INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

TO: Interested Parties / Applicant

DATE: November 16, 2012

RE: Evonik Degussa Corporation/ 157-32172-00006

FROM: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision: Approval – Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-17-3-4 and 326 IAC 2, this permit modification is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-7-3 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for considerations at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

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Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of a Title V operating permit or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impractible to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency
401 M Street
Washington, D.C. 20406

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNTV-PMOD.doc 3/27/08

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Ms. Teresa Reksel
Evonik Degussa Corporation - Tippecanoe Laboratories
1650 Lilly Road
Lafayette, IN 47909

November 16, 2012

Re: 157-32172-00006
Significant Permit Modification to
Part 70 Renewal No.: T157-26575-00006

Dear Ms. Reksel:

Evonik Degussa Corporation - Tippecanoe Laboratories was issued a Part 70 Operating Permit Renewal on October 6, 2009 for a pharmaceutical manufacturing plant. A letter requesting changes to this permit was received on August 1, 2012. Pursuant to the provisions of 326 IAC 2-7-12 a significant permit modification to this permit is hereby approved as described in the attached Technical Support Document.

Evonik Degussa Corporation - Tippecanoe Laboratories has applied to install a compounder and injection molder that will serve a research and development (R&D) function associated with the high performance polymers business unit, update their Sections A, D, E, F, and G in the permit, and add Section H to incorporate applicable portions of the National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry (SOCMI Rule, 40 CFR part 63 subpart F).

All other conditions of the permit shall remain unchanged and in effect. For your convenience, the entire Part 70 Operating Permit as modified will be provided at issuance.

This decision is subject to the Indiana Administrative Orders and Procedures Act – IC 4-21.5-3-5. If you have any questions on this matter, please contact Josiah Balogun, OAQ, 100 North Senate Avenue, MC 61-53, Room 1003, Indianapolis, Indiana, 46204-2251, or call at (800) 451-6027, and ask for Josiah Balogun or extension (4-5257), or dial (317)234-5257.

Sincerely,

Tripurari Sinha

Tripurari P. Sinha, Ph.D., Section Chief
Permits Branch
Office of Air Quality

Attachments:
Updated Permit
Technical Support Document
PTE Calculations

JB

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Prevention of Significant Deterioration (PSD) Flexible Permit And Part 70 Operating Permit Renewal And Plantwide Applicability Limitations (PAL) Permit OFFICE OF AIR QUALITY

Evonik Degussa Corporation - Tippecanoe Laboratories
1650 Lilly Road
Lafayette, Indiana 47909

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.
The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.
This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedure pursuant to 326 IAC 2-2 and 326 IAC 2-7-10.5, applicable to those conditions.

Operation Permit No.: T157-26575-00006	
Original Signed/Issued by: Matthew Stuckey, Branch Chief Permits Branch Office of Air Quality	Issuance Date: October 6, 2009 Expiration Date: October 6, 2014
Administrative Amendment No.: 157-28636-00006 Issuance Date: November 9, 2009 Administrative Amendment No.: 157-28727-00006 Issuance Date: January 6, 2010 Significant Permit Modification No: 157-29126-00006 Issuance Date: June 15, 2010 Significant Permit Modification No.: 157-31009-00006 Issuance Date: January 23, 2012	
Significant Permit Modification No.: 157-32172-00006	
Issued by: Tripurari Sinha Tripurari P. Sinha, Ph.D., Section Chief Permits Branch Office of Air Quality	Issuance Date: November 16, 2012 Expiration Date: October 6, 2014

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Modification and Construction Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12 and 326 IAC 2-2]
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D.12. T49 LIQUID WASTE INCINERATOR, INCLUDING ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT AND CONTINUOUS MONITORING SYSTEMS OPERATION CONDITIONS

Emission Limitations and Standards [326 IAC 2-7-5(1)]
D.12.0 VOC, CO and Fluoride PSD BACT Requirement [326 IAC 2-2-3]
D.12.1 General Applicability Requirements with Emission Standards [326 IAC 2-2-3 and 40 CFR 63, Subpart DD and EEE]
D.12.2 Particulate Matter Emission Standards [40 CFR 63.1219 and 326 IAC 4-2]

D.12.3 Sulfur Dioxide (SO_2) Emission [326 IAC2-2-3 and 326 IAC 7-1.1-2]
D.12.4 Oxides of Nitrogen (NOx) Emission Standards [326 IAC 2-2-3]
D.12.5 Hazardous Air Pollutants (HAP) and Flouoride Emission Standards [40 CFR 63.1219 and 326 IAC 2-2-3]
D.12.6 Carbon Monoxide (CO) Emission Standards [326 IAC 2-2-3, 326 IAC 9-1 and 40 CFR 63.1219]
D.12.7 Hydrocarbon (HC) and Volatile Organic Compound (VOC) Emission Standards [326 IAC . 2-2-3 and 40 CFR 63.1219]
D.12.8 Automatic Waste Feed Cutoff System Requirements [40 CFR 63.1206]
D.12.9 Leak Detection and Repair (LDAR) Program [326 IAC 2-2-3, 40 CFR 63, Subpart DD and 40 CFR 61, Subpart V]
D.12.10 Inspection Requirements [40 CFR 63.1206(c)]
D.12.11 Training and Certification Requirements [40 CFR 63.1206(c)(6)]
D.12.12 Plans and Procedures [326 2-2-3, 40 CFR 63.1206, 40 CFR 63.1211 and 326 IAC 2-7-5(13)]

Testing and Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]
D.12.13 Performance Test Requirements [410 CFR 63.1207, 326 IAC 2-1.1-11 and 326 IAC 3-6]
D.12.14 Continuous Emission Monitoring Systems (CEMS) Operating Requirements [40 CFR ..... 63.1209, 40 CFR 63.8, 326 IAC 2-7-24, 326 IAC 2-1.1-11, 40 CFR 60, Appendix B and 40 CFR Appendix F]
D.12.15 Parametric Continuous Monitoring Systems (CMS) Requirements [40 CFR 63.8(c), 40 CFR 63.1209 and 326 IAC 2-1.1-11]
D.12.16 Minimum Data Requirements - SO_2 and NOx Compliance [326 IAC 2-1.1-11]

Record Keeping and Reporting Requirements [326 IAC 2-7-10.5] [326 IAC 2-7-12]
D.12.17 Record Keeping Requirements
D.12.18 Reporting Requirements

Modification and Construction Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12 and 326 IAC 2-2]
D.12.19 Modification and Construction: Advance Approval of Permit Conditions

D.13. T149 SOLID - LIQUID WASTE INCINERATOR, INCLUDING ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT AND CONTINUOUS MONITORING SYSTEMS OPERATION CONDITIONS

Emission Limitations and Standards [326 IAC 2-7-5(1)]
D.13.0 VOC, CO and Fluoride PSD BACT Requirement [326 IAC 2-2-3]
D.13.1 General Applicability Requirements with Emission Standards [326 IAC 2-2-3 and 40 CFR .. 63, Subpart DD and EEE]
D.13.2 Particulate Matter Emission Standards [40 CFR 63.1219]
D.13.3 Sulfur Dioxide (SO_2) Emission [326 IAC2-2-3 and 326 IAC 7-1.1-2]
D.13.4 Oxides of Nitrogen (NOx) Emission Standards [326 IAC 2-2-3]
D.13.5 Hazardous Air Pollutants (HAP) Emission Standards [40 CFR 63.1219, US EPA approved Alternative Monitoring Petition initially approved January 27, 2006]
D.13.6 Carbon Monoxide (CO) Emission Standards [326 IAC 2-2-3, 326 IAC 9-1 and 40 CFR 63.1219]
D.13.7 Hydrocarbon (HC) and Volatile Organic Compound (VOC) Emission Standards [326 IAC . 2-2-3 and 40 CFR 63.1219]
D.13.8 Automatic Waste Feed Cutoff System Requirements [40 CFR 63.1206]
D.13.9 Leak Detection and Repair (LDAR) Program [326 IAC 2-2-3, 40 CFR 63, Subpart DD and 40 CFR 61, Subpart V]
D.13.10 Inspection Requirements [40 CFR 63.1206(c)]
D.13.11 Training and Certification Requirements [40 CFR 63.1206(c)(6)]
D.13.12 Plans and Procedures [326 2-2-3, 40 CFR 63.1206, 40 CFR 63.1211 and 326 IAC 2-7-5(13)]

Testing and Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]

D.13.13 Performance Test Requirements [410 CFR 63.1207, 326 IAC 2-1.1-11 and 326 IAC 3-6]

D.13.14 Continuous Emission Monitoring Systems (CEMS) Operating Requirements [40 CFR 63.8, 326 IAC 3-5, 326 IAC 2-1.1-11, US EPA approved Alternative Monitoring Petition initially .... approved January 27, 2006]

D.13.15 Parametric Continuous Monitoring Systems (CMS) Requirements [40 CFR 63.8(c), 40 CFR 63.1209 and 326 IAC 2-1.1-11]

D.13.16 Fuel Oil Sampling Analysis for SO_2 [326 IAC 2-1.1-11][326 IAC 3-7-4]

D.13.17 Minimum Data Requirements - SO_2 and NOx Compliance [326 IAC 2-1.1-11]

Record Keeping and Reporting Requirements [326 IAC 2-7-10.5] [326 IAC 2-7-12]

D.13.18 Record Keeping Requirements

D.13.19 Reporting Requirements

Modification and Construction Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12 and 326 IAC 2-2]

D.13.20 Modification and Construction: Advance Approval of Permit Conditions

D.14. BPM CONTROL SYSTEMS - RTO OPERATION CONDITIONS

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.14.0 Requirement to Control Emission [40 CFR 60 Subpart Kb, 40 CFR 63 Subpart GGG, 40 CFR 63, Subpart DD, 326 IAC 2-2-3 and 326 IAC 8-5-3]

D.14.1 Control Device and Closed Vent System Standards [40 CFR 63.1253(b), (c) and (d), 63.1254(a) and (c), 63.1256(b), (e) and (h), 63.1258(b), 40 CFR 63.685(c) and (d), 63.689(b), 63.690(b), 63.693(f), 40 CFR 60.112(a) and 60.113(c) 326 IAC 2-2-3 and 326 IAC 8-5-3(b)]

D.14.2 Exception to RTO Control System Standards [40 CFR 63.1250(g), 40 CFR 63.681, 63.685(g), 63.693(b) and 326 IAC 2-2-3]

D.14.3 Startup, Shutdown and Malfunction Requirements for RTO Control System [40 CFR 63.1250(g), 40 CFR 63.697(b)(3) and 326 IAC 2-2-3,]

Compliance Determination Requirements

D.14.4 Requirement to Control Emissions [40 CFR Subpart Kb, 40 CFR 63 Subpart GGG, 40 CFR 63, Subpart DD, 326 IAC -2-2-3 and 326 IAC 8-5-3]

Testing and Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]

D.14.5 Continuous Emission Monitoring Systems (CEMS) Operating Requirements [40 CFR 60.113b(c), 40 CFR 63.1258(b), 40 CFR 63.693(f), 40 CFR 63.8, 326 IAC 3-5, 326 IAC 2-.7-24, 326 IAC 2-1.1-11, 40 CFR 60, Appendix B and 40 CFR Appendix F]

D.14.6 Performance Test Requirements [40 CFR 60.113b(c), 40 CFR 63.7, 40 CFR 63.1257(b), (c) and (d) and 63.1258(b)(3), 40 CFR 63.693(f)326 IAC 3-6-3(c), 326 IAC 2-7-24 and 326 IAC 2-1.1-11]

D.14.7 Parametric Continuous Monitoring Systems (CMS) Requirements [40 CFR 63.8(c), 40 ..CFR 60.113b(c), 40 CFR 63.1257(b), 63.1258(a) and (b) and 63.1260(e), 40 CFR 63. 693(b), 326 IAC 2-1.1-11, 326 IAC 2-7-24 and 326 IAC 3-5-5(d)]

D.14.8 Excursions [40 CFR 63.1258(b)(6) and 40 CFR 63.695(e)(4)]

D.14.9 Minimum Data Requirements - $SO_{2,}$ CO, and NOx Compliance [326 IAC 2-1.1-11]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.14.10 Record Keeping and Reporting Requirements

Modification and Construction Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12 and 326 IAC 2-2]

D.14.11 Modification and Construction: Advance Approval of Permit Conditions

D.15. BPM CONTROL SYSTEMS - T79 FUME INCINERATOR SYSTEM OPERATION CONDITIONS

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.15.0 Requirement to Control Emission [40 CFR 60 Subpart Kb, 40 CFR 63 Subpart GGG, 40 CFR 63, Subpart DD, 326 IAC 2-2-3 and 326 IAC 8-5-3]

D.15.1 T79 Control Device and Closed Vent System Standards [40 CFR 63.1253(b), (c) and (d), 63.1254(a) and (c), 63.1256(b), (e) and (h), 63.1258(b), 40 CFR 63.685(c) and (d), 63.689(b), 63.690(b), 63.693(f), 40 CFR 60.112(a) and 60.113(c) 326 IAC 2-2-3 and 326 IAC 8-5-3(b)]

D.15.2 Exception to T79 Control System Standards [40 CFR 63.1250(g), 40 CFR 63.681, 63.685(g), 63.693(b) and 326 IAC 2-2-3]

D.15.3 Startup, Shutdown and Malfunction Requirments for T79 Control System [40 CFR 63.1250(g), 40 CFR 63.697(b)(3) and 326 IAC 2-2-3]

Compliance Determination Requirements

D.15.4 Requirement to Control Emissions [40 CFR Subpart Kb, 40 CFR 63 Subpart GGG, 40 CFR 63, Subpart DD, 326 IAC -2-2-3 and 326 IAC 8-5-3]

Testing and Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]

D.15.5 Performance Test Requirements [40 CFR 60.113b(c), 40 CFR 63.7, 40 CFR 63.1257(b), (c) and (d) and 63.1258(b)(3), 40 CFR 63.693(f)326 IAC 3-6-3(c), 326 IAC 2-7-24 and 326 IAC 2-1.1-11]

D.15.6 Parametric Continuous Monitoring Systems (CMS) Requirements [40 CFR 63.8(c), 40 60.113b(c), 40 CFR 63.1257(b), 63.1258(a) and (b) and 63.1260(e), 40 CFR 693(b), 326 IAC 2-1.1-11, 326 IAC 2-7-24 and 326 IAC 3-5-5(d)]

D.15.7 Excursions [40 CFR 63.1258(b)(6) and 40 CFR 63.695(e)(4)]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.15.8 Record Keeping and Reporting Requirements

Modification and Construction Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12 and 326 IAC 2-2]

D.15.9 Modification and Construction: Advance Approval of Permit Conditions

D.16. BPM SUPPORT OPERATIONS - RESEARCH AND DEVELOPMENT OPERATION AND PHARMACEUTICAL MANUFACTURING OPERATIONS CONDITIONS

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.16.1 Non-Applicability Determination of Pharmaceutical MACT Standards [40 CFR 63, Subpart GGG]

D.16.2 Pharmaceutical MACT Process-Based Annual Mass Limit [40 CFR 63.1254]

D.16.3 Standards for Pharmaceutical MACT Wastewater Tanks [40 CFR 63.1256]

D.16.4 Leak Detection and Repair (LDAR) for fugitive Emissions

Testing and Monitoring Requirements [326 IAC 2-7-5(1), 326 IAC 2-7-6(1), 40 CFR 63.1257, and 40 CFR 63.1258]

D.16.5 Pharmaceutical MACT Testing and Monitoring Requirements [40 CFR 63, Subpart GGG and 326 IAC 20]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.16.6 Record Keeping Requirements [40 CFR 63, Subpart GGG and 326 IAC 20]

D.16.7 Reporting Requirements [40 CFR 63, Subpart GGG] [326 IAC 20]

Modification and Construction Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12 and 326 IAC 2-2]

D.16.8 Modification and Construction: Advance Approval of Permit Conditions

D.17. BPM SUPPORT OPERATIONS - GENERAL WASTEWATER OPERATION CONDITIONS

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.17.1 Definition of Wastewater [40 CFR 63.1251 and 40 CFR 63.1256(a)(1)(i)]
D.17.2 Maintenance Wastewater [40 CFR 63.1256(a)(4)(i)]
D.17.3 Storage and Transfer of Affected Wastewater [40 CFR 63.1256(b), (d) and (e)]
D.17.4 Treatment of Affected Wastewater [40 CFR 63.1256]

Testing and Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]

D.17.5 Testing and Monitoring Requirements

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.17.6 Record Keeping and Reporting Requirements

D.18. BPM SUPPORT OPERATIONS - CHEMICAL WASTERWATER TREAMENT PLANT OPERATION CONDITIONS

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.18.1 Pharmaceutical MACT Standards [40 CFR 63.1256, 40 CFR 63.683(b)(2)]

Testing and Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]

D.18.2 Sampling Analysis Requirements [40 CFR 63.1258(g)(2)]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.18.3 Record Keeping and Reporting Requirements

Modification and Construction Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12 and 326 IAC 2-2]

D.18.4 Modification and Construction: Advance Approval of Permit Conditions

D.19. BPM SUPPORT OPERATIONS - TRANSFER OF AFFECTED WASTEWATER FOR OFFSITE TREATMENT CONDITIONS OPERATION CONDITIONS

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.19.1 Shipment of Affected Wastewater to an Offsite Treatment Facility [40 CFR 63.1256(a)(5)]
D.19.2 Receipt offsite Affected Wastewater for Onsite Treatment [40 CFR 63.1256(a)(5)]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.19.3 Record Keeping and Reporting Requirements

Modification and Construction Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12 and 326 IAC 2-2]

D.19.4 Modification and Construction: Advance Approval of Permit Conditions

D.20. UTILITIES OPERATION CONDITIONS

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.20.0 Reserved
D.20.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]
D.20.2 Opacity Limitations [326 IAC 5] [40 CFR 60.43b] [326 IAC 12] [326 IAC 2-7-24]
D.20.3 Sulfur Dioxide (SO_2) Limitations [326 IAC 7-1.1-2] [40 CFR 60.41b] [40 CFR 60.42b(k)] [326 IAC 12] [326 IAC 2-7-24]
D.20.4 Nitrogen Oxides (NOx) Limitations [40 CFR 60.44b] [326 IAC 12]
D.20.5 Particulate Matter (PM) Limitations [326 IAC 20-1] [326 IAC 6-2-4] [326 IAC 2-7-24]
D.20.6 Reserved
D.20.7 Reserved
D.20.8 PSD Minor Limits for CO [326 IAC 2-2]
D.20.9 Reserved

D.20.10 Reserved
D.20.11 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]
D.20.12 Reserved
D.20.13 Compliance Requirements for SO_2 [326 IAC 7-2] [40 CFR 60.45b(j)] [40 CFR 60.47(f)] [326 IAC 12]
D.20.14 Initial Performance Testing Requirements for NOx [40 CFR 60.46b] [326 IAC 12] [326 IAC 3-6-3] [326 IAC 2-7-24] [326 IAC 2-1.1-11] [40 CFR Part 60.8]
D.20.15 Reserved
D.20.16 Continuous Emission Monitoring System (CEMS) Requirements [40 CFR 60.13] [40 CFR 60.48b] [326 IAC 2-1.1-11] [326 IAC 2-7-24] [326 3-5] [40 CFR 60.48b(e)(2)] [326 IAC 12]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]
D.20.17 Record Keeping Requirements
D.20.18 Reporting Requirements
D.20.19 Applicability of 40 CFR 63 Supart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE MACT)

D.21. DEGREASER OPERATION CONDITIONS

Emission Limitations and Standards [326 IAC 2-7-5(1)]
D.21.1 Cold Cleaner Degreasers Constructed after July 1, 1990

D.22. ARCHITECTURAL AND INDUSTRIAL MAINTENANCE COATINGS CONDITIONS

Emission Limitations and Standards [326 IAC 2-7-5(1)]
D.21.1 Architectural and Industrial Maintenance (AIM) Coatings [326 IAC 8-14]

E.1. LEAK DETECTION AND REPAIR (LDAR) CONDITIONS FOR BPM PROCESS SYSTEM COMPONENTS

Emission Limitations and Standards [326 IAC 2-7-5(1)]
E.1.1 LDAR Stadards for BPM Process System Components [40 CFR 63.1255, 40 CFR 61, Subpart I, 326 IAC 8-5-3(b)(6) and 326 IAC 2-2, CP157-4148 (Revised by this permit)]
E.1.2 Exceptions to LDAR Standards for BPM System Components

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]
E.1.3 Record Keeping and Reporting Requirements

Modification and Construction Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12 and 326 IAC 2-2]
E.1.4 Modification and Construction: Advance Approval of Permit Conditions

E.2. LEAK DETECTION AND REPAIR (LDAR) CONDITIONS FOR BPM WASTE SYSTEM COMPONENTS

Emission Limitations and Standards [326 IAC 2-7-5(1)]
E.2.1 LDAR Stadards for BPM Waste System Components [40 CFR 63.691 326 IAC 8-5-3(b)(6) and 326 IAC 2-2, CP157-4148 (Revised by this permit)]
E.2.2 Exceptions to LDAR Standards for BPM Waste System Components

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]
E.2.3 Record Keeping and Reporting Requirements

Modification and Construction Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12 and 326 IAC 2-2]
E.2.4 Modification and Construction: Advance Approval of Permit Conditions

F.1. CHANGE MANAGEMENT AND FLEXIBLE PERMIT OPERATION CONDITIONS

Emission Limitations and Standards [326 IAC 2-7-5(1)]
F.1.1 Emission Limits [326 IAC 2-2]
F.1.2 Site Modification and Advance Approval of Modifications [326 IAC 2-7-5(9)] [326 IAC 2-7-5(16)]

Testing and Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]
F.1.3 Carbon Monoxide (CO) Emission Limit Determination
F.1.4 Fluorides Emission Limit Determination
F.1.5 Nitroge Oxide (NOx) Emission Limit Determination
F.1.6 Sulfur Dioxide (SO_2) Emission Limit Determination
F.1.7 Volatile Organic Compounds (VOC) Emission Limit Determination

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]
F.1.8 Record Keeping and Reporting Emission Limits [326 IAC 2-7-5(3)] [326 IAC 2-7-19]
F.1.9 Change Management Evaluation Process
F.1.10 Record Keeping and Reporting of Site Modifications [326 IAC 2-7-5(16)] [326 IAC 2-7-20(a)] [40 CFR 63.1259] {40 CFR 63.1260]
F.1.11 Notification for Site Modifications [326 IAC 2-1.1-12 (e)-(f)]
F.1.12 Inclusion of Site Modification in Pharmaceutical MACT Periodic Report
F.1.13 Reports of Changes Affected by Hazardous Waste Combustor MACT

Other Flexible Requirements
F.1.14 Valid Period for Best Available Control Technology [326 IAC 2-2-3(4)]
F.1.15 Emission Increases from Increase from Utilization of Ancillary Equipment [326 IAC 2-2]
F.1.16 NSPS and NESHAP Pre-Construction Notification and Reviews
F.1.17 Pollution Prevention Program

G.1. PLANTWIDE APPLICABILITY LIMITATIONS REQUIREMENTS

Emission Limitations and Standards [326 IAC 2-7-5(1)]
G.1.1 Emission Limits [326 IAC 2-2.4-7(1)]

General PAL Requirements [326 IAC 2-2.4-1(c)]
G.1.2 Major New Source Review Applicability [326 IAC 2-2.4-1(c)]
G.1.3 General PAL Requirements [326 IAC 2-2.4-7] [326 IAC 2-2.4-8] [326 IAC 2-2.4-9] [326 IAC 2-2.4-10] [326 IAC 2-2.4-11 [326 IAC 2-2.4-12]

Testing and Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]
G.1.4 Nitrogen Oxides (NOx) Emission Limit Determination [326 IAC 2-2.4-7(6) & (7)] [326 IAC 2-2.4-12]
G.1.5 Sulfur Dioxides (SO_2) Emission Limit Determination [326 IAC 2-2.4-7(6) & (7)] [326 IAC 2-2.4-12]
G.1.6 Revaluation of Emission Determination Methods [326 IAC 2-2.4-12(i)]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]
G.1.7 Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-2.4-13]
G.1.8 Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-2.4-14]

H.1. SYNTHETIC ORGANIC CHEMICAL MANUFACTURING REQUIREMENTS

Applicability of National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry (SOCMI Rule) [40 CFR part 63 subpart F]

H.1.1 Compliance Demonstration Requirements [40 CFR 63.103(e)]

H.1.2 Modifications and Construction: Advance Approval of Permit Conditions

Certification
Emergency Occurrence Report
Semi-Annual Natural Gas Fired Boiler Certification
Part 70 Usage Report
Quarterly Report
Quarterly Deviation and Compliance Monitoring Report

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(15)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary pharmaceutical manufacturing plant.

