]

iv) Compliance is demonstrated when the requirements of §§63.1257(f)(2)(i) through (iv) are met. [§63.1257)(f)(2)]

A. The annual kg/kg factor, calculated according to the procedure in §§63.1257(f)(1)(i) and (f)(1)(iii), is reduced to a value equal to or less than 50 percent of the baseline factor calculated according to the procedure in §§63.1257(f)(1)(i) and (ii). [§63.1257)(f)(2)(i)]

B. The yearly reductions associated with add-on controls that meet the criteria of §§63.1252(h)(3)(ii)(A) through (D) must be equal to or greater than the amounts calculated in §§63.1257 (f)(2)(ii)(A) and (B): [§63.1257)(f)(2)(ii)]

1) The mass of HAP calculated using Equation 55 of Subpart

GGG:

$$M = [\text{kg/kg}]_b(0.75-P_R)(M_{\text{prod}}) \quad (\text{Eq. 55})$$

Where:

$[\text{kg/kg}]_b$  = the baseline production-indexed HAP consumption factor, in

kg/kg  $M_{\text{prod}}$  = the annual HAP production rate, in kg/yr

$M$  = the annual reduction required by add-on controls, in kg/yr

$P_R$  = the fractional reduction in the annual kg/kg factor achieved using pollution prevention where  $P_R$  is = 0.5): [§63.1257(f)(2)(ii)(A)]

2) The mass of VOC calculated using Equation 56 of Subpart GGG:

$$\text{VOC}_{\text{reduced}} = (\text{VF}_{\text{base}} - \text{VF}_P - \text{VF}_{\text{annual}}) \times M_{\text{prod}} \quad (\text{Eq.56})$$

Where:

$\text{VOC}_{\text{reduced}}$  = required VOC emission reduction from add-on controls,

kg/yr  $\text{VF}_{\text{base}}$  = baseline VOC factor, kg VOC emitted/kg production

$\text{VF}_P$  = reduction in VOC factor achieved by pollution prevention, kg VOC emitted/kg production

$\text{VF}_{\text{annual}}$  = target annual VOC factor, kg VOC emitted/kg

production  $M_{\text{prod}}$  = production rate, kg/yr [§63.1257(f)(2)(ii)(B)]

- C. Demonstration that the criteria in §§63.1252(e)(3)(ii)(A) through (D) are met shall be accomplished through a description of the control device and of the material streams entering and exiting the control device. [§63.1257(f)(2)(iii)]
- D. The annual reduction achieved by the add-on control shall be quantified using the methods described in §63.1257(d). (§63.1257(f)(2)(iv))
- v. Each permittee of a PMPU complying with the P2 standard shall prepare a P2 demonstration summary that shall contain, at a minimum, the following information: [§63.1257(f)(3)]
  - A. Descriptions of the methodologies and forms used to measure and record daily consumption of HAP compounds reduced as part of the P2 standard. [§63.1257(f)(3)(i)]
  - B. Descriptions of the methodologies and forms used to measure and record daily production of products which are included in the P2 standard. [§63.1257(f)(3)(ii)]
  - C. Supporting documentation for the descriptions provided in §§63.1257 (f)(3)(i) and (ii) including, but not limited to, operator log sheets and copies of daily, monthly, and annual inventories of materials and products. [§63.1257(f)(3)(iii)]

**Monitoring:**

The permittee of any affected source that chooses to comply with the requirements of §§63.1252(e)(2) and (3) shall calculate a yearly rolling average of kg HAP consumption per kg production and kg VOC consumption per kg production every month or every ten batches. Each rolling average kg/kg factor that exceeds the value established in §63.1257(f)(1)(ii) will be considered a violation of the emission limit. [§63.1258(e)]

**Recordkeeping:**

For processes subject to §63.1252(e), records of consumption, production, and the rolling average values of the production-indexed HAP and VOC consumption factors must be kept. [§63.1259)(b)(2)]

**Reporting:**

1. The permittee shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, or AirComplianceReporting@dnr.mo.gov no later than ten days after any exceedance of any of the terms imposed by this regulation, or any malfunction which could possibly cause an exceedance of this regulation.
2. The permittee shall report any deviations from the monitoring, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring report and annual compliance certification.

**PERMIT CONDITION GGG - 8**

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations  
40 CFR Part 63, Subpart GGG - **§63.1252(d) - Emissions Averaging Provisions**

§63.1252(d) provides this optional compliance method in lieu of the requirements specified in §63.1253 (Tanks), and §63.1254 (Process Vents)

**Emission Limitation:**

1. *Emissions averaging provisions.* Except as specified in §63.1252(d)(1) through (5), the permittee of storage tanks or processes subject to the provisions of §§63.1253 and 63.1254 may choose to comply by using emissions averaging requirements specified in §63.1257(g) or (h) for any storage tank or process. [§63.1252(d)]
  - a) A State may prohibit averaging of HAP emissions and require the permittee of an existing source to comply with the provisions in §§63.1253 and 63.1254. [§63.1252(d)(1)]
  - b) Only emission sources subject to the requirements of §63.1253(b)(1) or (c)(1)(i) or §63.1254(a)(1)(i) may be included in any averaging group. These requirements are listed below. [§63.1252(d)(2)]
    - i) The permittee of a small storage tank (less than 75 m<sup>3</sup>) shall equip the affected storage tank with either a fixed roof with internal floating roof, an external floating roof, an external floating roof converted to an internal floating roof, or a closed-vent system meeting the conditions of §63.1252(b) with a control device that reduces inlet emissions of total HAP by 90 percent by weight or greater. [§63.1253(b)(1)]
    - ii) The permittee of a large storage tank (greater than or equal to 75 m<sup>3</sup>) shall equip the affected storage tank with either a fixed roof with internal floating roof, an external floating roof, an external floating roof converted to an internal floating roof, or a closed-vent system meeting the conditions of §63.1252(b) with a control device that reduces inlet emissions of total HAP by 95 percent by weight or greater. [§63.1253(c)(1)(i)]
    - iii) Uncontrolled HAP emissions from the sum of all process vents within a process that are not subject to the requirements of §63.1254(a)(3) shall be reduced by 93 percent or greater by weight, or as specified in §63.1254(a)(1)(ii). (§63.1254(a)(1)(i))
  - c) Processes which have been permanently shutdown or storage tanks permanently taken out of HAP service may not be included in any averaging group. [§63.1252(d)(3)]

- d) Processes and storage tanks already controlled on or before November 15, 1990, may not be included in an emissions averaging group, except where the level of control is increased after November 15, 1990. In these cases, the uncontrolled emissions shall be the controlled emissions as calculated on November 15, 1990 for the purpose of determining the uncontrolled emissions as specified in §63.1257(g) and (h). [§63.1252(d)(4)]
- e) Emission points controlled to comply with a state or federal rule other than Subpart GGG may not be credited in an emission averaging group, unless the level of control has been increased after November 15, 1990, above what is required by the other state or federal rule. Only the control above what is required by the other state or federal rule will be credited. However, if an emission point has been used to generate emissions averaging credit in an approved emissions average, and the point is subsequently made subject to a state or federal rule other than Subpart GGG, the point can continue to generate emissions averaging credit for the purpose of complying with the previously approved average. [§63.1252(d)(5)]
- f) Not more than 20 processes subject to §63.1254(a)(1)(i), and 20 storage tanks subject to §63.1253(b)(1) or (c)(1)(i) at an affected source may be included in an emissions averaging group. [§63.1252(d)(6)]
- g) Compliance with the emission standards in §63.1253 shall be satisfied when the annual percent reduction efficiency is greater than or equal to 90 percent for those tanks meeting the criteria of §63.1253(a)(1) and 95 percent for those tanks meeting the criteria of §63.1253(a)(2), as demonstrated using the test methods and compliance procedures specified in §63.1257(g). [§63.1252(d)(7)]
- h) Compliance with the emission standards in §63.1254(a)(1)(i) shall be satisfied when the annual percent reduction efficiency is greater than or equal to 93 percent, as demonstrated using the test methods and compliance procedures specified in §63.1257(h). [§63.1252(d)(8)]

**Testing Methods and Compliance Procedures**

- 1. Compliance with storage tank provisions by using emissions averaging. A permittee with two or more affected storage tanks may demonstrate compliance with §63.1253, as applicable, by fulfilling the requirements of §63.1257(g)(1) through (4). [§63.1257(g)]
  - a) The permittee shall develop and submit for approval an Implementation Plan containing all the information required in §63.1259(e) 6 months prior to the compliance date of the standard. The Director shall have 90 days to approve or disapprove the emissions averaging plan after which time the plan shall be considered approved. [§63.1257(g)(1)]
  - b) The annual mass rate of total organic HAP ( $E_{Ti}$ ,  $E_{To}$ ) shall be calculated for each storage tank included in the emissions average using the procedures specified in §63.1257(c)(1), (2), or (3). [§63.1257(g)(2)]
  - c) Equations 57 and 58 of Subpart GGG shall be used to calculate total HAP emissions for those tanks subject to §63.1253(b) or (c): [§63.1257(g)(3)]

$$E_{T_i} = \sum_{j=1}^n E_{T_{ij}} \quad (\text{Eq. 57})$$

$$E_{T0} = \sum_{j=1}^n E_{T0j} \quad (\text{Eq. 58})$$

Where:

$E_{ij}$  = yearly mass rate of total HAP at the inlet of the control device

for tank  $j$   $E_{oj}$  = yearly mass rate of total HAP at the outlet of the

control device for tank  $j$   $E_{Ti}$  = total yearly uncontrolled HAP emissions

$E_{T0}$  = total yearly actual HAP emissions

$n$  = number of tanks included in the emissions average

- d) The overall percent reduction efficiency shall be calculated as follows: [§63.1257(g)(4)]

$$R = \frac{E_{T0} - D E_{T0}}{E_{T0}} 100\% \quad (\text{Eq. 59})$$

Where:

$R$  = overall percent reduction efficiency

$D$  = discount factor = 1.1 for all controlled storage tanks

2. Compliance with process vent provisions by using emissions averaging. A permittee with two or more affected processes complying with §63.1254 by using emissions averaging shall demonstrate compliance with §63.1257(h)(1), (2) and (3). [§63.1257(h)]
- a) The permittee shall develop and submit for approval an Implementation Plan at least 6 months prior to the compliance date of the standard containing all the information required in §63.1259(e). The Director shall have 90 days to approve or disapprove the emissions averaging plan. The plan shall be considered approved if the Director either approves the plan in writing, or fails to disapprove the plan in writing. The 90-day period shall begin when the Director receives the request. If the request is denied, the permittee must still be in compliance with the standard by the compliance date. [§63.1257(h)(1)]
- b) The permittee shall calculate uncontrolled and controlled emissions of HAP by using the methods specified in §63.1257(d)(2) and (3) for each process included in the emissions average. [§63.1257(h)(2)]
- c) Equations 60 and 61 of Subpart GGG shall be used to calculate total HAP emissions: [§63.1257(h)(3)]

$$E_{TU} = \sum_{i=1}^n E_{Ui} \quad (\text{Eq. 60})$$

$$E_{TC} = \sum_{i=1}^n E_{Ci} \quad (\text{Eq. 61})$$

Where:

$E_{Ui}$  = yearly uncontrolled emissions from process  $i$ .  $E_{Ci}$  = yearly actual emissions for process  $i$ .

$E_{TU}$  = total yearly uncontrolled emissions.  $E_{TC}$  = total yearly actual emissions.

$n$  = number of processes included in the emissions average.

- d) The overall percent reduction efficiency shall be calculated using equation 62 of Subpart GGG

$$R = [(E_{TU} - DE_{TC}) / (E_{TU})] \times (100\%) \quad (\text{Eq. 62})$$

where:

R = overall percent reduction efficiency

D = discount factor = 1.1 for all controlled emission points

**Recordkeeping for Emissions Averaging:**

1. The permittee of any affected source that chooses to comply with the requirements of §63.1252(d) shall maintain up-to-date records of the following information: [§63.1259(e)]
  - a) An Implementation Plan which shall include in the plan, for all process vents and storage tanks included in each of the averages, the information listed in §63.1259 (e)(1)(i) through (v). [§63.1259(e)(1)]
    - i. The identification of all process vents and storage tanks in each emissions average. [§63.1259(e)(1)(i)]
    - ii. The uncontrolled and controlled emissions of HAP and the overall percent reduction efficiency as determined in §§63.1257(g)(1) through (4) or 63.1257(h)(1) through (3) as applicable. [§63.1259(e)(1)(ii)]
    - iii. The calculations used to obtain the uncontrolled and controlled HAP emissions and the overall percent reduction efficiency. [§63.1259(e)(1)(iii)]
    - iv. The estimated values for all parameters required to be monitored under §63.1258(f) for each process and storage tank included in an average. [§63.1259(e)(1)(iv)]
    - v. A statement that the compliance demonstration, monitoring, inspection, recordkeeping and reporting provisions in §§63.1257(g) and (h), 63.1258(f), and 63.1260(k) that are applicable to each emission point in the emissions average will be implemented beginning on the date of compliance. [§63.1259(e)(1)(v)]
  - b) The Implementation Plan must demonstrate that the emissions from the processes and storage tanks proposed to be included in the average will not result in greater hazard or, at the option of the operating permit authority, greater risk to human health or the environment than if the storage tanks and process vents were controlled according to the provisions in §§63.1253 and 63.1254, respectively. [§63.1259(e)(2)]
    - i) This demonstration of hazard or risk equivalency shall be made to the satisfaction of the operating permit authority. [§63.1259(e)(2)(i)]
      - A. The director may require owners and operators to use specific methodologies and procedures for making a hazard or risk determination. [§63.1259(e)(2)(i)(A)]
      - B. The demonstration and approval of hazard or risk equivalency shall be made according to any guidance that the director makes available for use or any other technically sound information or methods. [§63.1259(e)(2)(i)(B)]
    - ii) An emissions averaging plan that does not demonstrate hazard or risk equivalency to the satisfaction of the director shall not be approved. The director may require such adjustments to the emissions averaging plan as are necessary in order to ensure that the average will not result in greater hazard or risk to human health or the environment than would result if the emission points were controlled according to §§63.1253 and 63.1254. [§63.1259(e)(2)(ii)]
    - iii) A hazard or risk equivalency demonstration must: [§63.1259(e)(2)(iii)]
      - A. Be a quantitative, comparative chemical hazard or risk

- assessment; [§63.1259(e)(2)(iii)(A)]
- B. Account for differences between averaging and non-averaging options in chemical hazard or risk to human health or the environment and; [§63.1259(e)(2)(iii)(B)]
- C. Meet any requirements set by the Director for such demonstrations. [§63.1259(e)(2)(iii)(C)]
- c) Records as specified in §63.1259(a), (b) and (d). [§63.1259(e)(3)]
- d) A rolling quarterly calculation of the annual percent reduction efficiency as specified in §63.1257(g) and (h). [§63.1259(e)(4)]

**Reporting for Emissions Averaging:**

1. The permittee of any affected source that chooses to comply with the requirements of §63.1252(d) shall submit the implementation plan described in §63.1259(e), 6 months prior to the compliance date of the standard and the following information in the periodic reports: [§63.1260(k)]
- a) The records specified in §63.1259(e) for each process or storage tank included in the emissions average; [§63.1260(k)(1)]
- b) All information as specified in §63.1260(g) for each process or storage tank included in the emissions average; [§63.1260(k)(2)]
- c) Any changes of the processes or storage tanks included in the average. [§63.1260(k)(3)]
- d) The calculation of the overall percent reduction efficiency for the reporting period. [§63.1260(k)(4)]
- e) Changes to the Implementation Plan which affect the calculation methodology of uncontrolled or controlled emissions or the hazard or risk equivalency determination. [§63.1260(k)(5)]
- f) Every second semi-annual or fourth quarterly report, as appropriate, shall include the results according to §63.1259(e)(4) to demonstrate the emissions averaging provisions of §§63.1252(d), 63.1257(g) and (h), 63.1258(f), and 63.1259(e) are satisfied. [§63.1260(k)(6)]

**PERMIT CONDITION GGG - 9**

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations 40 CFR Part 63, Subpart GGG - §63.1252 - General Provisions

**Operational Limitations:**

1. Opening of a safety device, as defined in §63.1251, is allowed at any time conditions require it to do so to avoid unsafe conditions. [§63.1252(a)]
2. The permittee of a closed-vent system that contains bypass lines that could divert a vent stream away from a control device used to comply with the requirements in §63.1254 shall comply with the requirements of Table 4 to Subpart GGG and §63.1252(b)(1) or (2). Equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, rupture disks and pressure relief valves needed for safety purposes are not subject to this paragraph. [§63.1252(b)]
- a) Install, calibrate, maintain, and operate a flow indicator that determines whether vent stream flow is present at least once every 15 minutes. Records shall be maintained as specified in §63.1259(i)(6)(i). The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere or; [§63.1252(b)(1)]

- b) Secure the bypass line valve in the closed position with a car seal or lock and key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and the vent stream is not diverted through the bypass line. Records shall be maintained as specified in §63.1259(i)(6)(ii). [§63.1252(b)(2)]
3. *Control requirements for halogenated vent streams that are controlled by combustion devices.* If a combustion device is used to comply with the provisions of §63.1254 (process vents) for a halogenated vent stream, then the vent stream shall be ducted to a halogen reduction device such as, but not limited to, a scrubber, before it is discharged to the atmosphere. The halogen reduction device must reduce emissions by the amounts specified in either §63.1252(g)(1) or (2). [§63.1252(g)]
- a) A halogen reduction device after the combustion control device must reduce overall emissions of hydrogen halides and halogens, as defined in §63.1251, by 95 percent or to a concentration less than or equal to 20 ppmv. [§63.1252(g)(1)]
- b) A halogen reduction device located before the combustion control device must reduce the halogen atom content of the vent stream to a concentration less than or equal to 20 ppmv. [§63.1252(g)(2)]
4. *Planned routine maintenance for centralized combustion control devices (CCCD).* The permittee may operate non-dedicated pharmaceutical manufacturing process units (PMPU's) during periods of planned routine maintenance for CCCD in accordance with the provisions specified in §63.1252(h)(2) through (6). [§63.1252(h)]
- a) During the planned routine maintenance period, the permittee must route emissions from process vents with organic HAP emissions greater than 15 pounds per day (lb/day) through a closed-vent system to a condenser that meets the conditions specified in §63.1252(h)(2)(i) through (iii). [§63.1252(h)(2)]
- i. The outlet gas temperature must be less than  $-50\text{ }^{\circ}\text{C}$  ( $-58\text{ }^{\circ}\text{F}$ ) when the emission stream contains organic HAP with a partial pressure greater than 20 kPa (2.9 psia). [§63.1252(h)(2)(i)]
- ii. The outlet gas temperature must be less than  $-5\text{ }^{\circ}\text{C}$  ( $23\text{ }^{\circ}\text{F}$ ) when the emission stream contains organic HAP with a partial pressure less than or equal to 20 kPa (2.9 psia). [§63.1252(h)(2)(ii)]
- iii. The HAP partial pressures in §63.1252(h)(2)(i) and (ii) must be determined at  $25\text{ }^{\circ}\text{C}$ . [§63.1252(h)(2)(iii)]
- b) The permittee must route HCl emissions from process vents with HCl emissions greater than 15 lb/day through a closed-vent system to a caustic scrubber, and the pH of the scrubber effluent must be maintained at or above 9. [§63.1252(h)(3)]
- c) For the purposes of the emission calculations required in §63.1252(h)(2) and (3), the term "process vent" shall mean each vent from a unit operation. The emission calculation shall not be performed on the aggregated emission stream from multiple unit operations that are manifolded together into a common header. Once an affected process vent has been controlled in accordance with §63.1252, it is no longer subject to the requirements §63.1252 or §63.1254 during the routine maintenance period. [§63.1252(h)(4)]
- d) The total period of planned routine maintenance, during which non-dedicated PMPU's that are normally controlled by the CCCD continue to operate, and process vent emissions are controlled as specified in §63.1252(h)(2) and (3), must not exceed 240 hours in any 365-day period. [§63.1252(h)(5)]

- e) While being controlled as specified in §63.1252(h)(2) and (3), the process vents may not be used in emissions averaging. [§63.1252(h)(6)]

**PERMIT CONDITION GGG - 10**

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations 40 CFR Part 63, Subpart GGG - **§63.1256 Standards: Wastewater**

This condition is applicable to all Pharmaceutical Manufacturing Process Units (with the exception of those unit(s) utilizing the Pollution Prevention Alternative Standard)

**Emission Limits:**

1. *General.* The permittee shall comply with the general wastewater requirements in §63.1256(a)(1) through (3) and the maintenance wastewater provisions in §63.1256(a)(4). A permittee may transfer wastewater to a treatment operation not owned by the permittee in accordance with §63.1256(a)(5). [§63.1256(a)]
  - a) *Identify wastewater that requires control.* For each POD, the permittee shall comply with the requirements in either §63.1256(a)(1)(i) or (ii) to determine whether a wastewater stream is an affected wastewater stream that requires control for soluble and/or partially soluble HAP compounds or to designate the wastewater stream as an affected wastewater stream, respectively. The permittee may use a combination of the approaches in §63.1256(a)(1)(i) and (ii) for different affected wastewater generated at the source. [§63.1256(a)(1)]
    - i. *Determine characteristics of a wastewater stream.* A wastewater stream is an affected wastewater stream if the annual average concentration and annual load exceed any of the criteria specified in §63.1256(a)(1)(i)(A) through (C). At new sources, a wastewater stream is subject to additional control requirements if the annual average concentration and annual load exceed the criteria specified in §63.1256(a)(1)(i)(D). The permittee shall comply with the provisions of §63.1257(e)(1) to determine the annual average concentrations and annual load of partially soluble and soluble HAP compounds. [§63.1256(a)(1)(i)]
      - A. The wastewater stream contains partially soluble HAP compounds at an annual average concentration greater than 1,300 ppmw, and the total soluble and partially soluble HAP load in all wastewater from the PMPU exceeds 0.25 Mg/yr. [§63.1256(a)(1)(i)(A)]
      - B. The wastewater stream contains partially soluble and/or soluble HAP compounds at an annual average concentration greater than 5,200 ppmw, and the total soluble and partially soluble HAP load in all wastewater from the PMPU exceeds 0.25 Mg/yr. [§63.1256(a)(1)(i)(B)]
      - C. The wastewater stream contains partially soluble and/or soluble HAP at an annual average concentration of greater than 10,000 ppmw, and the total partially soluble and/or soluble HAP load in all wastewater from the affected source is greater than 1 Mg/yr. [§63.1256(a)(1)(i)(C)]
      - D. The wastewater stream contains soluble HAP compounds at an annual average concentration greater than 110,000 ppmw, and the total soluble and partially soluble HAP load in all wastewater from the PMPU exceeds 1 Mg/yr. [§63.1256(a)(1)(i)(D)]
    - ii. *Designate wastewater as affected wastewater.* For existing sources, the permittee may elect to designate wastewater streams as meeting the criteria of either