Source Address:	1650 Lilly Road, Lafayette, Indiana 47909
General Source Phone Number:	765-477-4300
SIC Code:	2833, 2834, and 2879
County Location:	Tippecanoe
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Major Source, under PSD Rules, PAL for NOx and SO_2 Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(a) D.1 Utilities Operations: The utilities operations consist of three coal/natural gas-fired boilers equipped with an ash handling system and supported by a coal pile and coal conveyor system, and two natural gas boilers with fuel oil backup supplied by one fuel oil tank. The boilers provide steam to process operations in bulk pharmaceutical manufacturing and fermented products. The detailed equipment list is located in Section D.1 of this permit.

(b) D.2 Utilities Support Operations: The utility support facilities include the lime system for the potable water system (T9/T23), glycol tanks for heating and cooling of BPM tanks and chillers, generators and compressors. The detailed equipment list is located in Section D.2 of this permit.

(c) D.3 Fermented Products - Fermentation Operations: The fermentation processes include the dry material storage area (T46), the raw material prep area (T1), the fermentation production areas (T2, T2A and T2C) and product storage area (T63). The detailed equipment list is located in Section D.3 of this permit.

(d) D.4 Fermented Products - Purification Operations: The whole broth products from fermentation are stored in Building T63 and then continuously fed to the purification equipment as capacity allows. The purification department consists of extraction and elution processes (T3 and T40), solvent recovery (T4), raw and recovered material storage (T147), and product storage (T39). The detailed equipment list is located in Section D.4 of this permit.

(e) D.5 Fermented Products - Support Operations: The support operations for the Fermented Products (FP) area consist of the FP wastewater treatment plant and FP wastewater sludge storage operations. The detailed equipment list is located in Section D.5 of this permit.

(f) D.6 Bulk Pharmaceutical Manufacturing (BPM) - Process Operations: The emission units in the BPM production operations can be generally described as process vessels (tanks), crystallizers, filters, centrifuges, dryers, process scrubber systems, and process condenser systems and are referred to as process vents. The detailed equipment list is located in Section D.6 of this permit.

(g) D.7 BPM Support - Solvent Recovery Operations: The BPM solvent recovery emission units can be generally described as columns, stills, evaporators, accumulators, and receivers and are referred to as process vents. The detailed equipment list is located in Section D.7 of this permit.

(h) D.8 BPM Individual Drain Systems (IDSs): The BPM IDSs consist of stationary systems used to convey waste streams to a waste management unit. Segregated stormwater sewer systems, designed and operated for the sole purpose of collecting rainfall-runoff at a facility, and segregated from all other IDSs, are excluded from this definition. The detailed equipment list is located in Section D.8 of this permit.

(i) D.9 BPM Support – Solvent Storage Tank Operations: The BPM solvent storage tanks are defined as any vessel designed to store raw material feedstocks or used solvent to be recovered that contain VOCs and/or VOHAP. Pressure vessels greater than 204.9 kPa without emissions to the atmosphere, vessels attached to motor vehicles, or vessels used to store beverage alcohol are not BPM solvent storage tanks. The detailed equipment list is located in Section D.9 of this permit.

(j) D.10 BPM Support – Waste Storage Tank Operations: The BPM waste storage tanks are defined as any waste management unit designed to contain an accumulation of waste material containing VOCs and/or VOHAP. Pressure vessels greater than 204.9 kPa without emissions to the atmosphere or vessels attached to motor vehicles are not BPM waste storage tanks. The detailed equipment list is located in Section D.10 of this permit.

(k) D.11 BPM Waste Containers: Waste containers are segregated into small and large containers. A small BPM waste container, such as a drum, contains VOC and/or VOHAP with a capacity greater than 26.4 gallons and equal to or less than 110.5 gallons. A large BPM waste container, such as a melon or a tanker truck, contains VOC and/or VOHAP with a capacity greater than 110.5 gallons. Identification of these types of containers have not been individually listed given they are portable and continually change.

(l) D.12 BPM Control Systems – T49 Liquid Waste Incinerator: The T49 liquid waste incinerator provides treatment of Lilly hazardous and non-hazardous waste to support its operational requirements, including high Btu liquids (primary waste) and low Btu liquids (secondary waste). The T49 incinerator consists of a primary combustion chamber followed by a wet quench system, a condenser/absorber, a particulate matter scrubber, and a stack with continuous emissions monitoring. The detailed equipment list is located in Section D.12 of this permit.

(m) D.13 BPM Control Systems – T149 Solid-Liquid Waste Incinerator: The T149 solid-liquid waste incinerator provides treatment of Lilly hazardous and non-hazardous waste to support its operational requirements, including containerized waste (hazardous and non-hazardous), high Btu liquids (primary waste) and low Btu liquids (secondary waste). The T149 solid-liquid waste incinerator consists of a rotary kiln and vertical up-fired secondary combustion chamber (SCC), a wet ash handling system, a NO_x abatement system, a wet quench system, a condenser/absorber, a particulate matter scrubber, an induced draft (ID) fan, and a stack with continuous emissions monitoring. The detailed equipment list is located in Section D.13 of this permit.

(n) D.14 BPM Control Systems – RTO Operations: The regenerative thermal oxidizer (RTO) system consists of a closed-vent system that transports fume streams exhausted from the BPM manufacturing and support operations to the RTOs. The RTOs, designed to thermally destruct the VOC and/or VOHAP laden fume streams from the process and support operations, are also equipped with caustic scrubbing systems to control hydrogen halide and halogen emissions. The detailed equipment list is located in Section D.14 of this permit.

(o) D.15 BPM Control Systems – T79 Fume Incinerator System Operations: The T79 fume incinerator system consists of a closed-vent system that transports fume streams exhausted from the BPM manufacturing and support operations to the T79 incinerator. The T79 incinerator, designed to thermally destruct the VOC and/or VOHAP laden fume streams from the process and support operations, are also equipped with caustic scrubbing systems to control hydrogen halide and halogen emissions. The detailed equipment list is located in Section D.15 of this permit.

(p) D.18 BPM – Chemical Wastewater Treatment Plant: The wastewater generated from the BPM operations is collected in wastewater holding tanks, transferred through a clarification process, followed by the biological treatment facility. The detailed equipment list is located in Section D.18 of this permit.

(q) D.19 BPM Support Operations – Transfer of Affected Wastewater of Offsite Treatment: Facilities for the shipment of wastewater generated onsite to an offsite treatment facility and facilities for the receipt of offsite wastewater to be treated onsite.

(r) D.20 Utilities Operations: Two natural gas/distillate oil-fired boilers, a natural gas-fired emergency generator, and a diesel powered emergency air compressor.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

(a) This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

(1) D.3 Fermented Products - Fermentation Operations: Various mixers, bump tanks and fermenter tanks in the fermentation operations each emitting less than 5 pounds PM10 per hour or 25 pounds PM10 per day. [326 IAC 6-3]

(2) D.8 BPM Individual Drain Systems (IDSs): Individual drain systems (sumps) in the BPM operating areas each emitting less than less than 3 pounds VOC per hour or 15 pounds VOC per day. [40 CFR 63.1256(e), 40 CFR 63.689(b), and 326 IAC 2-2]

(3) D.10 BPM Support – Waste Storage Tank Operations: Various BPM waste tanks and knock out pots in the BPM operating areas each emitting less than 3 pounds VOC per hour or 15 pounds VOC per day. [40 CFR 63.1256(b), 40 CFR 63.685, 40 CFR 60.110b, 326 IAC 2-2, and 326 IAC 8-5-3]

(4) D.11 BPM Waste Containers: Small and large waste containers in the BPM operating areas each emitting less than less than 3 pounds VOC per hour or 15 pounds VOC per day. [40 CFR 63.1256(d), 40 CFR 63.688, 326 IAC 2-2]

(5) D.6 BPM Production Operations: Heat exchange systems in the BPM operating areas are classified as insignificant activities under the closed loop heating and cooling system clause pursuant to 326 IAC 2-7-1(21)(FF) and 40 CFR 63.1252(c).

(6) D.16 Research and Development Operations: The T171 equipment components from process piping systems, including pumps, valves, and piping connections [flanges] are classified as insignificant activities under the research and development facility clause pursuant to 326 IAC 2-7-1(21)(E). [40 CFR 63.1255 and 40 CFR 61, Subpart V]

(7) D.21 Degreaser Operation Conditions: This section provides specific requirements for cold cleaning organic solvent degreasing operations constructed after January 1, 1990 at the site which are defined as insignificant activities pursuant to 326 IAC 2-7-1(21)(G)(vi)(CC).

(b) This stationary source consists of the following types of insignificant activities, as defined in 326 IAC 2-7-1 (21) that do not have applicable requirements:

(1) Natural gas-fired combustion sources with heat input equal to or less than 10 MMBtu per hour;

(2) Propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than 6 MMBtu per hour;

(3) Equipment powered by internal combustion engines of capacity equal to or less than 0.5 MMBtu per hour, except where the total capacity of equipment operated by one stationary source exceeds 2 MMBtu per hour;

(4) A gasoline fuel transfer and dispensing operation handling less than or equal to 1300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons;

(5) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month;

(6) VOC/HAP storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons;

(7) VOC/HAP vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;

(8) Refractory storage not requiring air pollution control equipment;

(9) Machining where an aqueous cutting coolant continuously floods the machining interface;

(10) Degreasing operations that do not exceed 145 gallons of solvent usage per 12 months, except if subject to 326 IAC 20-6;

(11) Cleaners and solvents having a vapor pressure equal to or less than 2kPa measured at 38°C or having a vapor pressure equal to or less than 0.7kPa measured at 20°C and not exceeding a combined usage rate of 145 gallons per 12 months;

(12) Closed loop heating and cooling systems; [See Section D.2]

(13) Structural or fabrication cutting 200,000 linear feet or less of one inch plate or

equivalent or using 80 tons or less of welding consumables;

(14) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume;

(15) Activities associated with the transportation and treatment of sanitary sewage, provided discharge to the treatment plant is under the control of the owner/operator, that is, an on-site sewage treatment facility;

(16) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs;

(17) Forced and induced draft noncontact cooling tower systems not regulated under a NESHAP;

(18) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;

(19) Heat exchanger cleaning and repair;

(20) Process vessel degassing and cleaning to prepare for internal repairs;

(21) Stockpiled soils from soil remediation activities that are covered and waiting transport for disposal;

(22) Paved and unpaved roads and parking lots with public access;

(23) Covered conveyors for coal or coke conveying of less than or equal to 360 tons per day; [See Section D.1]

(24) Coal bunker and coal scale exhausts and associated dust collector vents;

(25) Asbestos abatement projects regulated by 326 IAC 14-10;

(26) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process;

(27) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks and fluid handling equipment;

(28) Blowdown from sight glasses; boilers; compressors; pumps; and cooling towers;

(29) On-site fire and emergency response training approved by the department;

(30) Gasoline emergency generators not exceeding 110 horsepower;

(31) Diesel emergency generators not exceeding 1600 horsepower; [See Section D.2]

(32) Natural gas emergency turbines or reciprocating engines not exceeding 16,000 horsepower;

(33) Other emergency equipment such as stationary fire pumps; [See Section D.2]

(34) Grinding and machining operations controlled with fabric filters, scrubbers, mist

collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations;

(35) Purge double block and bleed valves;

(36) Filter or coalescer media changeout;

(37) Vents from ash transport systems not operated at positive pressures;

(38) A laboratory as defined in 326 IAC 2-7-1(21)(D);

(39) Research and development facility as defined in 326 AIC 2-7-1(E);

(40) Farm operations; and

(41) Other activities below insignificant threshold levels:

(A) Portable cleaning and collection tanks less than 3 pounds VOC per hour or 15 pounds VOC per day;

(B) T4 sulfuric acid tank less than 5 pounds PM10 per day or 25 pounds PM10 per day;

(C) T47 trash transfer less than 5 pounds PM10 per day or 25 pounds PM10 per day;

(D) Sump tanks less than 3 pounds VOC per hour or 15 pounds VOC per day;

(E) T116 hydrochloric acid tank less than 5 pounds single HAP per day or 1 ton single HAP per year;

(F) T14 Ranney Well less than 5 pounds single HAP per day or 1 ton single HAP per year;

(G) T99 ethylene glycol expansion tanks/system less than 12.5 pounds combined HAP per day or 2.5 tons combined HAP per year;

(H) T100 MACE tanks/system less than 12.5 pounds per day or 2.5 tons combined HAP per year;

(I) T100 Unit 1 drumming operations less than 5 pounds PM10 per day or 25 pounds PM10 per day;

(J) T99/T100 solids particle sizing equipment (mills and delumpers) less than 5 pounds PM10 per day or 25 pounds PM10 per day; and

(K) Various fermentation and purification operations less than 3 pounds VOC per hour or 15 pounds VOC per day, less than 12.5 pounds per day or 2.5 tons combined HAP per year; and less than 5 pounds PM10 per day or 25 pounds PM10 per day. [See Section D.3 and D.4]

(42) T39 research and development activities defined in 326 IAC 2-7-1(21)(H).

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][IC 13-15-3-6(a)]

(a) This permit, T157-26575-00006, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

B.3 Enforceability [326 IAC 2-7-7]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.4 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source’s existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.5 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by a "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a "responsible official" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

(c) A "responsible official" is defined at 326 IAC 2-7-1(34).

B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by a "responsible official" as defined by 326 IAC 2-7-1(34).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)][326 IAC 2-7-6(1) and (6)][326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain Preventive Maintenance Plans (PMPs) including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

(b) The Permittee shall implement the PMPs, including any required record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit

(c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by a "responsible official" as defined by 326 IAC 2-7-1(34).

(d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Emergency Provisions [326 IAC 2-7-16]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by a "responsible official" as defined by 326 IAC 2-7-1(34).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]

(a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The

Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

(b) In addition to the nonapplicability determination set forth in Section D of this permit, the IDEM, OAQ has made the following determination regarding this source.

(1) **40 CFR 60, Subpart Cb - Emission Guidelines and Compliance Times for Large Municipal Waste Combustors That are Constructed On or Before September 20, 1994:** This rules does not apply because none of the waste incinerators combust municipal waste.

(2) **40 CFR 60, Subpart Ce - Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators:** This rules does not apply because none of the waste incinerators combust hospital, medical, or infectious waste.

(3) **40 CFR 60, Subpart D – Fossil-fuel fired steam generating units:** This source is not subject to 40 CFR Part 60, Subpart D because none of the boilers at the plant site exceed 250 MMBtu/hr in heat input capacity. [40 CFR 60.40(a)(1)]

(4) **40 CFR 60, Subpart Dc – Standard of Performance for Industrial-Commercial-Institutional steam generating units:** This source is not subject to 40 CFR Part 60, Subpart Dc because none of the boilers with maximum heat input capacities between 10 and 100 MMBtu/hr at plant site were constructed, reconstructed, or modified after June 9, 1989. [40 CFR 60.40c(a)]

(5) **40 CFR 60, Subpart E – Standard of Performance for Incinerators:** This source is not subject to 40 CFR Part 60, Subpart E because none of the incinerators at the plant site exceed a charging rate of 50 metric tons per day. [40 CFR 60.50(a)].

(6) **40 CFR 60, Subparts Ea – Standard of Performance for Municipal Waste Combustors for which Construction Commenced After December 20, 1989 and On or Before September 20, 1994:** This rule does not apply because the waste incinerators have a permit under section 3005 of the Solid Waste Disposal Act. Any combustor required to have a permit under section 3005 of the Solid Waste Disposal Act is not subject to this subpart.

(7) **40 CFR 60, Subparts Eb – Standard of Performance for large Municipal Waste Combustors for which Construction Commenced After December 20, 1994 or for which Modification or reconstruction is Commenced After June 19, 1996:** This rule does not apply because the waste incinerators have a permit under section 3005 of the Solid Waste Disposal Act. Any combustor required to have a permit under section 3005 of the Solid Waste Disposal Act is not subject to this subpart.

(8) **40 CFR 60, Subparts Ec and CCCC – Standard of Performance for Hospital/Medical/Infectious waste incinerators for which Construction is Commenced After June 20, 1996 and Standard of Performance for Commercial and Industrial solid waste incineration units for which Construction is Commenced After November 30, 1999 or for which modification or reconstruction is commenced on or after June 1, 2001:** This source is not subject to 40 CFR Part 60 Subpart Ec or Subpart CCCC because the combustors at the site are required to have a permit pursuant to Section 3005 of the Solid Waste Disposal Act. [40 CFR 60.50c(d) and 40 CFR 60.2020(g)]

(9) **40 CFR 60, Subparts VV, VVa, III, NNN and RRR – Synthetic organic chemical manufacturing:** This source is not subject to 40 CFR Part 60, Subparts VV, III, NNN, and RRR because the source is not engaged in the manufacture of synthetic organic chemicals as defined by those standards. The source does not produce, as an intermediate, final product, co-product, or by-product, a chemical listed in 40 CFR 60.489 [Subpart VV and Subpart VVa], 40 CFR 60.617 [Subpart III], 40 CFR 60.667 [Subpart NNN], or 40 CFR 60.707 [Subpart RRR].

(10) **40 CFR 60, Subpart K – Storage Vessels for Petroleum Liquids**: This source is not subject to 40 CFR Part 60, Subpart K because none of the storage tanks at the source constructed between June 11, 1973 and May 19, 1978 store petroleum liquids, as defined in 40 CFR 60.111.

(11) **40 CFR 60, Subpart Ka – Storage Vessels for Petroleum Liquids**: This source is not subject to 40 CFR Part 60, Subpart K because none of the storage tanks at the source constructed between May 19, 1978 and July 23, 1984 store petroleum liquids, as defined in 40 CFR 60.111.

(12) **40 CFR 60, Subpart AAAA – Small Municipal Waste Combustion Units**: This source is not subject to 40 CFR Part 60, Subpart AAAA because the incinerators at the source are hazardous waste combustion units that are subject to a permit for under section 3005 of the Solid Waste Disposal Act, as provided in 40 CFR 60.1020(e).

(13) **40 CFR 60, Subpart BBBB – Small Municipal Waste Combustion Units**: This source is not subject to 40 CFR Part 60, Subpart BBBB because the incinerators at the source are hazardous waste combustion units that are subject to a permit for under section 3005 of the Solid Waste Disposal Act, as provided in 40 CFR 60.1555(e).

(14) **40 CFR 60, Subpart CCCC – Commercial and Industrial Solid Waste Incinerators**: This source is not subject to 40 CFR Part 60, Subpart CCCC because the incinerators at the source are hazardous waste combustion units that are subject to requirements under 40 CFR 63, Subpart EEE, as provided in 40 CFR 60.2020(g).

(15) **40 CFR 60, Subpart DDDD – Commercial and Industrial Solid Waste Incinerators**: This source is not subject to 40 CFR Part 60, Subpart DDDD because the incinerators at the source are hazardous waste combustion units that are subject to requirements under 40 CFR 63, Subpart EEE, as provided in 40 CFR 60.2555(g).

(16) **40 CFR 60, Subpart EEEE – Other Solid Waste Incinerators**: This source is not subject to 40 CFR Part 60, Subpart EEEE because the incinerators at the

source are hazardous waste combustion units that are subject to requirements under 40 CFR 63, Subpart EEE, as provided in 40 CFR 60.2887(e).

(17) **40 CFR 60, Subpart FFFF – Other Solid Waste Incinerators**: This source is not subject to 40 CFR Part 60, Subpart FFFF because the incinerators at the source are hazardous waste combustion units that are subject to requirements under 40 CFR 63, Subpart EEE, as provided in 40 CFR 60.2993(e).

(18) Reserved.

(19) **40 CFR 60, Subpart JJJJ - Stationary Spark Ignition Internal Combustion Engines:** This source is not subject to 40 CFR Part 60, Subpart JJJJ, because the Spark Ignition Internal Combustion Engines at the source were manufactured before July 1, 2007 and are not fire pump engines.

(20) **40 CFR 60, Appendix B, Performance Specification 16 - Predictive Emission Monitoring System:** This rule does not apply because the source does not operate any predictive emission monitoring systems (PEMS).