- §63.1256(a)(1)(i)(A),(B), or (C). For new sources, the permittee may elect to designate wastewater streams meeting the criterion in §63.1256(a)(1)(i)(D) or for wastewater known to contain no soluble HAP, as meeting the criterion in §63.1256(a)(1)(i)(A). For designated wastewater the procedures specified in §63.1256(a)(1)(ii)(A) and (B) shall be followed, except as specified in §63.1256(g)(8)(i), (g)(9)(i), and (g)(10). The permittee is not required to determine the annual average concentration or load for each designated wastewater stream for the purposes of §63.1256. [§63.1256(a)(1)(ii)]
- A. From the point of determination (POD) for the wastewater stream that is designated as an affected wastewater stream to the location where the permittee elects to designate such wastewater stream as an affected wastewater stream, the permittee shall comply with all applicable emission suppression requirements specified in §63.1256(b) through (f). [§63.1256(a)(1)(ii)(A)]
  - B. From the location where the permittee designates a wastewater stream as an affected wastewater stream, such wastewater stream shall be managed in accordance with all applicable emission suppression requirements specified in §63.1256(b) through (f) and with the treatment requirements in §63.1256(g). [§63.1256(a)(1)(ii)(B)]
- iii. *Scrubber Effluent.* Effluent from a water scrubber that has been used to control Table 2 HAP- containing vent streams that are controlled in order to meet the process vent requirements in §63.1254 of Subpart GGG is considered an affected wastewater stream. [§63.1256(a)(1)(iii)]
- b) *Requirements for affected wastewater.* [§63.1256(a)(2)]
    - i. A permittee of a facility shall comply with the applicable requirements for wastewater tanks, surface impoundments, containers, individual drain systems, and oil/water separators as specified in §63.1256(b) through (f), except as provided in §63.1256(g)(3). [§63.1256(a)(2)(i)]
    - ii. Comply with the applicable requirements for control of soluble and partially soluble compounds as specified in §63.1256(g). Alternatively, the permittee may elect to comply with the treatment provisions specified in §63.1256(a)(5). [§63.1256(a)(2)(ii)]
    - iii. Comply with the applicable monitoring and inspection requirements specified in §63.1258. [§63.1256(a)(2)(iii)]
    - iv. Comply with the applicable recordkeeping and reporting requirements specified in §§63.1259 and 63.1260. [§63.1256(a)(2)(iv)]
  - c) *Requirements for multiphase discharges.* The permittee shall not discharge a separate phase that can be isolated through gravity separation from the aqueous phase to a waste management or treatment unit, unless the stream is discharged to a treatment unit in compliance with §63.1256(g)(13). [§63.1256(a)(3)]
  - d) *Maintenance wastewater requirements.* Each permittee of a source subject to Subpart GGG shall comply with the requirements of §63.1256(a)(4)(i) through (iv) for maintenance wastewater containing partially soluble or soluble HAP listed in Tables 2 and 3 of Subpart GGG. Maintenance wastewater is exempt from all other provisions of Subpart GGG. [§63.1256(a)(4)]
    - i. The permittee shall prepare a description of maintenance procedures for management of wastewater generated from the emptying and purging of equipment in the process during temporary shutdowns for inspections, maintenance, and repair (*i.e.*, a maintenance turnaround) and during periods which are not shutdowns

- (i.e., routine maintenance). The descriptions shall: [§63.1256(a)(4)(i)]
- A. Specify the process equipment or maintenance tasks that are anticipated to create wastewater during maintenance activities and;  
[§63.1256(a)(4)(i)(A)]
  - B. Specify the procedures that will be followed to properly manage the wastewater and minimize organic HAP emissions to the atmosphere and;  
[§63.1256(a)(4)(i)(B)]
  - C. Specify the procedures to be followed when clearing materials from process equipment. [§63.1256(a)(4)(i)(C)]
- ii. The permittee shall modify and update the information required by §63.1256(a)(4)(i) as needed following each maintenance procedure based on the actions taken and the wastewater generated in the preceding maintenance procedure. [§63.1256(a)(4)(ii)]
- e) *Offsite treatment or onsite treatment not owned or operated by the source.* The permittee may elect to transfer affected wastewater streams or a residual removed from such affected wastewater to an onsite treatment operation not owned or operated by the permittee of the source generating the wastewater or residual, or to an offsite treatment operation.  
[§63.1256(a)(5)]
- i. The permittee transferring the wastewater or residual shall: [§63.1256(a)(5)(i)]
    - A. Comply with the provisions specified in §63.1256(b) through (f) for each waste management unit that receives or manages affected wastewater or a residual removed from affected wastewater prior to shipment or transport.  
[§63.1256(a)(5)(i)(A)]
    - B. Include a notice with each shipment or transport of affected wastewater or residual removed from affected wastewater. The notice shall state that the affected wastewater or residual contains organic HAP that are to be treated in accordance with the provisions of Subpart GGG. When the transport is continuous or ongoing (for example, discharge to a publicly-owned treatment works), the notice shall be submitted to the treatment operator initially and whenever there is a change in the required treatment. The permittee shall keep a record of the notice in accordance with §63.1259(g). [§63.1256(a)(5)(i)(B)]
  - ii. The permittee may not transfer the affected wastewater or residual unless the transferee has submitted to the EPA a written certification that the transferee will manage and treat any affected wastewater or residual removed from affected wastewater received from a source subject to the requirements of Subpart GGG in accordance with the requirements of either: [§63.1256(a)(5)(ii)]
    - A. §63.1256(b) through (i) or; [§63.1256(a)(5)(ii)(A)]
    - B. Subpart D of Part 63 if alternative emission limitations have been granted the transferor in accordance with those provisions or; [§63.1256(a)(5)(ii)(B)]
    - C. §63.6(g) or; [§63.1256(a)(5)(ii)(C)]
    - D. If the affected wastewater streams or residuals removed from affected wastewater streams received by the transferee contain less than 50 ppmw of partially soluble HAP, then the transferee must, at a minimum, manage and treat the affected wastewater streams and residuals in accordance with one of the following:  
[§63.1256(a)(5)(ii)(D)]
      - 1) Comply with §63.1256(g)(10) and cover the waste management units up to the activated sludge unit or; [§63.1256(a)(5)(ii)(D)(1)]

- 2) Comply with §63.1256(g)(11)(i), (ii), and (h) and cover the waste management units up to the activated sludge unit or; [§63.1256(a)(5)(ii)(D)(2)]
  - 3) Comply with §63.1256(g)(10) provided that the permittee of the affected source demonstrates that less than 5 percent of the total soluble HAP is emitted from waste management units up to the activated sludge unit or; [§63.1256(a)(5)(ii)(D)(3)]
  - 4) Comply with §63.1256(g)(11)(i), (ii), and (h) provided that the permittee of the affected source demonstrates that less than 5 percent of the total soluble HAP is emitted from waste management units up to the activated sludge unit. [§63.1256(a)(5)(ii)(D)(4)]
  - iii. The certifying entity may revoke the written certification by sending a written statement to the EPA and the permittee giving at least 90 days' notice that the certifying entity is rescinding acceptance of responsibility for compliance with the regulatory provisions listed in this paragraph. Upon expiration of the notice period, the permittee may not transfer the wastewater stream or residual to the treatment operation. [§63.1256(a)(5)(iii)]
  - iv. By providing this written certification to the EPA, the certifying entity accepts responsibility for compliance with the regulatory provisions listed in §63.1256(a)(5)(ii) with respect to any shipment of wastewater or residual covered by the written certification. Failure to abide by any of those provisions with respect to such shipments may result in enforcement action by the EPA against the certifying entity in accordance with the enforcement provisions applicable to violations of these provisions by the permittee. [§63.1256(a)(5)(iv)]
  - v. Written certifications and revocation statements, to the EPA from the transferees of wastewater or residuals shall be signed by the responsible official of the certifying entity, provide the name and address of the certifying entity, and be sent to EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219. Such written certifications are not transferable by the treater. [§63.1256(a)(5)(v)]
2. **Wastewater tanks.** For each wastewater tank that receives, manages, or treats affected wastewater or a residual removed from affected wastewater, the permittee shall comply with the requirements of either §63.1256(b)(1) or (2) as specified in Table 6 of Subpart GGG. [§63.1256(b)]
- a) The permittee shall operate and maintain a fixed roof except when the contents of the wastewater tank are heated, treated by means of an exothermic reaction, or sparged, during which time the owner or operator shall comply with the requirements specified in paragraph (b)(2) of this section. For the purposes of this paragraph, the requirements of paragraph (b)(2) of this section are satisfied by operating and maintaining a fixed roof if the permittee demonstrates that the total soluble and partially soluble HAP emissions from the wastewater tank are no more than 5 percent higher than the emissions would be if the contents of the wastewater tank were not heated, treated by an exothermic reaction, or sparged. [§63.1256(b)(1)]
  - b) The permittee shall comply with the requirements in paragraphs (b)(3) through (9) of this section and shall operate and maintain one of the emission control techniques listed in paragraphs (b)(2)(i) through (iii) of this section. [§63.1256(b)(2)]
    - i. A fixed roof and a closed-vent system that routes the organic HAP vapors vented from the wastewater tank to a control device or; [§63.1256(b)(2)(i)]
    - ii. A fixed roof and an internal floating roof that meets the requirements specified in

- §63.119(b), with the differences noted in §63.1257(c)(3)(i) through (iii) for the purposes of Subpart GGG or; [§63.1256(b)(2)(ii)]
- iii. An external floating roof that meets the requirements specified in §§63.119(c), 63.120(b)(5), and 63.120(b)(6), with the differences noted in §63.1257(c)(3)(i) through (v) for the purposes of Subpart GGG. [§63.1256(b)(2)(iii)]
- c) If the permittee elects to comply with the requirements §63.1256(b)(2)(i), the fixed roof shall meet the requirements of §63.1256(b)(3)(i), the control device shall meet the requirements of §63.1256(b)(3)(ii), and the closed-vent system shall meet the requirements of §63.1256(b)(3)(iii). [§63.1256(b)(3)]
- i. The fixed roof shall meet the following requirements: [§63.1256(b)(3)(i)]
- A. Except as provided in §63.1256(b)(3)(iv), the fixed roof and all openings (e.g., access hatches, sampling ports, and gauge wells) shall be maintained in accordance with the requirements specified in §63.1258(h). [§63.1256(b)(3)(i)(A)]
- B. Each opening shall be maintained in a closed position (e.g., covered by a lid) at all times that the wastewater tank contains affected wastewater or residual removed from affected wastewater except when it is necessary to use the opening for wastewater sampling, removal, or for equipment inspection, maintenance, or repair. [§63.1256(b)(3)(i)(B)]
- ii. The control device shall be designed, operated, and inspected in accordance with the requirements of §63.1256(h). [§63.1256(b)(3)(ii)]
- iii. Except as provided in §63.1256(b)(3)(iv), the closed-vent system shall be inspected in accordance with the requirements of §63.1258(h). [§63.1256(b)(3)(iii)]
- iv. For any fixed roof tank and closed-vent system that is operated and maintained under negative pressure, the permittee is not required to comply with the requirements specified in §63.1258(h). [§63.1256(b)(3)(iv)]
- d) If the permittee elects to comply with the requirements of §63.1256(b)(2)(ii), the floating roof shall be inspected according to the procedures specified in §63.120(a)(2) and (3), with the differences noted in §63.1257(c)(3)(iv) for the purposes of Subpart GGG. [§63.1256(b)(4)]
- e) Except as provided in §63.1256(b)(6), if the permittee elects to comply with the requirements of §63.1256(b)(2)(iii), seal gaps shall be measured according to the procedures specified in §63.120(b)(2)(i) through (b)(4) and the wastewater tank shall be inspected to determine compliance with §63.120(b)(5) and (6) according to the schedule specified in §63.120(b)(1)(i) through (iii). [§63.1256(b)(5)]
- f) If the permittee determines that it is unsafe to perform the seal gap measurements specified in §63.120(b)(2)(i) through (b)(4) or to inspect the wastewater tank to determine compliance with §63.120(b)(5) and (6) because the floating roof appears to be structurally unsound and poses an imminent or potential danger to inspecting personnel, the permittee shall comply with the requirements in either §63.1256(b)(6)(i) or (ii). [§63.1256(b)(6)]
- i. The permittee shall measure the seal gaps or inspect the wastewater tank within 30 calendar days of the determination that the floating roof is unsafe. [§63.1256(b)(6)(i)]
- ii. The permittee shall empty and remove the wastewater tank from service within 45 calendar days of determining that the roof is unsafe. If the wastewater tank cannot be emptied within 45 calendar days, the permittee may utilize up to two extensions of up to 30 additional calendar days each. Documentation of a decision to utilize an

- extension shall include an explanation of why it was unsafe to perform the inspection or seal gap measurement, shall document that alternate storage capacity is unavailable, and shall specify a schedule of actions that will ensure that the wastewater tank will be emptied as soon as possible. [§63.1256(b)(6)(ii)]
- g) Except as provided in §63.1256(b)(6), each wastewater tank shall be inspected initially, and semi-annually thereafter, for improper work practices in accordance with §63.1258(g). For wastewater tanks, improper work practice includes, but is not limited to, leaving open any access door or other opening when such door or opening is not in use. [§63.1256(b)(7)]
  - h) Except as provided in §63.1256(b)(6), each wastewater tank shall be inspected for control equipment failures as defined in §63.1256(b)(8)(i) according to the schedule in §63.1256(b)(8)(ii) and (iii) in accordance with §63.1258(g). [§63.1256(b)(8)]
    - i. Control equipment failures for wastewater tanks include, but are not limited to, the conditions specified in §63.1256(b)(8)(i)(A) through (I). [§63.1256(b)(8)(i)]
      - A. The floating roof is not resting on either the surface of the liquid or on the leg supports. [§63.1256(b)(8)(i)(A)]
      - B. There is stored liquid on the floating roof. [§63.1256(b)(8)(i)(B)]
      - C. A rim seal is detached from the floating roof. [§63.1256(b)(8)(i)(C)]
      - D. There are holes, tears, cracks or gaps in the rim seal or seal fabric of the floating roof. [§63.1256(b)(8)(i)(D)]
      - E. There are visible gaps between the seal of an internal floating roof and the wall of the wastewater tank. [§63.1256(b)(8)(i)(E)]
      - F. There are gaps between the metallic shoe seal or the liquid mounted primary seal of an external floating roof and the wall of the wastewater tank that exceed 212 square centimeters per meter of tank diameter or the width of any portion of any gap between the primary seal and the tank wall exceeds 3.81 centimeters. [§63.1256(b)(8)(i)(F)]
      - G. There are gaps between the secondary seal of an external floating roof and the wall of the wastewater tank that exceed 21.2 square centimeters per meter of tank diameter or the width of any portion of any gap between the secondary seal and the tank wall exceeds 1.27 centimeters. [§63.1256(b)(8)(i)(G)]
      - H. Where a metallic shoe seal is used on an external floating roof, one end of the metallic shoe does not extend into the stored liquid or one end of the metallic shoe does not extend a minimum vertical distance of 61 centimeters above the surface of the stored liquid. [§63.1256(b)(8)(i)(H)]
      - I. A gasket, joint, lid, cover, or door has a crack or gap, or is broken. [§63.1256(b)(8)(i)(I)]
    - ii. The permittee shall inspect for the control equipment failures in §63.1256(b)(8)(i)(A) through (H) according to the schedule specified in §63.1256(b)(4) and (5). [§63.1256(b)(8)(ii)]
    - iii. The permittee shall inspect for the control equipment failures in §63.1256(b)(8)(i)(I) initially, and semi-annually thereafter. [§63.1256(b)(8)(iii)]
  - i) Except as provided in §63.1256(i), when an improper work practice or a control equipment failure is identified, first efforts at repair shall be made no later than 5 calendar days after identification and repair shall be completed within 45 calendar days after identification. If a failure that is detected during inspections required by this section cannot be repaired within 45

calendar days and if the tank cannot be emptied within 45 calendar days, the permittee may utilize up to two extensions of up to 30 additional calendar days each. Documentation of a decision to utilize an extension shall include a description of the failure, shall document that alternate storage capacity is unavailable, and shall specify a schedule of actions that will ensure that the control equipment will be repaired or the tank will be emptied as soon as practical. [§63.1256(b)(9)]

3. *Containers.* For each container that receives, manages, or treats affected wastewater or a residual removed from affected wastewater, the permittee shall comply with the requirements of §63.1256(d)(1) through (5). [§63.1256(d)]
  - a) The permittee shall operate and maintain a cover on each container used to handle, transfer, or store affected wastewater or a residual removed from affected wastewater in accordance with the following requirements: [§63.1256(d)(1)]
    - i. Except as provided in §63.1256(d)(3)(iv), if the capacity of the container is greater than  $0.42 \text{ m}^3$ , the cover and all openings (e.g., bungs, hatches, sampling ports, and pressure relief devices) shall be maintained in accordance with the requirements specified in §63.1258(h). [§63.1256(d)(1)(i)]
    - ii. If the capacity of the container is less than or equal to  $0.42 \text{ m}^3$ , the permittee shall comply with either §63.1256(d)(1)(ii)(A) or (B). [§63.1256(d)(1)(ii)]
      - A. The container must meet existing Department of Transportation specifications and testing requirements under 49 CFR Part 178 or; [§63.1256(d)(1)(ii)(A)]
      - B. Except as provided in §63.1256(d)(3)(iv), the cover and all openings shall be maintained without leaks as specified in §63.1258(h). [§63.1256(d)(1)(ii)(B)]
    - iii. The cover and all openings shall be maintained in a closed position (e.g., covered by a lid) at all times that affected wastewater or a residual removed from affected wastewater is in the container except when it is necessary to use the opening for filling, removal, inspection, sampling, or pressure relief events related to safety considerations. [§63.1256(d)(1)(iii)]
  - b) *Filling of large containers.* Pumping affected wastewater or a residual removed from affected wastewater into a container with a capacity greater than or equal to  $0.42 \text{ m}^3$  shall be conducted in accordance with the conditions in §63.1256(d)(2)(i) and (ii). [§63.1256(d)(2)]
    - i. Comply with any one of the procedures specified in §63.1256(d)(2)(i)(A), (B), or (C). [§63.1256(d)(2)(i)]
      - A. Use a submerged fill pipe. The submerged fill pipe outlet shall extend to no more than 6 inches or within two fill pipe diameters of the bottom of the container while the container is being filled. [§63.1256(d)(2)(i)(A)]
      - B. Locate the container within an enclosure with a closed-vent system that routes the organic HAP vapors vented from the container to a control device. [§63.1256(d)(2)(i)(B)]
      - C. Use a closed-vent system to vent the displaced organic vapors vented from the container to a control device or back to the equipment from which the wastewater is transferred. [§63.1256(d)(2)(i)(C)]
    - ii. The cover shall remain in place and all openings shall be maintained in a closed position except for those openings required for the submerged fill pipe and for venting of the container to prevent physical damage or permanent deformation of the container or cover. [§63.1256(d)(2)(ii)]
  - c) During treatment of affected wastewater or a residual removed from affected wastewater,

including aeration, thermal or other treatment, in a container, whenever it is necessary for the container to be open, the container shall be located within an enclosure with a closed-vent system that routes the organic HAP vapors vented from the container to a control device. [§63.1256(d)(3)]

- i. Except as provided in §63.1256(d)(3)(iv), the enclosure and all openings (e.g., doors, hatches) shall be maintained in accordance with the requirements specified in §63.1258(h). [§63.1256(d)(3)(i)]
- ii. The control device shall be designed, operated, and inspected in accordance with §63.1256(h). [§63.1256(d)(3)(ii)]
- iii. Except as provided in §63.1256(d)(3)(iv), the closed-vent system shall be inspected in accordance with §63.1258(h). [§63.1256(d)(3)(iii)]
- iv. For any enclosure and closed-vent system that is operated and maintained under negative pressure, the permittee is not required to comply with the requirements specified in §63.1258(h). [§63.1256(d)(3)(iv)]

d) Each container shall be inspected initially, and semi-annually thereafter, for improper work practices and control equipment failures in accordance with §63.1258(g).

[§63.1256(d)(4)]

- i. For containers, improper work practice includes, but is not limited to, leaving open any access hatch or other opening when such hatch or opening is not in use. [§63.1256(d)(4)(i)]
- ii. For containers, control equipment failure includes, but is not limited to, any time a cover or door has a gap or crack, or is broken. [§63.1256(d)(4)(ii)]

e) Except as provided in §63.1256(i), when an improper work practice or a control equipment failure is identified, first efforts at repair shall be made no later than 5 calendar days after identification and repair shall be completed within 15 calendar days after identification.