(21) **Section 111(d) Emission Guidelines:** None of the emission guidelines in 40 CFR Part 60, 40 CFR Part 62, Subpart P, and 326 IAC 11 are applicable to this source because the source does not own or operate an affected facility subject to those requirements. 40 CFR Part 60, Subpart Ce and 326 IAC 11-6, and 40 CFR Part 60, Subpart DDDD and 326 IAC 11-8 are not applicable to this source because combustors at the site are required to have a permit pursuant to Section 3005 of the Solid Waste Disposal Act. [40 CFR 60.32e(d) and 40 CFR 60.2555(g)].

(22) **40 CFR 61, Subpart C – National Emission Standard for Beryllium:** This source is not subject to 40 CFR Part 61, Subpart C and 326 IAC 14-3 because the incinerators at the source do not incinerate beryllium containing waste. [40 CFR 61.30(a) and 40 CFR 61.31(g)]

(23) **40 CFR 61, Subpart E – National Emission Standard for Mercury:** This source is not subject to 40 CFR Part 61, Subpart E and 326 IAC 14-5, which applies to, among other things, incinerators burning wastewater treatment plant sludge because the source does not incinerate wastewater treatment plant sludge in its incinerators.

(24) **40 CFR 61, Subpart FF – National Emission Standard for Benzene Waste Operations:** This source does not handle more than 10 megagrams of benzene waste per year. Therefore, the source is not subject to requirements of 40 CFR Part 61, Subpart FF.

(25) **40 CFR 63, Subpart B Sections 63.50 through 63.56 – Section 112(j)**: This source is not subject to 40 CFR Part 63, Sections 63.50 through 63.56 because there are no affected sources within a source category or subcategory for which USEPA has failed to promulgate emission standards by the section 112(j) deadlines.

(26**)** **40 CFR 63, Subparts F and G – Synthetic Organic Chemical Manufacturing:** This source is not subject to 40 CFR Part 63, Subparts F and G (326 IAC 20-10) because the source does not manufacture compounds listed in table 1 of Subpart F or use as a reactant compounds listed in table 2 of Subpart F. [40 CFR 63.100(b)]

(27) **40 CFR 63, Subpart O – Ethylene Oxide Sterilizers:** This source is not subject to 40 CFR Part 63, Subpart O and 326 IAC 20-5 because the source does not utilize ethylene oxide in sterilization operations. [40 CFR 63.360]

(28) **40 CFR 63, Subpart Q – Industrial Process Cooling Towers:** This source is not subject to 40 CFR Part 63, Subpart Q and 326 IAC 20-4 because the source does not utilize chromium based water treatment compounds in its cooling towers. [40 CFR 63.400]

(29) **40 CFR 63, Subpart T – Halogenated Solvent Cleaning:** This source is not subject to 40 CFR Part 63, Subpart T and 326 IAC 20-6 because the source does not use halogenated solvents in any solvent cleaning machines. [40 CFR 63.460]

(30) **40 CFR 63, Subpart YY – Generic MACT categories:** This source is not subject to 40 CFR Part 63, Subpart YY and 326 IAC 20-44 because the source is not one of the source categories described in 40 CFR 63.1103. [40 CFR 63.1100]

(31) **40 CFR 63, Subpart MMM – Pesticide Active Ingredient Production:** This source is not subject to 40 CFR Part 63, Subpart MMM and 326 IAC 20-45 because the source does not contain any pesticide active ingredient process units or associated equipment as described in 40 CFR 63.1360. [40 CFR 63.1360]

(32) **40 CFR 63, Subpart EEEE** – **Organic Liquid Distribution:** This source has emission units that are affected sources under 40 CFR Part 63, Subpart EEEE, but the emission units do not exceed the thresholds requiring emission controls. Therefore, the requirements of 40 CFR 63, Subpart EEEE do not apply to the source.

(33) **40 CFR 63, Subpart FFFF** – **Miscellaneous Organic Chemical Production and Processes:** This source is not subject to 40 CFR Part 63, Subpart FFFF because all the affected facilities at the source that would otherwise be subject to Subpart FFFF are subject to 40 CFR 63, Subpart GGG.

(34) Reserved.

(35) **40 CFR 63, Subpart GGGGG – Site Remediation:** This source is not subject to 40 CFR Part 63, Subpart GGGGG because the site remediation activities at Tippecanoe Laboratories are being performed under a RCRA corrective action program at a treatment, storage and disposal facility.

(36) **326 IAC 4-2 –Incinerators**: This source is not subject to 326 IAC 4-2, Incinerators, because the incinerators at the source are hazardous waste combustion units that are subject to requirements under 40 CFR 63, Subpart EEE, as provided in 326 IAC 4-2-1(b)(2)(F).

(37) **326 IAC 6-5 – Fugitive Particulate Matter Emission Limitations:** This source does not have potential fugitive dust emissions greater than 25 tons per year, and is therefore, not subject to the requirements of this rule.

(38) Reserved.

(39) **326 IAC 8-4 – Petroleum Sources:** This source does not operate any facilities subject to the requirements of 326 IAC 8-4. 326 IAC 8-4-6 is not applicable to

this source because the source does not accept deliveries of gasoline by transports, as defined by 326 IAC 1-2-84.

(40) **326 IAC 8-6 – Organic Solvent Emissions Limitations**: The provisions of 326 IAC 8-6 are not applicable to this source because the source is subject to other rules in 326 IAC 8.

(41) **326 IAC 9-1 –Carbon Monoxide Emission Limits**: This source is not subject to 326 IAC 9-1, Carbon Monoxide Emission Limits, because the incinerators at the source are hazardous waste combustion units that are subject to requirements under 40 CFR 63, Subpart EEE, as provided in 326 IAC 9-1-1(b)(5).

(42) **326 IAC 10 – Nitrogen Oxide Rules: This source** does not contain any emission units identified in 326 IAC 10-4. Therefore, the source is not subject to the NOx emission control requirements of that rule.

(43) **326 IAC 11 – Emission Limitations for Specific Types of Operations:** This source does not contain any emission units described in 326 IAC 11. Therefore, the source is not subject to the requirements of those rules.

(44) **326 IAC 15 – Lead Rules:** This source does not contain any emission units described in 326 IAC 15. Therefore, the source is not subject to the requirements of those rules.

(45) **326 IAC 21 – Acid Deposition:** This source does not contain any emission units described in 326 IAC 21. Therefore, the source is not subject to the requirements of those rules.

(c) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

(d) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

(e) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

(2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and

(4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.

(f) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

(g) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]

(h) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]

(a) All terms and conditions of permits established prior to T157-26575-00006 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised under 326 IAC 2-7-10.5, or

(3) deleted under 326 IAC 2-7-10.5.

(b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

B.14 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by a "responsible official" as defined by 326 IAC 2-7-1(34).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)][326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit.
[326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by a "responsible official" as defined by 326 IAC 2-7-1(34).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.16 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by a "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Administration and Support Section (PASS), Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(b) A timely renewal application is one that is:

(1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.17 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12] [40 CFR 72]

(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Administration and Support Section (PASS), Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application shall be certified by a "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

(d) No permit amendment or modification is required for the addition, operation or removal of a nonroad engine, as defined in 40 CFR 89.2.

B.18 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12(b)(2)]

(a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.19 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b),(c), or (e) without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

(3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Administration and Support Section (PASS), Office of Air Quality 100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region 5
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b),(c), or (e). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-7-20(b)(1), (c)(1), and (e)(2).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by a “responsible official” as defined by 326 IAC 2-7-1(34).

(c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).

(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

(e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.20 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.

B.21 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Administration and Support Section (PASS), Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require the certification by a "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.24 Advanced Source Modification Approval [326 IAC 2-7-5(16)] [326 IAC 2-7-10.5]

(a) The requirements to obtain a source modification approval under 326 IAC 2-7-10.5 or a permit modification under 326 IAC 2-7-12 are satisfied by this permit for the proposed emission units, control equipment or insignificant activities in Sections A.2 and A.3.

(b) Pursuant to 326 IAC 2-1.1-9 any permit authorizing construction may be revoked if construction of the emission unit has not commenced within eighteen (18) months from the date of issuance of the permit, or if during the construction, work is suspended for a continuous period of one (1) year or more.

B.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

B.26 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

(a) the condition is modified in a subsequent permit action; or

(b) the emission unit to which the condition pertains permanently ceases operation.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-7-5(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.4 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.5 Pharmaceutical MACT Annual Mass Limit Process Vent Standard [40 CFR 63.1254(a)(2)]

The sum of all process vents within processes complying with the Pharmaceutical MACT annual mass emissions limit shall not exceed an annual mass limit of 1800 kg HAP per 365-day period pursuant to 40 CFR 63.1254(a)(2)(ii).

C.6 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-1(3), 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4, and 326 IAC 1-7-5(a), (b), and (d) are not federally enforceable.

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

The Permittee shall comply with the applicable requirements of 326 IAC 14-10, 326 IAC 18, and 40 CFR 61.140.

The requirement in 326 IAC 14-10-1(a) that the owner or operator shall use an Indiana Accredited

Asbestos Inspector and all the requirements in 326 IAC 18 related to licensing requirements for asbestos inspectors are not federally enforceable.

Testing Requirements [326 IAC 2-7-6(1)]

C.8 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by a "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by a "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Except as otherwise provided in this permit, pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements 4[326 IAC 2-1.1-11]

C.9 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]

C.10 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]

(a) This section applies to the operation and maintenance of equipment and devices specified in Section D of this permit to determine or monitor compliance, except that it does not apply to continuous emissions monitoring systems or continuous opacity monitoring systems described in Section D. Section C.11 (Maintenance of Continuous Emission Monitoring Equipment) establishes the general operation and maintenance requirements for continuous emission monitoring systems and continuous opacity monitoring systems.

(b) Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If

due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:
Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by a "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

(d) The Permittee shall keep records of monitoring system operation that include the following:

(1) All maintenance logs, calibration checks, and other required quality assurance activities.

(2) All records of corrective and preventive action.

(3) A log of monitoring system downtime, including the following:

(A) Date of monitoring system downtime.

(B) Time of commencement and completion of each downtime.

(C) Reason for each downtime.

(e) The Permittee shall submit a report of monitoring system downtime as specified in Section D. The report shall include the following:

(1) Date of monitoring system downtime.

(2) Time of commencement.

(3) Duration of each downtime.

(4) Reasons for each downtime.

(5) Nature of system repairs and adjustments.

(f) Except where permit conditions streamline similar applicable requirements pursuant to 326 IAC 2-7-24, nothing in this permit nor in 326 IAC 3-5 supersedes the monitoring provisions in 40 CFR Part 60 or 40 CFR Part 63.

(g) Instrument Specification;

(1) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device

shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.

(2) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

C.11 Maintenance of Continuous Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)] [326 IAC 2-1.1-11] [326 IAC 3-5]

(a) Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification, which shall be submitted by the Permittee, does require the certification by a “responsible official” as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEMS) and related equipment in accordance with applicable federal regulations and 326 IAC 3-5.

(c) This provision applies only to CEMS operated solely for monitoring compliance with BACT limitations. The CEMS shall be operated at all times as specified in Section D, except during CEMS malfunctions, reasonable periods of necessary CEMS calibration or CEMS maintenance activities. CEMS calibration and maintenance activities shall be properly documented and shall be conducted pursuant to the standard operating procedures under 326 IAC 3-5-4(a).

(d) The Permittee shall keep records in accordance with 326 IAC 3-5-6(b) that includes the following:

(1) All documentation relating to:

(A) design, installation, and testing of all elements of the monitoring system; and

(B) required corrective action or compliance plan activities.

(2) All maintenance logs, calibration checks, and other required quality assurance activities.

(3) All records of corrective and preventive action.

(4) A log of plant operations, including the following:

(A) Date of facility downtime.

(B) Time of commencement and completion of each downtime.

(C) Reason for each downtime.

(e) In accordance with 326 IAC 3-5-7(5), the Permittee shall submit reports of continuous monitoring system instrument downtime, except for zero (0) and span checks, which shall be reported separately. The reports shall include the following:

(1) Date of downtime.

(2) Time of commencement.

(3) Duration of each downtime.

(4) Reasons for each downtime.

(5) Nature of system repairs and adjustments.

(f) Except where permit conditions streamline similar applicable requirements pursuant to 326 IAC 2-7-24, nothing in this permit nor in 326 IAC 3-5 supersedes the monitoring provisions in 40 CFR Part 60 or 40 CFR Part 63.

(g) The Permittee shall prepare and submit to IDEM, OAQ a written report of the results of the calibration gas audits and relative accuracy test audits for each calendar quarter within thirty (30) calendar days after the end of each quarter. The report must contain the information required by 326 IAC 3-5-5(e)(2). 326 IAC 3-5-5(e)(2) is not federally enforceable.

Corrective Actions and Response Steps [326 IAC 2-7-5][326 IAC 2-7-6]

C.12 Emergency Reduction Plan [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee prepared and submitted to the commissioner a revised written emergency reduction plan (ERP) consistent with safe operating procedures on August 25, 2011.

(b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.13 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR Part 68]

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.14 Response to Abnormal or Out-of-Range Compliance Monitoring Measurements [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) Upon detecting a measurement required by a compliance monitoring condition of this permit that is outside the normal or usual range of values for the monitoring parameter, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as

expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

(b) The response shall include minimizing the period of any startup, shutdown, or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of abnormal or out-of-range monitoring values (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(c) A determination of whether the Permittee has used acceptable procedures in response to a measurement indicating abnormal or out-of-range monitoring values will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records; and/or

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall maintain records of corrective actions taken.

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by a "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.16 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]

(a) Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

(1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);

(2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1 (32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

The emission statement does require the certification by a "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

C.17 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2] [326 IAC 2-3]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

(c) If there is a reasonable possibility that a "project" (as defined in 326 IAC 2-2-1 (qq)) at an existing emissions unit, other than projects at a source with Plant-wide Applicability Limitation (PAL)), which is not part of a "major modification" (as defined in 326 IAC 2-2-1 (ee)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1 (rr)), the Permittee shall comply with following:

(1) construction of the "project" (as defined in 326 IAC 2-2-1 (qq) at an existing emissions unit, document and maintain the following records:

(A) A description of the project.

(B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.

(C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:

(i) Baseline actual emissions;

(ii) Projected actual emissions;

(iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii); and

(iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.

(2) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and

(3) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by a "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by a "responsible official" as defined by 326 IAC 2-7-1(34).

(e) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

(f) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C - General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:

(1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx) and/or 326 IAC 2-3-1 (qq), for that regulated NSR pollutant, and

(2) The emissions differ from the preconstruction projection as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(ii).

(g) The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:

(1) The name, address, and telephone number of the major stationary source.

(2) The annual emissions calculated in accordance with (d)(1) and (2) in Section C - General Record Keeping Requirements.

(3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).

(4) Any other information that the Permittee deems fit to include in this report.

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(h) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C- General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

Stratospheric Ozone Protection

C.19 Compliance with 40 CFR 82 and 326 IAC 22-1

The Permittee shall comply with all the applicable provisions of 40 CFR Part 82, wherever applicable to activities at the source.

SECTION D.1 UTILITIES OPERATION CONDITIONS

Emissions Unit Description: [326 IAC 2-7-5(1)]:

(a) The following emission units are subject to applicable requirements described in this D section:

Emission* Unit ID	Emission Unit Description	Stack/Vent	Nominal Capacity	UOM	Control Device
Building T6:					
BLR001	Coal/Natural Gas Boiler	S-T6-BLR001	92	MMBtu/hr	Multiclone001
BLR002	Coal/Natural Gas Boiler	S-T6-BLR002	92	MMBtu/hr	Multiclone002
BLR003	Coal/Natural Gas Boiler	S-T6-BLR003	92	MMBtu/hr	Multiclone003
BLR004	Natural Gas/Fuel Oil Boiler	S-T6-BLR004	142	MMBtu/hr	None
BLR005	Natural Gas/Fuel Oil Boiler	S-T6-BLR005	97	MMBtu/hr	None
CONASH	Ash Handling System	PV-T6-CONASH	1,805	lbs/hr	Baghouse

* In this permit, boilers BLR001, BLR002, BLR003, BLR004, and BLR005 are referred to as Boilers 1, 2, 3, 4, and 5, respectively.

(b) The following emission units are not subject to applicable requirements described in this D section and are listed only for informational purposes:

Emission Unit ID	Emission Unit Description	Stack/Vent	Nominal Capacity	UOM	Control Device
Outside Building T6:					
OILTK001*	Fuel Oil Storage Tank	PV-T6-OILTK001	250,000	gallons	None
COAL	Coal Pile	N/A	N/A	N/A	N/A
CNV001-CNV005	Covered Coal Conveyor System	N/A	N/A	N/A	N/A

* Emission units marked with a single asterisk are insignificant activities as defined in 326 IAC 2-7-1(21). Specifically, the fuel oil storage tank is an insignificant activity pursuant to 326 IAC 2-7-1(21)(A)-(C).

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.0 Reserved

D.1.1 Particulate Matter (PM) Limitations [326 IAC 6-2-3, 326 IAC 6-3, and PC (79) 1510 Issued March 22, 1982 (Revised by this permit)]

(a) Pursuant to 326 IAC 6-2-3(b) (Particulate Matter Emission Limitations for Sources of Indirect Heating), particulate emissions from each coal/natural gas-fired boiler (Boilers 1, 2, and 3) shall not exceed 0.56 pounds per million British thermal units (MMBtu) heat input.

(b) Pursuant to 326 IAC 6-2-3(c) (Particulate Matter Emission Limitations for Sources of Indirect Heating), particulate emissions from Boiler 4 shall not exceed 0.39 pounds per

MMBtu heat input.

(c) Pursuant to 326 IAC 6-2-3(c) (Particulate Matter Emission Limitations for Sources of Indirect Heating), particulate emissions from Boiler 5 shall not exceed 0.31 pounds per MMBtu heat input.

(d) Pursuant to 326 IAC 6-3-2, particulate matter emissions from the ash handling system shall not exceed 3.83 pounds per hour based on a maximum throughput of 0.903 tons of ash per hour.

D.1.2 Sulfur Dioxide (SO_2) Limitations [326 IAC 7-1.1-2, and PC (79) 1510 Issued March 22, 1982 (Revised by this permit)]

(a) Pursuant to 326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations), the SO_2 emissions from each of the coal/natural gas-fired boilers (Boilers 1, 2 and 3) shall not exceed 6.0 pounds per MMBtu heat input.

(b) Pursuant to 326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations), the SO_2 emissions from Boiler 4 shall be limited to 0.5 pounds per MMBtu heat input, when burning No. 2 fuel oil. Pursuant to 326 IAC 7-2-1, compliance with this standard is based on a calendar month average. This emission limit correlates to a maximum fuel oil sulfur content of 0.49 percent by weight.

(c) Pursuant to 326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations), the SO_2 emissions from Boiler 5 shall not exceed 0.5 pounds per MMBtu heat input, when burning No. 2 fuel oil. This emission limit correlates to a maximum fuel oil sulfur content of 0.49 percent by weight.

D.1.3 Reserved

D.1.4 Temporary Alternative Opacity Limitations [326 IAC 5-1-3]

Pursuant to 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), the following conditions apply as an alternative to the opacity limitations in Section C – Opacity:

(a) When building a new fire in a boiler, or shutting down a boiler, opacity may exceed the applicable limit established in 326 IAC 5-1-2 and stated in Section C - Opacity. However, opacity levels shall not exceed sixty percent (60%) for any six (6) minute averaging period. Opacity in excess of the applicable limit established in 326 IAC 5-1-2 shall not continue for more than two (2) six (6)-minute averaging periods in any twenty-four (24) hour period.

(b) When removing ashes from the fuel bed or furnace in a boiler or blowing tubes, opacity may exceed the applicable limit established in 326 IAC 5-1-2 and stated in Section C - Opacity. However, opacity levels shall not exceed sixty percent (60%) for any six (6) minute averaging period and opacity in excess of the applicable limit shall not continue for more than one (1) six (6) minute averaging periods in any sixty (60) minute period. The averaging periods shall not be permitted for more than three (3) six (6) minute averaging periods in a twelve (12) hour period.

D.1.5 Preventive Maintenance Plans [326 IAC 2-7-5(13)]

(a) A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the coal/natural gas-fired boilers and associated multiclone control devices.

(b) Reserved

Additional Emission Limitations and Standards are included in Conditions D.1.17 and D.1.18.

Testing and Monitoring Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-7-5(1)]

D.1.6 Testing Requirements [326 IAC 2-7-6(1), (6)]

(a) The following testing requirements apply when coal is burned in Boilers 1, 2, or 3. The Permittee shall perform particulate matter performance tests for Boilers 1, 2 and 3 utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM or other methods as approved by the Commissioner. These tests shall be repeated every third calendar year from the calendar year of the most recently completed compliance stack test. The requirements for conducting performance tests are described in Section C – Performance Testing.

(i) If the Permittee ceases burning coal in Boilers 1, 2, or 3 for more than 1 year, the obligation to conduct performance tests shall no longer be required. If the Permittee resumes burning coal after having either shut down the units or operated them on natural gas for more than 1 year, the Permittee shall conduct performance tests within 6 months of resuming using coal as a fuel.

(b) No emissions testing is required at this time for boilers 4 and 5, for compliance with particulate matter limit established in Conditions D.1.1. However, IDEM may require performance testing when necessary to determine compliance. The requirements for conducting performance tests are described in Section C – Performance Testing.

(c) Reserved

D.1.7 Coal Sampling and Analysis for SO_2 [326 IAC 3-7 and 326 IAC 7-2]

Whenever coal is burned in Boilers 1, 2, or 3, the Permittee shall collect coal sampling and analysis data on a calendar month average in accordance with one of the following methods specified in 326 IAC 3 for each of the coal/natural gas-fired boilers (Boilers 1, 2 and 3):

(a) Coal sampling and analysis shall be performed using one of the following procedures:

(1) Sampling and analyzing the coal according to the Permittee's Coal Sampling and Assay Plan, submitted pursuant to 326 IAC 3-7-5(a). The following minimum sampling and analysis requirements shall be met:

(A) The coal sample acquisition point shall be at a location where representative samples of the total coal flow to be combusted by the facility or facilities may be obtained. A single as-bunkered or as-burned sampling station may be used to represent the coal to be combusted by multiple facilities using the same stockpile feed system;

(B) Coal shall be sampled at least two (2) times per day and at least one (1) time per twelve (12) hour period unless no coal is bunkered during the preceding twelve (12) hour period. This permit condition satisfies the requirements of 326 IAC 3-7-2(b)(3)(B);

(C) Minimum sample size shall be five hundred (500) grams;

(D) Samples shall be composited and analyzed at the end of each calendar month;

(E) Preparation of the coal sample, heat content analysis, and sulfur content analysis shall be determined pursuant to 326 IAC 3-7-2(c), (d), (e); or

(2) Sample and analyze the coal pursuant to 326 IAC 3-7-2(b).