[§63.1256(d)(5)]

4. *Individual drain systems.* For each individual drain system that receives or manages affected wastewater or a residual removed from affected wastewater, the permittee shall comply with the requirements of §63.1256(e)(1), (2), and (3) or with §63.1256(e) (4), (5), and (6).

[§63.1256(e)]

a) If the permittee elects to comply with this paragraph, the permittee shall operate and maintain on each opening in the individual drain system a cover and if vented, route the vapors to a process or through a closed-vent system to a control device. The permittee shall comply with the requirements of §63.1256(e)(1)(i) through (v). [§63.1256(e)(1)]

- i. The cover and all openings shall meet the following requirements: [§63.1256(e)(1)(i)]
  - A. Except as provided in §63.1256(e)(1)(iv), the cover and all openings (e.g., access hatches, sampling ports) shall be maintained in accordance with the requirements specified in §63.1258(h). [§63.1256(e)(1)(i)(A)]
  - B. The cover and all openings shall be maintained in a closed position at all times that affected wastewater or a residual removed from affected wastewater is in the drain system except when it is necessary to use the opening for sampling or removal, or for equipment inspection, maintenance, or repair. [§63.1256(e)(1)(i)(B)]

i. The control device shall be designed, operated, and inspected in accordance with §63.1256(h). [§63.1256(e)(1)(ii)]

ii. Except as provided in §63.1256(e)(1)(iv), the closed-vent system shall be

- inspected in accordance with §63.1258(h). [§63.1256(e)(1)(iii)]
- iii. For any cover and closed-vent system that is operated and maintained under negative pressure, the permittee is not required to comply with the requirements specified in §63.1258(h). [§63.1256(e)(1)(iv)]
- iv. The individual drain system shall be designed and operated to segregate the vapors within the system from other drain systems and the atmosphere.  
[§63.1256(e)(1)(v)]
- b) Each individual drain system shall be inspected initially, and semi-annually thereafter, for improper work practices and control equipment failures, in accordance with §63.1258(g). [§63.1256(e)(2)]
  - i. For individual drain systems, improper work practice includes, but is not limited to, leaving open any access hatch or other opening when such hatch or opening is not in use for sampling or removal, or for equipment inspection, maintenance, or repair.  
[§63.1256(e)(2)(i)]
  - ii. For individual drain systems, control equipment failure includes, but is not limited to, any time a joint, lid, cover, or door has a gap or crack, or is broken.  
[§63.1256(e)(2)(ii)]
- c) Except as provided in §63.1256(i), when an improper work practice or a control equipment failure is identified, first efforts at repair shall be made no later than 5 calendar days after identification and repair shall be completed within 15 calendar days after identification.  
[§63.1256(e)(3)]
- d) If the permittee elects to comply with this paragraph, the permittee shall comply with the requirements in §63.1256(e)(4)(i) through (iii): [§63.1256(e)(4)]
  - i. Each drain shall be equipped with water seal controls or a tightly fitting cap or plug. The permittee shall comply with §63.1256(e)(4)(i)(A) and (B).  
[§63.1256(e)(4)(i)]
    - A. For each drain equipped with a water seal, the permittee shall ensure that the water seal is maintained. For example, a flow-monitoring device indicating positive flow from a main to a branch water line supplying a trap or water being continuously dripped into the trap by a hose could be used to verify flow of water to the trap. Visual observation is also an acceptable alternative. [§63.1256(e)(4)(i)(A)]
    - B. If a water seal is used on a drain receiving affected wastewater, the permittee shall either extend the pipe discharging the wastewater below the liquid surface in the water seal of the receiving drain, or install a flexible shield (or other enclosure which restricts wind motion across the open area between the pipe and the drain) that encloses the space between the pipe discharging the wastewater to the drain receiving the wastewater. (Water seals which are used on hubs receiving wastewater that is not subject to the provisions of Subpart GGG for the purpose of eliminating cross ventilation to drains carrying affected wastewater are not required to have a flexible shield or extended subsurface discharging pipe.)  
[§63.1256(e)(4)(i)(B)]
  - ii. Each junction box shall be equipped with a tightly fitting solid cover (i.e., no visible gaps, cracks, or holes) which shall be kept in place at all times except during inspection and maintenance. If the junction box is vented, the permittee shall comply with the requirements in §63.1256(e)(4)(ii)(A) or (B). [§63.1256(e)(4)(ii)]
    - A. The junction box shall be vented to a process or through a closed-vent system to a

control device. The closed-vent system shall be inspected in accordance with the requirements of §63.1258(h) and the control device shall be designed, operated, and inspected in accordance with the requirements of §63.1256(h).

[§63.1256(e)(4)(ii)(A)]

- B. If the junction box is filled and emptied by gravity flow (i.e., there is no pump) or is operated with no more than slight fluctuations in the liquid level, the permittee may vent the junction box to the atmosphere provided that the junction box complies with the requirements in §63.1256(e)(4)(ii)(B) (1) and (2).

[§63.1256(e)(4)(ii)(B)]

- 1) The vent pipe shall be at least 90 centimeters in length and no greater than 10.2 centimeters in nominal inside diameter.

[§63.1256(e)(4)(ii)(B)(1)]

- 2) Water seals shall be installed and maintained at the wastewater entrance(s) to or exit from the junction box restricting ventilation in the individual drain system and between components in the individual drain system. The permittee shall demonstrate (e.g., by visual inspection or smoke test) upon request by the Director that the junction box water seal is properly designed and restricts ventilation. [§63.1256(e)(4)(ii)(B)(2)]

- iii. The permittee shall operate and maintain sewer lines as specified in §63.1256(e)(4)(iii)(A) and (B). [§63.1256(e)(4)(iii)]

- A. Except as specified in §63.1256(e)(4)(iii)(B), each sewer line shall not be open to the atmosphere and shall be covered or enclosed in a manner so as to have no visible gaps or cracks in joints, seals, or other emission interfaces. **Note: This provision applies to sewers located inside and outside of buildings.**

[§63.1256(e)(4)(iii)(A)]

- B. A sewer line connected to drains that are in compliance with §63.1256(e)(4)(i) may be vented to the atmosphere, provided that the sewer line entrance to the first downstream junction box is water sealed and the sewer line vent pipe is designed as specified in §63.1256(e)(4)(ii)(B)(1). [§63.1256(e)(4)(iii)(B)]

- e) Equipment used to comply with §63.1256(e)(4) (i), (ii), or (iii) shall be inspected as follows: [§63.1256(e)(5)]

- i. Each drain using a tightly fitting cap or plug shall be visually inspected initially, and semi- annually thereafter, to ensure caps or plugs are in place and that there are no gaps, cracks, or other holes in the cap or plug. [§63.1256(e)(5)(i)]
- ii. Each junction box shall be visually inspected initially, and semi-annually thereafter, to ensure that there are no gaps, cracks, or other holes in the cover. [§63.1256(e)(5)(ii)]
- iii. The unburied portion of each sewer line shall be visually inspected initially, and semi- annually thereafter, for indication of cracks or gaps that could result in air emissions. [§63.1256(e)(5)(iii)]

- f) Except as provided in §63.1256(i), when a gap, hole, or crack is identified in a joint or cover, first efforts at repair shall be made no later than 5 calendar days after identification, and repair shall be completed within 15 calendar days after identification. [§63.1256(e)(6)]

5. *Oil-water separators.* For each oil-water separator that receives, manages, or treats affected wastewater or a residual removed from affected wastewater, the permittee shall comply with the requirements of §63.1256(f)(1) through (6). [§63.1256(f)]

- a) The permittee shall maintain one of the following: [§63.1256(f)(1)]

- i. A fixed roof and a closed-vent system that routes the organic HAP vapors vented from the oil-water separator to a control device. The fixed roof, closed-vent system, and control device shall meet the requirements specified in §63.1256(f)(2);  
[§63.1256(f)(1)(i)]
- ii. A floating roof that meets the requirements in 40 CFR 60.693-2(a)(1)(i), (a)(1)(ii), (a)(2), (a)(3), and (a)(4). For portions of the oil-water separator where it is infeasible to construct and operate a floating roof, such as over the weir mechanism, the permittee shall operate and maintain a fixed roof, closed-vent system, and control device that meet the requirements specified in §63.1256(f)(2). [§63.1256(f)(1)(ii)]
- b) A fixed roof shall meet the requirements of §63.1256(f)(2)(i), a control device shall meet the requirements of §63.1256(f)(2)(ii), and a closed-vent system shall meet the requirements of §63.1256(f)(2)(iii). [§63.1256(f)(2)]
  - i. The fixed roof shall meet the following requirements:
    - A. Except as provided in §63.1256(f)(2)(iv), the fixed roof and all openings (e.g., access hatches, sampling ports, and gauge wells) shall be maintained in accordance with the requirements specified in §63.1258(h). [§63.1256(f)(2)(i)(A)]
    - B. Each opening shall be maintained in a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that the oil-water separator contains affected wastewater or a residual removed from affected wastewater except when it is necessary to use the opening for sampling or removal, or for equipment inspection, maintenance, or repair. [§63.1256(f)(2)(i)(B)]
    - C. The control device shall be designed, operated, and inspected in accordance with the requirements of §63.1256(h). [§63.1256(f)(1)(ii)]
    - D. Except as provided in §63.1256(f)(2)(iv), the closed-vent system shall be inspected in accordance with the requirements of §63.1258(h).  
[§63.1256(f)(1)(iii)]
    - E. For any fixed-roof and closed-vent system that is operated and maintained under negative pressure, the permittee is not required to comply with the requirements of §63.1258(h). [§63.1256(f)(1)(iv)]
- c) If the permittee elects to comply with the requirements of §63.1256(f)(1)(ii), seal gaps shall be measured according to the procedures specified in 40 CFR Part 60, Subpart QQQ § 60.696(d)(1) and the schedule specified in §63.1256(f)(3)(i) and (ii). [§63.1256(f)(3)]
  - i. Measurement of primary seal gaps shall be performed within 60 calendar days after installation of the floating roof and introduction of affected wastewater or a residual removed from affected wastewater and once every 5 years thereafter.  
[§63.1256(f)(3)(i)]
  - ii. Measurement of secondary seal gaps shall be performed within 60 calendar days after installation of the floating roof and introduction of affected wastewater or a residual removed from affected wastewater and once every year thereafter. [§63.1256(f)(3)(ii)]
- d) Each oil-water separator shall be inspected initially, and semi-annually thereafter, for improper work practices in accordance with §63.1258(g). For oil-water separators, improper work practice includes, but is not limited to, leaving open or ungasketed any access door or other opening when such door or opening is not in use. [§63.1256(f)(4)]
- e) Each oil-water separator shall be inspected for control equipment failures as defined in §63.1256(f)(5)(i) according to the schedule specified in §63.1256(f)(5)(ii) and (iii).  
[§63.1256(f)(5)]

- i. For oil-water separators, control equipment failure includes, but is not limited to, the conditions specified in §63.1256(f)(5)(i)(A) through (G).  
[§63.1256(f)(1)]
    - A. The floating roof is not resting on either the surface of the liquid or on the leg supports. [§63.1256(f)(1)(A)]
    - B. There is stored liquid on the floating roof. [§63.1256(f)(1)(B)]
    - C. A rim seal is detached from the floating roof. [§63.1256(f)(1)(C)]
    - D. There are holes, tears, or other open spaces in the rim seal or seal fabric of the floating roof. [§63.1256(f)(1)(D)]
    - E. There are gaps between the primary seal and the separator wall that exceed 67 square centimeters per meter of separator wall perimeter or the width of any portion of any gap between the primary seal and the separator wall exceeds 3.8 centimeters. [§63.1256(f)(1)(E)]
    - F. There are gaps between the secondary seal and the separator wall that exceed 6.7 square centimeters per meter of separator wall perimeter or the width of any portion of any gap between the secondary seal and the separator wall exceeds 1.3 centimeters. [§63.1256(f)(1)(F)]
    - G. A gasket, joint, lid, cover, or door has a gap or crack, or is broken. [§63.1256(f)(1)(G)]
  - ii. The permittee shall inspect for the control equipment failures in §63.1256(f)(5)(i)(A) through (F) according to the schedule specified in §63.1256(f)(3). [§63.1256(f)(1)(ii)]
  - iii. The permittee shall inspect for control equipment failures in §63.1256(f)(5)(i)(G) initially, and semi-annually thereafter. [§63.1256(f)(1)(iii)]
- f) Except as provided in §63.1256(i), when an improper work practice or a control equipment failure is identified, first efforts at repair shall be made no later than 5 calendar days after identification and repair shall be completed within 45 calendar days after identification.  
[§63.1256(f)(6)]
6. *Performance standards for treatment processes managing wastewater and/or residuals removed from wastewater.* The permittee shall comply with the requirements as specified in §63.1256(g)(1) through (6). Where multiple compliance options are provided, the options may be used in combination for different wastewater and/or for different compounds (e.g., soluble versus partially soluble compounds) in the same wastewater, except where otherwise provided in this section. Once affected wastewater or a residual removed from affected wastewater has been treated in accordance with Subpart GGG, it is no longer subject to the requirements of Subpart GGG.  
[§63.1256(g)]
- a) *Existing source.* For a wastewater stream at an existing source that exceeds or is designated to exceed the concentration and load criteria in §63.1256(a)(1)(i)(A), the permittee shall comply with a control option in §63.1256(g)(8). For a wastewater stream at an existing source that exceeds the concentration and load criteria in either §63.1256(a)(1)(i)(B) or (C), the permittee shall comply with a control option in §63.1256(g)(8) and a control option in §63.1256(g)(9). As an alternative to the control options in §63.1256(g)(8) and (g)(9), the permittee may comply with a control option in either §63.1256(g)(10), (11) or (13), as applicable. [§63.1256(g)(1)]
  - b) *New source.* For a wastewater stream at a new source that exceeds or is designated to exceed the concentration and load criteria in §63.1256(a)(1)(i)(A), the permittee shall comply with a control option in §63.1256(g)(8). For wastewater at a new source that exceeds the concentration and load criteria in either §63.1256(a)(1)(i)(B) or (C), but does not exceed the criteria in

- §63.1256(a)(1)(i)(D), the permittee shall comply with a control option in §63.1256(g)(8) and a control option in §63.1256(g)(9). As an alternative to the control options in §63.1256(g)(8) and/or (9), the permittee may comply with a control option in either §63.1256(g)(10), (11), or (13), as applicable. For a wastewater stream at a new source that exceeds or is designated to exceed the concentration and load criteria in §63.1256(a)(1)(i)(D), the permittee shall comply with a control option in §63.1256(g)(12) or (13). [§63.1256(g)(2)]
- c) *Control device requirements.* When gases are vented from the treatment process, the permittee shall comply with the applicable control device requirements specified in §63.1256(h) and §63.1257(e)(3), and the applicable leak inspection provisions specified in §63.1258(h). This requirement is in addition to the requirements for treatment systems specified in §63.1256(g)(8) through (14). This requirement does not apply to any open biological treatment process that meets the mass removal requirements. [§63.1256(g)(5)]
- d) *Residuals: general.* When residuals result from treating affected wastewater, the permittee shall comply with the requirements for residuals specified in §63.1256(g)(14). [§63.1256(g)(6)]
- e) *Control options: Wastewater containing partially soluble HAP compounds.* The permittee shall comply with either §63.1256(g)(8)(i) or (ii) for the control of partially soluble HAP compounds at new or existing sources. [§63.1256(g)(8)]
- i. *50 ppmw concentration option.* The permittee shall comply with §63.1256(g)(8)(i)(A) and (B). [§63.1256(g)(8)(i)]
    - A. Reduce, by removal or destruction, the concentration of total partially soluble HAP compounds to a level less than 50 ppmw as determined by the procedures specified in §63.1257(e)(2)(iii)(B). [§63.1256(g)(8)(i)(A)]
    - B. This option shall not be used when the treatment process is a biological treatment process. This option shall not be used when the wastewater is designated as an affected wastewater as specified in §63.1256(a)(1)(ii). Dilution shall not be used to achieve compliance with this option. [§63.1256(g)(8)(i)(B)]
  - ii. *Percent mass removal/destruction option.* The permittee shall reduce, by removal or destruction, the mass of total partially soluble HAP compounds by 99 percent or more. The removal destruction efficiency shall be determined by the procedures specified in §63.1257(e)(2)(ii) or (iii)(C) for noncombustion, nonbiological treatment processes; §63.1257(e)(2)(ii) or (iii)(D) for combustion processes; §63.1257(e)(2)(iii)(F) for open biological treatment processes; and §63.1257(e)(2)(ii) or (iii)(G) for closed biological treatment processes. [§63.1256(g)(8)(ii)]
- f) *Control options: Wastewater containing soluble HAP compounds.* The permittee shall comply with either §63.1256(g)(9)(i) or (ii) for the control of soluble HAP compounds at new or existing sources. [§63.1256(g)(9)]
- i. *520 ppmw concentration option.* The permittee shall comply with §63.1256(g)(9)(i)(A) and (B). [§63.1256(g)(9)(i)]
    - A. Reduce, by removal or destruction, the concentration of total soluble HAP compounds to a level less than 520 ppmw as determined in the procedures specified in §63.1257(e)(2)(iii)(B). [§63.1256(g)(9)(i)(A)]
    - B. This option shall not be used when the treatment process is a biological treatment process. This option shall not be used when the wastewater is designated as an affected wastewater as specified in §63.1256(a)(1)(ii). Dilution shall not be used to achieve compliance with this option. [§63.1256(g)(9)(i)(B)]
  - ii. *Percent mass removal/destruction option.* The permittee shall reduce the mass of total

soluble HAP by 90 percent or more, either by removal or destruction. The removal/destruction efficiency shall be determined by the procedures in §63.1257(e)(2)(ii) or (e)(2)(iii)(C) for noncombustion, nonbiological treatment processes; §63.1257(e)(2)(ii) or (e)(2)(iii)(D) for combustion processes; §63.1257(e)(2)(iii)(F) for open biological treatment processes; and § 63.1257(e)(2)(ii) or (e)(2)(iii)(G) for closed, biological treatment processes. (§63.1256(g)(9)(ii))

- g) *Percent mass removal/destruction option for soluble HAP compounds at new sources.* The permittee of a new source shall reduce, by removal or destruction, the mass flow rate of total soluble HAP from affected wastewater by 99 percent or more. The removal/destruction efficiency shall be determined by the procedures in §63.1257(e)(2)(ii) or (iii)(C) for noncombustion, nonbiological treatment processes; §63.1257(e)(2)(ii) and (iii)(D) for combustion processes; §63.1257(e)(2)(iii)(F) for open biological treatment processes; and §63.1257(e)(2)(ii) or (iii)(G) for closed biological treatment processes. [§63.1256(g)(12)]
- h) *Residuals.* For each residual removed from affected wastewater, the permittee shall control for air emissions by complying with §63.1256(b) through (f) and by complying with one of the provisions in §63.1256(g)(14)(i) through (iv). [§63.1256(g)(14)]
- i. Recycle the residual to a production process or sell the residual for the purpose of recycling. Once a residual is returned to a production process, the residual is no longer subject to §63.1256. [§63.1256(g)(14)(i)]
  - ii. Return the residual to the treatment process. [§63.1256(g)(14)(ii)]
  - iii. Treat the residual to destroy the total combined mass flow rate of soluble and/or partially soluble HAP compounds by 99 percent or more, as determined by the procedures specified in §63.1257(e)(2)(iii)(C) or (D). [§63.1256(g)(14)(iii)]
  - iv. Comply with the requirements for RCRA treatment options specified in §63.1256(g)(13). [§63.1256(g)(14)(iv)]
7. *Control devices.* For each control device or combination of control devices used to comply with the provisions in §63.1256(b) through (f) and (g)(5), the permittee shall operate and maintain the control device or combination of control devices in accordance with the requirements of §63.1256(h)(1) through (5). [§63.1256(h)]
- a) Whenever organic HAP emissions are vented to a control device which is used to comply with the provisions of Subpart GGG, such control device shall be operating. [§63.1256(h)(1)]
  - b) The control device shall be designed and operated in accordance with §63.1256(h)(2)(i), (ii), (iii), (iv), or (v), as demonstrated by the provisions in §63.1257(e)(3). [§63.1256(h)(2)]
    - i. An enclosed combustion device (including but not limited to a vapor incinerator, boiler, or process heater) shall meet the conditions in §63.1256(h)(2)(i) (A), (B), or (C), alone or in combination with other control devices. If a boiler or process heater is used as the control device, then the vent stream shall be introduced into the flame zone of the boiler or process heater. [§63.1256(h)(2)(i)]
      - A. Reduce the organic HAP emissions vented to the control device by 95 percent by weight or greater; [§63.1256(h)(2)(i)(A)]
      - B. Achieve an outlet TOC concentration of 20 ppmv on a dry basis corrected to 3 percent oxygen. The permittee shall use either Method 18 of 40 CFR Part 60, Appendix A, or any other method or data that has been validated according to the applicable procedures in Method 301 of Appendix A of Part 63 or; [§63.1256(h)(2)(i)(B)]

- C. Provide a minimum residence time of 0.5 seconds at a minimum temperature of 760 °C. [§63.1256(h)(2)(i)(C)]
  - ii. A vapor recovery system (including but not limited to a carbon adsorption system or condenser), alone or in combination with other control devices, shall reduce the organic HAP emissions vented to the control device by 95 percent by weight or greater or achieve an outlet TOC concentration of 20 ppmv. The 20 ppmv performance standard is not applicable to compliance with the provisions of §63.1256(c) or (d). [§63.1256(h)(2)(ii)]
  - iii. A flare shall comply with the requirements of §63.11(b). [§63.1256(h)(2)(iii)]
  - iv. A scrubber, alone or in combination with other control devices, shall reduce the organic HAP emissions in such a manner that 95 weight-percent is either removed, or destroyed by chemical reaction with the scrubbing liquid, or achieve an outlet TOC concentration of 20 ppmv. The 20 ppmv performance standard is not applicable to compliance with the provisions of §63.1256(c) or (d). [§63.1256(h)(2)(iv)]
  - v. Any other control device used shall, alone or in combination with other control devices, reduce the organic HAP emissions vented to the control device by 95 percent by weight or greater or achieve an outlet TOC concentration of 20 ppmv. The 20 ppmv performance standard is not applicable to compliance with the provisions of §63.1256(c) or (d). [§63.1256(h)(2)(v)]
- c) If the control device is a combustion device, the permittee shall comply with the requirements in §63.1252(g) to control halogenated vent streams. [§63.1256(h)(3)]
- d) Except as provided in §63.1256(i), if gaps, cracks, tears, or holes are observed in ductwork, piping, or connections to covers and control devices during an inspection, a first effort to repair shall be made as soon as practical but no later than five calendar days after identification. Repair shall be completed no later than 15 calendar days after identification or discovery of the defect. [§63.1256(h)(4)]
- e) The provisions in §63.1256(h)(1) through (4) apply at all times, except as specified in §63.1250(g). The permittee may not comply with the planned routine maintenance provisions in §63.1252(h) for vent streams from waste management units. [§63.1256(h)(5)]
- f) *Delay of repair.* Delay of repair of equipment for which a control equipment failure or a gap, crack, tear, or hole has been identified, is allowed if the repair is technically infeasible without a shutdown, as defined in §63.1251, or if the permittee determines that emissions of purged material from immediate repair would be greater than the emissions likely to result from delay of repair. Repair of this equipment shall occur by the end of the next shutdown. [§63.1256(i)]
  - i. Delay of repair of equipment for which a control equipment failure or a gap, crack, tear, or hole has been identified, is allowed if the equipment is emptied or is no longer used to treat or manage affected wastewater or residuals removed from affected wastewater. [§63.1256(i)(1)]
  - ii. Delay of repair of equipment for which a control equipment failure or a gap, crack, tear, or hole has been identified is also allowed if additional time is necessary due to the unavailability of parts beyond the control of the permittee. Repair shall be completed as soon as practical. The permittee who uses this provision shall comply with the requirements of §63.1259(h) to document the reasons that the delay of repair was necessary. [§63.1256(i)(2)]

**PERMIT CONDITION GGG - 11**

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations 40 CFR Part 63, Subpart GGG §63.1252(f) - General Provisions

Section 63.1252(f) of the MACT regulations requires that steps be taken to prevent releases in systems upstream of the point of determination (POD). **Drains or drain hubs, manholes, lift stations, trenches, pipes, oil/water separators, and tanks that handle affected liquid streams are subject to these requirements.** *Source: Compliance Assistance Tool for Clean Air Act Regulations: Subpart GGG of 40 CFR NESHAPS for Source Category Pharmaceutical Production, EPA August 2002*

**Emission Limitation:**

1. *Control requirements for certain liquid streams in open systems within a PMPU.* The permittee shall comply with the provisions of Table 5 of this subpart for each item of equipment meeting all the criteria specified in §63.1252(f)(2) through 4 and either §63.1252(f)(5)(i) or (ii): [§63.1252(f)(1)]
  - a) For a drain or drain hub: (Table 5 of Subpart GGG)
  - b) Tightly fitting solid cover (TFSC); or
  - c) TFSC with a vent to either a process or to a control device meeting the requirements of §63.1256(h)(2) or;
    - i. *Where a tightly fitting solid cover is required, it shall be maintained with no visible gaps or openings, except during periods of sampling, inspection, or maintenance.* (Table 5 of Subpart GGG, Footnote “a”)
  - d) Water seal with submerged discharge or barrier to protect discharge from wind.
  - e) For pipes: Each pipe shall have no visible gaps in joints, seals, or other emission interfaces. (Table 5 of Subpart GGG)
  - f) For tanks: Maintain a fixed roof and consider vents as process vents. A fixed roof may have openings necessary for proper venting of the tank, such as pressure/vacuum vent, j-pipe vent. (Table 5 of Subpart GGG)
  - g) For oil/water separators: (Table 5 of Subpart GGG)
  - h) Equip with a fixed roof and route vapors to a process or equip with a closed-vent system that routes vapors to a control device meeting the requirements of §63.1256(h)(2) or; (Note: for requirements of §63.1256(h)(2), see emission limits for wastewater units under emission unit specific conditions)
  - i) Equip with a floating roof that meets the equipment specifications of §60.693(a)(1)(i), (a)(1)(ii), (a)(2), (a)(3), and (a)(4).
  - j) For manholes, lift stations and trenches: (Note: Manhole includes sumps and other points of access to a conveyance system) (Table 5 of Subpart GGG)
  - k) TFSC or;
  - l) TSFC with a vent to either a process or to a control device meeting the requirements of §63.1256(h)(2) or;
  - m) If the manholes or lift stations or trenches are vented to the atmosphere, use a TFSC with a properly operating water seal at the entrance or exit to each item of equipment to restrict ventilation in the collection system. The vent pipe shall be at least 90 cm in length and not exceeding 10.2 cm in nominal inside diameter. The lift station shall be level controlled to minimize changes in the liquid level.
  - n) Where a tightly fitting solid cover is required, it shall be maintained with no visible gaps or openings, except during periods of sampling, inspection, or maintenance. (Table 5 of Subpart GGG, Footnote “a”)

2. The item of equipment is of a type identified in Table 5 of Subpart GGG; [§63.1252(f)(2)]
3. The item of equipment is part of a PMPU, as defined in §63.1251; [§63.1252(f)(3)]
4. The item of equipment is controlled less stringently than in Table 5 of this subpart and the item of equipment is not otherwise exempt from controls by the provisions of Subpart GGG or Subpart of Part 63 and; [§63.1252(f)(4)]
5. The item of equipment: [§63.1252(f)(5)]
  - i. Is a drain, drain hub, manhole, lift station, trench, pipe, or oil/water separator that conveys water with an annual average concentration greater than or equal to 1,300 parts per million by weight (ppmw) of partially soluble HAP compounds; or an annual average concentration greater than or equal to 5,200 ppmw of partially soluble and/or soluble HAP compounds. The annual average concentration shall be determined according to the procedures in §63.1257(e)(1)(ii). [§63.1252(f)(5)(i)]
  - ii. Is a tank that receives one or more streams that contain water with an annual average concentration greater than or equal to 1,300 ppmw of partially soluble HAP compounds, or greater than or equal to 5,200 ppmw of total partially soluble and/or soluble HAP compounds. The permittee of the source shall determine the average concentration of the stream at the inlet to the tank and according to the procedures in §63.1257(e)(1)(ii). [§63.1252(f)(5)(ii)]

### **PERMIT CONDITION 12**

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

This permit condition applies to the cooling towers that are listed in Attachment F: Emission Units 22F1 through 22F6 (22F2 was removed from the site). Monitoring is only required when the cooling tower units are in service. All are existing units.

#### **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 40 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:
    - ii) 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.

**Record Keeping:**

1. The permittee shall maintain records of all observation results for each emission unit using Attachments G and H or equivalent forms.
2. The permittee shall make these records available immediately for inspection to the Department of Natural Resources' personnel upon request.
3. The permittee shall retain all records for five years.

**Reporting:**

1. The permittee shall report to the Air Pollution Control Program's Compliance/Enforcement Section at P.O. Box 176, Jefferson City, MO 65102 or AirComplianceReporting@dnr.mo.gov, no later than ten days after an exceedance of the emission limitation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

<b>PERMIT CONDITION 13</b> 10 CSR 10-6.070 New Source Performance Standards 40 CFR Part 60 Subpart Dc National Emission Standards for Small Industrial-Commercial- Institutional Steam Generating Units	
EU02A & B	Boiler #2: 48.5 MMBtu/hr dual fuel fired; Constructed in 1990; Manufacturer/Model: Keystone/National Board Number 18698

**Operational Limitation:**

The permittee shall not burn fuels in Boiler #2 with sulfur content greater than 0.5 weight percent. [§60.42c]

**Emission Limitations:**

1. The permittee shall not cause to be discharged into the atmosphere from Boiler #2 any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. [§60.42c(d)]
2. The opacity standards apply at all times, except during periods of startup, shutdown or malfunction. [§60.42c(d)]

**Opacity Monitoring:**

1. Opacity 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:
      - (1) 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 visible emissions/opacity observation results using Attachments G and H, or equivalents.
  - a) The permittee shall make these records available immediately for inspection to the Department of Natural Resources' personnel upon request.
  - b) The permittee shall retain all records for five years.
2. For fuel sulfur content limits under §60.42c the permittee shall keep required records and submit reports that includes the following information, (as applicable): [§60.48c(e)]
  - a) Calendar dates covered in the reporting period. [§60.48c(e)(1)]
  - b) Records of fuel supplier certification; [§60.48c(e)(11)]
    - i) Fuel supplier certification for distillate oil shall include the following information: [§60.48c(f)(1)]
      - (1) The name of the oil supplier; and [§60.48c(f)(1)(i)]
      - (2) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in §60.41c. [§60.48c(f)(1)(ii)]
  - c) In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the responsible official that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period. [§60.48c(e)(11)]
  - d) The permittee shall record and maintain records of the amounts of each fuel combusted during each day. [§60.48c(g)]

**Reporting:**

1. The reporting period for the reports required under subpart Dc is each six-month period. All reports shall be submitted to the Missouri Department of Natural Resources and shall be postmarked by the 30th day following the end of the reporting period. [§60.48c(i)]
2. The permittee shall report 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 report and annual compliance certification.
4. All reports and certifications shall be submitted to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 or [AirComplianceReporting@dnr.mo.gov](mailto:AirComplianceReporting@dnr.mo.gov).

<b>PERMIT CONDITION 14</b>	
10 CSR 10-6.061 Construction Permits Required Construction Permit 092011-004, Issued September 19, 2011	
EU02A & B	Boiler #2: 48.5 MMBtu/hr dual fuel fired; Constructed in 1990; Manufacturer/Model: Keystone/National Board Number 18698
RTO1A-C/RTO2 &3	19.7 MMBtu Natural Gas Fired Thermal Oxidizer (See Attachment F)

**Operational Limitation:**

1. Special Condition 23: The Regenerative Thermal Oxidizer (RTO1A) shall not burn #2 fuel oil for more than 30 days per 12-month rolling period.
2. Special Condition 24: Boiler #2 shall not burn #2 fuel oil for more than 30 days per 12-month rolling period.

**Monitoring/Recordkeeping:**

1. The permittee shall maintain records of the days when #2 fuel oil is burned in these units to demonstrate that the operational limitation is not exceeded.
2. The permittee shall make these records available immediately for inspection to the Department of Natural Resources' personnel upon request.
3. The permittee shall retain all records for five years.

**Reporting:**

1. The permittee shall report 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 report and annual compliance certification.
3. All reports and certifications shall be submitted to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 or [AirComplianceReporting@dnr.mo.gov](mailto:AirComplianceReporting@dnr.mo.gov).

<b>PERMIT CONDITION 15</b> 10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds <sup>1</sup>	
EU01A & B	Boiler #1: 24 MMBtu/hr dual fuel fired; Constructed in 1980; Manufacturer/Model: Keystone/National Board Number 18867
EU02A & B	Boiler #2: 48.5 MMBtu/hr dual fuel fired; Constructed in 1990; Manufacturer/Model: Keystone/National Board Number 18698

**Emission Limitations:**

1. The permittee shall not cause or allow emissions of sulfur dioxide into the atmosphere from these units in excess of eight pounds (8 lbs) of sulfur dioxide per million Btus actual heat input averaged on any consecutive three (3)-hour time period.
2. The permittee shall not burn fuels in Boiler #1 with sulfur content greater than 0.5 weight percent.

**Monitoring/Recordkeeping:**

As required by Permit Condition 16 (for Boiler #1) and Permit Condition 13 (for Boiler #2).

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

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<sup>1</sup> This regulation was rescinded by the State of Missouri on November 30, 2015. The regulation remains in this operating permit as it is contained in Missouri's SIP and remains an applicable federal requirement. This is a federal only requirement. This permit condition will no longer be applicable when EPA takes final action to incorporate 10 CSR 10-6.261 in Missouri's SIP in place of 10 CSR 10-6.260. No action is required on the part of the permittee to remove this permit condition from this operating permit upon the removal of 10 CSR 10-6.260 from the Missouri SIP.

**PERMIT CONDITION 16**

10 CSR 10-6.261 Control of Sulfur Dioxide Emissions<sup>2</sup>

EU01A & B

Boiler #1: 24 MMBtu/hr dual fuel fired; Constructed in 1980; Manufacturer/Model:  
Keystone/National Board Number 18867

**Emission Limitations:**

The permittee shall not cause or allow emissions of sulfur dioxide into the atmosphere from these units in excess of eight pounds (8 lbs) of sulfur dioxide per million Btus actual heat input averaged on any consecutive three (3)-hour time period. (Compliance with the fuel sulfur limit in Permit Condition 15 ensures compliance with this limit).

**Monitoring/Recordkeeping/Reporting:**

1. The permittee shall determine compliance using fuel delivery records, fuel sampling and analysis, or other compliance methods approved by the staff director and the U.S. Environmental Protection agency and incorporated into the state implementation plan.
2. The permittee must maintain a list of modifications to the source's operating procedures or other routine procedures instituted to prevent or minimize the occurrence of any excess emissions.
3. The permittee must maintain a record of data, calculations, results, records and reports from any fuel deliveries, and/or fuel sampling tests.
4. The permittee of sources using fuel delivery records for compliance must also maintain the fuel supplier certification 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:
  - a) The name, address, and contact information of the fuel supplier;
  - b) The type of fuel;
  - c) The sulfur content or maximum sulfur content expressed in percent sulfur by weight or in ppm sulfur; and
  - d) The heating value of the fuel.
5. The permittee using fuel sampling and analysis for compliance must also follow the requirements in 10 CSR 10-6.261(5)(D).
6. All required reports and records must be retained on-site for a minimum of five (5) years and made available within five (5) business days upon written or electronic request by the director.
7. The permittee must furnish the director all data necessary to determine compliance status.

**Reporting:**

1. The permittee shall report to the Air Pollution Control Program's Compliance/Enforcement Section at P.O. Box 176, Jefferson City, MO 65102 or [AirComplianceReporting@dnr.mo.gov](mailto:AirComplianceReporting@dnr.mo.gov), 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 report and annual compliance certification.

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<sup>2</sup> This regulation has not yet been adopted into Missouri's SIP; therefore, this regulation is a state only requirement. Upon adoption into Missouri's SIP, this regulation will be both a state and federal requirement.

<b>PERMIT CONDITION 17</b>	
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds <sup>3</sup>	
EP22E1	Emergency Generator: No. 2 Fuel Oil; 135kW/hr; Manufacturer – Caterpillar; Constructed 1987
EP22E2	Emergency Generator: No. 2 Fuel Oil; 500 kW/hr; Manufacturer Onan; Constructed 1996

**Emission Limitations:**

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

**Monitoring/Recordkeeping:**

These units shall demonstrate compliance with this regulation through compliance with Permit Condition 18.

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

<sup>3</sup> This regulation was rescinded by the State of Missouri on November 30, 2015. The regulation remains in this operating permit as it is contained in Missouri's SIP and remains an applicable federal requirement. This is a federal only requirement. This permit condition will no longer be applicable when EPA takes final action to incorporate 10 CSR 10-6.261 in Missouri's SIP in place of 10 CSR 10-6.260. No action is required on the part of the permittee to remove this permit condition from this operating permit upon the removal of 10 CSR 10-6.260 from the Missouri SIP.

<b>PERMIT CONDITION 18</b> 10 CSR 10-6.261 Control of Sulfur Dioxide Emissions <sup>4</sup>	
EP22E1	Emergency Generator: No. 2 Fuel Oil; 135kW/hr: Manufacturer – Caterpillar; Constructed 1987
EP22E2	Emergency Generator: No. 2 Fuel Oil; 500 W/hr: Manufacturer Onan; Constructed 1996

**Emission Limitation:**

The permittee of any new source operation shall not use distillate fuel that contains more 8,812 parts per million (ppm<sub>v</sub>) of sulfur dioxide.

**Monitoring/Recordkeeping/Reporting:**

1. The permittee shall determine compliance using fuel delivery records, fuel sampling and analysis, or other compliance methods approved by the staff director and the U.S. Environmental Protection agency and incorporated into the state implementation plan.
2. The permittee must maintain a list of modifications to the source’s operating procedures or other routine procedures instituted to prevent or minimize the occurrence of any excess emissions.
3. The permittee must maintain a record of data, calculations, results, records and reports from any fuel deliveries, and/or fuel sampling tests.
4. The permittee of sources using fuel delivery records for compliance must also maintain the fuel supplier certification 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:
  - a) The name, address, and contact information of the fuel supplier;
  - b) The type of fuel;
  - c) The sulfur content or maximum sulfur content expressed in percent sulfur by weight or in ppm sulfur; and
  - d) The heating value of the fuel.
5. All required reports and records must be retained on-site for a minimum of five (5) years and made available within five (5) business days upon written or electronic request by the director.
6. The permittee must furnish the director all data necessary to determine compliance status.

**Reporting:**

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

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<sup>4</sup> This regulation has not yet been adopted into Missouri’s SIP; therefore, this regulation is a state only requirement. Upon adoption into Missouri’s SIP, this regulation will be both a state and federal requirement.

<b>PERMIT CONDITION 19</b>	
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations 40 CFR Part 63 Subpart DDDDD National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters	
EU01A & B	Boiler #1: 24 MMBtu/hr dual fuel fired; Constructed in 1980; Manufacturer/Model: Keystone/National Board Number 18867
EU02A & B	Boiler #2: 48.5 MMBtu/hr dual fuel fired; Constructed in 1990; Manufacturer/Model: Keystone/National Board Number 18698
25D1	1.6 MMBtu Glycol Process Heater #1 (Natural Gas) (1990)
25D2	1.6 MMBtu Glycol Process Heater #2 (Natural Gas)(1990)

**Operational Limitations:**

1. The permittee must complete a tune up of Boilers #1 and #2 and must conduct a tune-up of the glycol process heaters annually as specified in §63.7540. [§63.7500(a)(1)]
2. The permittee must complete a tune up of 25D1 and 25 D2 – Glycol Process Heaters every five years as specified in §63.7540. [§63.7500(e)]
3. 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. Tune ups shall be conducted as specified in §63.7540(a)(10)(i) through (vi).
  - a) 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)]
  - b) 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)]
  - c) 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)]
  - d) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO<sub>x</sub> requirement to which the unit is subject; [§63.7540(a)(10)(iv)]
  - e) 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)]
  - f) Maintain on-site and submit, if requested by the director, a report containing the information in §63.7540(a)(10)(vi)(A) and (B): [§63.7540(a)(10)(vi)]
    - i. 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 boiler; [§63.7540(a)(10)(vi)(A)]
    - ii. A description of any corrective actions taken as a part of the tune-up [§63.7540(a)(10)(vi)(B)]

**Notifications:**

The permittee must 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)]

**Reporting:**

1. The permittee may submit only an annual compliance report as specified in §63.7550(b)(1) through (4), instead of a semi-annual compliance report. [§63.7550(b)]
  - a) The first compliance report must cover the period beginning on January 31, 2016 and ending on December 31, 2020. [§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) Five year compliance reports must cover the applicable 5-year period from January 1 to December 31. [§63.7550(b)(3)]
  - d) Five year compliance reports must be postmarked or submitted no later than January 31. [§63.7550(b)(4)]
2. A compliance report must contain the following information. [§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)]
    - i. Company and Facility name and address. [§63.7550(c)(5)(i)]
    - ii. Process unit information, emissions limitations, and operating parameter limitations. [§63.7550(c)(5)(ii)]
    - iii. Date of report and beginning and ending dates of the reporting period. [§63.7550(c)(5)(iii)]
    - iv. Include the date of the most recent tune-up for each unit. Include the date of the most recent burner inspection if it was not done a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown. [§63.7550(c)(5)(xiv)]
    - v. Statement by the responsible official with the official's name, title and signature certifying the truth, accuracy and completeness of the contents of the report [§63.7550(c)(5)(xvii)]
3. The permittee shall report to the Air Pollution Control Program's Compliance/Enforcement Section at P.O. Box 176, Jefferson City, MO 65102 or AirComplianceReporting@dnr.mo.gov, no later than ten days after an exceedance of any of the terms imposed by this permit.
4. The permittee shall report any deviations from the monitoring, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring report and annual compliance certification.

## 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.

**Recordkeeping:**

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

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

**10 CSR 10-6.180 Measurement of Emissions of Air Contaminants**

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

**10 CSR 10-6.250 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(6)(C)1.B, 10 CSR 10-6.065(6)(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(6)(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 (6)(C)7.A of 10 CSR 10-6.065 (Emergency Provisions) shall be submitted to the permitting authority either verbally or in writing within two working days after the date on which the emission limitation is exceeded due to the emergency, if the permittee wishes to assert an affirmative defense. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that indicate an emergency occurred and the permittee can identify the cause(s) of the emergency. The permitted installation must show that it was operated properly at the time and that during the period of the emergency the permittee took all reasonable steps to minimize levels of

emissions that exceeded the emission standards or requirements in the permit. The notice must contain a description of the emergency, the steps taken to mitigate emissions, and the corrective actions taken.

- ii) Any deviation that poses an imminent and substantial danger to public health, safety or the environment shall be reported as soon as practicable.
- iii) Any other deviations identified in the permit as requiring more frequent reporting than the permittee's semiannual report shall be reported on the schedule specified in this permit.
- 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(6)(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(6)(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(6)(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(6)(C)1.