(b) Upon written notification to IDEM by a facility owner or operator, continuous emission monitoring data collected and reported pursuant to 326 IAC 3-5-1 may be used as the means for determining compliance with the emission limitations in 326 IAC 7-1.1-2. Upon such notification, the other requirements of 326 IAC 7-2 shall not apply. [326 IAC 7-2-1(g)]

D.1.8 Fuel Oil Sampling and Analysis for SO_2 [326 IAC 7-2]

The Permittee shall utilize one of the following methods for Boilers 4 and 5 when burning fuel oil:

(a) Provide vendor analysis of quantity, heat content and sulfur content of fuel delivered, if accompanied by a certification;

(b) Analyze the oil sample to determine the sulfur content of the oil via the procedures in 326 IAC 3-7-4.

(1) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(2) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling; or

(c) Conduct a stack test for sulfur dioxide emissions from the boiler, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6, which is conducted with such frequency as to generate the amount of information required by (a) or (b) above. [326 IAC 7-2-1(d)]

D.1.9 Reserved

D.1.10 Alternative Operating Scenarios

(a) The Permittee may elect to perform the tests in D.1.6(a) while burning a mixture of natural gas and coal (co-fire). The Permittee shall inform IDEM in writing whenever the Co-Fire operating scenario is used, in which case the following monitoring requirements and limits apply.

(1) The Permittee shall install and operate a gas flow meter and a steam flow rate flowmeter on each boiler where the co-fire option is used. A Preventative Maintenance Plan, in accordance with Section B – Preventative Maintenance Plan, is required for the monitors.

(2) The 24-hour daily average gas ratio (R) shall be greater than or equal to the value determined in the most recent performance test. The gas ratio shall be calculated by:

$$R = \text{Average}\ (N_1/S_1 + N_2/S_2 + \ldots + N_i/S_i)$$

Where N_i = natural gas flow rate, in acfm, for each 15 minute period
S_i = steam flow rate from boiler, in lb/hr, for each 15 minute period

(3) If the 24-hour daily gas ratio falls below the gas ratio established pursuant to the performance test, or if the gas-burners fail to operate in a normal manner, the Permittee shall take reasonable response steps in accordance with Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements. Failure to take response steps in accordance with Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements, shall be

considered a deviation from this permit.

(b) If the Permittee has conducted a performance test under co-fired conditions to establish a minimum gas ratio, but subsequently wants to operate a boiler without natural gas co-fired or at a gas ratio that is lower than the ratio established at the performance test, then the Permittee must demonstrate that particulate matter emissions are less than the emission limits in D.1.1(a) pursuant to a performance test as described in D.1.6(a) under the desired operating conditions. The Permittee may not begin to operate under the new conditions until the performance test results are submitted to IDEM, OAQ.

D.1.11 Reserved

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.12 Coal Characteristics and Consumption Records

The Permittee shall record the information described in items (a) through (d) below on a calendar month basis for Boilers 1, 2, and 3.

(a) The amount (expressed in tons) of coal burned;

(b) The average sulfur content (expressed in percentage) of coal burned;

(c) The average heat content (expressed in Btu per pound) of the coal burned; and

(d) The average sulfur dioxide emission rate (expressed in pounds per MMBtu).

D.1.13 Fuel Oil Characteristics and Consumption Records

The Permittee shall record the information described in item (a) through (d) below on a calendar month basis for Boiler 4, and Boiler 5:

(a) The amount (expressed in thousands of gallons (Mgal)) of No. 2 fuel oil burned in Boilers 4 and 5;

(b) The average sulfur content (expressed in percentage by weight) of the No. 2 fuel oil burned in Boilers 4 and 5;

(c) The average higher heating value (expressed in Btu per gallon) of the No. 2 fuel oil burned in Boilers 4 and 5; and

(d) The average sulfur dioxide emission rate (expressed in pounds per MMBtu) of the No. 2 fuel oil for Boilers 4 and 5.

D.1.14 Reserved

D.1.15 Standard Operating Procedures

Pursuant to 326 IAC 3-7-5(a), the Permittee shall maintain and implement a standard operating procedure (SOP) for coal sampling, handling, analysis, quality control, quality assurance, and data reporting of the information collected pursuant to 326 IAC 3-7-2. In addition, any revision to the SOP shall be submitted to IDEM, OAQ.

D.1.16 Reserved

D.1.17 Record Keeping Requirements

(a) Records and data required by D.1.10 shall be maintained for boilers operating under the co-fire scenario.

(b) Reserved

D.1.18 Reporting Requirements

(a) The Permittee shall submit quarterly summary reports of the monthly coal characteristic and consumption records required by Condition D.1.12 for Boilers 1, 2 and 3.

(b) The Permittee shall submit quarterly summary reports of the monthly fuel oil characteristic and consumption records required by Condition D.1.13 for Boilers 4 and 5.

(c) Reserved

(d) All reports shall be submitted to the address listed in Section C – General Reporting Requirements, of this permit, using the reporting form located at the end of this permit, or its equivalent, within thirty (30) days after the end of the quarter being reported. The report does require the certification by a "responsible official" as defined by 326 IAC 2-7-1(34).

Modifications and Construction Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12 and 326 IAC 2-2]

D.1.19 Modifications and Construction: Advance Approval of Permit Conditions Requirements

The emission units described in this D section are not subject to the advance approval permit conditions.

Compliance Assurance Monitoring Requirements [40 CFR Part 64]

D.1.20 Compliance Assurance Monitoring Requirements for Boilers and Ash Handling System [40 CFR 64.3] [40 CFR 64.7]

(a) Pursuant to 40 CFR 64.3 and 64.7, a continuous monitoring system shall be calibrated, maintained, and operated for measuring opacity from the coal-fired boilers (BLR001, BLR002, and BLR003) when the boilers are burning coal. The continuous opacity monitoring system is not required when the coal-fired boilers are burning only natural gas. The following conditions apply to the continuous opacity monitoring system (COMS):

(1) The Permittee shall install and certify the COMS as described in 40 CFR Part 60, Appendix B, Performance Specification 1.

(2) The COMS shall collect at least one data point for each successive 15 minute period. A data point is a six (6)-minute block average. A six (6)-minute block average is made from six (6), one (1)-minute readings.

(3) The Permittee shall implement the following quality assurance and quality control (QA/QC) practices:

(A) For calibration drift (CD) assessment, the COMS shall be checked at least once daily. The CD shall be quantified and recorded at zero (0) (or low level) and upscale level opacity. The COMS shall be adjusted whenever the CD exceeds the specification as described in 40 CFR Part 60, Appendix B, Performance Specification 1 (PS-1), and the COMS shall be declared out of control when the CD exceeds twice the specification of PS-1. Corrective actions, followed by a validating CD assessment, are required when the COMS is out of control;

(B) For fault indicators assessment, the fault lamp indicators, data acquisition system error messages, and other system self-diagnostic

indicators shall be checked at least daily. Appropriate corrective actions shall be taken when the COMS is operating outside the preset limits;

(C) A performance audit shall be performed, at a minimum, on a calendar quarter basis. The performance audit shall include checks for stack exit correlation error, zero and upscale responses, zero compensation, optical alignment, optical surface dust accumulation, and calibration error. The performance audit criteria described in 326 IAC 3-5-5(c)(4)(A) shall be used to determine if the COMS audit results are acceptable.

(4) The Permittee shall operate the COMS in accordance with 40 CFR 64.7.

(5) An exceedance occurs when the COMS measures opacity at levels in excess of the limitations described in Condition C.2 or D.1.4 of this permit.

(b) Pursuant to 40 CFR 64.3, the ash handling system (CONASH) baghouse shall be inspected and maintained as follows:

(1) A daily visual inspection shall be performed during daylight hours when the baghouse is being used during ash pulling activities to check for the operation and to detect any bypass of the baghouse to the atmosphere.

(2) An annual visual inspection and maintenance check shall be performed to internally inspect the baghouse and determine whether bag replacement is required. Bag replacement shall occur no less than once every two calendar years.

(3) An excursion for the ash handling system (CONASH) baghouse is defined as an indication of operational issues or detection of a bypass during a daily inspection or as a failure to perform the annual inspection or bag replacement every two calendar years.

D.1.21 Compliance Assurance Monitoring Downtime for Boilers [40 CFR 64.3, 40 CFR 64.6]

If the COMS does not collect valid opacity data, as described in Condition D.1.20(a)(2) for four consecutive hours, the Permittee shall conduct a visible emissions notation once per day during daylight operation.

D.1.22 Compliance Assurance Monitoring Record Keeping Requirements [40 CFR 64.9]

The Permittee shall maintain records of inspection data, monitoring data, and monitor performance data required by Condition D.1.20, as well as any corrective actions taken.

D.1.23 Compliance Assurance Monitoring Reporting Requirement [40 CFR 64.9]

(a) The following conditions apply to the continuous opacity monitoring system (COMS):

(1) The Permittee shall prepare and submit a written summary of the performance audit results for each calendar quarter. The written performance audit report shall contain the information as described in 326 IAC 3-5-5(e)(2).

(2) The Permittee shall report summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable). The COMS shall be operated at all times as required in this section of the permit, except during COMS malfunctions, reasonable periods of necessary COMS calibration or COMS maintenance activities. COMS malfunctions, calibration, and maintenance activities shall be properly

documented.

(b) For excursions or exceedances, as defined in Condition D.1.21 of this permit, the Permittee shall report summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances and corrective actions taken.

(c) All reports shall be submitted to the address listed in Section C of this permit, General Reporting Requirements, within thirty (30) days after the end of the quarter being reported. The report does require the certification by a “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.2 ENGINE AND UTILITIES SUPPORT OPERATION CONDITIONS

Emissions Unit Description: [326 IAC 2-7-5(1)]

(a) The following emissions units is subject to applicable requirements described in this D section:

Emission Unit ID	Emission Unit Description	Stack/Vent	Nominal Capacity	UOM	Control Device
Server Room*	Emergency Diesel Generator	N/A	402	HP	None

(b) The following emission units are not subject to applicable requirements described in this D section and are listed only for informational purposes:

Emission Unit ID	Emission Unit Description	Stack/Vent	Nominal Capacity	UOM	Control Device
T5*	Emergency Diesel Generator	N/A	380	HP	None
T6*	Emergency Natural Gas Generator	N/A	60	HP	None
T62*	Emergency Diesel Generator	N/A	1,475	HP	None
T62*	Emergency Diesel Air Compressor	N/A	300	HP	None
T70*	Emergency Diesel Generator	N/A	402	HP	None
T121*	Diesel Generator	N/A	1,676	HP	None
T135*	Emergency Diesel Generator	N/A	390	HP	None
T148*	Emergency Natural Gas Generator	N/A	134	HP	None
T97/T98*	Glycol System	N/A	45,000	gallon	None
T9/T23*	Lime Storage Silo	N/A	79.5	lb/hr	None

* Emission units marked with a single asterisk are insignificant activities as defined in 326 IAC 2-7-1(21).

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)][326 IAC 12] [326 IAC 20-82] [40 CFR Part 60, Subpart IIII] [40 CFR Part 63, Subpart ZZZZ]

D.2.1 Engines Subject to Standards of Performance for Stationary Compression Ignition Internal Combustion Engines and National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [40 CFR Part 60, Subpart IIII and 40 CFR Part 63, Subpart ZZZZ]

(a) Pursuant to 40 CFR Part 63.6590(c), for an emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP the Permittee shall meet the requirements of 40 CFR Part 63, Supart ZZZZ, which are incorporated by reference as 326 IAC 20-82, by meeting the requirements of 40 CFR Part 60, Subpart IIII. No further requirements apply for such engines under 40 CFR Part 63, Subpart ZZZZ.

(b) Pursuant to 40 CFR Part 60.4200 for the emission units listed in item (a) of the emission unit description, which includes those engines which the Permittee ordered after July 11, 2005 and where the stationary combustion ignition internal combustion engine was manufactured after April 1, 2006 and is not a fire pump engine, the Permittee shall comply with the provisions of Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE), pursuant to 40 CFR Part 60, Subpart IIII, which are incorporated by reference as 326 IAC 12, as follows.

(1) Pursuant to 40 CFR Part 60.4205(b), 40 CFR Part 60.4202(a), and Part 60.4211(c) the Permittee must purchase a stationary CI ICE that is certified by the manufacturer for 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the following standards:

(A) For engines with a maximum engine power greater than or equal to 37 KW (50 HP), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR Part 89.113 for all pollutants beginning in model year 2007.

(B) The engine must be installed and configured according to the manufacturer's specifications.

(2) Pursuant to 40 CFR Part 60.4209, a non-resettable hour meter must be installed on the engine prior to startup of the engine.

(3) Pursuant to 40 CFR Part 60.4211:

(A) The Permittee must operate and maintain the stationary CI ICE and control device, if applicable, according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. You must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.

(B) Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. Anyone may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. For owners and operators of emergency engines meeting standards under Part 60.4205 but not Part 60.4204, any operation other than emergency operation, and maintenance and testing as permitted in this section, is prohibited.

(4) Pursuant to 40 CFR Part 60.4207 and 40 CFR Part 80.510, the following fuel standards shall apply:

(A) Reserved

(B) Beginning October 1, 2010, for stationary CI ICE with a displacement of less than 30 liters per cylinder that use diesel fuel, the Permittee must use diesel fuel that meets one of the following requirements:

(i) Maximum sulfur content of 15 parts per million (ppm) and minimum cetane index of 40.

(ii) Maximum sulfur content of 15 parts per million (ppm) and maximum aromatic content of 35 volume percent.

D.2.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is not required for the facility described in this Section.

Testing and Monitoring Requirements

D.2.3 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

No emissions testing is required for the emission units described in this Section, at this time, but IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. The requirements for conducting performance tests that may be required by IDEM in the future are described in Section C – Performance Testing.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.4 Reserved

D.2.5 Reserved

Modifications and Construction Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12 and 326 IAC 2-2]

D.2.6 Modifications and Construction: Advance Approval of Permit Conditions Requirements

The emission units described in this D section are not subject to the advance approval permit conditions.

SECTION D.3 FERMENTATION OPERATION CONDITIONS

Emissions Unit Description: [326 IAC 2-7-5(1)]
The information describing the processes contained in the following facility description boxes is descriptive information and does not constitute enforceable conditions:

(a) The following emissions units are subject to applicable requirements described in this D section:

Emission Unit ID	Emission Unit Description	Stack/Vent	Nominal Capacity	UOM	Control Device
Building T1 – Raw Material Prep Area:					
MIX001*	Dry Raw Material Mixer	PV-T1-T52348	N/A	N/A	Dust Collector T52348**
MIX002*	Dry Raw Material Mixer	PV-T1-T52348	N/A	N/A	
MCNV001	Conveyor of Raw Material Mixers	PV-T1-T52348	N/A	N/A	
Building T2 – Fermentation Production Area:					
TK001*	Bump Tank	S-T2-FERM	5,000	liters	Cyclone**
TK002*	Bump Tank	S-T2-FERM	5,000	liters	Cyclone**
TK003*	Bump Tank	S-T2-FERM	5,000	liters	Cyclone**
TK004*	Bump Tank	S-T2-FERM	5,000	liters	Cyclone**
TK011*	Bump Tank	S-T2-FERM	5,000	liters	Cyclone**
TK012*	Bump Tank	S-T2-FERM	5,000	liters	Cyclone**
TK014*	Bump Tank	S-T2-FERM	5,000	liters	Cyclone**
TK005*	Fermentor Tank	S-T2-FERM	60,000	liters	Cyclone T67457**
TK006*	Fermentor Tank	S-T2-FERM	60,000	liters	
TK007*	Fermentor Tank	S-T2-FERM	60,000	liters	
TK008*	Fermentor Tank	S-T2-FERM	60,000	liters	Cyclone T67458**
TK009*	Fermentor Tank	S-T2-FERM	60,000	liters	
TK010*	Fermentor Tank	S-T2-FERM	60,000	liters	
TK015*	Fermentor Tank	S-T2-FERM	60,000	liters	Cyclone T67462**
TK016*	Fermentor Tank	S-T2-FERM	60,000	liters	Cyclone T67463**
TK017*	Fermentor Tank	S-T2-FERM	60,000	liters	Cyclone T67464**
TK018*	Fermentor Tank	S-T2-FERM	60,000	liters	Cyclone T65689**
TK019*	Fermentor Tank	S-T2-FERM	60,000	liters	Cyclone T52221**
TK020*	Fermentor Tank	S-T2-FERM	60,000	liters	Cyclone T52228**

Emission Unit ID	Emission Unit Description	Stack/Vent	Nominal Capacity	UOM	Control Device
Building T2A – Fermentation Production Area:					
TK021*	Bump Tank	S-T2-FERM	10,000	liters	Cyclone**
TK022*	Bump Tank	S-T2-FERM	10,000	liters	Cyclone**
TK023*	Bump Tank	S-T2-FERM	10,000	liters	Cyclone**
TK024*	Bump Tank	S-T2-FERM	10,000	liters	Cyclone**
TK025*	Fermentor Tank	S-T2-FERM	120,000	liters	Cyclone T86551**
TK026*	Fermentor Tank	S-T2-FERM	120,000	liters	Cyclone T86552**
TK027*	Fermentor Tank	S-T2-FERM	120,000	liters	Cyclone T86553**
TK028*	Fermentor Tank	S-T2-FERM	120,000	liters	Cyclone T67696**
TK029*	Fermentor Tank	S-T2-FERM	120,000	liters	Cyclone T67697**
TK030*	Fermentor Tank	S-T2-FERM	120,000	liters	Cyclone T67698**
Building T2C – Fermentation Production Area:					
TK043*	Bump Tank	S-T2-FERM	17,500	liters	Cyclone T65363**
TK044*	Bump Tank	S-T2-FERM	17,500	liters	Cyclone T65364**
TK048*	Fermentor Tank	S-T2-FERM	210,000	liters	Cyclone T65367**
TK049*	Fermentor Tank	S-T2-FERM	210,000	liters	Cyclone T65359**
TK050*	Fermentor Tank	S-T2-FERM	210,000	liters	Cyclone T65360**

* Emissions units marked with a single asterisk are insignificant activities as defined in 326 IAC 2-7-1(21)(A)-(C).
** All control devices are voluntary units and are not required to demonstrate compliance with any applicable regulations.

(b) The following emissions units are insignificant activities pursuant to 326 IAC 2-7-1(21)(A)-(C) and are not subject to applicable requirements described in this D section:

Emission Unit ID	Emission Unit Description	Stack/Vent	Nominal Capacity	UOM	Control Device
Building T46 – Material Storage Area:					
BIN001	Dry Raw Material Storage Bin	PV-T46-T67454	23,000	liters	Baghouse T67454**
BIN002	Dry Raw Material Storage Bin	PV-T46-T67454	23,000	liters	
BIN003	Dry Raw Material Storage Bin	PV-T46-T67454	23,000	liters	
BIN004	Dry Raw Material Storage Bin	PV-T46-T67454	23,000	liters	
BIN005	Dry Raw Material Storage Bin	PV-T46-T67455	23,000	liters	Baghouse

BIN006	Dry Raw Material Storage Bin	PV-T46-T67455	23,000	liters	T67455**
BIN007	Dry Raw Material Storage Bin	PV-T46-T67455	23,000	liters	
BIN008	Dry Raw Material Storage Bin	PV-T46-T67455	23,000	liters	
BIN009	Dry Raw Material Storage Bin	PV-T46-T67659	23,000	liters	Baghouse T67659**
BIN010	Dry Raw Material Storage Bin	PV-T46-T67659	23,000	liters	
BIN011	Dry Raw Material Storage Bin	PV-T46-T67456	23,000	liters	Baghouse T67456**
BIN012	Dry Raw Material Storage Bin	PV-T46-T67456	23,000	liters	
Building T1 – Raw Material Prep Area:					
BLO001	Railcar Pneumatic Conveyor	N/A	N/A	liters	None
DISSC001	Dispensing Scale	PV-T1-T44984	N/A	liters	Dust Collector T44984**
TK121	Make Up Tank	PV-T1-314512	10,150	liters	Rotoclone 314512**
TK122	Make Up Tank	PV-T1-314512	10,150	liters	
TK123	Make Up Tank	PV-T1-314512	2,100	liters	
TK123A	Make Up Area Tank	N/A	380	liters	None
TK124	Make Up Tank	PV-T1-314512	2,100	liters	Rotoclone 314512**
TSLU	Slurry Tank	N/A	3,600	liters	None
SC001	Liquid Weigh Scale Tank	N/A	N/A	liters	None
Building T1 – Liquid Storage Area:					
TK232	Whole Broth Storage Tank	N/A	200,000	liters	None
TK233	Whole Broth Storage Tank	N/A	126,723	liters	None
TK234	Whole Broth Storage Tank	N/A	200,000	liters	None
TK235	Whole Broth Storage Tank	N/A	200,000	liters	None
TK236	Waste Holding Tank	N/A	200,000	liters	None
TK237	Liquid Storage Tank	N/A	200,000	liters	None
TK241	Liquid Storage Tank	N/A	100,000	liters	None
TK242	Liquid Storage Tank	N/A	100,000	liters	None
TK243	Liquid Storage Tank	N/A	100,000	liters	None
TK244	Liquid Storage Tank	N/A	100,000	liters	None
TK249	Liquid Storage Tank	N/A	45,300	liters	None

Emission Unit ID	Emission Unit Description	Stack/Vent	Nominal Capacity	UOM	Control Device
Building T1 - Filter Room::					
TK143	Slurry Tank	N/A	3,800	liters	None
TK144	Slurry Tank	N/A	3,800	liters	None
Building T2 – Fermentation Production Area:					

TK255	Whole Broth Tank	N/A	94,700	liters	None

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 Non-Applicability Determination of Pharmaceutical MACT Standards [40 CFR 63, Subpart GGG]

The emission units associated with the fermentation operations are not subject to the requirements of 40 CFR 63, Subpart GGG (Pharmaceutical MACT Standards) because these emission units do not process, use, or produce hazardous air pollutant (HAP) emissions in excess of 50 ppmv pursuant to 40 CFR 63.1251 (Process Vent Definition).

D.3.2 Non-Applicability Determination of State VOC Emission Standards [326 IAC 8-5-3, 326 IAC 8-1-6]

(a) The emission units associated with the fermentation operations do not manufacture pharmaceutical products by chemical synthesis. Therefore, the emission units associated with the fermentation operations are not subject to the requirements of 326 IAC 8-5-3 (VOC Emission Limitations for Synthesized Pharmaceutical Manufacturing Operations).

(b) The emission units associated with the fermentation operations are not subject to the requirements of 326 IAC 8-1-6 (Best Available Control Technologies for VOC Emissions) because the VOC emissions associated with each facility are less than 250 tons per year

D.3.3 Particulate Matter (PM) Emission Limitations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, Registration 157-3220 Issued September 3, 1993, Registration 157-4466 Issued May 8, 1995, and Registration 157-7144 Issued December 4, 1996, the emission units presented in the table below shall not exceed the following particulate matter emission rates based on the following maximum throughput rates:

Emission Unit Description	Emission Unit ID	Maximum Process Weight Rate (ton/hr)	Allowable PM Emission Rate (lb/hr)
Building T1 – Raw Material Prep Area:			
Dry Raw Material Mixers + Conveyor for Mixers	MIX001, MIX002, MCNV001	0.532	2.68, combined
Building T2 – Fermentation Production Area:			
Bump Tanks	TK001 – TK004	18.3	28.7, combined
Fermentor Tanks	TK005 – TK010		
Bump Tanks	TK011 – TK014		
Fermentor Tanks	TK015 – TK020		
Building T2A – Fermentation Production Area:			
Bump Tanks	TK021 – TK024	18.3	28.7, combined
Fermentor Tanks	TK025 – TK027, TK029 – TK030		
Fermentor Tank	TK028		
Building 2C – Fermentation Production Area:			
Bump Tanks	TK043 – TK044	31.6	5.5, combined

Emission Unit Description	Emission Unit ID	Maximum Process Weight Rate (ton/hr)	Allowable PM Emission Rate (lb/hr)
Fermentor Tanks	TK048 – TK050		

D.3.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is not required for any of the emission units or control devices described in this Section.

Testing and Monitoring Requirements [326 IAC 2-7-6(1) (6)] [326 IAC 2-7-5(1)]

D.3.5 Testing Requirements [326 IAC 2-7-6(1), (6)]

No emissions testing is required for the emission units described in this Section at this time, but IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. The requirements for conducting performance tests that may be required by IDEM in the future are described in Section C – Performance Testing.

Modifications and Construction Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12 and 326 IAC 2-2]

D.3.6 Modifications and Construction: Advance Approval of Permit Conditions Requirements

The emission units described in this D section are not subject to the advance approval permit conditions.

SECTION D.4 FERMENTATION PRODUCTS - PURIFICATION OPERATION CONDITIONS

Emissions Unit Description: [326 IAC 2-7-5(1)]

(a) The following emissions units are subject to applicable requirements described in this D section:

Emission Unit ID	Emission Unit Description	Stack/Vent	Nominal Capacity	UOM	Control Device
Building T3 – Purification Production Area:					
T3-RVD040	Rotary Vacuum Dryer	Vent	500	gallons	Dust Collector**
Building T147 – Storage Tank Module:					
T147-TK001	Storage Tank	Vent	19,000	gallons	Vent Condenser**
T147-TK002	Storage Tank	Vent	19,000	gallons	Vent Condenser**
T147-TK003	Storage Tank	Vent	19,000	gallons	Vent Condenser**
T147-TK004	Storage Tank	Vent	19,000	gallons	Vent Condenser**
T147-TK005	Storage Tank	Vent	19,000	gallons	Vent Condenser**
T147-TK006	Storage Tank	Vent	19,000	gallons	Vent Condenser**
T147-TK007	Storage Tank	Vent	19,000	gallons	Vent Condenser**
T147-TK008	Storage Tank	Vent	19,000	gallons	Vent Condenser**
T147-TK009	Waste Storage Tank	Vent	19,000	gallons	Vent Condenser**
T147-TK010	Storage Tank	Vent	19,000	gallons	Vent Condenser**
T147-TK011	Storage Tank	Vent	19,000	gallons	Vent Condenser**
T147-TK012	Storage Tank	Vent	19,000	gallons	Vent Condenser**

** All control devices are voluntary units and are not required to demonstrate compliance with any applicable regulations.

(b) The following emission units are not subject to applicable requirements described in this D section:

Emission Unit ID	Emission Unit Description	Stack/Vent	Nominal Capacity	UOM	Control Device
Building T3 – Purification Production Area:					
T3-CENT001*	Stacked Plate Centrifuge	Vent	20	gallons	None
T3-CENT002*	Stacked Plate Centrifuge	Vent	20	gallons	None
T3-CENT003*	Stacked Plate Centrifuge	Vent	20	gallons	None
T3-COL001*	East Carbon Column	Vent	200	gallons	None
T3-TK261*	Process Tank	Vent	500	gallons	None
T3-TK303*	Process Tank	Vent	2,000	gallons	None
T3-TK322*	Sulfuric Acid Holding Tank	Vent	1,000	gallons	None
T3-TK327-1T*	Process Tank	Vent	500	gallons	None

T3-TK330*	Process Tank	Vent	4,000	gallons	None
T3-TK332-1T*	Process Tank	Vent	3,000	gallons	None
T3-TK332-2T*	Process Tank	Vent	3,000	gallons	None
T3-TK332-3T*	Process Tank	Vent	3,000	gallons	None
T3-TK334*	Process Tank	Vent	275	gallons	None
T3-TK336-1T*	Process Tank	Vent	1,500	gallons	None
T3-TK337-1T*	Process Tank - Acid tank	Vent	500	gallons	None
T3-TK338-1T*	Process Tank	Vent	500	gallons	None
T3-TK338-2T*	Process Tank	Vent	500	gallons	None
T3-TK338-3T*	Process Tank	Vent	500	gallons	None
T3-TK341-1T*	Process Tank	Vent	500	gallons	None
T3-TK346-1T*	Amyl Acetate Tank	Vent	500	gallons	None
T3-TK353-1T*	Receive Amyl Acetate from EVAP305	Vent	1000	gallons	None
T3-TK355-1T*	Process Tank	Vent	1000	gallons	None
T3-TK357-1T*	Process Tank	Vent	1000	gallons	None
T3-TK376-1T*	Process Tank	Vent	2000	gallons	None
T3-TK376-2T*	Process Tank	Vent	2000	gallons	None
T3-TK376-3T*	Process Tank	Vent	2000	gallons	None
T3-TK391*	Process Tank	Vent	2,000	gallons	None
T3-TK392-1T*	Process Tank	Vent	2,000	gallons	None
T3-TK393-1T*	Process Tank	Vent	2,000	gallons	None
T3-TK394*	Chemical Waste Tank	Vent	2000	gallons	None
T3-TK399*	Acid Wash Tank	Vent	500	gallons	None
T3-TK410*	20% Caustic Tank	Vent	500	gallons	None
T3-EVAP300*	Swenson Evaporator	Vent	400	gallons	None
T3-EVAP305	Evaporator	Vent	800	gallons	None
T3-COL002*	West Carbon Column	Vent	200	gallons	None
T3A014*	Storage Tank	Vent	600	gallons	None
T3A051*	Storage Tank	Vent	600	gallons	None
T3A86-1T*	CIP Tank	Vent	500	gallons	None
Building T4 – Solvent Recovery:					
T4-COL001	Distilling Column	Vent	269	cf	None
T4*	Tylosin System	Vent	N/A	N/A	None
T4-TK101*	Process Tank	Condenser	25000	gallons	Vent Condenser**
Building T39 – Product Storage:					
T39-TK10*	CIP Storage Tank	Vent	300	gallons	None
T39-TK11*	CIP Storage Tank	Vent	300	gallons	None

T39-TK021*	Storage Tank	Vent	2000	gallons	None
T39-TK022*	Storage Tank	Vent	2000	gallons	None
T39-TK023*	Storage Tank	Vent	2000	gallons	None
T39-TK030*	Storage Tank	Vent	5000	gallons	None
T39-TK031*	Storage Tank	Vent	5000	gallons	None
T39-TK032*	Storage Tank	Vent	5,000	gallons	None
T39-TK033*	Storage Tank	Vent	5,000	gallons	None
T39-TK036*	Storage Tank	Vent	5000	gallons	None
Outside Storage Tanks:					
TK434-1T*	Sulfuric Acid Tank	Scrubber Vent	15000	gallons	None

* Emission units marked with an asterisk are insignificant activities as defined by 326 IAC 2-7-1(21)(A)-(C).
** Control devices marked with a double asterisk are voluntary control units and are not required to demonstrate compliance with any regulations.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.4.1 Non-Applicability Determination of Pharmaceutical MACT Standards [40 CFR 63, Subpart GGG]

Except for the T3 rotary vacuum dryer, the emission units associated with the purification operations are not subject to the requirements of 40 CFR 63, Subpart GGG (Pharmaceutical MACT Standards) because these emission units do not process, use, or produce hazardous air pollutant (HAP) emissions in excess of 50 ppmv pursuant to 40 CFR 63.1251 (Process Vent Definition).

D.4.2 Non-Applicability Determination of State VOC Emission Standards [326 IAC 8-5-3, Registration Issued November 8, 1990, and Amendment Issued November 10, 1992]

(a) Except for the T3 rotary vacuum dryer, the emission units associated with the purification operations do not manufacture pharmaceutical products by chemical synthesis. Therefore, except for the T3 rotary vacuum dryer, these emission units are not subject to the requirements of 326 IAC 8-5-3 (VOC Emission Limitations for Synthesized Pharmaceutical Manufacturing Operations).

(b) The T3 rotary vacuum dryer does not dry pharmaceutical products by chemical synthesis with a potential to emit equal to or greater than 15 pounds per day. Therefore, this dryer is not subject to the requirements of 326 IAC 8-5-3.

D.4.3 T3 Rotary Vacuum Dryer Process Vent Standard [40 CFR 63.1254(a)(2)]

Pursuant to 40 CFR 63 Subpart GGG (Pharmaceutical MACT Standard), undiluted and uncontrolled process vent streams equal to or greater than 50 ppmv HAP from the T3 rotary vacuum dryer shall be limited to an annual mass limit of 900 kilograms (kg) per 365-day period to comply with the individual process-based mass limit standards under 40 CFR 63.1254(a)(2)(i).

D.4.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is not required for any of the facilities or control devices described in this Section.

Testing and Monitoring Requirements [326 IAC 2-7-6(1) (6)] [326 IAC 2-7-5(1)]

D.4.5 Testing Requirements [326 IAC 2-7-6(1), (6)]

No emissions testing is required for the emission units described in this Section at this time, but IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. The requirements for conducting performance tests that may be required by IDEM in the future are described in Section C – Performance Testing.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.4.6 Record Keeping Requirements [40 CFR 63.1254(a)(2)]

(a) The Permittee shall maintain the following records of the T3 rotary vacuum dryer:

(1) Daily rolling annual total HAP emissions from process vent streams equal to or greater than 50 ppmv from the T3 rotary vacuum dryer;

(2) Number of batches per year for each batch process;

(3) Standard batch uncontrolled and controlled emissions for each process;

(4) Actual uncontrolled and controlled emissions for each nonstandard batch; and

(5) Record whether each batch operated was considered a standard batch.

Modifications and Construction Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12 and 326 IAC 2-2]

D.4.7 Modifications and Construction: Advance Approval of Permit Conditions Requirements

The emission units described in this D section are not subject to the advance approval permit conditions.

SECTION D.5 FERMENTATION PRODUCTS - SUPPORT OPERATION CONDITIONS

Emissions Unit Description: [326 IAC 2-7-5(1)]

(a) The following emissions units are subject to applicable requirements described in this D section:

Emission Unit ID	Emission Unit Description	Stack/Vent	Nominal Capacity	UOM	Control Device
Fermented Products Wastewater Sludge Management Operations:					
T110-TKA	Bio-solids Storage Tank	T110	290,000	gallons	T110 Iron Sponge Reactor
T110-TKB	Bio-solids Storage Tank	T110	290,000	gallons	T110 Iron Sponge Reactor
T110-TKC	Bio-solids Storage Tank	T110	290,000	gallons	T110 Iron Sponge Reactor
T110-TKD	Bio-solids Storage Tank	T110	290,000	gallons	T110 Iron Sponge Reactor

(b) The following emission units are not subject to applicable requirements described in this D section:

Emission Unit ID	Emission Unit Description	Stack/Vent	Nominal Capacity	UOM	Control Device
Fermented Products Wastewater Treatment (100 Series Tanks):					
T174*	Thermal Research Incinerator	T174	9	MMBtu/hr	N/A
T10-TK101	Aeration Tank	Atmosphere	110,000	gallons	None
T10-TK102	Aeration Tank	Atmosphere	123,000	gallons	None
T10-TK103	Aeration Tank	Atmosphere	123,000	gallons	None
T10-TK104	Aeration Tank	Atmosphere	123,000	gallons	None
T10-TK111*	Centrate Holding Tank	T174	1,600	gallons	T174** Incinerator
T10-TK120	Aeration Tank	Atmosphere	270,000	gallons	None
T10-TK121*	Clarifier*	T174	122,000	gallons	T174** Incinerator
T10-TK122*	Clarifier*	T174	122,000	gallons	
T10-TK123*	Lift Station*	T174	8,500	gallons	
T10-TK124*	Nitrification Tank*	Atmosphere	1,700,000	gallons	None
T10-TK125*	Nitrification Tank*	Atmosphere	1,700,000	gallons	None
T10-TK126*	Nitrification Tank*	Atmosphere	1,700,000	gallons	None
T10-TK127*	Nitrification Clarifier*	Atmosphere	90,000	gallons	None
T10-TK128*	Nitrification Clarifier*	Atmosphere	90,000	gallons	None
T10-TK131*	Lift Station	Atmosphere	1,900	gallons	None

T10-TK132*	Final Clarifier	Atmosphere	155,000	gallons	None
T10-TK133*	Lift Station	Atmosphere	650	gallons	None
T10-TK141*	Lift Station	Atmosphere	4,600	gallons	None

Emission Unit ID	Emission Unit Description	Stack/Vent	Nominal Capacity	UOM	Control Device
T10-TK142*	Final Clarifier*	Atmosphere	155,000	gallons	None
T10-TK143*	Lift Station	Atmosphere	800	gallons	None
T160-TK162*	Antifoam Supply Tank	Atmosphere	1,300	gallons	None
T160-TK163*	Antifoam Supply Tank	Atmosphere	1,300	gallons	None
T160-TK164*	Sodium Aluminate Tank	Atmosphere	2,500	gallons	None
T160-TK165*	Polymer Supply Tank	Atmosphere	100	gallons	None
T79-TK400*	Lift Station	Atmosphere	14,000	gallons	None
T79-TK401*	Lift Station	Atmosphere	21,588	gallons	None
T79-TK402*	Lift Station	Atmosphere	21,588	gallons	None
Fermented Products Wastewater Sludge Management Operations:					
T42*	Centrifuge*	T174	150	gal/min	T174 Incinerator**
T42-A*	Sludge Centrifuge*	T174	100	gal/min	
T42-1*	Centrifuge Feed Tank	T174	20,000	gallons	T174 Incinerator**
T42-2*	Centrifuge Feed Tank	T174	20,000	gallons	T174 Incinerator**

* Emission units marked with an asterisk are insignificant activities as defined by 326 IAC 2-7-1(21)(A)-(C).
** Control devices marked with a double asterisk are voluntary units and are not required to demonstrate compliance with any applicable regulations.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.5.1 Non-Applicability Determination of Pharmaceutical MACT Standards [40 CFR 63, Subpart GGG]

The fermented products support operations are not subject to the requirements of 40 CFR 63, Subpart GGG (Pharmaceutical MACT Standards) because:

(a) The emission units associated with the fermented products wastewater sludge management operations do not process, use, or produce hazardous air pollutant (HAP) emissions in excess of 50 ppmv pursuant to 40 CFR 63.1251 (Process Vent Definition); and

(b) The wastewater associated with the fermented products wastewater treatment plant do not contain HAP emissions in excess of 5 ppmw pursuant to 40 CFR 63.1251 (Wastewater Stream Definition).

D.5.2 Non-Applicability Determination of State VOC Emission Standards [326 IAC 8-5-3]

The emission units associated with the fermented products support operations do not manufacture pharmaceutical products by chemical synthesis. Therefore, these emission units are not subject to the requirements of 326 IAC 8-5-3 (VOC Emission Limitations for Synthesized Pharmaceutical Manufacturing Operations).

D.5.3 Emission Limitations and Standards [326 IAC 2-2, CP 157-4363 Issued August 28, 1996, and Amendment 157-8953 Issued November 12, 1997 (Revised by AA 157-28636-00006)]

To avoid the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration), the Permittee shall comply with the following:

(a) The total reduced sulfur (TRS) emissions from the iron sponge reactor shall not equal or exceed 2.28 pounds per hour, which is equivalent to 762 micrograms per liter (ug/l). This emission limitation also satisfies the emission limitations for reduced sulfur compounds and hydrogen sulfide; and

(b) TRS, reduced sulfur compounds and hydrogen sulfide emissions from the transfer of bio-solids from the storage tanks to trucks shall be controlled by a vapor control system that exhausts to the iron sponge reactor.

D.5.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the iron sponge reactor system.

Testing and Monitoring Requirements [326 IAC 2-7-6(1) (6)] [326 IAC 2-7-5(1)]

D.5.5 Sampling and Analysis Requirements [CP 157-4363 Issued August 28, 1996 (Revised by this permit), and Amendment 157-8953 Issued November 12, 1997 (Revised by this permit)]

The Permittee shall measure and record the TRS outlet concentration of the air stream to the atmosphere once per calendar week using the sampling protocol and analysis methods most recently approved by IDEM.

D.5.6 Monitoring Requirements [CP 157-4363 Issued August 28, 1996 (Revised by this permit), and Amendment 157-8953 Issued November 12, 1997 (Revised by this permit)]

The Permittee shall monitor and record the pressure drop across the iron sponge reactor annubar once per day. Unless operated under conditions for which Section C - Response to Abnormal or Out-of-Range Compliance Monitoring Measurements specifies otherwise, the pressure drop across the operating reactor shall be maintained within the range of 0.2 and 2 inches of water column. The Response to Abnormal or Out-of-Range Compliance Monitoring Measurements for the iron sponge reactor system shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above-mentioned range for any one reading.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.5.7 Record Keeping Requirements [CP 157-4363 Issued August 28, 1996 (Revised by this permit), and Amendment 157-8953 Issued November 12, 1997 (Revised by AA 157-28636-00006)]

(a) The Permittee shall maintain the following records:

(1) daily pressure drop readings across the iron sponge reactor annubar; and

(2) weekly analysis of the TRS outlet concentration from the iron sponge reactor.

(b) Reserved

Modifications and Construction Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12 and 326 IAC 2-2]

D.5.8 Modifications and Construction: Advance Approval of Permit Conditions Requirements

The emission units described in this D section are not subject to the advance approval permit conditions.

Compliance Determination Requirements

D.5.9 Reserved

SECTION D.6 BULK PHARMACEUTICAL MANUFACTURING (BPM) PRODUCTION OPERATION CONDITIONS

Emissions Unit Description: [326 IAC 2-7-5(1)]

(a) The emission units listed below are subject to applicable requirements described or referred to in this D section. The emission units in the BPM production operations can be generally described as process vessels (tanks), crystallizers, filters, centrifuges, dryers, process scrubber systems, and process condenser systems and are referred to as process vents under the National Emission Standards of Hazardous Air Pollutants for Pharmaceutical Production Operations (Pharmaceutical MACT) found at 40 CFR Part 63, Subpart GGG.

General activities such as open manway operations, charging a liquid from a drum to a tank, centrifuge emptying operations, drum filling operations, or loading wetcake into driers are also defined as process vents. Individual identification of these activities are not listed in the description tables given they are not stationary or continually change. Each of these activity types will follow the compliance requirements outlined in this permit section.

Ancillary activities, such as heat exchange systems, are not considered process vents and have not been included in the description tables.