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

#### **10 CSR 10-6.065(6)(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(6)(C)1.I**

There are no reasonably anticipated operating scenarios.

### **Compliance Requirements**

#### **10 CSR 10-6.065(6)(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 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. 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(6)(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(6)(C)7**

1. An emergency or upset as defined in 10 CSR 10-6.065(6)(C)7.A shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emissions limitations. To establish an emergency- or upset-based defense, the permittee must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, the following:
  - a) That an emergency or upset occurred and that the permittee can identify the source of the emergency or upset,
  - b) That the installation was being operated properly,
  - c) That the permittee took all reasonable steps to minimize emissions that exceeded technology-based emissions limitations or requirements in this permit, and
  - d) That the permittee submitted notice of the emergency to the Air Pollution Control Program within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.

2. Be aware that an emergency or upset shall not include noncompliance caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

### **Operational Flexibility**

#### **10 CSR 10-6.065(6)(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, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, at least seven days in advance of these changes, except as allowed for emergency or upset conditions. Emissions allowable under the permit means a federally enforceable permit term or condition determined at issuance to be required by an applicable requirement that establishes an emissions limit (including a work practice standard) or a federally enforceable emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject.

1. Section 502(b)(10) changes. Changes that, under section 502(b)(10) of the Act, contravene an express permit term may be made without a permit revision, except for changes that would violate applicable requirements of the Act or contravene federally enforceable monitoring (including test methods), 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, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, describing the changes to be made, the date on which the change will occur, and any changes in emission and any permit terms and conditions that are affected. The permittee shall maintain a copy of the notice with the permit, and the 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(6)(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, as well as 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(6)(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 Aaron Harlan, Plant Manager. If this person terminates employment, or is reassigned different duties such that a different person becomes the responsible person to represent and bind the installation in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Director of the Air Pollution Control Program of the change. Said notification shall be in writing and shall be submitted within 30 days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the installation in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the installation until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

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

#### **10 CSR 10-6.065(6)(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(6)(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 A**  
Compliance Calculations and Worksheet

The calculation methods for demonstrating compliance with Special Condition 2(A) of Construction Permit 092011-004 are described below. Table A of Construction Permit 092011-004 provides an example worksheet that will be used to identify the sources of pollutant emissions, the emissions calculations method used, and the monthly emissions (tons). In the event of a discrepancy between any emissions calculation methodology listed in Table A of Construction Permit 092011-004 and those in 40 CFR Part 63 Subpart GGG, *National Emission Standards Pharmaceuticals Production*, and Subpart FFF, *National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing*, combined with any EPA or Air Pollution Control Program policies, shall take precedence.

Recordkeeping – Process Evaluation for VOC Emissions

On each day of operation, the permittee shall record and maintain records of the total quantity of all materials used at the emission units identifying “process evaluation” as the emissions calculation method in Table A of Construction Permit 092011-004. The permittee may request an extension of the record completion date by submitting the request in writing to the Director. The request must be received at least ten days prior to the 20<sup>th</sup> of the month and must state if an exceedance of the PAL limit is expected. If a request is not made, by the 20<sup>th</sup> of the month, the permittee shall calculate and record emissions based on one of the following methods:

1. Mass Balance

- a) The total usage of VOC containing materials for the previous calendar month using the daily VOC emission records. The record shall also include the VOC content of each material as determined by (1) Safety Data Sheet, (2) laboratory test data or (3) product specification information, whichever is most representative for each material used; the record shall indicate the source of VOC content for each material used. Other alternative methods approved by the Director may be used. The director reserves the right to require the permittee to determine the VOC contents of any material according to EPA reference methods. The amount of VOC emissions for each month shall be determined by multiplying the amount of VOC containing materials used by the VOC content of each material.
- b) The VOC emissions for each emissions unit and the total facility for the previous month. VOC emissions shall be determined from the total VOC containing materials used for each emissions unit multiplied by one minus the capture efficiency for each emissions unit multiplied by the control efficiency of the control device used, as represented in the following equation:

$$VOC\ Emissions = VOC\ Used (1 - capture\ efficiency \times control\ efficiency)$$

Where:

*VOC emissions* are expressed as pounds (or tons)

*VOC used* is expressed as pounds (or tons)

Capture efficiency is expressed as a fraction (i.e., percent capture divided by 100)

Control efficiency is expressed as a fraction (i.e., percent capture divided by 100)

Total facility VOC emissions shall be calculated by summing the VOC emissions from each emissions unit.

- c) The twelve month rolling sum VOC emission for the previous twelve month period. This will be accomplished by summing the monthly VOC emissions data for the previous twelve months. This number shall be used to demonstrate compliance with Special Condition 2(A) of Construction Permit 092011-004 (the plant wide 116.8 ton/year VOC limit).

## 2. MACT Compliance

The VOC emissions for each emissions unit shall be determined as described in MACT Subpart GGG §63.1257 through §63.1259 and/or MACT Subpart FFFF §63.2450 through 63.2535 for Compliance, Monitoring and Recordkeeping. Total facility VOC emissions shall be calculated by summing the VOC emissions from each emissions unit. The twelve month rolling sum VOC emission shall be determined for the previous twelve month period. This will be accomplished by summing the monthly VOC emissions data for the previous twelve months. This number shall be used to demonstrate compliance with the operating permit and Construction Permit 092011-004.

VOC emissions shall be recorded and maintained in a written or electronic form at the facility for a period of ten years.

### Recordkeeping – Emission Factors Based on EPA Documents

On each day of operation, the permittee shall record and maintain records of the total quantity of materials used or hours of operation for each emissions unit. The permittee may request an extension of the record completion date by submitting the request in writing to the Director. The request must be received at least ten days prior to the 20<sup>th</sup> of the month and must state if an exceedance of the PAL limit is expected. If a request is not made, by the 20<sup>th</sup> of the month, the permittee shall calculate and record the following:

1. The total usage of VOC containing materials or hours of operation for the previous calendar month using the daily production records. The record shall indicate which of the following emission factors were used to demonstrate compliance with Special Condition 2(A) of Construction Permit 092011-004.
  - i. AP-42, Compilation of Air Pollutant Emission Factors
  - ii. Protocol for Equipment Leak Emission Estimates (EPA-435/R-95-017) or LDAR program
  - iii. TANKS Emissions Estimation Software, Version 4.09D
2. Emission factors obtained from the most recent edition of AP-42, *Compilation of Air Pollutant Emission Factors*, or other EPA document, must be approved by the Air Pollution Control Program prior to use in any compliance demonstrations to ensure that the most representative emission factor is being used. The emission factors listed in Table A of Construction Permit 092011-004 are approved for use with the appropriate emission units. Documentation sufficient to support the emission factors must accompany Attachment A as required by Construction Permit 092011-004.

3. The VOC emissions for each emissions unit and the total facility for the previous month. VOC emissions shall be determined by multiplying the quantity of materials used or hours of operation by an emissions factor, as represented in the following equation:

$$\text{VOC emissions} = \text{Materials Used or Hours of Operation} \times \text{Emission Factor}$$

A control or capture efficiency may be taken into account only if the emission factor used to determine the emissions is based on uncontrolled emissions.

Total facility pollutant emissions shall be calculated by summing the VOC emissions from each emissions unit.

4. The twelve month rolling sum of VOC emission for the previous twelve month period. This will be accomplished by summing the monthly VOC emissions data for the previous twelve months. This number shall be used to demonstrate compliance with Construction Permit 092011-004. Emissions shall be recorded and maintained in a written or electronic form at the facility for a period of ten years.

#### Recordkeeping – Emission Factor Obtained from Testing or Manufacturer’s Data

On each day of operation, the permittee shall record and maintain records of the total quantity of materials used or hours of operation for each emissions unit. The permittee may request an extension of the record completion date by submitting the request in writing to the Director. The request must be received at least ten days prior to the 20<sup>th</sup> of the month and must state if an exceedance of the PAL limit is expected. If a request is not made, by the 20<sup>th</sup> of the month, the permittee shall calculate and record the following:

1. The total usage of VOC containing materials or hours of operation for the previous calendar month using the daily production records. The record shall indicate the emission factor used to demonstrate compliance with Special Condition 2(A) of Construction Permit 092011-004.
  - a) Emission factors must be obtained from the most recent test performance as specified under Special Conditions 10 and 11. Emission factors must be approved by the Air Pollution Control Program prior to use in any compliance demonstrations. The emission factors listed in Table A of Construction Permit 092011-004 are approved for use with the appropriate emission units. A copy of the approved test results must accompany Attachment A of Construction Permit 092011-004 (as required by Special Condition 2(B) of Construction Permit 092011-004).
  - b) Emission factors obtained from manufacturer’s data must be approved by the Air Pollution Control Program prior to use in any compliance demonstrations. The emission factors listed in Table A are approved for use with the appropriate emission units. A copy of the manufacturer’s data must accompany Attachment A as required by Construction Permit 092011-004.
2. The VOC emissions for each emissions unit and the total facility for the previous month. VOC emissions shall be determined by multiplying the quantity of materials used or hours of operation by an emissions factor, as represented in the following equation:

$$\text{VOC emissions} = \text{Materials Used or Hours of Operation} \times \text{Emission Factor}$$

Total facility VOC emissions shall be calculated by summing the VOC emissions from each emissions unit.

3. The twelve month rolling sum of VOC emission for the previous twelve month period. This will be accomplished by summing the monthly VOC emissions data for the previous twelve months. This number shall be used to demonstrate compliance with Construction Permit 092011-004. Emissions shall be recorded and maintained in a written or electronic form at the facility for a period of ten years.

Recordkeeping – Engineering Calculations for VOC Emissions

On each day of operation, the permittee shall record and maintain records of the total quantity of all materials used at the emission units identifying “engineering calculations” as the emissions calculation method in Table A of Construction Permit 092011-004. The permittee may request an extension of the record completion date by submitting the request in writing to the Director.

The request must be received at least ten days prior to the 20<sup>th</sup> of the month and must state if an exceedance of the PAL limit is expected. If a request is not made, by the 20<sup>th</sup> of the month, the permittee shall calculate and record the following:

1. The total usage of VOC containing materials for the previous calendar month using the daily VOC emission records. The record shall also include the VOC content of each material as determined by (1) Safety Data Sheet, (2) laboratory test data or (3) product specification information, whichever is most representative for each material used; the record shall indicate the source of VOC content for each material used. Other alternative methods approved by the Director may be used. The Director reserves the right to require the permittee to determine the VOC contents of any material according to EPA reference methods. The amount of VOC emissions for each month shall be determined by multiplying the amount of VOC containing materials used by the VOC content of each material.
2. The VOC emissions for each emissions unit and the total facility for the previous month. VOC emissions shall be determined from the total VOC containing materials used for each emissions unit multiplied by one minus the capture efficiency for each emissions unit multiplied by the control efficiency of the control device used, as represented in the following equation:

$$VOC\ Emissions = VOC\ Used\ (1 - capture\ efficiency\ x\ control\ efficiency)$$

*VOC emissions* are expressed as pounds (or tons)

*VOC used* is expressed as pounds (or tons)

Capture efficiency is expressed as a fraction (i.e., percent capture divided by 100)

Control efficiency is expressed as a fraction (i.e., percent capture divided by 100)

Total facility VOC emissions shall be calculated by summing the VOC emissions from each emissions unit.

3. The twelve month rolling sum VOC emission for the previous twelve month period. This will be accomplished by summing the monthly VOC emissions data for the previous twelve months. This number shall be used to demonstrate compliance with Construction Permit 092011-004.

**Attachment B – Pre Approved Changes**

Pre Approved Change			Regulated Substance	Applicable Standards	
				Federal	State of Missouri
1	Install [1]	(a) Pharmaceutical process equipment [2], [3]	VOC, HAP	MACT 40 CFR 63 Subpart GGG	10 CSR 10-6.075
		(b) Miscellaneous Organic NESHAP process equipment [4], [5]	VOC, HAP	MACT 40 CFR 63 Subpart FFFF	10 CSR 10-6.075
		(c) Fixed Roof Storage Tank to support Pharmaceutical manufacturing	VOC, HAP	If >10,000 gallons – MACT 40 CFR 63 Subpart GGG and NSPS 40 CFR 60 Subpart Kb	10 CSR 10-6.075 10 CSR 10-6.070
		(d) Fixed Roof Storage Tank to support Miscellaneous Organic manufacturing	VOC, HAP	If >10,000 gallons – MACT 40 CFR 63 Subpart GGG and NSPS 40 CFR 60 Subpart Kb	10 CSR 10-6.075 10 CSR 10-6.070
2	Modify [1]	(a) Pharmaceutical manufacturing equipment [2], [3]	VOC, HAP	MACT 40 CFR 63 Subpart GGG	10 CSR 10-6.075
		(b) Miscellaneous Organic NESHAP manufacturing equipment [4], [5]	VOC, HAP	MACT 40 CFR 63 Subpart FFFF	10 CSR 10-6.075
		(c) Fixed Roof Storage Tank to support Pharmaceutical manufacturing	VOC, HAP	If >10,000 gallons – MACT 40 CFR 63 Subpart GGG and NSPS 40 CFR 60 Subpart Kb	10 CSR 10-6.075 10 CSR 10-6.070
		(d) Fixed Roof Storage Tank to support Miscellaneous Organic NESHAP manufacturing	VOC, HAP	If >10,000 gallons – MACT 40 CFR 63 Subpart GGG and NSPS 40 CFR 60 Subpart Kb	10 CSR 10-6.075 10 CSR 10-6.070
3	Relocate	(a) Pharmaceutical manufacturing equipment	VOC, HAP	MACT 40 CFR 63 Subpart GGG	10 CSR 10-6.075
		(b) Miscellaneous Organic NESHAP manufacturing equipment	VOC, HAP	MACT 40 CFR 63 Subpart FFFF	10 CSR 10-6.075
		(c) Fixed Roof Storage Tank to support Pharmaceutical manufacturing	VOC, HAP	If >10,000 gallons – If >10,000 gallons – MACT 40 CFR 63 Subpart GGG and NSPS 40 CFR 60 Subpart Kb	10 CSR 10-6.075 10 CSR 10-6.070
		(d) Fixed Roof Storage Tank to support Miscellaneous Organic NESHAP manufacturing	VOC, HAP	If >10,000 gallons – MACT 40 CFR 63 Subpart GGG and NSPS 40 CFR 60 Subpart Kb	10 CSR 10-6.075 10 CSR 10-6.070
4	Change Materials	(a) Use of new raw materials or ingredients in Pharmaceutical manufacturing	VOC, HAP	MACT 40 CFR 63 Subpart GGG	10 CSR 10-6.075
		(b) Use of new raw materials or ingredients in Miscellaneous Organic NESHAP manufacturing	VOC, HAP	MACT 40 CFR 63 Subpart FFFF	10 CSR 10-6.075
5	Install [1]	Insignificant sources utilizing natural gas	VOC, HAP, POC [6]		

**Attachment B – Pre-Approved Changes (continued)**

[1]	The terms <i>install</i> , <i>construct</i> , and <i>modify</i> , for purposes of this table, have operational rather than regulatory meaning. For example, in some cases one or more of the listed Pharmaceutical manufacturing projects might meet the regulatory definition of a <i>modification</i> rather than <i>construction</i> , according to its applicable regulation.
[2]	<p>The term <i>Pharmaceutical product</i> means: 40 CFR 63.1251 – Definitions  “Any of the following materials, excluding any material that is a nonreactive solvent, excipient, binder, or filler, or any material that is produced in a chemical manufacturing process unit that is subject to the requirements of subparts F and G of this Part 63:</p> <p style="padding-left: 40px;">(1) Any material described by the standard industrial classification (SIC) code 2833 or 2834; or  (2) Any material whose manufacturing process is described by North American Industrial Classification System (NAICS) code 325411 or 325412; or  (3) A finished dosage form of a drug, for example, a tablet, capsule, solution, etc.; or  (4) Any active ingredient or precursor that is produced at a facility whose primary manufacturing operations are described by SIC code 2833 or 2834; or</p> <p>At a facility whose primary operations are not described by SIC code 2833 or 2834, any material whose primary use is an an active ingredient or precursor.”</p>
[2]	<p>The term <i>Pharmaceutical Process</i> means: 40 CFR 63.1251 -Definitions  “All equipment which collectively function to produce a pharmaceutical product or isolated intermediate (which is also a pharmaceutical product). A process may consist of one or more unit operations. For the purposes of <u>this subpart</u>, process includes any, all, or a combination of reaction, recovery, separation, purification, or other activity, operation, manufacture, or treatment which are used to produce a pharmaceutical isolated intermediate. Cleaning operations conducted are considered part of the process. Nondedicated solvent recovery operations located within a contiguous area within the affected source are considered single processes. A storage tank that is used to accumulate used solvent from multiple batches of a single process for purposes of solvent recovery does not represent the end of the process. Nondedicated formulation operations occurring within a contiguous area are considered a single process that is used to formulate numerous materials and/or products. Quality assurance and quality control laboratories are not considered part of any process. Ancillary activities are not considered a process or part of any process. Ancillary activities include boilers and incinerators (not used to comply with provisions of 63.1253, 63.1254, or 63.1256(h)), chillers and refrigeration systems, and other equipment and activities that are not directly involved (i.e., they operate within a closed system and materials are not combined with process fluids) in the processing of raw materials or the manufacturing of a pharmaceutical product.”</p>
[4]	The term <i>relocate</i> means the change in physical location of the Pharmaceutical manufacturing equipment or fixed roof storage tanks within the Facility.
[5]	The term <i>change materials</i> means the change in raw materials, additives and/or solvents used in the Pharmaceutical manufacturing processes.
[6]	Products of Combustion, such as CO <sub>2</sub> , and Nitrogen Oxides (NO <sub>x</sub> ).



**Attachment D**  
**Calculation of Potential of Emit of Non-VOC Pollutants for Pre-Approved Changes Worksheet**

This sheet covers the period from \_\_\_\_\_ to \_\_\_\_\_

Emission Point (Note 1)	Equipment Description (Note 1)	Pre- Approved Change Category (Note 1)	Potential Emissions of Equipment (Note 2)		Total Potential Emissions (Note 3)						
			Pollutant	PTE (tons)	PM10 (tons)	PM2.5 (tons)	SOx (tons)	NOx (tons)	CO (tons)	GHG (tons)	

Note 1: Description of equipment including emission point identification and category of pre-approved change. This log shall include any equipment with potential emissions of pollutants other than VOC.  
 Note 2: Calculation of the potential to emit for the equipment grouped by pollutant.  
 Note 3: The summation of non-VOC potential emissions for all equipment. For potential emissions greater than de minimis levels, the permittee must comply with de minimis limitations as set forth in Special Condition 22.



**Attachment F – Equipment List**

The following equipment list is a modified version of Table B of Construction Permit 092011-004. This list is subject to change with pre-approved additions of equipment in the future. Plant Wide Permit Condition PW001 requires that the facility maintain and update this list (see Attachments B and C).