Source ID	Equipment Description	Stack/Vent ID	Nominal Capacity	Control Device
Building T27:				
T27-TK3001	Process Tank	RTO	200 gal	RTO
T27-TK3002	Process Tank	RTO	200 gal	RTO
T27-TK3101	Process Tank	RTO	1000 gal	RTO
T27-TK3102	Process Tank	RTO	1000 gal	RTO
T27-TK3103	Process Tank	RTO	1000 gal	RTO
T27-TK3104	Process Tank	RTO	1000 gal	RTO
T27-TK3105	Process Tank	RTO	1000 gal	RTO
T27-TK3201	Process Tank	RTO	1000 gal	RTO
T27-TK3202	Process Tank	RTO	1000 gal	RTO
T27-TK3203	Process Tank	RTO	1000 gal	RTO
T27-TK3204	Process Tank	RTO	1000 gal	RTO
T27-TK3205	Process Tank	RTO	1000 gal	RTO
T27-TK3207	Process Tank	RTO	350 gal	RTO
T27-TK3301	Process Tank	RTO	2000 gal	RTO
T27-TK3302	Process Tank	RTO	2000 gal	RTO
T27-TK3303	Process Tank	RTO	2000 gal	RTO
T27-TK3304	Process Tank	RTO	2000 gal	RTO
T27-TK3305	Process Tank	RTO	500 gal	RTO
T27-TK3401	Process Tank	RTO	750 gal	RTO
T27-TK3402	Process Tank	RTO	750 gal	RTO
T27-TK3404	Process Tank	RTO	750 gal	RTO
T27-TK3405	Process Tank	RTO	750 gal	RTO
T27-TK3406	Process Tank	RTO	750 gal	RTO
T27-TK3407	Process Tank	RTO	1000 gal	RTO

	T27-TK3408	Process Tank	RTO	350 gal	RTO	
	T27-TK3501	Process Tank	RTO	2000 gal	RTO	
	T27-TK3502	Process Tank	RTO	2000 gal	RTO	
	T27-TK3503	Process Tank	RTO	2000 gal	RTO	
	T27-TK3504	Process Tank	RTO	2000 gal	RTO	
	T27-TK3505	Process Tank	RTO	500 gal	RTO	
	T27-TK3506	Process Tank	RTO	2000 gal	RTO	
	T27-TK3601	Process Tank	RTO	2000 gal	RTO	
	T27-TK3602	Process Tank	RTO	1000 gal	RTO	
	T27-TK3603	Process Tank	RTO	2000 gal	RTO	
	T27-TK3605	Process Tank	RTO	500 gal	RTO	
	T27-TK3606	Process Tank	RTO	2000 gal	RTO	
	T27-TK3607	Process Tank	RTO	500 gal	RTO	
	T27-TK3803	Process Tank	RTO	1000 gal	RTO	
	T27-TK4001	Process Tank	RTO	2000 gal	RTO	
	T27-TK4002	Process Tank	RTO	2000 gal	RTO	
	T27-TK4004	Process Tank	RTO	1000 gal	RTO	
	T27-TK4005	Process Tank	RTO	1500 gal	RTO	
	T27-TK4006	Process Tank	RTO	2000 gal	RTO	
	T27-TK4006A	Process Tank	RTO	2000 gal	RTO	
	T27-TK4007	Process Tank	RTO	2000 gal	RTO	
	T27-TK4007A	Process Tank	RTO	2000 gal	RTO	
	T27-TK4008	Process Tank	RTO	2000 gal	RTO	
	T27-TK4009	Process Tank	RTO	1000 gal	RTO	
	T27-TK4010	Process Tank	RTO	1000 gal	RTO	
	T27-TK4011	Process Tank	RTO	1000 gal	RTO	
	T27-TK4013	Process Tank	RTO	750 gal	RTO	
	T27-TK4014	Process Tank	RTO	300 gal	RTO	
	T27-TK4031	Process Tank	RTO	500 gal	RTO	
	T27-TK4101	Process Tank	RTO	750 gal	RTO	
	T27-TK4103	Process Tank	RTO	500 gal	RTO	
	T27-TK4104	Process Tank	RTO	500 gal	RTO	
	T27-TK4105	Process Tank	RTO	1000 gal	RTO	
	T27-TK4203	Process Tank	RTO	500 gal	RTO	
	T27-TK4205	Process Tank	RTO	1000 gal	RTO	
	T27-TK4301	Process Tank	RTO	750 gal	RTO	
	T27-TK4302	Process Tank	RTO	500 gal	RTO	
	T27-TK4401	Process Tank	RTO	2000 gal	RTO	
	T27-TK4404	Process Tank	RTO	2000 gal	RTO	
	T27-TK4502	Process Tank	RTO	1000 gal	RTO	
	T27-TK4601	Process Tank	RTO	1000 gal	RTO	
	T27-TK4603	Process Tank	RTO	75 gal	RTO	
	T27-TK4605	Process Tank	RTO	1000 gal	RTO	
	T27-TK4701	Process Tank	RTO	1000 gal	RTO	
	T27-TK4801A	Process Tank	RTO	1000 gal	RTO	
	T27-TK4802A	Process Tank	RTO	100 gal	RTO	
	T27-TK4803A	Process Tank	RTO	500 gal	RTO	
	T27-TK4901	Process Tank	RTO	200 gal	RTO	

	T27-TK4906	Process Tank	RTO	75 gal	RTO
	T27-TK5004	Process Tank	RTO	500 gal	RTO
	T27-TK371-A	Process Tank	RTO	50 gal	RTO
	T27-TK372-A	Process Tank	RTO	500 gal	RTO
	T27-TK372-B	Process Tank	RTO	100 gal	RTO
	T27-CENT30	Centrifuge	RTO	NA	RTO
	T27-CENT38	Centrifuge	RTO	NA	RTO
	T27-CENT42	Centrifuge	RTO	NA	RTO
	T27-RVD53-1	Rotary Vacuum Dryer	RTO	NA	RTO
	T27-FD3702A	Filter Dryer	RTO	793 gal	RTO
	Building T29:				
	T29-CENT1401	Heinkel Centrifuge	RTO	140 gal	RTO
	T29-CENT2401	Heinkel Centrifuge	RTO	140 gal	RTO
	T29-CENT3401	Heinkel Centrifuge	RTO	140 gal	RTO
	T29-CD1501	Cone Dryer	RTO	2,640 gal	RTO
	T29-FD8501	Filter Dryer	RTO	42 gal	RTO
	T29-FD-8503	Filter Dryer	RTO	175 gal	RTO
	T29-FD2502	Filter Dryer	RTO	70 gal	RTO
	T29-CD3501	Cone Dryer	RTO	2,640 gal	RTO
	T29-IBC8251	Process Tank	RTO	150 gal	RTO
	T29-IBC8253	Process Tank	RTO	150 gal	RTO
	T29-IBC8254	Process Tank	RTO	150 gal	RTO
	T29-IBC8257	Process Tank	RTO	150 gal	RTO
	T29-IBC8259	Process Tank	RTO	150 gal	RTO
	T29-SFH1121	Process Tank	RTO	NA	RTO
	T29-SFH3121	Process Tank	RTO	NA	RTO
	T29- REAC1201	Process Tank	RTO	2000 gal	RTO
	T29- REAC 1202	Process Tank	RTO	2000 gal	RTO
	T29- REAC 1203	Process Tank	RTO	2000 gal	RTO
	T29- REAC 1204	Process Tank	RTO	2000 gal	RTO
	T29- REAC 1205	Process Tank	RTO	2000 gal	RTO
	T29- REAC 2201	Process Tank	RTO	1600 gal	RTO
	T29- REAC 2202	Process Tank	RTO	2000 gal	RTO
	T29- REAC 2203	Process Tank	RTO	2000 gal	RTO
	T29- REAC 2204	Process Tank	RTO	2000 gal	RTO
	T29- REAC 2205	Process Tank	RTO	2000 gal	RTO
	T29- REAC 3201	Process Tank	RTO	2000 gal	RTO
	T29- REAC 3202	Process Tank	RTO	2000 gal	RTO
	T29- REAC 3203	Process Tank	RTO	2000 gal	RTO
	T29- REAC 3204	Process Tank	RTO	2000 gal	RTO
	T29- REAC 3205	Process Tank	RTO	2000 gal	RTO
	T29- REAC 4201	Process Tank	RTO	2,000 gal	RTO
	T29- REAC 4202	Process Tank	RTO	500 gal	RTO
	T29- REAC 4203	Process Tank	RTO	2000 gal	RTO
	T29-TK7920	Process Tank	RTO	200 gal	RTO
	T29-TK7921	Process Tank	RTO	80 gal	RTO
	T29-TK7922	Process Tank	RTO	200 gal	RTO

	T29-TK8123	Process Tank	RTO	200 gal	RTO
	T29-TK8211	Process Tank	RTO	100 gal	RTO
	T29-TK8212	Process Tank	RTO	100 gal	RTO
	T29-TK8213	Process Tank	RTO	100 gal	RTO
	T29-TK8214	Process Tank	RTO	100 gal	RTO
	T29-TK8216	Accumulator Tank	RTO	50 gal	RTO
	T29-TK8217	Accumulator Tank	RTO	50 gal	RTO
	T29-TK8218	Accumulator Tank	RTO	50 gal	RTO
	T29-TK8220	Accumulator Tank	RTO	50 gal	RTO
	T29-TK8256	Process Tank	RTO	150 gal	RTO
	T29-TK8219	Accumulator Tank	RTO	50 gal	RTO
	T29-TK2502M	Accumulator Tank	RTO	100 gal	RTO
	T29-TK1401	Accumulator Tank	RTO	50 gal	RTO
	T29-TK2401	Accumulator Tank	RTO	50 gal	RTO
	T29-TK3401	Accumulator Tank	RTO	50 gal	RTO
	Building T31:				
	T31-CENT	Centrifuge	RTO	98 gal	RTO
	T31-FD803	Filter Dryer	RTO	50 gal	RTO
	T31-TK601	Process Tank	RTO	500 gal	RTO
	T31-TK602	Process Tank	RTO	500 gal	RTO
	T31-TK603	Process Tank	RTO	500 gal	RTO
	T31-TK604	Process Tank	RTO	500 gal	RTO
	T31-TK611	Process Tank	RTO	500 gal	RTO
	T31-TK611DT01	Process Tank	RTO	50 gal	RTO
	T31-TK612	Process Tank	RTO	500 gal	RTO
	T31-TK613	Process Tank	RTO	500 gal	RTO
	T31-TK614	Process Tank	RTO	500 gal	RTO
	T31-TK631	Process Tank	RTO	300 gal	RTO
	T31-TK641	Process Tank	RTO	100 gal	RTO
	T31-TK643	Process Tank	**	100 gal	T79 or RTO**
	Building T31A:				
	T31A-CENT985	Centrifuge	RTO	N/A	RTO
	T31A-FD861	Filter Dryer	RTO	50 gal	RTO
	T31A-FD874	Filter Dryer	RTO	50 gal	RTO
	T31A-TK61	Process Tank	RTO	50 gal	RTO
	T31A-TK63	Process Tank	RTO	100 gal	RTO
	T31A-TK64	Process Tank	RTO	50 gal	RTO
	T31A-TK621	Process Tank	RTO	300 gal	RTO
	T31A-TK622	Process Tank	RTO	800 gal	RTO
	T31A-TK651	Process Tank	RTO	450 gal	RTO
	T31A-TK661	Process Tank	RTO	300 gal	RTO
	T31A-TK681	Process Tank	RTO	500 gal	RTO
	T31A-TK682	Process Tank	RTO	500 gal	RTO
	T31A-TK683	Process Tank	RTO	500 gal	RTO
	T31A-TK684	Process Tank	RTO	500 gal	RTO
	T31A-TK691	Process Tank	RTO	500 gal	RTO

	T31A-TK692	Process Tank	RTO	500 gal	RTO
	T31A-TK693	Process Tank	RTO	500 gal	RTO
	T31A-TK694	Process Tank	RTO	500 gal	RTO
	Building T99:				
	T99-ED42	Heinkel Centrifuge	RTO	NA	RTO
	T99-PD43	Pan Dryer	RTO	793 gal	RTO
	T99-PD44	Pan Dryer	RTO	793 gal	RTO
	T99-RVD1	Rotary Vacuum Dryer	RTO	1200 gal	RTO
	T99-RVD2	Rotary Vacuum Dryer	RTO	1200 gal	RTO
	T99-RVD3	Rotary Vacuum Dryer	RTO	1200 gal	RTO
	T99-RVD5	Rotary Vacuum Dryer	RTO	1200 gal	RTO
	T99-RVD6	Rotary Vacuum Dryer	RTO	1200 gal	RTO
	T99-RVD7	Rotary Vacuum Dryer	RTO	1200 gal	RTO
	T99-RVD8	Rotary Vacuum Dryer	RTO	1200 gal	RTO
	T99-TK-D9	Process Tank	RTO	449 gal	RTO
	T99-FD-D9*	Filter Dryer	RTO	NA	RTO
	T99-TK-D-9D*	Portable Tank	RTO	155 gal	RTO
	T99-TK-D41	Process Tank	RTO	300 gal	RTO
	T99-TK-D42	Process Tank	RTO	150 gal	RTO
	Building T100:				
	T100-CENT60	Centrifuge	RTO	N/A	RTO
	T100-CENT61	Centrifuge	RTO	N/A	RTO
	T100-CENT62	Centrifuge	RTO	N/A	RTO
	T100-CENT63	Centrifuge	RTO	N/A	RTO
	T100-CENT64	Centrifuge	RTO	N/A	RTO
	T100-CENT65	Centrifuge	RTO	N/A	RTO
	T100-CENT66	Centrifuge	RTO	N/A	RTO
	T100-CENT67	Centrifuge	RTO	N/A	RTO
	T100-CENT68	Centrifuge	RTO	N/A	RTO
	T100-CENT69	Centrifuge	RTO	N/A	RTO
	T100-CENT70	Centrifuge	RTO	N/A	RTO
	T100-TK1	Process Tank	RTO	2000 gal	RTO
	T100-TK2	Process Tank	RTO	4000 gal	RTO
	T100-TK3	Process Tank	RTO	2000 gal	RTO
	T100-TK4	Process Tank	RTO	2000 gal	RTO
	T100-TK5	Process Tank	RTO	2000 gal	RTO
	T100-TK5A*	Accumulator Tank	RTO	50 gal	RTO
	T100-TK6	Process Tank	RTO	2000 gal	RTO
	T100-TK7	Process Tank	RTO	4000 gal	RTO
	T100-TK8	Process Tank	RTO	4000 gal	RTO
	T100-TK8C	Process Tank	RTO	30 gal	RTO
	T100-TK9	Process Tank	RTO	4000 gal	RTO
	T100-TK10	Process Tank	RTO	4000 gal	RTO
	T100-TK11	Process Tank	RTO	4000 gal	RTO
	T100-TK12	Process Tank	RTO	4000 gal	RTO
	T100-TK13	Process Tank	RTO	3300 Gal	RTO

T100-TK14	Process Tank	RTO	4000 gal	RTO
T100-TK15	Process Tank	RTO	2000 gal	RTO
T100-TK16	Process Tank	RTO	2000 gal	RTO
T100-TK17	Process Tank	RTO	2000 gal	RTO
T100-TK18	Process Tank	RTO	2000 gal	RTO
T100-TK18A*	Distillate Tank	RTO	200 gal	RTO
T100-TK18B*	Charge Tank	RTO	60 gal	RTO
T100-TK20	Process Tank	RTO	4000 gal	RTO
T100-TK21	Process Tank	RTO	4000 gal	RTO
T100-TK22	Process Tank	RTO	2000 gal	RTO
T100-TK24	Process Tank	RTO	4000 gal	RTO
T100-TK24D*	Distillate Tank	RTO	50 gal	RTO
T100-TK25	Process Tank	RTO	4000 gal	RTO
T100-TK26	Process Tank	RTO	4000 gal	RTO
T100-TK27	Process Tank	RTO	4000 gal	RTO
T100-TK28	Process Tank	RTO	4000 gal	RTO
T100-TK29	Process Tank	RTO	4000 gal	RTO
T100-TK30	Process Tank	RTO	4000 gal	RTO
T100-TK-30A	Process Tank	RTO	70 gal	RTO
T100-TK31	Process Tank	RTO	4000 gal	RTO
T100-TK31B	Process Tank	RTO	50 gal	RTO
T100-TK32	Process Tank	RTO	4000 gal	RTO
T100-TK33	Process Tank	RTO	1000 gal	RTO
T100-TK34	Process Tank	RTO	1000 gal	RTO
T100-TK35	Process Tank	RTO	1000 gal	RTO
T100-TK36	Process Tank	RTO	1000 gal	RTO
T100-TK37	Process Tank	RTO	1000 gal	RTO
T100-TK38	Process Tank	RTO	1000 gal	RTO
T100-TK40	Portable Process Tank	RTO	100 gal	RTO
T100	Portable Process Tank	RTO	N/A	RTO
T100-PTK1	Portable Cleaning Tank	RTO	150 gal	RTO
T100-TK14A	Accumulator Tank	RTO	50 gal	RTO
T100-TK21A	Accumulator Tank	RTO	50 gal	RTO
T100-TK39	CIP Tank	RTO	500 gal	RTO
Spare Equipment (not associated with a single building)				
T27-CENT 16	Centrifuge	***	NA	***
T27-CENT 19	Centrifuge	***	NA	***
T27-CENT 37	Centrifuge	***	NA	***
T27-CENT 40	Centrifuge	***	NA	***
T28-CENT15	Centrifuge	***	NA	***
T31-CENT504	Centrifuge	***	13 gal	***
T31-RVD T47733	Rotary Vacuum Dryer	**	37 gal	***
T31A-TK65	Portable Process Tank	**	100 gal	***
T31A-TK8252	Portable Process Tank	**	150 gal	***

* Emission units marked with an asterisk are insignificant activities as defined by 326 IAC 2-7-1(21).

** This equipment is currently not in service; however, this equipment shall be tied into either the RTO control system or the T79 control system upon startup.

*** Spare equipment may be used anywhere on the plant site. If the equipment is used in T27, T31, T31A, T99, or T100, it will be vented to the RTO as required by Section D.6 of the permit. If the equipment is used in the T171 area, it will be vented to the atmosphere as allowed by Section D.16 of the permit.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.6.0 VOC, CO and Fluorides PSD BACT Requirements [326 IAC 2-2-3]

(a) Pursuant to 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD), the Best Available Control Technology (BACT), VOC BACT of 20 parts per million (ppmv) based on a 24 - hour daily average, or 98 % of VOC/VOHAP emissions has been established for the BPM Operation.

(b) Pursuant to 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD), the Best Available Control Technology (BACT), CO BACT of 78 ppmvdc based on a 24 - hour daily average has been established for the BPM Operation.

(c) Pursuant to 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD), the Best Available Control Technology (BACT), Fluorides (F-) BACT of NaOH injection to achieve 98% removal of hydrogen halide and halogen emissions, or 20 ppmv of hydrogen halide and halogen emissions over a 24 - hour daily average has been established for the BPM Operation.

D.6.1 Standards for BPM Process Vents [40 CFR 63.1254, 326 IAC 2-2-3, and 326 IAC 8-5-3]

The following streamlined standards for the BPM process operations satisfy the Maximum Achievable Control Technology Standards for Pharmaceutical Production Operations (Pharmaceutical MACT) for process vents [40 CFR 63.1254], Prevention of Significant Deterioration Best Available Control Technology (PSD BACT) requirements [326 IAC 2-2-3] and Reasonably Available Control Technology (RACT) requirements for synthesized pharmaceutical manufacturing operations [326 IAC 8-5-3]:

(a) Except as otherwise provided in Conditions D.6.1(c) and D.6.2, the emission limits and standards applicable for each operating BPM process vent containing undiluted and uncontrolled process vent streams equal to or greater than 50 ppmv HAP, 50 ppmv VOC, or 15 pounds per day VOC are described in Section D.14 of this permit.

(b) The Permittee shall cover all in-process tanks, having an exposed liquid surface containing VOC greater than 15 pounds per day unless production, sampling, maintenance, or inspection procedures require operator access.

(c) The Permittee is not required to control emissions from BPM process vents in accordance with (a) of this section, if it would result in a safety hazard, as long as the sum of the uncontrolled BPM process vent streams within an individual BPM process does not exceed an annual mass limit of 900 kilograms (2000 pounds) of HAP per 365-day period.

(d) The Permittee shall enclose all centrifuges, rotary vacuum filters, and other filters having an exposed liquid surface, where the liquid contains VOC and exerts a total vapor pressure of 0.5 pounds per square inch or more at 20°C.

D.6.2 Control Strategy for Production Equipment Exhaust Systems [40 CFR 63.1254][326 IAC 8-5-3] [326 IAC 2-2-3]

(a) Pursuant to 40 CFR 63.1254, production equipment exhaust systems containing undiluted and uncontrolled exhaust streams with HAP concentrations greater than fifty (50) ppm, HAP shall be controlled pursuant to D.14.0. The operation, inspection, and maintenance requirements for the RTO control system, and its closed - vent system,

used to control emissions from these emission units are described in Section D.14 of this permit.

(b) Pursuant to 326 IAC 8-5-3(b)(2), VOC emissions from production equipment exhaust systems shall not exceed thirty-three (33) pounds per day. If uncontrolled VOC emissions from a production equipment exhaust system would exceed thirty three (33) pounds per day, then the Permittee shall control VOC emissions pursuant to D.14.0. The operation, inspection, and maintenance requirements for the RTO control system, and its closed vent system, used to control emissions from these emission units are described in Section D.14 of this permit.

(c) Pursuant to 326 IAC 2-2-3, VOC BACT for production equipment exhaust systems not meeting the criteria of D.6.2(a) or D.6.2(b) is no controls. If the process affiliated with a production equipment exhaust system that is not routed to the RTO control system is modified in a manner that causes the criteria in Condition D.6.2(a) or D.6.2(b) to apply, the Permittee shall control the emissions pursuant to D.14.0.

D.6.3 Leak Detection and Repair (LDAR) Standards [326 IAC 2-2-3, 326 IAC 8-5-3, and 40 CFR 63.1255]

The LDAR standards that apply to components associated with the BPM production operations are described in Sections E.1 and E.2 of this permit.

D.6.4 Heat Exchange System Requirements [326 IAC 2-2-3 and 40 CFR 63.1252(c)(2)]

(a) The Permittee shall inspect the physical integrity of heat exchange systems that use water to cool process equipment or materials used in pharmaceutical manufacturing operations in accordance with the following current good manufacturing practice (CGMP) requirements of 21 CFR 211 to satisfy the streamlined standards of the Pharmaceutical MACT for heat exchange systems [40 CFR 63.1252(c)(2)] and the PSD BACT requirements [326 IAC 2-2-3]:

(1) Assignment of responsibility for maintaining equipment;

(2) Maintenance schedules; and

(3) Description in sufficient detail of the methods, equipment, and materials used in maintenance operations, and the methods of disassembling and reassembling equipment as necessary to assure proper maintenance.

D.6.5 Startup, Shutdown and Malfunction Requirements [326 IAC 2-2-3, 40 CFR 63.1250(g)]

(a) PSD BACT SSM Requirements [326 IAC 2-2-3]

(1) The startup, shutdown and malfunction (SSM) Plan requirements are described in Section D.14.3.

(2) The SSM requirements for the RTO control system, and associated closed-vent system, are described in Section D.14.3 of this permit.

(b) Pharmaceutical MACT SSM Requirements [40 CFR 63.1250(g)]

The requirements for SSM events pursuant to the Pharmaceutical MACT are described in Section D.14.3 of this permit.

Testing and Monitoring Requirements [326 IAC 2-7-6(1) (6)] [326 IAC 2-7-5(1)]

D.6.6 Testing Requirements

The testing requirements for the RTO control system, and its associated closed-vent system, used to control emissions from the emission units listed in this section are described in Section D.14 of this permit.

D.6.7 Monitoring Requirements

The monitoring requirements for the RTO control system, and its associated closed-vent system, used to control emissions from the applicable emission units listed in this section are described in Section D.14 of this permit.

Record Keeping and Reporting [326 IAC 2-7-5(3) and 326 IAC 2-7-19]

D.6.8 Record Keeping and Reporting Requirements

(a) Record Keeping Requirements

(1) RTO Control System Records - The record keeping and reporting requirements for the RTO control system, and associated closed-vent systems, used to control emissions from the emission units listed in this section are described in Section D.14 of this permit.

(2) Process Records — The Permittee shall maintain the following records when using the process vent standard described in Condition D.6.1(c):

(A) Daily rolling annual total HAP emissions;

(B) Number of batches per year for each batch process;

(C) Standard batch uncontrolled and controlled emissions for each process;

(D) Actual uncontrolled and controlled emissions for each nonstandard batch; and

(E) Record whether each batch operated was considered a standard batch.

(3) Heat Exchange System Records - Maintenance records, including the date, time, and sign off or initials of the individual who completed the task, of all heat exchange systems that use water to cool process equipment or materials used in pharmaceutical manufacturing operations. The Permittee shall track the heat exchange systems that use water to cool process equipment or materials used in pharmaceutical manufacturing operations in an operating scenario maintained in the On-Site Implementation Log (OSIL).