Emission EIQ Vent ID	Euticals Equipment Number	In- Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability		
							40 CFR 63 Subpart:		
							GGG	FFFF	Other
03A	Centrifuge	Idle	Atmosphere	Tolhurst	Centrifuge	Centrifuge with Sump	X	X	
RTO1B	Dryer	In Service	RTO	Nickel	BM-4	Rotary, Double Cone Dryer	X	X	
03A	SS501	Idle	Atmosphere	Stainless Steel	500	Emergency Relief Tank	X	X	
03A	GL200	Idle	Atmosphere	Glass-lined Pfaudler	200	Reactor	X	X	
03A	SS105	In Service	Atmosphere	Stainless Steel	100	Process Vessel	X	X	
03A	GL500	Idle	Atmosphere	Glass-lined Pfaudler	500	Reactor	X	X	
03A	CS300	Idle	Atmosphere	Carbon Steel	300	Vessel	X	X	
RTO	GL2008	Idle	Atmosphere	Glass-lined Pfaudler	2000	Reactor	X	X	
RTO	SiHi Vacuum Knock Out Vessel	In Service	RTO			SiHi Vacuum Knockout Pot	X	X	
03	Dryer	In Service	Atmosphere			Rotary Dryer	X	X	
RTO	SiHi Vacuum	In Service	RTO	SiHi		Vacuum System	X	X	
03	SS100	In Service	Atmosphere	Stainless Steel	1000	Dryer, Hot Water Tank			N/A
RTO	S3 Lab WW Tank	In Service	RTO	Stainless Steel	105	Lab WW Tank	X	X	

03A	CS501	In Service	Atmosphere	Carbon Steel	500	Safety Vent KO Pot	X	X	
RTO	Vacuum Knockout Vessel	Removed	RTO			Tuthill Vacuum Knockout Pot	X	X	
RTO	Tuthill Vacuum	Removed	RTO	Tuthill Vacuum		Vacuum System	X	X	

**Building S-3 Emission Control Equipment**

Emission EIQ Vent ID	Euticals Equipment Number	In- Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability
03	Heil Scrubber	Removed	Atmosphere	Fiberglass		Heil Scrubber	N/A
03	Dust Collector	In-Service	Atmosphere	Carbon Steel		Particulate Filtering	N/A
03		Removed	Atmosphere	Stainless Steel/Kyna		NaOH Scrubbing System	N/A

Emission EIQ Vent ID	Euticals Equipment Number	In- Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability		
							40 CFR 63 Subpart:		
							GGG	FFFF	Other
04A	FF005	Idle	Atmosphere	Fiberglass		House Scrubber	X	X	
04A	FF009	Idle	Atmosphere	Fiberglass		Small Sodium Hydroxide Scrubber	X	X	
04A	FG350	Idle	Atmosphere	Fiberglass	350	Steam Jet Neutralization	X	X	
04A	Prescrubber	Idle	Atmosphere	Kynar		PreScrubber	X	X	

Emission EIQ Vent ID	Euticals Equipment Number	In- Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability		
							40 CFR 63 Subpart:		
							GGG	FFFF	Other
04A	FG350	Idle	Atmosphere	Fiberglass	350	Steam Jet Neutralization	X	X	

Emission EIQ Vent ID	Euticals Equipment Number	In-Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability		
							40 CFR 63 Subpart:		
							GGG	FFFF	Other
041	4-1-RTO	In-Service	Atmosphere	Fiberglass	100	RTO Knock-out	X	X	
RTO1B	FG350	Idle	RTO	Fiberglass	350	Neutralizati on Vessel	X	X	
RTO1B	GL54	In-Service	RTO	Glass-Lined	50	Receiver	X	X	
RTO1B	GL200	In-Service	RTO	Glass-lined	200	Vessel	X	X	
RTO1B	GL201	In-Service	RTO	Glass-lined	200	Vessel	X	X	
RTO1B	GL301	In-Service	RTO	Glass-lined	300	Vessel	X	X	
RTO1B	GL511	In-Service	RTO	Glass-lined	500	Vessel	X	X	
RTO1B	GL519	In-Service	RTO	Glass-lined	500	Vessel	X	X	

Emission EIQ Vent ID	Euticals Equipment Number	In-Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability		
							40 CFR 63 Subpart:		
							GGG	FFFF	Other
RTO1B	GL520	In-Service	RTO	Glass-lined Pfaudler	500	Vessel	X	X	
RTO1B	GL1002	In-Service	RTO	Glass-lined Pfaudler	1000	Reactor	X	X	
RTO1B	GL1003	In-Service	RTO	Glass-lined	1000	Reactor	X	X	
RTO1B	GL1003 Column	In-Service	RTO	Glass-lined Pfaudler	1000	Distillation Column	X	X	
RTO1B	GL1004	In-Service	RTO	Glass-lined Pfaudler	1000	Reactor	X	X	
RTO1B	GL1004 Column	In-Service	RTO	Glass-lined Pfaudler	1000	Distillation Column	X	X	
RTO1B	GL1006	In-Service	RTO	Glass-lined Pfaudler	1000	Reactor	X	X	
RTO1B	GL1007	In-Service	RTO	Glass-lined Pfaudler	1000	Reactor	X	X	
RTO1B	GL1500	In-Service	RTO	Glass-lined	1000	Receiver	X	X	
ATM	SiHi House Vacuum System	In-Service	Atmosphere			Vacuum System	X	X	
ATM	Tank for SiHi House Vacuum	In-Service	Atmosphere	Stainless Steel		Water Tank for SiHi House	X	X	

Emission EIQ Vent ID	Euticals Equipment Number	In-Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability		
							40 CFR 63 Subpart:		
							GGG	FFFF	Other
RTO1B	SS25	In-Service	RTO	Stainless Steel	25	Receiver	X	X	
RTO1B	SS26	In-Service	RTO	Stainless Steel	25	Receiver	X	X	
RTO1B	S27	In-Service	RTO	Stainless Steel	25	Receiver	X	X	
RTO1B	SS100	In-Service	RTO	Stainless Steel	100	Wastewater Vessel	X	X	
ATM	SS750	In-Service	Atmosphere	Stainless Steel	750	Emergency Relief			N/A
RTO1B	SS1023	In-Service	RTO	Stainless Steel	1000	Vessel	X	X	
ATM	SS2450	In-Service	Atmosphere	Stainless Steel	2450	Hot Water Tank			N/A
RTO1B	Vacuum Pump #1	In-Service	RTO	Busch		Vacuum Pump	X	X	
RTO1B	Vacuum Pump #2	In-Service	RTO	Busch		Vacuum Pump	X	X	
RTO1B	GL522	In-Service	RTO	Glass-lined Phaudler	500	Safety Vent Knock-out Vessel	X	X	
04I	CS501	Idle	Atmosphere	Carbon Steel	500	Safety Vent KO Pot	X	X	

Emission EIQ Vent ID	Euticals Equipment Number	In-Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability		
							40 CFR 63 Subpart:		
							GGG	FFFF	Other
04A/RT O	Scrubber	In-Service	RTO	Carbon Steel	Millennium Industrial Equipment	House Scrubber	X	X	

Emission EIQ Vent ID	Euticals Equipment Number	In- Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability		
							40 CFR 63 Subpart:		
							GGG	FFFF	Other
O4E	SS4501	In- Service	Atmosphere	Stainless Steel	4500	Solvent Storage	X	X	
04F	SS4502	In-Service	Atmosphere	Stainless Steel	4500	Solvent Storage	X	X	
04H	TF012K01	Removed	Atmosphere	Fiberglass	13000	Acid Storage			N/A
04K	SS9802	Idle	RTO	Stainless Steel	9800	Solvent Storage	X	X	
04L	SS9802	Idle	RTO	Stainless Steel	9800	Solvent Storage	X	X	

Emission EIQ Vent ID	Euticals Equipment Number	In- Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability		
							40 CFR 63 Subpart:		
							GGG	FFFF	Other
12A	Busch Vacuum System	In- Service	Atmosphere	Busch		Vacuum System	X	X	

Emission EIQ Vent ID	Euticals Equipment Number	In- Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability		
							40 CFR 63 Subpart:		
							GGG	FFFF	Other
12A	Centrifuge	Idle	Atmosphere	Tolhurst		Centrifuge with Sump	X	X	
12A	Rotary Dryer	Idle	Atmosphere	Paul A Abbey		Rotary Dryer	X	X	
12A	CS10	In- Service	Atmosphere	CarbonSteel	10	Emergency Relief Vessel	X	X	
12A	CS70	In- Service	Atmosphere	Carbon Steel	70	Tempered Water Bath	X	X	
12A	CS300	In- Service	Atmosphere	Carbon Steel	300	Emergency Relief Vessel			N/A
12A	GL20	In- Service	Atmosphere	Glass-lined	20	Receiver	X	X	
12A	GL30	In- Service	Atmosphere	Glass-lined	30	Receiver	X	X	
12A	GL31	In- Service	Atmosphere	Glass-lined	30	Receiver	X	X	
12A	GL32	In- Service	Atmosphere	Glass-lined	30	Knock-out Pot	X	X	
12A	GL50	In- Service	Atmosphere	Glass-lined	50	Scrubber System	X	X	
12A	GL51	In- Service	Atmosphere	Glass-lined	50	Receiver	X	X	
12A	GL52	In- Service	Atmosphere	Glass-lined	50	Reactor	X	X	
12A	GL53	In- Service	Atmosphere	Glass-lined	50	Reactor	X	X	
12A	GL101	In- Service	Atmosphere	Glass-lined	100	Reactor/Receiver	X	X	

Emission EIQ Vent ID	Euticals Equipment Number	In- Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability		
							40 CFR 63 Subpart:		
							GGG	FFFF	Other
12A	GL102	In- Service	Atmosphere	Glass-lined	100	Reactor	X	X	
12A	GL103	In- Service	Atmosphere	Glass-lined	100	Reactor	X	X	
12A	GL301	In- Service	Atmosphere	Glass-lined	300	Receiver	X	X	
12A	Halar Filter	In- Service	Atmosphere			Filter	X	X	
12A	Hot Oil Unit	In- Service	Atmosphere			Hot Oil Unit	X	X	
12A	Neutsche Filer	In- Service	Atmosphere			Filter	X	X	
12A	PL20	In- Service	Atmosphere	Plastic	20	Water Vapor Tank			N/A
12A	PL50	In- Service	Atmosphere	Plastic	50	Water Vapor Tank			N/A
12A	Rosenmund	In- Service	Atmosphere	Hasteloy		Filter/Dryer	X	X	
12A	SS20	In- Service	Atmosphere	Stainless Steel	20	Centrifuge Sump/Receiver	X	X	
12A	SS30	In- Service	Atmosphere	Stainless Steel	30	Apovac Receiver	X	X	
12A	SS50	In- Service	Atmosphere	Stainless Steel	50	Reactor	X	X	
12A	SiHi Vacuum	In- Service	Atmosphere	Stainless Steel		SiHi Vacuum Pump	X	X	
12A	SS100	In- Service	Atmosphere	Stainless Steel	100	SiHi Vacuum Pump Receiver	X	X	

Emission EIQ Vent ID	Euticals Equipment Number	In- Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability		
							40 CFR 63 Subpart:		
							GGG	FFFF	Other
12A	SS101	In- Service	Atmosphere	Stainless Steel	100	Northwest Wastewater Holding Tank	X	X	
12A	SS102	In- Service	Atmosphere	Stainless Steel	100	Wastewater Holding Tank	X	X	
12A	SS505	In- Service	Atmosphere	Stainless Steel	500	Reactor	X	X	
12A	Sparkler Filter	In- Service	Atmosphere			Filter	X	X	
12A	Aluminum Water Reservoir	In- Service	Atmosphere	Aluminum		WFE Feed Preheater			N/A
12A	Tumble Bug Dryer	Idle	Atmosphere		Tumble Bug	Dryer	X	X	
12A	Vacuum System	Idle	Atmosphere		Tuthill	Vacuum System	X	X	
12A	WFE Distillation Unit	Idle	Atmosphere		Wipe Film Evapora tor	Distillation Unit	X	X	
12A	GL521	In- Service	Atmosphere	Glass-lined	520	Reactor	X	X	

Emission EIQ Vent ID	Euticals Equipment Number	In-Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability		
							40 CFR 63 Subpart:		
							GGG	FFFF	Other
12A	Scrubber	In-Service	Atmosphere	Fiberglass		Scrubber	X	X	

Emission EIQ Vent ID	Euticals Equipment Number	In-Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability		
							40 CFR 63 Subpart:		
							GGG	FFFF	Other
14M	Solids Charge System(West)	In-Service	Atmosphere			Solids charging			X
14N	Solids Charge System (East)	In-Service	Atmosphere			Solids charging			X
RTO2	Heinkel Filter	Removed	RTO	Heinkel		Filter/ Centrifuge			X
RTO2	FC0013	In-Service	RTO	KMPT		Filter/ Centrifuge	X	X	
RTO2	Jaygo Dryer	Removed	RTO	Jaygo		Dryer			X
RTO2	DR0006	In-Service	RTO	Cogein		Dryer	X	X	
14M	MI-1	In-Service	Atmosphere			Milling			X
RTO2	CS60	In-Service	RTO	Carbon Steel	60	Vacuum System #1 Receiver	X	X	
14R	CS100	In-Service	Atmosphere	Carbon Steel	100	Surge Tank			N/A
RTO2	XM0071	In-Service	RTO	Carbon Steel		Vacuum System #3 Receiver	X	X	
14Q	CS1000	In-Service	Atmosphere	Carbon Steel	1000	Emergency Relief Tank			N/A
RTO2	GL300	In-Service	RTO	Glass-Lined	300	Charge Vessel	X	X	
RTO2	GL2000	In-Service	RTO	Glass-lined Pfaudler	2000	Reactor	X	X	
RTO2	GL2004	In-Service	RTO	Glass-lined Pfaudler	2000	Reactor	X	X	

RTO2	GL2006	In-Service	RTO	Glass-lined Pfaudler	2000	Reactor	X	X	
RTO2	GL2007	In-Service	RTO	Glass-lined Pfaudler	2000	Vessel	X	X	
RTO2	SS300	In-Service	RTO	Stainless Steel	300	Vessel	X	X	
RTO2	SS1000	In-Service	RTO	Stainless Steel	1000	Vessel	X	X	
RTO2	SS2001	In-Service	RTO	Stainless Steel	2000	Vessel	X	X	
RTO2	SS2005	In-Service	RTO	Stainless Steel	2000	Vessel	X	X	
RTO2	SS2006	In-Service	RTO	Stainless Steel	2000	Vessel	X	X	
RTO2	SS3000	In-Service	RTO	Stainless Steel	3000	Vessel	X	X	
RTO2	SS4000	In-Service	RTO	Stainless Steel	4000	Vessel	X	X	
RTO2	SS6000	In-Service	RTO	Stainless Steel	6000	Vessel	X	X	
RTO2	HA2003	In-Service	RTO	Hasteloy	2000	Vessel	X	X	
14T	Pick Steam Heater	In-Service	Atmosphere	Pick		Steam Heater			N/A
RTO2	DC02	In-Service	RTO			Distillation Column	X	X	
RTO2	DC03	In-Service	RTO			Wastewater Steam Stripper	X	X	
RTO3	Dryer Vacuum Pump	In Service	RTO			Vacuum Pump	X	X	
RTO2	SiHi Vacuum Pump	In-Service	RTO	SiHi		Vacuum Pump	X	X	

Emission EIQ Vent ID	Euticals Equipment Number	In- Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability 40 CFR 63 Subpart:		
							GGG	FFFF	Other
14O	CS9800	Idle	Atmosphere	Carbon Steel	9800	Solvent Storage			X
14S	CS9801	In-Service	Atmosphere	Carbon Steel	9800	Solvent Storage			X
14I	GL1008	In-Service	RTO	Glass-lined	1000	<90-day Haz. Waste Tank	X	X	40 CFR264 Subpart CC
14X	SS2900	In-Service	RTO	Stainless Steel	2900	<90-day Haz. Waste Tank	X	X	40 CFR264 Subpart CC
14D	SS3000	In-Service	RTO	Stainless Steel	3000	<90-day Haz. Waste Tank	X	X	40 CFR264 Subpart CC
14U	SS7000	In-Service	Atmosphere	Stainless Steel	7000	Wastewater Storage Tank	X	X	
14U	TC000005	In-Service	Atmosphere	Carbon Steel		Nitrogen Expansion Tank			N/A

**Building S-14 Emission Control Equipment**

Emission EIQ Vent ID	Euticals Equipment Number	In- Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability 40 CFR 63 Subpart:		
							GGG	FFFF	Other
14A	S14 Heil Scrubber	Idle	Atmosphere	Fiberglass	Heil	Scrubber	X	X	
14M	Baghouse 1 (West)	In-Service	Atmosphere			Particulates			X
14N	Baghouse 2 (East)	In-Service	Atmosphere			Particulates			X

<b>Building S16A Boilers</b>							
<b>Emission EIQ Vent ID</b>	<b>Euticals Equipment Number</b>	<b>In- Service; Idle or Removed</b>	<b>Vents To</b>	<b>Make</b>	<b>Model</b>	<b>Service</b>	<b>MACT Applicability</b>
01A	Boiler #1	In-Service	Atmosphere	Keystone	National Board Number 18867	Natural Gas Boiler	40 CFR Part 63 Subpart DDDDD
01B	Boiler #1	In-Service	Atmosphere	Keystone	National Board Number 18867	Fuel Oil #2 Boiler	40 CFR Part 63 Subpart DDDDD
02A	Boiler #2	In-Service	Atmosphere	Keystone	National Board Number 18698	Natural Gas Boiler	40 CFR Part 63 Subpart DDDDD
02A	Boiler #2	In-Service	Atmosphere	Keystone	National Board Number 18698	Fuel Oil #2 Boiler	40 CFR Part 63 Subpart DDDDD
01C	PVC-300	In-Service	Atmosphere	Boiler Feed Tank	PVC-300	Boiler Feed Tank	N/A
01D	Resin #1	In-Service	Atmosphere	Condensate Polisher Tank	Resin #1	Condensate Polisher Tank	N/A
01E	Resin #2	In-Service	Atmosphere	Condensate Polisher Tank	Resin #2	Condensate Polisher Tank	N/A
01F	CS1001	In-Service	Atmosphere	Condensate Return Tank	CS1001	Condensate Return Tank	N/A
01G	CS750	In-Service	Atmosphere	Condensate Blow Down Tank	CS750	Condensate Blow Down Tank	N/A
01H	Plant Air Receiver Vessel	In-Service	Atmosphere	Plant Air Receiver		Plant Air Receiver	N/A

Emission EIQ Vent ID	Euticals Equipment Number	In- Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability		
							40 CFR 63 Subpart:		
							GGG	FFFF	Other
19A	TC03001	In-Service	ATM	Continental Boiler Works		Reserve Air, South			N/A
19A	TC03002	Removed	ATM	Continental Boiler Works		Reserve Air, Center			N/A
19A	TC03003	In-Service	ATM	Continental Boiler Works		Reserve Air, North			N/A
19A	TC03004	In-Service	ATM	Tiger Steel		Instrument Air			N/A
19A	CS400	In-Service	ATM	Tiger Steel	400	High Pressure Sodium Hydroxide Feed			N/A
19A	CS2700	In-Service	ATM	Pressure Products	2700	Relief Tank for S19A			N/A
19A	FG100	In-Service	RTO	Viatec Hastings Engineering	100	RTO Expansion Vessel			N/A
RTO1B	GL1012	In Service	RTO	De Dietrich	1000	Process Vessel	X	X	
RTO1B	GL2002	In Service	RTO	Pfandler	2000	Process Vessel	X	X	
RTO1B	GL3000	In Service	RTO	Pfandler	3000	Reactor	X	X	
RTO1B	GL3001	Out of Service	RTO	Pfandler	3000	Reactor			N/A
RTO1B	GL3003	In Service	RTO	De Dietrich	3000	Reactor	X	X	
19K	KL300	In Service	ATM	Steel Pro Inc.	3000	Halogen Knockout Vessel			N/A
RTO1B	SS65	Idle	RTO	Letco	65	Process Vessel	X	X	
RTO1B	SS100	Idle	RTO	Custom Metalcraft	100	Process Vessel	X	X	
RTO1B	SS125	Idle	RTO	Murphy Company	125	Wastewater Vac Pump	X	X	
RTO1B	SS250	Idle	RTO	Letco	250	Screen Wash Reservoir	X	X	
ATM	SS1002	In-Service	ATM	Stainless Steel	2000	Condensate Receiver	X	X	

Emission EIQ Vent ID	Euticals Equipment Number	In- Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability		
							40 CFR 63 Subpart:		
							GGG	FFFF	Other
RTO1B	SS1004	Idle	RTO	D&W Welding	1000	Sodium Sulfite	X	X	
RTO1B	SS1016	Idle	RTO	Letco	1000	Process Vessel	X	X	
RTO1B	D-Line Still	Idle	RTO	Letco	1600	Process Vessel	X	X	
RTO1B	SS2002	In-Service	RTO	Stainless Steel	2000	Process Vessel	X	X	
RTO1B	SS2008	In-Service	RTO	Letco	2000	Process Vessel	X	X	
RTO1B	SS2009	In-Service	RTO	Stainless Steel	2000	Reactor	X	X	
RTO1B	SS2010	Idle	RTO	Letco	2000	Process Vessel	X	X	
RTO1B	SS2012	Idle	RTO	Letco	2000	Process Vessel	X	X	
RTO1B	SS3000	In-Service	ATM	Letco	3000	Wastewater Vessel	X	X	
RTO1B	SS6001	In-Service	RTO	Letco	6000	Process Vessel	X	X	
RTO1B	SS6002	In-Service	RTO	Letco	6000	Process Vessel	X	X	
RTO1B	SS6003	Idle	RTO	Letco	6000	Process Vessel	X	X	
RTO1B	SS6005	Idle	RTO	Letco	6000	Process Vessel	X	X	
RTO1B	Cyclone Demister	In-Service	RTO			Cyclone Demister	X	X	
RTO1B	KL-1000	In-Service	RTO	Kynar	1000	Scrubber	X	X	
RTO1B	Halogen Scrubber	In-Service	ATM			Halogen Scrubber	X	X	
RTO1B	GL-125	Idle	ATM	Glass-lined		Service Tank	X	X	
RTO1B	GL-1013	Idle	RTO	Glass-lined	1000	Process Vessel	X	X	
RTO1B	SS-2000	Idle	RTO	Stainless Steel	2000	Process Vessel	X	X	
RTO1B	SS-751	Idle	RTO	Stainless Steel	750	Process Vessel	X	X	
RTO1B	SS-1014	Idle	RTO	Stainless Steel	1000	Process Vessel	X	X	
RTO1B	SS-203	Idle	RTO	Stainless Steel	200	Process Vessel	X	X	
RTO1B	Rosenmund	Idle	RTO	Stainless Steel		Filter/Dryer	X	X	
RTO1B	SS-660	In-Service	RTO	Hasteloy Mueller	660	Process Vessel	X	X	
RTO1B	SS-600	Idle	RTO	Stainless Steel	200	Process Vessel	X	X	

Emission EIQ Vent ID	Euticals Equipment Number	In- Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability		
							40 CFR 63 Subpart:		
							GGG	FFFF	Other
19A	House Scrubber	In- Service	ATM			House Scrubber	X	X	
19A	Halogen Scrubber	In- Service	ATM			Halogen Scrubber	X	X	

Emission EIQ Vent ID	Euticals Equipment Number	In- Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability		
							40 CFR 63 Subpart:		
							GGG	FFFF	Other
RTO1B	SS70	Idle	RTO	Letco	70	Screen Wash	X	X	
RTO1B	SS500	Idle	RTO	Letco	500	Process Vessel	X	X	
RTO1B	SS501	Idle	RTO	Precision Stainless	500	Process Vessel	X	X	
RTO1B	SS1005	Idle	RTO	Letco	1000	Process Vessel & Column	X	X	
RTO1B	SS1006	Idle	RTO		1000	Process Vessel	X	X	
RTO1B	SS1007	Idle	RTO	Letco	1000	Process Vessel & Column	X	X	
RTO1B	SS1008	Idle	RTO		1000	Process Vessel	X	X	
RTO1B	SS1009	Idle	RTO	Letsch	1000	Process Vessel	X	X	
RTO1B	SS1010	Idle	RTO	Letsch	1000	Process Vessel	X	X	
RTO1B	SS1011	Idle	RTO	Letco	1000	Process Vessel & Column	X	X	
RTO1B	SS1012	Idle	RTO	Letco	1000	Process Vessel	X	X	
RTO1B	SS1013	Idle	RTO	Letco	1000	Process Vessel	X	X	
RTO1B	SS2004	Idle	RTO	Letco	2000	Process Vessel	X	X	
RTO1B	SS1015	Idle	RTO	Letco	1000	Process Vessel	X	X	
RTO1B	SS200	Idle	RTO	Stainless Steel	200	Process Vessel	X	X	
RTO1B	SS1015	Idle	RTO	Letco	1000	Process Vessel	X	X	

Emission EIQ Vent ID	Euticals Equipment Number	In- Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability		
							40 CFR 63 Subpart:		
							GGG	FFFF	Other
RTO1B	SS3003	In- Service	RTO	De Deitrich	3000	Reactor	X	X	
RTO1B	KL300	Idle	ATM	Steel ProInc.	3000	Halogen Knockout Vessel			NA
RTO1B	SS65	Idle	RTO	Letco	65	Process Vessel	X	X	
RTO1B	SS100	Idle	RTO	Custom	100	Process Vessel	X	X	
RTO1B	SS125	Idle	RTO	Murphy Company	125	Wastewater Vac Pump	X	X	
RTO1B	SS250	Idle	RTO	Letco	250	Screen Wash Reservoir	X	X	
RTO1B	SS1002	Idle	ATM	Stainless Steel	2000	Condensate Receiver	X	X	
RTO1B	SS1004	Idle	RTO	D&W Welding	1000	Sodium Sulfite	X	X	
RTO1B	SS1016	Idle	RTO	Letco	1000	Process Vessel	X	X	
RTO1B	SS1600	Idle	RTO	Letco	1600	Process Vessel	X	X	
RTO1B	SS2002	Idle	RTO	Stainless Steel	2000	Process Vessel	X	X	
RTO1B	SS2008	Idle	RTO	Letco	2000	Process Vessel	X	X	
RTO1B	SS2009	Idle	RTO	Stainless Steel	2000	Reactor	X	X	
RTO1B	SS2010	Idle	RTO	Letco	2000	Process Vessel	X	X	
RTO1B	SS2012	Idle	RTO		2000	1000	X	X	
RTO1B	SS3000	Idle	ATM	Custom Metalcraft	3000	1000	X	X	
RTO1B	SS6001	Idle	RTO	Letco	6000	2000	X	X	
RTO1B	SS6002	Idle	RTO	Letco	6000	2000	X	X	

Emission EIQ Vent ID	Euticals Equipment Number	In- Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability		
							40 CFR 63 Subpart:		
							GGG	FFFF	Other
RTO1B	SS6003	Idle	RTO		6000	1000	X	X	
RTO1B	SS6005	Idle	RTO		6000	200	X	X	
RTO1B	Cyclone Demister	Idle	RTO			200	X	X	
RTO1B	KL01999	Idle	RTO		1000	200	X	X	
RTO1B	Halogen Scrubber	Idle	ATM				X	X	
RTO1B	GL-125	Idle	ATM	Carbon Steel			X	X	
RTO1B	GL-1013	Idle	RTO		1000	SiHi	X	X	
RTO1B	SS-2000	Idle	RTO	Stainless Steel	2000	Process Vessel	X	X	
RTO1B	SS-751	Idle	RTO	Stainless Steel	750	Process Vessel	X	X	
RTO1B	SS-1014	Idle	RTO	Stainless Steel	1000	Process Vessel	X	X	
RTO1B	SS-203	Idle	RTO	Stainless Steel	200	Process Vessel	X	X	
RTO1B	Rosenmund	Idle	RTO	Stainless Steel		Filter/Dryer	X	X	
RTO1B	SS-600	Idle	RTO	Stainless Steel	200	Process Vessel	X	X	

Emission EIQ Vent ID	Euticals Equipment Number	In- Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability		
							40 CFR 63 Subpart:		
							GGG	FFFF	Other
19A	House Scrubber T302003	In-Service	ATM			House Scrubber	X	X	
19A	Halogen Scrubber	In-Service	ATM			Halogen Scrubber	X	X	

Emission EIQ Vent ID	Euticals Equipment Number	In- Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability		
							40 CFR 63 Subpart:		
							GGG	FFFF	Other
RTO1C	Centrifuge	Idle	RTO	Krauss- Maffei		Centrifuge	X	X	
RTO1C	FG101	In-Service	RTO	Tankinetics	100	RTO Expansion Tank			X
RTO1C	GL1000	In-Service	RTO	Pfandler	1000	Process Vessel	X	X	
RTO1C	GL1001	In-Service	RTO	Pfandler	1000	Process Vessel	X	X	
RTO1C	GL1005	In-Service	RTO	Pfandler	1000	Process Vessel	X	X	
RTO1C	GL1009	In-Service	RTO	Pfandler	1000	Process Vessel	X	X	
RTO1C	GL1010	In-Service	RTO	Pfandler	1000	Process Vessel	X	X	
RTO1C	GL2001	In-Service	RTO	Pfandler	2000	Reactor	X	X	
RTO1C	GL3002	In-Service	RTO	Pfandler	3000	Process Vessel	X	X	
RTO1C	SS53	In-Service	RTO	Sterling/SIHI	50	Vacuum System	X	X	
RTO1C	SS301	In-Service	RTO	Vesselcraft	300	Vent for Condensate Mover			X
RTO1C	KL-1000	In-Service	RTO	Letco	1000	Process Vessel	X	X	
RTO1C	SS1017	In-Service	RTO	Tiger Steel	1000	Process Vessel	X	X	
RTO1C	SS1800	In-Service	RTO	Stainless Steel	1800	Process Vessel	X	X	
RTO1C	SS1800-- Decanter	In-Service	RTO	Stainless Steel	1800	Decanter	X	X	

Emission EIQ Vent ID	Euticals Equipment Number	In- Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability		
							40 CFR 63 Subpart:		
							GGG	FFFF	Other
RTO1C	SS2600	In-Service	RTO	Stainless Steel	2600	Process Vessel	X	X	
RTO1C	SS2600-- Decanter	In-Service	RTO	Stainless Steel	2600	Decanter	X	X	
RTO1C	GL1011	In-Service	ATM	Glass-lined	1000	Reactor	X	X	
RTO1C	GL1014	In-Service	RTO	Glass-lined	1000	Process Vessel	X	X	
RTO1C	SS Tote #3	Removed	RTO	Stainless Steel	300	Receiver			X
RTO1C	SiHi Vac Pump	In-Service	RTO	SiHi		Vacuum Pump	X	X	
RTO1C	BUSCH Vac Pump	Idle	RTO	BUSCH		Vacuum Pump			X
RTO1C	Condensate Mover in S19C	In-Service	ATM	Stainless Steel	300	Condensate Mover			X
RTO1C	Drum Warmer	Removed	RTO						X
RTO1C	SS302	In-Service	RTO	Stainless Steel		Ethylene Glycol Surge Tank	X	X	

Emission EIQ Vent ID	Euticals Equipment Number	In- Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability		
							40 CFR 63 Subpart:		
							GGG	FFFF	Other
19R	Cyanide Scrubber	Idle	ATM			Cyanide Scrubber	X	X	
19V	Dust Collector	Idle	AT	M		Dust Collector			X

Emission EIQ Vent ID	Euticals Equipment Number	In- Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability		
							40 CFR 63 Subpart:		
							GGG	FFFF	Other
19K	GL513	In-Service	19K	Pfaudler	500	Raw Material Storage	X	X	
19K	GL514	In-Service	RTO	Pfaudler	500	Raw Material Storage	X	X	
19K	GL515	In-Service	RTO	Pfaudler	500	Raw Material Storage	X	X	
19K	GL516	In-Service	RTO	Pfaudler	500	Raw Material Storage	X	X	
19K	GL517	In-Service	RTO	Pfaudler	500	Raw Material Storage	X	X	
19K	LL5000	Removed	RTO	Leadlined	5000	Halogen and Raw Material Storage	X	X	
19K	LL5001	Removed	RTO	Leadlined	5000	Halogen and Raw Material Storage	X	X	
RTO1C	Vac Pump #1	In-Service	RTO	SiHi		Vacuum Pump	X	X	
RTO1C	Vac Pump #2	In-Service	RTO	SiHi		Vacuum Pump	X	X	
RTO1C	Rosenmund Filter	In-Service	RTO	Rosenmund	Hastelloy C223M2	Filter Dryer	X	X	
RTO1C	Dust Collector	In-Service	RTO	Camfil-Farr Hastelloy	GS2	Dust Collector			X

Emission EIQ Vent ID	Euticals Equipment Number	In-Service; Idle or Removed	Vents To	Make	Model	MACT Applicability
19D	CS8000	In-Service	RTO1B	Carbon Steel	8000	NA
19F	CS12501	In-Service	Atmosphere	Carbon Steel	12500	40 CFR Part 60 Subpart Kb
19I	SS10000	In-Service	RTO1B	Stainless Steel	10000	40 CFR Part 63 Subpart GGG and Subpart FFFF

Emission EIQ Vent ID	Euticals Equipment Number	In- Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability		
							40 CFR 63 Subpart:		
							GGG	FFFF	Other
28E	CS12001	In-Service	RTO	Carbon Steel	12000	Solvent Storage Tank	X	X	
28I	DC01	In-Service	RTO	Stainless Steel		Distillation Column	X	X	
28J	SS104(TSO 10010)	In Service	RTO	Carbon Steel	100	Reflux Vessel	X	X	
28H	SS2003(RS 200016)	In-Service	RTO	Carbon Steel	2000	<90-day Haz. Waste Storgage Day Tank	X	X	
28G	SS6004	In-Service	RTO	Carbon Steel	6000	<90-day Haz. Waste Storgage Day Tank	X	X	
28C	SS12001	In-Service	RTO	Stainless Steel	12000	Solvent Storage Tank	X	X	
28D	SS1202	In-Service	RTO	Stainless Steel	12000	Solvnet Storage Tank	X	X	
28F	SS20000	In-Service	RTO	Stainless Steel	20000	Solvent Storage Tank	X	X	

Emission EIQ Vent ID	Euticals Equipment Number	In- Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability		
							40 CFR 63 Subpart:		
							GGG	FFFF	Other
28K	GL-300	Idle	ATM	Carbon Steel	300	Process Vessel	X	X	

<b>Building S22</b>							
Emission EIQ Vent ID	Euticals Equipment Number	In-Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability
22C	22-8-ATM	In-Service	Atmosphere	Carbon Steel	500	Propane Tank	NA
22D	22-9-ATM	In-Service	Atmosphere	Safety- Kleen		Parts Washer/Degreaser	NA
22E1	22-10-ATM	In-Service	Atmosphere	Caterpillar	3306T	Emergency Electric Power Generator (Fuel Oil #2)	40 CFR 63 Subpart ZZZZ
22E2	22-11-ATM	In-Service	Atmosphere	Onan		Emergency Electric Power Generator (#2 Fuel Oil)	40 CFR Part 62 Subpart ZZZ
22G	22-12-ATM	In-Service	Atmosphere			Maintenance Spray Hood	NA
22I	22-14-ATM	In-Service	Atmosphere	Vilter		Chiller	NA

<b>Building S22</b>							
<b>Emission EIQ Vent ID</b>	<b>Euticals Equipment Number</b>	<b>In-Service; Idle or Removed</b>	<b>Vents To</b>	<b>Make</b>	<b>Model</b>	<b>Service</b>	<b>MACT Applicability</b>
22J	22-15-ATM	In-Service	Atmosphere	Carbon Steel	2300	Chiller Tank	NA

<b>Emission EIQ Vent ID</b>	<b>Euticals Equipment Number</b>	<b>In-Service; Idle or Removed</b>	<b>Vents To</b>	<b>Make</b>	<b>Model</b>	<b>Service</b>	<b>MACT Applicability</b>
25C	103	Idle	Thermal Oxidizer	Stainless Steel	2000	Process Vessel	<b>40 CFR Part 63 Subpart GGG and Subpart FFFF</b>
25C	105	Idle	Thermal Oxidizer	Stainless Steel	1000	Process Vessel	
25C	106	Idle	Thermal Oxidizer	Stainless Steel	750	Process Vessel	
25C	108	Idle	Thermal Oxidizer	Stainless Steel	1750	Process Vessel	
25C	109	Idle	Thermal Oxidizer	Stainless Steel	1750	Process Vessel	
25C	201	Idle	Thermal Oxidizer	Stainless Steel	1750	Process Vessel	
25C	202	Idle	Thermal Oxidizer	Stainless Steel	700	Process Vessel	
25C	203	Idle	Thermal Oxidizer	Stainless Steel	750	Process Vessel	
25C	204	Idle	Thermal Oxidizer	Stainless Steel	2000	Process Vessel	
25C	205	Idle	Thermal Oxidizer	Stainless Steel	500	Process Vessel	
25C	206	Idle	Thermal Oxidizer	Stainless Steel	250	Process Vessel	

Emission EIQ Vent ID	Euticals Equipment Number	In-Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability
25C	207	Idle	Thermal Oxidizer	Stainless Steel	250	Process Vessel	40 CFR Part 63 Subpart GGG and Subpart FFFF
25C	208	Idle	Thermal Oxidizer	Stainless Steel	250	Process Vessel	
25C	209	Idle	Thermal Oxidizer	Stainless Steel	750	Process Vessel	
25C	210	Idle	Thermal Oxidizer	Stainless Steel	SS-750	Process Vessel	
25C	T-211	Idle	Thermal Oxidizer	Stainless Steel	750	Process Vessel	
25C	212	Idle	Thermal Oxidizer	Stainless Steel	900	Process Vessel	
25C	213	Idle	Thermal Oxidizer	Stainless Steel	750/Column	Process Vessel	
25C	214	Idle	Thermal Oxidizer	Stainless Steel	400	Process Vessel	
25C	T-215	Idle	Thermal Oxidizer	Carbon Steel	750	Process Vessel	
25C	T-218	Idle	Thermal Oxidizer	Stainless Steel	500	Process Vessel	
25C	T-219	Moved to S19C	Thermal Oxidizer	Stainless Steel	300	Process Vessel	
25C	222	Idle	Thermal Oxidizer	Stainless Steel	900	Process Vessel	
25C	T262	Idle	Thermal Oxidizer	Tiger Steel	2000	Process Vessel	
25C	T268	Idle	Thermal Oxidizer	Tiger Steel	CS2000	Process Vessel	
25C	CS2500	Idle	Thermal Oxidizer	Tiger Steel	2500	Emergency Relief Tank	

<b>Emission EIQ Vent ID</b>	<b>Euticals Equipment Number</b>	<b>In-Service; Idle or Removed</b>	<b>Vents To</b>	<b>Make</b>	<b>Model</b>	<b>Service</b>	<b>MACT Applicability</b>
25T	Hot Water Bath by SW Corner	Idle	Atmosphere		200	Hot Water Bath by SW Corner	NA
25U	Electric Heater	Idle	Atmosphere	Fulton Electric Heater		Process Heater (Electric)	NA
25V	Chiller Unit	Idle	Atmosphere			Skid Mounted Chiller Unit	NA
25D1	Glycol Heater 1	Idle	Atmosphere	Bryan Boiler		Process Heater (Natural Gas)	NA
25D2	Glycol Heater 2	Idle	Atmosphere	Bryan Boiler		Process Heater (Natural Gas)	NA
25Q	T265 (no label)	Idle	Atmosphere	Carbon Steel	265	Plant Air Receiver	NA
25A	25-44-ATM	Idle	Atmosphere			Solids Filter	NA
25A	25-45-ATM	Idle	Atmosphere	MetPro		Scrubber	NA
25C	25-46-TO	Idle	Atmosphere	Canavan		Thermal Oxidizer	NA

Emission EIQ Vent ID	Euticals Equipment Number	In-Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability
25U	Pressure Tank #1	Idle	Atmosphere			Knock-out Vessel for TO	40 CFR Part 63 Subpart GGG and Subpart FFFF
25E		Idle	Atmosphere	Tiger Steel	Carbon Steel 10000	Solvent Storage Tank	
25F	25-35-ATM	Idle	Atmosphere	Custom Fabrication	Carbon Steel 11000	Solvent Storage Tank	
25G	25-36-ATM	Idle	Atmosphere	Tiger Steel	Carbon Steel 10000	Solvent Storage Tank	
25I	25-37-ATM	Idle	Atmosphere	Crown Tank	Carbon Steel 6000	Solvent Storage Tank	NA
25J	25-38-ATM	Idle	Atmosphere	Crown Tank	Stainless Steel 6000	Solvent Storage Tank	NA
25R	25-39-ATM	Idle	Atmosphere	Carbon Steel	260	Hot Glycol Receiver	40 CFR Part 63 Subpart GGG and Subpart FFFF
25S	25-40-ATM	Idle	Atmosphere	Carbon Steel	260	Low Temperature Glycol Storage Receiver	
25X	25-41-ATM	Idle	Atmosphere			Raw Material - Small on scales	
25Y	25-42-ATM	Idle	Atmosphere	Carbon Steel	11000	Raw Material - Large	
25Z	25-43-ATM	Idle	Atmosphere	Carbon Steel	1000	Propane tank for Thermal Oxidizer	NA

Emission EIQ Vent ID	Euticals Equipment Number	In-Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability
25A	Bag Filter	Idle	Atmosphere			Solids Filter	40 CFR Part 63 Subpart GGG and Subpart FFFF
25A	S25East Scrubber	Idle	Atmosphere	MetPro		Scrubber	
25C	Thermal Oxidizer	Idle	Atmosphere	Canavan		Thermal Oxidizer	

<b>Cooling Towers</b>							
Emission EIQ Vent ID	Euticals Equipment Number	In-Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability
22F1	22-1-ATM	In-Service	Atmosphere	Marley	250	Cooling Tower	NA
22F3	22-2-ATM	In-Service	Atmosphere	Marley	250	Cooling Tower	NA
22F4	22-3-ATM	In-Service	Atmosphere	Marley	1100	Chiller	NA
22F5	22-4-ATM	In-Service	Atmosphere	Marley	500	Cooling Tower	NA
22F6	22-5-ATM	Idle	Atmosphere	Marley	150	Cooling Tower	NA
22F4	22-6-ATM	In-Service	Atmosphere	Carbon Steel	1600	Surge Tank	NA

Emission EIQ Vent ID	Euticals Equipment Number	In- Service; Idle or Removed	Vents To	Make	Service	MACT Applicability
13A	13-1-ATM	In- Service	Atmosphere	Stainless Steel	Drum Steamer and Washer	40 CFR Part 63 Subpart GGG and Subpart FFFF
13A	13-2-ATM	In- Service	Atmosphere	Fiberglass	Scrubber	

Fuel Oil Tanks								
Emission EIQ Vent ID	Euticals Equipment Number	In-Service; Idle or Removed	Vents To	Emissions	Make	Model	Service	MACT Applicability
22A	22-6-ATM	In-Service	Atmosphere	VOCs	Carbon Steel	8300	Fuel Oil #2 Storage Tank	NA
22A	22-7-ATM	In-Service	Atmosphere	VOCs	Carbon Steel	4000	Fuel Oil #2 Storage Tank	NA

Emission EIQ Vent ID	Euticals Equipment Number	In-Service; Idle or Removed	Vents To	Make	Model	Service	MACT Applicability
GWS	Air Stripper	In-Service	Atmosphere	Carbon Steel		Air Stripper for Wastewater Treatment	NA
GWS	CS200	Idle- damaged	Atmosphere	Carbon Steel	200	Splitter for IT04 Groundwater	NA
GWS	CS300	Idle	Atmosphere	Carbon Steel	300	Wastewater Tank	NA
GWS	HDPE- 4500-1	In-Service	Atmosphere	High Density Polypropylene	4500	Holding Tank for Pumped Groundwater	NA

<b>Emission EIQ Vent ID</b>	<b>Euticals Equipment Number</b>	<b>In-Service; Idle or Removed</b>	<b>Vents To</b>	<b>Make</b>	<b>Model</b>	<b>Service</b>	<b>MACT Applicability</b>
GWS	HDPE-4500-2	Idle - Uninstalled	Atmosphere	High Density Polypropylene	4500	Holding Tank for Pumped Groundwater	NA
GWS	SS-180-1	In-Service	Atmosphere	Stainless Steel	180	Splitter for IT06 Groundwater	NA
GWS	SS-180-2	In-Service	Atmosphere	Stainless Steel	180	Splitter for SXD1 Groundwater	NA
GWS	SS-180-3	Idle	Atmosphere	Stainless Steel	180	Splitter for Groundwater	NA
GWS	ST-8	In-Service	Atmosphere	Concrete		Holding Tank for Treated Groundwater	NA
GWS	ST-9	In-Service	Atmosphere	Concrete		Holding Tank for Treated Groundwater	NA
GWS	ST-10	In-Service	Atmosphere	Concrete		Holding Tank for Treated Groundwater	NA
GWS	ST-11	In-Service	Atmosphere	Concrete		Holding Tank for Treated Groundwater	NA
GWS	Green Poly Tank	In-Service	Atmosphere	Poly	425	Miscellaneous ground water treatment tank	NA
GWS	New Poly Tank	Idle	Atmosphere	Poly	525	Holding Tank for Treated Groundwater by S-29	NA

<b>Emission EIQ Vent ID</b>	<b>Euticals Equipment Number</b>	<b>In-Service; Idle or Removed</b>	<b>Vents To</b>	<b>Make</b>	<b>Model</b>	<b>Service</b>	<b>MACT Applicability</b>
RTO1A	RTO-1- Natural Gas	In-Service	RTO Post Scrubber	Reeco	E-22000	Regenerative Thermal Oxidizer	NA
RTO1B	RTO-2- Process Emissions (S19, S28, S4, S3)	In-Service	RTO Post Scrubber	Reeco	E-22000	Regenerative Thermal Oxidizer	40 CFR Part 63 Subpart GGG and Subpart FFFF
RTO2	RTO-3- Process Emissions (S14)	In-Service	RTO Post Scrubber	Reeco	E-22000	Regenerative Thermal Oxidizer	
RTO3	RTO-4 RTO Fugitive Emission	In-Service	Fugitive Emissions	Reeco		Regenerative Thermal Oxidizer	
RTO4	RTO-5	In-Service	RTO Post Scrubber	Letco	Hasteloy	Quench Tower for Regenerative Thermal Oxidizer	
RTO5	RTO-6	In-Service	Atmosphere	Fiberglass	500	Regenerative Thermal Oxidizer Knockout Vessel - T-102	
RTO1B, RTO1C, RTO2	RTO-6	In-Service	Atmosphere	Reeco	E-22000	Regenerative Thermal Oxidizer	

<b>Tank 05A Wastewater</b>								
<b>Emission EIQ Vent ID</b>	<b>Euticals Equipment Number</b>	<b>In- Service; Idle or Removed</b>	<b>Vents To</b>		<b>Make</b>	<b>Model</b>	<b>Service</b>	<b>MACT/NSPS Applicability</b>
05A	05-1-ATM	In- Service	Atmosphere	HAPs, VOCs	Carbon Steel	30000	Process Wastewater Tank (neutralization and equalization)	40 CFR Part 60 Subpart Kb

<b>Emission EIQ Vent ID</b>	<b>Euticals Equipment Number</b>	<b>In-Service; Idle or Removed</b>	<b>Vents To</b>	<b>Make</b>	<b>Model</b>	<b>Service</b>	<b>MACT Applicability</b>
WWAS-01	WW-1- RTO	In-Service	RTO	NEEP	3651	Air Stripper for Wastewater Treatment	40 CFR Part 63 Subpart GGG and Subpart FFFF
WWAS-02	WW-2- RTO	In-Service	RTO	NEEP	41251	Air Stripper for Wastewater Treatment	
WW7601	WW-3- RTO	In-Service	RTO	Carbon Steel	7600	Wastewater Tank	
WW7602	WW-4- RTO	In-Service	RTO	Carbon Steel	7600	Wastewater Tank	

N/A means Not Applicable in all of the previous tables.