(4) LDAR Records - The record keeping and reporting requirements for the LDAR standards are described in Sections E.1and E.2 of this permit.

(5) SSM Records - The SSM record keeping requirements under PSD BACT are described in Section D.14.10(a).

(b) Periodic Reporting Requirements

The streamlined quarterly reporting requirements are described in Sections D.14.10(b),

E.1.3, and E.2.3, which shall satisfy the Pharmaceutical MACT standards [40 CFR 63.1260(g)] and the PSD BACT requirements [326 IAC 2-1.1-11].

(c) Immediate Reporting Requirements

(1) The immediate reporting requirements for the PSD BACT [326 IAC 2-2-3] are described in Section D.14.10(c)(1).

(2) The immediate reporting requirements for the Pharmaceutical MACT [40 CFR 63.1250(g)] are described in Section D.14.10(c)(2).

Modifications and Construction Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12 and 326 IAC 2-2]

D.6.9 Modifications and Construction: Advance Approval of Permit Conditions

(a) The Permittee may modify any existing emission units listed in this section of the permit without obtaining a source modification approval (otherwise required by 326 IAC 2-7-10.5), a Title V permit modification (otherwise required by 326 IAC 2-7-12), or a Prevention of Significant Deterioration permit (otherwise required by 326 IAC 2-2), provided the modified emission units are subject to the same applicable requirements listed in this D section, and the Permittee shall comply with the Change Management and Flexible Permit provisions in Section F.1 of this permit.

(b) The Permittee may construct and install new emission units of the types described in this D section without obtaining a source modification approval (otherwise required by 326 IAC 2-7-10.5), a Title V permit modification (otherwise required by 326 IAC 2-7-12), or a Prevention of Significant Deterioration permit (otherwise required by 326 IAC 2-2), provided the new emission units are subject to the same applicable requirements listed in this D section, and the Permittee shall comply with the Change Management and Flexible Permit provisions in Section F.1 of this permit.

SECTION D.7 BPM SUPPORT OPERATIONS - SOLVENT RECOVERY OPERATION CONDITIONS

Emissions Unit Description: [326 IAC 2-7-5(1)]

(a) The emission units listed below are subject to applicable requirements described or referred to in this D section. The BPM solvent recovery emission units can be generally described as columns, stills, evaporators, accumulators, process condensers and receivers and are referred to as process vents under the National Emission Standards of Hazardous Air Pollutants for Pharmaceutical Production Operations (Pharmaceutical MACT) found at 40 CFR 63, Subpart GGG and OSW MACT found at 40 CFR 63, Subpart DD. The solvent recovery columns may also be defined as treatment units under the OSW MACT.

Ancillary activities, such as heat exchange systems, are not considered process vents and have not been included in the description tables.

Emission Unit ID	Emission Unit Description	Stack/Vent	Nominal Capacity	Control Device
Building T19:				
T19-STL1	Still	T79	1500 gal	T79
T19-STL2	Still	T79	4000 gal	T79
T19-COL3	Column	T79	NA	T79
T19-REC1	Receiver	T79	2000 gal	T79
T19-REC10	Receiver	T79	2000 gal	T79
T19-REC11	Receiver	T79	5300 gal	T79
T19-REC2	Receiver	T79	2000 gal	T79
T19-REC3	Receiver	T79	2000 gal	T79
T19-REC6	Receiver	T79 or RTO*	300 gal	T79 or RTO*
T19-REC7	Receiver	T79 or RTO*	300 gal	T79 or RTO*
T19-REC8	Receiver	T79 or RTO*	750 gal	T79 or RTO*
T19-REC9	Receiver	T79	750 gal	T79
T19-TK-19-29S*	HCl Acid Storage	Atmosphere	6,000 gal	Conservation Vent
T19-TK-19-29N*	HCl Acid Storage	Atmosphere	6,000 gal	Conservation Vent
T19-TK9A3A	Accumulator	T79	100 gal	T79
Building T52:				
T52-REC52-1	Stainless Receiver	T79	2000 gal	T79
T52-REC52-2	Stainless Receiver	T79	2000 gal	T79
T52-ACC9	Accumulator	T79	NA	T79
T52-ACC10	Accumulator	T79	NA	T79
T52-ACC5	Accumulator	T79	NA	T79
T52-ACC6	Accumulator	T79	NA	T79
T52-COL52-8	Wash Column	T79	NA	T79
T52-EVAP10	Evaporator	T79	2000 gal	T79
T52-EVAP5	Evaporator	T79	2000 gal	T79
T52-EVAP6	Evaporator	T79	2000 gal	T79
T52-STPR52-14	Steam Stripper	T79	250 gal	T79
T52-ACC14	Accumulator	T79	NA	T79
T52-TK5K4A*	Sulfuric Acid Storage	Atmosphere	125 gal	None

Building T61:				
T61-COL61-1	Column	T79	NA	T79
T61-TK-1A	Accumulator	T79	100 gal	T79
T61-COL61-2	Column	T79	NA	T79
T61-TK-2A	Accumulator	T79	100 gal	T79
T61-TK-2B	Accumulator	T79	75 gal	T79
T61-TK-2C	Accumulator	T79	50 gal	T79
T61-COL61-3	Column	T79	NA	T79
T61-TK-3A	Accumulator	T79	100 gal	T79
T61-TK-3B	Accumulator	T79	75 gal	T79
T61-TK-3C	Accumulator	T79	50 gal	T79
T61-REC1	Receiver	T79	5000 gal	T79
T61-REC2	Receiver	T79	5000 gal	T79
T61-REC3	Receiver	T79	5000 gal	T79
T61-REC4	Receiver	T79	5000 gal	T79
T61-REC5	Receiver	T79	5000 gal	T79
T61-REC6	Receiver	T79	5000 gal	T79
T61-REC7	Receiver	T79	5000 gal	T79
T61-REC8	Receiver	T79	5000 gal	T79
Building T127				
T127-TK-46*	50% Caustic Storage	Atmosphere	39,000 gal	Open to Atmosphere
T127-TK-47*	20% Caustic Storage	Atmosphere	39,000 gal	Open to Atmosphere
Spare Equipment (not associated with a single building)				
T61-TK-1C	Accumulator	T79	50 gal	T79

* This equipment is currently not in service; however, this equipment shall be tied into either the RTO control system or the T79 control system upon startup.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.7.0 VOC PSD BACT Requirements [326 IAC 2-2-3]

Pursuant to 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD), the Best Available Control Technology (BACT), VOC BACT of 98% control of VOC emissions has been established for the BPM Support Operations - Solvent Recovery Operations.

D.7.1 Standards for BPM Support Process Vents [40 CFR 63.1254, CFR 63.690, 326 IAC 2-2-3, and 326 IAC 8-5-3]

The following streamlined standards for the BPM solvent recovery operations satisfy the Pharmaceutical MACT Standards for process vents [40 CFR 63.1254], Offsite Waste MACT Standards for process vents [40 CFR 63.690], PSD BACT requirements [326 IAC 2-2-3] and RACT requirements for synthesized pharmaceutical manufacturing operations [326 IAC 8-5-3]:

(a) Except as otherwise provided in Condition D.7.1(c), the emission limits and standards for each operating BPM process vent containing undiluted and uncontrolled process vent streams equal to or greater than 50 ppmv VOHAP and/or 50 ppmv VOC are described in Section D.14 for emission units controlled by the RTO control system and described in Section D.15 for emission units controlled by the T79 fume incinerator control system.

(b) The Permittee shall cover all in-process tanks associated with the BPM solvent recovery operations, having an exposed liquid surface containing VOC greater than 15 pounds per day unless production sampling, maintenance, or inspection procedures require operator access.

(c) The Permittee is not required to control emissions from BPM Support process vents in accordance with (a) of this section, if it would result in a safety hazard, as long as the sum of the uncontrolled BPM Support process vent streams within an individual BPM process does not exceed an annual mass limit of 900 kilograms (2000 pounds) of HAP per 365-day period.

(d) The Permittee shall enclose all centrifuges, rotary vacuum filters, and other filters having an exposed liquid surface, where the liquid contains VOC and exerts a total vapor pressure of 0.5 pounds per square inch or more at 20°C.

D.7.2 Treatment Unit Requirements [326 IAC 2-2-3 and 40 CFR 63.684]

When a solvent recovery column is used as the final treatment step to treat off-site waste containing VOHAP or VOC equal to or greater than 500 ppmw, the Permittee shall reduce the VOHAP and VOC concentrations of the off-site material to a level that is less than 500 ppmw to satisfy the requirements of 326 IAC 2-2-3 and 40 CFR 63.684(b).

D.7.3 Leak Detection and Repair (LDAR) for Fugitive Emissions [326 IAC 2-2-3 and 40 CFR 63.1255]

The LDAR standards that apply to components associated with the BPM solvent recovery operations are described in Sections E.1 and E.2 of this permit.

D.7.4 Heat Exchange System Requirements [326 IAC 2-2-3 and 40 CFR 63.1252(c)(2)]

(a) The Permittee shall inspect the physical integrity of heat exchange systems that use water to cool process equipment or materials used in pharmaceutical manufacturing operations in accordance with the following current good manufacturing practice (CGMP) requirements of 21 CFR 211 to satisfy the streamlined standards of the Pharmaceutical MACT for heat exchangers [40 CFR 63.1252(c)(2)] and the PSD BACT requirements [326 IAC 2-2-3]:

(1) Assignment of responsibility for maintaining equipment;

(2) Maintenance schedules; and

(3) Description in sufficient detail of the methods, equipment, and materials used in maintenance operations, and the methods of disassembling and reassembling equipment as necessary to assure proper maintenance - 211.67(b)(3).

D.7.5 Startup, Shutdown and Malfunction Requirements [326 IAC 2-2-3, 40 CFR 63.1250(g), and 40 CFR 63.697(b)(3)]

(a) Offsite Waste MACT [40 CFR 63.697(b)(3)] and PSD BACT [326 IAC 2-2-3] SSM Requirements

(1) The startup, shutdown and malfunction (SSM) Plan requirements are described in Sections D.14.3 and D.15.3.

(2) The SSM requirements for the RTO control system and T79 control system, and associated closed-vent systems, are described in Sections D.14.3 and D.15.3 of this permit, respectively.

(b) Pharmaceutical MACT SSM Requirements [40 CFR 63.1250(g)]

The requirements for SSM events pursuant to the Pharmaceutical MACT are described in Sections D.14.3 and D.15.3 of this permit.

Testing and Monitoring Requirements [326 IAC 2-7-6(1) (6)] [326 IAC 2-7-5(1)]

D.7.6 Testing Requirements

(a) The testing requirements for the RTO control system and T79 control system, and associated closed-vent systems, used to control emissions from the emission units listed in this section are described in Sections D.14 and D.15 of this permit, respectively.

(b) The following streamlined requirements for the solvent recovery columns that treat off-site waste shall satisfy the Offsite Waste MACT standards [40 CFR 63.684(d) and (e)] and the PSD BACT requirements [326 IAC 2-1.1-11]. When off-site waste is being treated according to the treatment standards in Condition D.18, the solvent recovery column requirements in this section do not apply.

(1) An initial and annual demonstration shall be performed within 30 days after first time an owner or operator begins using the treatment process to manage a new off-site material stream equal to or greater than 500 ppmw VOHAP or VOC in accordance with the requirements of either 40 CFR 63.683(b)(1)(ii) or 40 CFR 63.683(b)(2)(ii).

(2) The Permittee shall establish solvent recovery column temperature limits for each off-site waste material stream equal to or greater than 500 ppmw VOHAP or VOC. The Permittee shall monitor the temperature as follows:

(A) The Permittee shall install and operate the temperature CMS in accordance with 40 CFR 63.8(c).

(B) Each CMS shall be in continuous operation when the solvent recovery column is receiving off-site waste streams equal to or greater than 500 ppmw VOHAP or VOC, except for system malfunctions (breakdowns, out of control periods, and associated repairs), maintenance periods, calibration checks and zero (low-level) and high-level calibration drift adjustments.

(C) Continuous operation is defined as the collection of at least one measurement for each successive 15-minute period.

D.7.7 Monitoring Requirements

The monitoring requirements for the RTO control system and T79 control system, and associated closed-vent systems, used to control emissions from the applicable emission units listed in this section are described in Sections D.14 and D.15 of this permit, respectively.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3) and 326 IAC 2-7-19]

D.7.8 Record Keeping and Reporting Requirements

(a) Record Keeping Requirements

(1) RTO Control System and T79 Control System Records - The record keeping requirements for the RTO control system and T79 control system, and associated closed-vent systems, used to control emissions from the emission units listed in this section are described in Sections D.14 and D.15 of this permit,

respectively.

(2) LDAR Records - The record keeping requirements for the LDAR standards are described in Sections E.1 and E.2 of this permit.

(3) Process Records – The Permittee shall maintain the following records when using the process vent standard described in Condition D.7.1(c):

(A) Daily rolling annual total HAP emissions;

(B) Number of batches per year for each batch process;

(C) Standard batch uncontrolled and controlled emissions for each process;

(D) Actual uncontrolled and controlled emissions for each nonstandard batch; and

(E) Record whether each batch operated was considered a standard batch.

(4) Solvent Recovery Records – The Permittee shall track how the solvent recovery columns are being utilized in an operating scenario maintained in the On-Site Implementation Log. If a solvent recovery column is used as a treatment column for offsite waste, then the Permittee shall maintain the following records:

(A) Initial and annual demonstration records;

(B) Records of all required CMS data;

(C) Records of each CMS calibration checks;

(D) Maintenance records for each CMS; and

(E) Occurrence/duration records of each CMS malfunction.

(5) Heat Exchange System Records - Maintenance records, including the date, time, and sign off or initials of the individual who completed the task, of all heat exchange systems that use water to cool process equipment or materials used in pharmaceutical manufacturing operations. The Permittee shall track the heat exchange systems that use water to cool process equipment or materials used in pharmaceutical manufacturing operations in an operating scenario maintained in the On-Site Implementation Log (OSIL).

(6) SSM Records - The Permittee shall maintain SSM records as described in Sections D.14.10(a) and D.15.8(a), as applicable.

(b) Periodic Reporting Requirements

The streamlined quarterly reporting requirements are described in Sections D.14.10(b), D.15.8(b), E.1.3, and E.2.3, which shall satisfy the Pharmaceutical MACT standards [40 CFR 63.1260(g)], Offsite Waste MACT [40 CFR 63.697(b)(3)] and the PSD BACT requirements [326 IAC 2-1.1-11].

(c) Immediate Reporting Requirements

(1) The immediate reporting requirements for the Offsite Waste MACT standards [40 CFR 63.697(b)(3)] and PSD BACT requirements [326 IAC 2-2-3] are described in

Section D.14.10(c)(1) and D.15.8(c)(1).

(2) The immediate reporting requirements for the Pharmaceutical MACT [40 CFR 63.1250(g)] are described in Section D.14.10(c)(2) and D.15.8(c)(2).

Modifications and Construction Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12 and 326 IAC 2-2]

D.7.9 Modifications and Construction: Advance Approval of Permit Conditions

(a) The Permittee may modify any existing emission units listed in this section of the permit without obtaining a source modification approval (otherwise required by 326 IAC 2-7-10.5), a Title V permit modification (otherwise required by 326 IAC 2-7-12), or a Prevention of Significant Deterioration permit (otherwise required by 326 IAC 2-2), provided the modified emission units are subject to the same applicable requirements listed in this D section, and the Permittee shall comply with the Change Management and Flexible Permit provisions in Section F.1 of this permit.

(b) The Permittee may construct and install new emission units of the types described in this D section without obtaining a source modification approval (otherwise required by 326 IAC 2-7-10.5), a Title V permit modification (otherwise required by 326 IAC 2-7-12), or a Prevention of Significant Deterioration permit (otherwise required by 326 IAC 2-2), provided the new emission units are subject to the same applicable requirements listed in this D section, and the Permittee shall comply with the Change Management and Flexible Permit provisions in Section F.1 of this permit.

SECTION D.8 BPM SUPPORT OPERATIONS - INDIVIDUAL DRAIN SYSTEM OPERATION CONDITIONS

Emissions Unit Description: BPM SUPPORT OPERATIONS – INDIVIDUAL DRAIN SYSTEM CONDITIONS

The emission units listed below are subject to applicable requirements described or referred to in this D section when they are accepting affected wastewater. These sumps and the drain systems associated with the sumps are defined as individual drain systems under the National Emission Standards for Hazardous Air Pollutants for Pharmaceutical Production Operations (Pharmaceutical MACT) found at 40 CFR 63, Subpart GGG or under the National Emission Standards of Hazardous Air Pollutants from Off-site Waste and Recovery Operations (Offsite Waste MACT) found at 40 CFR 63, Subpart DD.

Unit ID	Unit Description	Stack/Vent	Nominal Capacity	Control Device
Building T27:				
T27-Sump*	Sump Tank/Lift Station	RTO	2,000 gallons	RTO
Building T31:				
T31-Sump*	Sump	RTO	5,900 gallons	RTO
Building T31A:				
T31A-Sump*	Sump	RTO	300 gallons	RTO
Building T19:				
T19-1-Sump*	Sump	None	NA	None
Building T99:				
T99-Sump*	Sump	RTO	7,500 gallons	RTO
Building T100:				
IDS	Drain system to T100 Tank 48 and/or T79	RTO	NA	RTO
Building T148:				
T148-TK782*	IDS	None	100 gallons	None

* Emission units marked with an asterisk are insignificant activities as defined by 326 IAC 2-7-1(21)(A)-(C).

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.8.1 BPM Individual Drain System (IDS) Standards [40 CFR 63.1256(e), 40 CFR 63.689(b), and 326 IAC 2-2-3]

The following streamlined standards for BPM IDSs satisfy the requirements of the Pharmaceutical MACT Standards for individual drain systems [40 CFR 63.1256(e)], Offsite Waste MACT Standards for transfer systems [40 CFR 63.689(b)], and PSD BACT requirements [326 IAC 2-2-3]:

(a) Definition Standards:

A BPM IDS is defined as any stationary system used to convey waste streams containing HAP or VOC to a waste management unit. A segregated stormwater sewer system, which is a drain and collection system designed and operated for the sole purpose of collecting rainfall-runoff at a facility, and which is segregated from all other individual drain systems, is excluded from this definition. An IDS that is used for the sole purpose of collecting wastewater from drips, spills and leaks, or water from safety showers,

condensation and fire deluge systems, is excluded from this definition. For purposes of inspections in Section D.8.1(c), a BPM IDS includes any fixed roof, cover, and/or enclosure, and closed vent system section from the IDS to the inlet of the production building roof fan exhausting to the control device or to the IDS conservation vent.

(b) Operational Standards: The Permittee shall meet the operational standards in (1) or (2) of this section:

(1) Operate the BPM IDS as a closed system with all vapors routed through a closed-vent system to a control device:

(A) The Permittee shall cover the openings of each operating BPM IDS containing waste equal to or greater than 500 parts per million by weight (ppmw) HAP and/or 500 ppmw VOC at all times during use except when it is necessary to use the opening for sampling or removal of material, or for equipment inspection, maintenance, or repair; and

(B) Except as otherwise provided in this Condition, the emission limits and standards for each operating BPM IDS containing waste equal to or greater than 500 ppmw HAP and/or 500 ppmw VOC are described in Section D.14 for emission units controlled by the RTO control system and described in Section D.15 for emission units controlled by the T79 fume incinerator control system; or

(2) Equip the BPM IDS with a water seal or tightly fitting cap or plug:

(A) For each BPM IDS equipped with a water seal, ensure that the water seal is maintained on a semiannual basis. 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.

(B) For each BPM IDS equipped with a water seal, 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 (if such a space exists).

(c) Inspection Standards:

(1) For each BPM IDS containing waste equal to or greater than 500 ppmw HAP and/or 500 ppmw VOC being operated as a closed system with all vapors routed through a closed-vent system to a control device, the Permittee shall perform the following visual inspections and, when necessary, comply with the following repair requirements:

(A) Initial and semiannual visual inspections of each BPM IDS for improper work practices such as 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.

(B) Initial and semiannual visual inspections of each BPM IDS for control equipment failures such as a cracked or broken joint, lid, cover, or door.

(C) Initiate repair of any leak no later than 5 calendar days after identification, and complete repair within 15 days after identification, except for the following allowances for delay of repair:

(i) Repair is technically infeasible without a shutdown;

(ii) Emissions resulting from immediate repair would be greater than the emissions likely to result from delay of repair. In such cases, repair shall occur by the end of the next shutdown;

(iii) Equipment is emptied or is no longer used to treat waste equal to or greater than 500 ppmw HAP and/or VOC; or

(iv) Unavailability of parts beyond the control of the Permittee.

(2) For each BPM IDS containing waste equal to or greater than 500 ppmw HAP and/or 500 ppmw VOC being operated as a closed system with all vapors routed through a closed-vent system to a control device, the Permittee shall perform the following additional inspections and repair requirements (when necessary) on the sections of the closed-vent system not operated under negative pressure:

(A) Initial one-time Method 21 inspection on the cover of each BPM IDS. For new equipment, this inspection shall be performed within 150 days upon startup of the new equipment.

(B) Semiannual visual inspections for visible, audible, or olfactory indications of leaks.

(C) Initiate repair of any leak no later than 5 calendar days after identification, and complete repair within 15 days after identification, except for the following situations:

(i) Delay of repair is allowed if the repair is technically infeasible without a shutdown; or

(ii) Delay of repair is allowed if the emissions resulting from immediate repair would be greater than the emissions likely to result from delay of repair.

(3) For each BPM IDS equipped with a water seal or tightly fitting cap or plug, the Permittee is not subject to the requirements in (1) and (2) of this section, but instead shall comply with the following inspection and repair requirements.

(A) For BPM IDS equipped with a water seal, ensure that the water seal is maintained on a semiannual basis. 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.

(B) Each BPM IDS equipped with a tightly fitting cap or plug, visual inspections shall be conducted initially and semiannually thereafter to ensure caps or plugs are in place and that there are no gaps, cracks, or other holes in the cap or plug.

(C) Initiate repair of any gap, hole, or crack no later than 5 calendar days

after identification, and complete repair within 15 days after identification, except for the following situations:

(i) Delay of repair is allowed if the repair is technically infeasible without a shutdown; or

(ii) Delay of repair is allowed if the emissions resulting from immediate repair would be greater than the emissions likely to result from delay of repair.

(4) BPM IDSs containing waste equal to or greater than 500 ppmw HAP and/or 500 ppmw VOC that are unsafe or difficult to inspect are not subject to the requirements of D.8.1 (b)(2) and D.8.1(c).