**Attachment G**

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 H**

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 H (continued) Method 9 Opacity Observations**

Minute	Seconds				1-minute Avg. % Opacity <sup>5</sup>	6-minute Avg. % Opacity <sup>6</sup>	Steam Plume (check 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									
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29									
30									

The emission unit is in compliance if each six-minute average opacity is less than or equal to 40 %.  
 Exception: The emission unit is in compliance if one six-minute average opacity is greater than 40 %, 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.

## STATEMENT OF BASIS

### INSTALLATION DESCRIPTION

Euticals, Inc. manufactures pharmaceutical, intermediates, bulk pharmaceutical chemicals (BCPs), and miscellaneous organic chemicals. Equipment in product areas include reactors, filters, distillation columns, dryers, milling and packaging. In addition to production areas, the installation also includes a wastewater neutralization/equalization tank, above ground tank farms, and utility systems needed for production, space heating and cooling.

The facility also operates a pilot plant for Research and Development purposes and small-scale manufacturing. The number of processes associated with the pilot plant will depend on the number and nature of chemicals produced during a given time frame. All process cleaning operations at the facility have been incorporated into the processes for demonstrating compliance with MACT GGG.

VOC and HAP emissions from the processes in Building S-3, S-4, S14, S19, S28 and tankage are directed into the Regenerative Thermal Oxidizer (RTO) through two separate headers: the concentrated header and the dilute header. The exhaust gases from the RTO then pass through the scrubber system including a quench scrubber and then through the paced tower absorber. The sodium hydroxide/scrubber solution neutralizes the inorganic acids in the exhaust gases. The treated exhaust gases are then released to the atmosphere via a vertical stack.

This facility is major for VOC and HAP emissions. The facility was issued a Plant Wide Applicability Permit (PAL) on September 19, 2011 which includes provisions allowing the future addition of equipment from a preapproved list. The special conditions of the PAL Permit are incorporated into the operating permit. To maintain the flexibility provided by the PAL permit the operating permit is structured so that when approved activities under the preapproved equipment list are undertaken, the required notification of the PAL permit will include the updated equipment list and sufficient compliance information for the operating permit. Pharmaceutical and Miscellaneous Organic Chemical Manufacturing activities are in the following buildings: S-3, S-4, S-12 (Pilot Plant), S-14, S-19, S28 and tankage. All production activities which emit VOC are regulated by the PAL Permit emission limitation of less than 116.8 tons/year.

**Table 1: Emissions Profile, tons per year**

Pollutants	Reported Emissions					Potential Emissions
	2013	2014	2015	2016	2017	
Particulate Matter ≤ Ten Microns (PM <sub>10</sub> )	2.86	1.74	1.86	1.58	1.90	ND <sup>2</sup>
Particulate Matter ≤ 2.5 Microns (PM <sub>2.5</sub> )	1.10	1.74	1.86	1.58	1.90	ND <sup>2</sup>
Sulfur Oxides (SO <sub>x</sub> )	0.07	5.07	0.93	2.05	1.40	ND <sup>2</sup>
Nitrogen Oxides (NO <sub>x</sub> )	7.56	5.76	4.97	5.10	5.41	ND <sup>2</sup>

Pollutants	Reported Emissions					Potential Emissions
	2013	2014	2015	2016	2017	
Volatile Organic Compounds (VOC)	5.35	4.06	3.85	2.65	5.79	116.8 <sup>1</sup>
Carbon Monoxide (CO)	1.88	4.32	4.10	4.10	4.29	ND <sup>2</sup>
Hazardous Air Pollutants (HAPs)	16.06	8.90	9.67	10.36	14.42	>10/25 <sup>1</sup>
Ammonia (NH <sub>3</sub> )	0.17	0.16	0.15	0.15	0.16	ND <sup>2</sup>

<sup>1</sup> VOC emissions are limited to 116.8 tons/year under Construction Permit 092011-004 (PAL permit). HAP emissions are above the major levels (10 tons/year individual and 25 tons/year total).

<sup>2</sup>Due to continuous changes in operations and equipment used allowed under the flexibility of the PAL permit, potential emissions for the remaining pollutants were not calculated.

### 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 November 27, 2017;
- 2) 2017 Emissions Inventory Questionnaire, received May 26, 2018;
- 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.

None.

### 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.

See Other Regulatory Determinations.

### Construction Permit History

The following construction permits were issued to this installation:

Plant Wide Applicability Limit (PAL) Permit 092011-004, Issued September 19, 2011

This permit was issued to replace a previously issued PAL permit 0905-251 which was issued by the City of Springfield local agency. The permit establishes a 116.8 ton/year plant wide VOC limit and

allows the permittee to undergo modifications to operations without triggering major or minor construction permitting as long as the emissions remain below the “cap.” The facility had 48 previously issued construction permits which are all superseded by this PAL permit.

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

40 CFR part 60 Subpart D, *Standards of Performance for Fossil-Fuel-Fired Steam Generators*

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

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

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

These regulations apply to steam generating units with the following parameters:

Rule	Constructed/modified/reconstructed after....	Maximum design heat input capacity...
D	August 17, 1971	greater than 250 MMBtu/hr
Da	September 18, 1978	greater than 250 MMBtu/hr
Db	June 19, 1984	greater than 100 MMBtu/hr
Dc	June 9, 1989	between 10 and 100 MMBtu/hr

Emission Units EU01A & B and EU02A & B have a heat input capacity between 10 and 100 MMBtu/hr. Emission Unit 01A & B (Boiler 1) is not subject to Subpart Dc, because it was constructed prior to the applicability date. EU02A & B (Boiler 2) is subject to this subpart. Both boilers are fueled primarily with natural gas and utilize fuel oil during periods of gas curtailment and for periodic testing of the boilers.

40 CFR part 60 Subpart K, *Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978*

40 CFR part 60 Subpart Ka, *Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984*

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

These regulations apply to storage vessels with the following parameters:

Rule	Constructed/modified/reconstructed ....	With contents and capacities.....
K	Between June 11, 1973 and May 19, 1978	Petroleum liquids, >40,000 gallons
Ka	Between May 18, 1978 and July 23, 1984	Petroleum liquids, >40,000 gallons
Kb	After July 23, 1984	Volatile organic liquids, >19,813 gallons

There are currently no petroleum liquid tanks at this installation greater than 40,000 gallons (EP22A and EP22B Fuel Oil Storage Tanks are 8,300 gallons and 4,500 gallons, respectively) therefore Subparts K and

Ka do not apply. The following table lists the tanks meeting Subpart Kb capacity criteria of 19,813 gallons or greater:

Bldg. I.D. No.	EQ Vent ID	Euticals Equip. Number	Status	Make	Capacity (gallons)	Type	Service
5	05A	CS30000	In-Service	Carbon Steel	30000	Fixed Roof	Process Wastewater Tank (neutralization and equalization)
28	28F	SS20001	In-Service	Stainless Steel	20000	Fixed Roof	Solvent Storage Tank

There are currently no tanks at this installation larger than 19,800 gallons in non-HAP VOL service with a maximum true vapor pressure of 15 kPa. Please see further discussion of storage tank applicability under the MACT GGG section below.

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

40 CFR Part 63 Subpart ZZZZ, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*  
Emission Units EP22E1 and EP22E2 – Emergency Generators are not subject to Subpart ZZZZ because according to §63.6590(b)(3)(iii):

“Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that does not operate or is not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii).”

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.

The units listed in the table below are subject to 40 CFR Part 63 Subpart DDDDD:

40 CFR Part 63 Subpart DDDDD Applicability		
EQ Reference	Emission Unit Description	MACT DDDDD Subcategory
EU01A & B	24 MMBtu Dual Fired Boiler #1 (1985)	Existing Unit designed to burn gas 1 > 10 MMBtu/hr
EU02A & B	48.5 MMBtu Dual Fired Boiler #2 (1990)	Existing Unit designed to burn gas 1 > 10 MMBtu/hr
25D1	1.6 MMBtu Glycol Process Heater #1 (Natural Gas) (1990)	Existing Unit designed to burn gas 1 < 5 MMBtu/hr
25D2	1.6 MMBtu Glycol Process Heater #2 (Natural Gas)(1990)	Existing Unit designed to burn gas 1 < 5 MMBtu/hr

40 CFR Part 63 Subpart GGGGG - *National Emission Standard for Hazardous Air Pollutants: Site Remediation.*

There is a groundwater treatment system in operation at this facility for ongoing corrective action under a RCRA permit. §63.7881(b)(3) states – “Your site remediation is not subject to this subpart if the site remediation will be performed, under a Resource Conservation and Recovery Act (RCRA) corrective action conducted at a treatment, storage and disposal facility (TSDF) that is either required by your permit issued by either the U.S. Environmental Protection Agency (EPA) or a State program authorized by the EPA under RCRA Section 3006.” This facility fits this description and is therefore not subject to this subpart.

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

This facility produces some chemicals that are not pharmaceuticals, and are subject to Subpart FFFF while doing so. However, meeting the requirements of MACT GGG satisfies the requirements of MACT FFFF as stated in §63.2535(d) – “ if you have an affected source with equipment subject to Subpart I, GGG, or MMM of this part 63, you may elect to comply with the provisions of Subpart H, GGG, or MMM of this part 63, respectively, for all such equipment.”

40 CFR Part 63 Subpart PPP—*National Emission Standards for Hazardous Air Pollutant Emissions for Polyether Polyols Production*

There are no equipment in the PMPU's that are also part of an affected source under Subpart PPP.

40 CFR Part 63 Subpart GGG—*National Emission Standards for Pharmaceutical Production*

This Subpart applies to pharmaceutical manufacturing operations that manufacture pharmaceutical product as defined in §63.1251, are located at a major source of emissions and process, use or produce HAPS.

*Pharmaceutical manufacturing operations* means the facility wide collection of PMPU and any other equipment such as heat exchanger systems, wastewater and waste management units, or cooling towers that are not associated with an individual PMPU, but that are located at a facility for the purpose of manufacturing pharmaceutical products and are under common control.

*Pharmaceutical manufacturing process unit (PMPU)* means the process, as defined in this subpart, and any associated storage tanks, equipment identified in §63.1252(f), and components such as pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, and instrumentation systems that are used in the manufacturing of a pharmaceutical product.

*Pharmaceutical product* means any of the following materials, excluding any material that is a nonreactive solvent, excipient, binder, or filler, or any material that is produced in a chemical manufacturing process unit that is subject to the requirements of Subparts F and G of 40 CFR Part 63:

- a) Any material described by the standard industrial classification (SIC) code 2833 or 2834; or
- b) Any material whose manufacturing process is described by North American Industrial Classification System (NAICS) codes 325411 or 325412; or
- c) A finished dosage form of a drug, for example, a tablet, capsule, solution, etc.; or
- d) Any active ingredient or precursor that is produced at a facility whose primary manufacturing operations are described by SIC codes 2833 or 2834; or

- e) At a facility whose primary operations are not described by SIC codes 2833 or 2834, any material whose primary use is as an active ingredient or precursor.

This facility is subject to this Subpart GGG.

PMPU	Description(construction/modification date)	HAP <sup>1</sup> PTE >10/25	Existing <sup>2</sup> /new	Building Number
LPK	Laidlomycin Propionate' (LPK) (7-1993, and	Yes	Existing	S-14
CDNE	Cyanodiester (CDNE) (March 6, 2007)	No	New	S-19
Pilot Plant	Pilot Plant production (multiple dates)	No	New	S-12
CMP	Cytidine Monophosphate (CMP) (March 4, 2011)	No	New	S19A-D & S3
Future	Future additional processes on the preapproved equipment list	--	New	--
<sup>1</sup> The Potential to Emit (PTE) in tons per year <sup>2</sup> §63.1250(b) <i>New source applicability</i> . A new affected source is an affected source for which construction or reconstruction commenced after April 2, 1997, and the standard was applicable at the time of construction or reconstruction; or a (PMPU) dedicated to manufacturing a single product that has the PTE of 10 tpy of any one HAP or 25 tpy combined HAP for which construction commenced after April 2, 1997 or reconstruction commenced after October 21, 1999.				
The PMPUs listed are the ones present at the time of this operating permit issuance. The MACT GGG language is written for flexibility to minimize the necessity of an operating permit modification when/if the facility installs subject units under the preapproved equipment list in the PAL (PW1).				
Pilot Plant emissions are included in the PAL emission limits, and has no other production or emissions limits. Under MACT GGG requirements the Pilot Plant emissions are complying with the 900 kg/1800 kg –365 day/rolling average option.				
For permit flexibility, it is assumed that there will be no addition of control equipment types under the MACT GGG than are already present at this site. All preapproved equipment under the PAL (Attachment B) that is subject to MACT GGG will be utilizing a similar control strategy (i.e. scrubbers, RTO). The addition of any processes subject to the MACT resulting from the addition of pre-approved equipment will be documented per Special Condition 4 of Construction Permit 092011-004 and incorporated into this operating permit under Plant Wide Condition PW1.				

The following table lists the tanks meeting MACT GGG capacity criteria of 10,038 gallons or greater:

Bldg. I.D. No.	EIQ Vent ID	Euticals Equip. Number	Status	Make	Capacity (gallons)	Service	MACT Applicability
5	05A	CS30000	In- Service	Carbon Steel	30000	Process Wastewater Tank (neutralization)	None*
4	ATM (04H)	TF012K01	Idle	Fiberglass	13000	Acid Storage	40 CFR Part 63

Bldg. I.D. No.	EIQ Vent ID	Euticals Equip. Number	Status	Make	Capacity (gallons)	Service	MACT Applicability
19	19F	CS12501	In-Service	Carbon Steel	12500	Solvent Storage	Subpart GGG and/or Subpart FFFF
--	RTO1B	CS12002	Idle	GJ Oliver	12000	Methyl Chloride	
25	25F	CS11000 (T255)	Idle	Custom Fabrication	11000	Solvent Storage Tank	
25	25Y	T258	Idle	Carbon Steel	11000	Raw Material - Large	
CD28	28E	CS12001	In-Service	Carbon Steel	12000	Solvent Storage Tank	
CD28	28C	SS12001	In-Service	Stainless Steel	12000	Solvent Storage Tank	
CD28	28D	SS12002	In-Service	Stainless Steel	12000	Solvent Storage Tank	
CD28	28F	SS20001	In-Service	Stainless Steel	20000	Solvent Storage Tank	

\* The MACT GGG applicability is subject to change due to service (vapor pressure of stored liquids). Tank CS30000 meets the size criteria of MACT GGG, but does not currently contain HAPs in concentrations above the action level of the rule. Any MACT GGG notification and compliance requirements for any new (or newly subject units due to change in tank service) will be included as required in the mandatory periodic reports under the standard.

Process heaters #1 and #2 (EP-25D1 & EP-25D2) MACT GGG Applicability.

Ancillary activities are not considered a process or part of any process. Ancillary activities include boilers and incinerators (not used to comply with the provisions of §63.1253, §63.1254, or §63.1256(h)), chillers and refrigeration systems, and other equipment and activities that are not directly involved (i.e., they operate within a closed system and materials are not combined with process fluids) in the processing of raw materials or the manufacturing of a pharmaceutical product.

Wastewater storage tanks subject to MACT GGG. The following wastewater tanks currently have applicable provisions in Permit Condition GGG-09, but were not listed under the permit header since there are other requirements that apply to the wastewater systems that are not directly storage tank related.

Bldg. I.D. No.	EIQ Vent ID	Euticals Equip. Number	Make	Capacity (gallons)	Service
WW	WW7601	CS7601	Carbon Steel	7600	Pharmaceutical Effluent Guidelines ("PEG") Air Stripper Feed Tank
WW	WW7602	CS7602	Carbon Steel	7600	Organic Chemicals, Plastics, Synthetics and Fibers ("OCPSF") Effluent Guidelines Air Stripper Feed Tank

MACT GGG Compliance with other MACT standards

§63.1250(h)(1)(i) - An affected source subject to the provisions of this subpart that is also subject to the provisions of any other subpart of this part 63 may elect to comply with either the provisions of this subpart or the provisions of another applicable subpart governing the maintenance of records and reporting to EPA.

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

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

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

### **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.

§64.2(b)(1)(i) provides an exemption for units that have “emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to Section 111 or 112 of the Act.” Since there are post 1990 MACTs promulgated under Section 112 applicable to all of the potentially subject units, specifically MACT GGG, 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 10-6.405 *Restriction of Particulate Matter Emissions From Fuel Burning Equipment Used for Indirect Heating*

- EU01A & B, EU02A & B – Boilers #1 and #2 are units fueled by only natural gas and/or fuel oil #2 with a sulfur content less than 1.2%.
- EU25D1 and EU25D2 – Glycol Process Heaters are natural gas –fired units

This installation meets the exemption under 10 CSR 10-6.405(1)(E) because all of the applicable units are fueled only by natural gas and fuel oil #2 with sulfur content less than 1.2%.

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

- EU01A&B Boiler #1 and EU02A & B Boiler #2 are subject to this regulation. Compliance with the monitoring/recordkeeping requirements for 10 CSR 10-6.070 Subpart Dc (for Boiler #2) and 10 CSR 10-6.261 (for Boiler #1) are sufficient to demonstrate compliance with 10 CSR 10-6.260.
- EU25D1 and EU25D2 – Glycol Process Heaters are natural gas-fired and therefore exempt per 10 CSR 10-6.261(1)(A)2.
- EU22E1 and EU22E2 are subject to this regulation. Compliance with the fuel sulfur limit from 10 CSR 10-6.261 is sufficient to demonstrate compliance with the emission limits as shown below:

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

$$\text{Distillate Oil SO}_2 \text{ emission factor (lbs/MMBtu)} = \frac{142 \frac{(0.8812) \text{ lbs}}{10^3} \text{ gal}}{140 \frac{\text{MMBtu}}{10^3} \text{ gal}} = 0.869 \text{ lb/MMBtu}$$

$$\text{ppmv SO}_2 = \left( \frac{0.869 \text{ lb}}{\text{MMBtu}} \right) \times \left( \frac{\text{MMBtu}}{10,320 \text{ wscf}} \right) \times \left( \frac{\text{ppmw}}{1.66 \times 10^{-7} \text{ lb/scf}} \right) \times \left( \frac{0.45 \text{ ppmv}}{\text{ppmw}} \right) = 228.3 \quad \text{ppmv}$$

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

$$\text{Distillate Oil SO}_3 \text{ emission factor (lbs/MMBtu)} = \frac{2 \frac{(0.8812) \text{ lbs}}{10^3} \text{ gal}}{130 \frac{\text{MMBtu}}{10^3} \text{ gal}} = 0.0136 \text{ lb/MMBtu}$$

$$\text{ppmv SO}_3 = \left( \frac{0.0136 \text{ lb}}{\text{MMBtu}} \right) \times \left( \frac{\text{MMBtu}}{10,320 \text{ wscf}} \right) \times \left( \frac{\text{ppmw} 1.602 \times 10^7}{\text{lb m}^3} \right) = 21.04 \text{ ppmv}$$

(Appendix A – 7 to Part 60)

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

- This rule is applicable to Boiler #1.
- Boiler #2 is not subject to this rule because it is subject to a more restrictive fuel sulfur content limit under 40 CFR Part 60 Subpart Dc.
- EU25D1 and EU25D2 – Glycol Process Heater are natural gas-fired and therefore exempt per 10 CSR 10-6.261(1)(A).
- Emission Units EP22E1 and EP22E2 – Emergency Generators are subject to the fuel sulfur limitations for existing distillate fuel-fired units (8,812 ppm).

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

The PM emitting units potentially subject to this rule are all enclosed within buildings that are vented to the central control devices (scrubber/RTO), which provides more than 90 percent control, making it exempt from this rule per 10 CSR 10-6.400(B)15.

**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 Euticals, Inc. was placed on public notice November 30, 2018 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-notice.htm>. . No public comments were received.