D.8.2 Startup, Shutdown and Malfunction Requirements [40 CFR 63.1250(g), 40 CFR 63.697(b)(3), and 326 IAC 2-2-3]

(a) Offsite Waste MACT [40 CFR 63.697(b)(3)] and PSD BACT [326 IAC 2-2-3] SSM Requirements:

(1) The startup, shutdown and malfunction (SSM) Plan requirements are described in Sections D.14.3 and D.15.3.

(2) The SSM requirements for the RTO control system or T79 control system, and associated closed-vent systems, are described in Sections D.14.3 and D.15.3 of this permit, respectively.

(b) Pharmaceutical MACT SSM Requirements [40 CFR 63.1250(g)]

The requirements for SSM events pursuant to the Pharmaceutical MACT are described in Sections D.14.3 and D.15.3 of this permit.

Testing and Monitoring Requirements [326 IAC 2-7-6(1) (6)] [326 IAC 2-7-5(1)]

D.8.3 Testing Requirements

(a) The compliance determination requirements for the RTO control system and T79 fume incinerator control system, and associated closed-vent systems, used to control emissions from the emission units listed in this section are described in Sections D.14 and D.15 of this permit, respectively.

(b) The Permittee shall utilize engineering knowledge of the waste stream constituents such as material balances to demonstrate the average VOHAP and/or VOC concentration is less than 500 ppmw for each BPM IDS that is not controlled in accordance with D.8.3 (a).

D.8.4 Monitoring Requirements

The monitoring requirements for the RTO control system and T79 fume incinerator control system, and associated closed-vent systems, used to control emissions from the emission units listed in this section are described in Sections D.14 and D.15 of this permit, respectively.

Record Keeping and Reporting Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12 and 326 IAC 2-2]

D.8.5 Record Keeping and Reporting Requirements

(a) Record Keeping Requirements

(1) RTO Control System and T79 Control System Records - The record keeping requirements for the RTO control system and T79 fume incinerator control

system, and associated closed-vent systems that control emissions from the emission units listed in this section are described in Sections D.14 and D.15 of this permit, respectively.

(2) Inspection and Maintenance Records - The Permittee shall maintain the following records:

(A) Identification and explanation of all BPM IDS covers unsafe to inspect, including a plan for when these IDS covers will be inspected;

(B) Identification and explanation of all BPM IDS covers difficult to inspect, including a plan for when these IDS covers will be inspected;

(C) Visual inspection log of BPM IDSs, including the date of inspection and a statement that no leaks were detected, if applicable;

(D) One-time Method 21 inspection log of each BPM IDS cover, including the date of inspection and a statement that no leaks were detected, if applicable;

(E) Information on each BPM IDS cover inspection during which a leak is detected, including:

(i) Instrument identification numbers, operator name or initials, and identification of the equipment;

(ii) Date the leak was detected and the date of the first attempt to repair the leak;

(iii) Maximum instrument reading measured after leak is successfully repaired or determined to be nonrepairable;

(iv) Reason for any delay of repair if leak not repaired within 15 calendar days after discovery of the leak;

(v) Name, initials, or other form of identification of person whose decision it was that repair could not be effected without a shutdown;

(vi) Expected date of successful repair of leak if leak not required within 15 calendar days after discovery of leak;

(vii) Dates of shutdowns that occur while the equipment is unrepaired; and

(viii) Date of successful repair of the leak.

(F) Documentation of a decision to use a delay of repair due to unavailability of parts shall include a description of the failure, the reason additional time was necessary (including a statement of why replacement parts were not kept onsite and when delivery from the manufacturer is scheduled), and the date when the repair was completed.

(3) SSM Records - The Permittee shall maintain SSM records as described in Sections D.14.10(a) and D.15.8(a), as applicable.

(4) IDS Waste Stream Records - The Permittee shall identify each IDS not controlled by the RTO or T79 control system and maintain documentation to support the average waste stream constituents of VOHAP and/or VOC concentration are less than 500 ppmw.

(b) Periodic Reporting Requirements

(1) The streamlined quarterly reporting requirements are described in Sections D.14.10(b), D.15.8(b), E.1.3, and E.2.3, which shall satisfy the Pharmaceutical MACT standards [40 CFR 63.1260(g)], Offsite Waste MACT [40 CFR 63.697(b)(3)], and the PSD BACT requirements [326 IAC 2-1.1-11].

(2) The streamlined quarterly report must include inspections conducted during which a leak was detected.

(c) Immediate Reporting Requirements

(1) The immediate reporting requirements for the Offsite Waste MACT standards [40 CFR 63.697(b)(3)] and PSD BACT requirements [326 IAC 2-2-3] are described in Section D.14.10(c)(1) and D.15.8(c)(1).

(2) The immediate reporting requirements for the Pharmaceutical MACT [40 CFR 63.1250(g)] are described in Section D.14.10(c)(2) and D.15.8(2).

Modifications and Construction Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12 and 326 IAC 2-2]

D.8.6 Modifications and Construction: Advance Approval of Permit Conditions

(a) The Permittee may modify any existing emission units listed in this section of the permit without obtaining a source modification approval (otherwise required by 326 IAC 2-7-10.5), a Title V permit modification (otherwise required by 326 IAC 2-7-12), or a Prevention of Significant Deterioration permit (otherwise required by 326 IAC 2-2), provided the modified emission units are subject to the same applicable requirements listed in this D section, and the Permittee shall comply with the Change Management and Flexible Permit provisions in Section F.1 of this permit.

(b) The Permittee may construct and install new emission units of the types described in this D section without obtaining a source modification approval (otherwise required by 326 IAC 2-7-10.5), a Title V permit modification (otherwise required by 326 IAC 2-7-12), or a Prevention of Significant Deterioration permit (otherwise required by 326 IAC 2-2), provided the new emission units are subject to the same applicable requirements listed in this D section, and the Permittee shall comply with the Change Management and Flexible Permit provisions in Section F.1 of this permit.

Non-Applicability of Requirements

D.8.7 Non-Applicability Determinations [326 IAC 8-5-3]

The control requirements of the Synthesized Pharmaceutical RACT rules (326 IAC 8-5-3) do not apply to the individual drain systems identified above in the Facility Description section because the potential to emit VOC emissions from each facility is less than the rule applicability threshold level of 6.8 kilograms per day (15 pounds per day).

SECTION D.9 BPM SUPPORT OPERATIONS – SOLVENT STORAGE TANK OPERATION CONDITIONS

Emissions Unit Description:

Emission Unit ID	Emission Unit Description**	Stack/Vent	Nominal Capacity	Control Device
Building T143 – Tank Module:				
T143-TK01	Solvent Tank	T79	38,245 gal	T79
T143-TK03	Solvent Tank	T79	38,245 gal	T79
T143-TK05	Solvent Tank	T79	38,245 gal	T79
T143-TK07	Solvent Tank	T79	38,245 gal	T79
T143-TK09	Solvent Tank	T79	38,245 gal	T79
T143-TK11	Solvent Tank	T79	38,245 gal	T79
T143-TK12	Solvent Tank	T79	18,500 gal	T79
T143-TK17	Solvent Tank	T79	18,500 gal	T79
T143-TK18	Solvent Tank	T79	18,500 gal	T79
T143-TK19	Solvent Tank	T79	18,500 gal	T79
T143-TK20	Solvent Tank	T79	18,500 gal	T79
T143-TK21	Solvent Tank	T79	18,500 gal	T79
T143-TK22	Solvent Tank	T79	18,500 gal	T79
T143-TK23	Solvent Tank	T79	18,500 gal	T79
T143-TK24	Solvent Tank	T79	18,500 gal	T79
Building T145 – Tank Module:				
T145-TK25	Solvent Tank	T79 or RTO*	18,900 gal	T79 or RTO*
T145-TK26	Solvent Tank	T79 or RTO*	18,900 gal	T79 or RTO*
T145-TK27	Solvent Tank	T79 or RTO*	18,900 gal	T79 or RTO*
T145-TK28	Solvent Tank	T79 or RTO*	18,900 gal	T79 or RTO*
T145-TK29	Solvent Tank	T79 or RTO*	18,900 gal	T79 or RTO*
T145-TK30	Solvent Tank	T79 or RTO*	18,900 gal	T79 or RTO*
T145-TK31	Solvent Tank	T79 or RTO*	18,900 gal	T79 or RTO*
T145-TK32	Solvent Tank	T79 or RTO*	18,900 gal	T79 or RTO*
T145-TK33	Solvent Tank	T79 or RTO*	18,900 gal	T79 or RTO*
T145-TK34	Solvent Tank	T79 or RTO*	18,900 gal	T79 or RTO*
T145-TK35	Solvent Tank	T79 or RTO*	18,900 gal	T79 or RTO*
T145-TK36	Solvent Tank	T79 or RTO*	18,900 gal	T79 or RTO*
T145-TK37	Solvent Tank	T79 or RTO*	18,900 gal	T79 or RTO*
T145-TK38	Solvent Tank	T79 or RTO*	18,900 gal	T79 or RTO*
T145-TK39	Solvent Tank	T79 or RTO*	18,900 gal	T79 or RTO*
T145-TK40	Solvent Tank	T79	18,900 gal	T79
T145-TK41	Solvent Tank	T79	18,900 gal	T79
T145-TK42	Solvent Tank	T79	18,900 gal	T79

T145-TK43	Solvent Tank	T79	18,900 gal	T79
T145-TK44	Solvent Tank	T79	18,900 gal	T79
T145-TK45	Solvent Tank	T79	18,900 gal	T79
T145-TK46	Solvent Tank	T79	18,900 gal	T79
T145-TK47	Solvent Tank	T79	18,900 gal	T79
T145-TK48	Solvent Tank	T79	18,900 gal	T79
T145-TK49	Solvent Tank	T79	18,900 gal	T79
T145-TK50	Solvent Tank	T79	10,000 gal	T79
T145-TK51	Solvent Tank	T79	10,000 gal	T79
T145-TK52	Solvent Tank	T79	10,000 gal	T79
T145-TK53	Solvent Tank	T79	10,000 gal	T79
T145-TK54	Solvent Tank	T79	10,000 gal	T79
T145-TK55	Solvent Tank	T79	10,000 gal	T79
T145-TK56	Solvent Tank	T79	10,000 gal	T79
T145-TK57	Solvent Tank	T79	10,000 gal	T79
T145-TK58	Solvent Tank	T79	10,000 gal	T79
T145-TK59	Solvent Tank	T79	10,000 gal	T79
Building T146 – Tank Module:				
T146-TK01	Solvent Tank	RTO	19,000 gal	RTO
T146-TK02	Solvent Tank	RTO	19,000 gal	RTO
T146-TK03	Solvent Tank	RTO	19,000 gal	RTO
T146-TK04	Solvent Tank	RTO	19,000 gal	RTO
T146-TK05	Solvent Tank	RTO	19,000 gal	RTO
T146-TK06	Solvent Tank	RTO	19,000 gal	RTO
T146-TK07	Solvent Tank	RTO	19,000 gal	RTO
T146-TK08	Solvent Tank	RTO	19,000 gal	RTO
T146-TK09	Solvent Tank	RTO	19,000 gal	RTO
T146-TK10	Solvent Tank	RTO	19,000 gal	RTO
T146-TK13	Solvent Tank	RTO	19,000 gal	RTO
T146-TK14	Solvent Tank	RTO	19,000 gal	RTO
T146-TK15	Solvent Tank	RTO	19,000 gal	RTO
T146-TK16	Solvent Tank	RTO	19,000 gal	RTO
T146-TK17	Solvent Tank	RTO	19,000 gal	RTO
T146-TK19	Solvent Tank	RTO	19,000 gal	RTO
T146-TK22	Solvent Tank	RTO	19,000 gal	RTO

* This equipment is currently not in service; however, this equipment shall be tied into either the RTO control system or the T79 control system upon startup.
** This equipment may store solvent or waste.
(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.9.0 VOC PSD BACT Requirements [326 IAC 2-2-3]

Pursuant to 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD), the Best Available Control Technology (BACT), VOC BACT of 20 parts per million (ppmv) based on a 24 - hour daily average, or 98% control of VOC emissions has been established for the BPM Support Operations – Solvent Storage Tank Operation.

D.9.1 Standards for BPM Solvent Storage Tanks [40 CFR 63.1253(c)(1)(i), 40 CFR 60.112b and 60.113b, 326 IAC 8-5-3, and 326 IAC 2-2]

The following streamlined standards for the BPM solvent storage tanks satisfy the requirements of the Pharmaceutical MACT Standards for storage tanks [40 CFR 63.1253(c)(1)(i)], Volatile Organic Liquid Storage Vessel Standards [40 CFR 60.112b and 60.113b], PSD BACT requirements [326 IAC 2-2-3] and RACT requirements for synthesized pharmaceutical manufacturing operations [326 IAC 8-5-3]:

(a) Definition Standards:

(1) A BPM solvent storage tank is defined as any vessel designed to store raw material feedstocks or used solvent to be recovered that contain VOCs and/or VOHAP. Pressure vessels greater than 204.9 kPa without emissions to the atmosphere, vessels attached to motor vehicles, or vessels used to store beverage alcohol are not BPM solvent storage tanks. For purposes of inspections in Section D.9.1(c), a BPM solvent storage tank includes any fixed roof, cover, and/or enclosure, and closed vent system section from the BPM solvent storage tank to the inlet of the production building roof fan exhausting to the control device or to the BPM solvent storage tank conservation vent.

(b) Operational Standards:

(1) Except as otherwise provided in this Condition and in Condition D.9.2, the emission limits and standards for each operating BPM solvent storage tank are described in Section D.14 for equipment controlled by the RTO control system and described in Section D.15 for equipment controlled by the T79 fume incinerator control system.

(2) Solvent storage tanks shall be of fixed-roof design.

(c) Inspection Standards:

(1) The Permittee shall conduct one-time Method 21 inspections of the fixed roof for each existing BPM solvent storage tank not operated under negative pressure and not already subject to LDAR within 150 days of the issuance date of this permit, and for each new BPM solvent storage tank not operated under negative pressure and not subject to LDAR within 150 days upon startup.

(2) The Permittee shall conduct semiannual visual inspections on each BPM solvent storage tank for visible, audible, or olfactory indications of leaks.

(3) The Permittee shall initiate repair of any leak on a BPM solvent storage tank no later than 5 calendar days after identification, and complete the repair within 15 days after identification, unless:

(i) The repair is technically infeasible without a shutdown of an operation or process; or

(ii) It is determined that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay or repair.

Repairs delayed due to either of the causes described in (A) or (B) shall be completed by the end of the next shutdown.

D.9.2 Exceptions to Standards for BPM Solvent Storage Tanks [40 CFR 63.1253 and 326 IAC 2-2]

(a) The BPM solvent storage tanks are not subject to the standards established in Condition D.9.1 (b) during periods of planned routine maintenance, as long as the planned routine maintenance activities do not exceed 240 hours per 365 day period.

(b) BPM solvent storage tanks storing VOC/VOHAP with a vapor pressure less than 3.5 kPa are not subject to the requirements of D.9.1 (b)(1) and (c).

(c) BPM solvent storage tanks that are unsafe or difficult to inspect are not subject to the requirements of D.9.1(c).

D.9.3 Leak Detection and Repair (LDAR) Standards [40 CFR 63.1255 and 326 IAC 2-2]

The LDAR standards that apply to components associated with the emission units listed in this section are described in Section E.1 of this permit.

D.9.4 Startup, Shutdown and Malfunction Requirements [40 CFR 60.8(c), 40 CFR 63.1250(g) and 326 IAC 2-2-3]

(a) Volatile Organic Liquid Storage Vessel Standards [40 CFR 60.7, 40 CFR 60.8(c)] and PSD BACT SSM Requirements [326 IAC 2-2-3]

(1) The startup, shutdown and malfunction (SSM) Plan requirements are described in Sections D.14.3 and D.15.3.

(2) The SSM requirements for the RTO control system or T79 control system, are described in Sections D.14.3 and D.15.3 of this permit, respectively.

(b) Pharmaceutical MACT SSM Requirements [40 CFR 63.1250(g)]

The requirements for SSM events pursuant to the Pharmaceutical MACT are described in Section D.14.3 and D.15.3 of this permit.

Testing and Monitoring Requirements [326 IAC 2-7-6(1) (6)] [326 IAC 2-7-5(1)]

D.9.5 Testing Requirements

The testing requirements for the RTO control system and T79 fume incinerator control system, and associated closed-vent systems that control emissions from the emission units listed in this section are described in Sections D.14 and D.15 of this permit, respectively.

D.9.6 Monitoring Requirements

The monitoring requirements for the RTO control system, T79 fume incinerator control system, and associated closed-vent systems that control emissions from the emission units listed in this section are described in Sections D.14 and D.15 of this permit, respectively.

Record Keeping and Reporting Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12, 326 IAC 2-2, 40 CFR 60.7, 40 CFR 60 Subpart Kb, and 40 CFR 63 Subpart GGG]

D.9.7 Record Keeping and Reporting Requirements

(a) Record Keeping Requirements

(1) The record keeping requirements for the RTO control system, T79 fume incinerator control system, and associated closed-vent systems that control emissions from the emission units listed in this section are described in Sections

D.14 and D.15 of this permit, respectively.

(2) Inspection and Maintenance Records - The Permittee shall maintain the following records:

(A) Identification and explanation of all BPM solvent storage tanks unsafe to inspect, including a plan for when these tanks will be inspected;

(B) Identification and explanation of all BPM solvent storage tanks difficult to inspect, including a plan for when these tanks will be inspected;

(C) Visual inspection log of BPM solvent storage tanks, including the date of inspection and a statement that no leaks were detected, if applicable;

(D) One-time Method 21 inspection log of each BPM solvent storage tank, including the date of inspection and a statement that no leaks were detected, if applicable;

(E) Information on each BPM solvent storage tank inspection during which a leak is detected, including:

(i) Instrument identification numbers, operator name or initials, and identification of the equipment;

(ii) Date the leak was detected and the date of the first attempt to repair the leak;

(iii) Maximum instrument reading measured after leak is successfully repaired or determined to be nonrepairable;

(iv) Reason for any delay of repair if leak not repaired within 15 calendar days after discovery of the leak;

(v) Name, initials, or other form of identification of person whose decision it was that repair could not be affected without a shutdown;

(vi) Expected date of successful repair of leak if leak not required within 15 calendar days after discovery of leak;

(vii) Dates of shutdowns that occur while the equipment is unrepaired; and

(viii) Date of successful repair of the leak.

(F) Periods of planned routine maintenance; and

(G) Records of BPM solvent storage tanks storing VOC/VOHAP with a vapor pressure less than 3.5 kPa.

(3) SSM Records - The SSM record keeping requirements are described in Sections D.14.10(a) and D.15.8(a).

(4) LDAR Records - The record keeping requirements for the LDAR standards are described in Section E.1 of this permit.

(5) Storage Tank Records - Pursuant to New Source Performance Standard for Volatile Organic Liquid Storage Vessels (40 CFR 60.116b(a) and (b)), the Permittee shall, for the life of the source, keep readily accessible records of the dimensions and capacity for each BPM solvent storage tank.

(6) Operating Plan – Pursuant to 40 CFR 60.115b, the Permittee shall, for the life of the source, maintain a copy of the operating plan required by 40 CFR 60.113b for all tanks with design capacity greater than or equal to 75 cubic meters.

(b) Periodic Reporting Requirements

(1) The streamlined quarterly reporting requirements are described in Sections D.14.10(b), D.15.8(b), E.1.3, and E.2.3, which shall satisfy the Pharmaceutical MACT [40 CFR 63.1260(g)] and PSD BACT requirements [326 IAC 2-1.1-11].

(2) The streamlined quarterly report must also include:

(A) Semiannual visual inspections conducted during which a leak was detected; and

(B) Periods of planned routine maintenance.

(c) Immediate Reporting Requirements

(1) The immediate reporting requirements for the PSD BACT requirements [326 IAC 2-2-3] are described in Section D.14.10(c)(1).

(2) The immediate reporting requirements for the Pharmaceutical MACT [40 CFR 63.1250(g)] are described in Section D.14.10(c)(2).

Modifications and Construction Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12 and 326 IAC 2-2]

D.9.8 Modifications and Construction: Advance Approval of Permit Conditions

(a) The Permittee may modify any existing emission units listed in this section of the permit without obtaining a source modification approval (otherwise required by 326 IAC 2-7-10.5), a Title V permit modification (otherwise required by 326 IAC 2-7-12), or a Prevention of Significant Deterioration permit (otherwise required by 326 IAC 2-2), provided the modified emission units are subject to the same applicable requirements listed in this D section, and the Permittee shall comply with the Change Management and Flexible Permit provisions in Section F.1 of this permit.

(b) The Permittee may construct and install new emission units of the types described in this D section without obtaining a source modification approval (otherwise required by 326 IAC 2-7-10.5), a Title V permit modification (otherwise required by 326 IAC 2-7-12), or a Prevention of Significant Deterioration permit (otherwise required by and 326 IAC 2-2), provided the new emission units are subject to the same applicable requirements listed in this D section, and the Permittee shall comply with the Change Management and Flexible Permit provisions in Section F.1 of this permit.

Alternative Operating Scenario [326 IAC 2-7-20(d)]

D.9.9 Alternative Operating Scenario

(a) For tanks listed in D section, the Permittee shall comply with one of the following alternative operating scenarios:

(1) The Permittee shall follow the conditions of this D section when the tank is storing solvent;

(2) The Permittee shall follow the conditions of D.10 when the tank is storing waste.

(b) The Permittee shall keep log of the scenario under which the tank is operating according to 326 IAC 2-7-5(9)(A). A summary of these records shall be included in the annual compliance certification.

SECTION D.10 BPM SUPPORT OPERATIONS - WASTE TANK OPERATION CONDITIONS

Emissions Unit Description: [326 IAC 2-7-5(1)]

Emission Unit ID	Emission Unit Description ***	Stack/Vent	Nominal Capacity	Control Device
Building T27:				
T27-TK53-10*	Waste Tank	RTO	500 gal	RTO
Building T29:				
T29-TK7902*	Waste Tank	RTO	1000 gal	RTO
Building T31:				
T31-TK609*	Waste Tank	RTO	100 gal	RTO
T31-TK669*	Waste Tank	RTO	100 gal	RTO
Building T31A:				
T31A-TK451K*	Waste Tank	RTO	100 gal	RTO
T31A-TK688*	Waste Tank	RTO	125 gal	RTO
Building T69:				
T69-TK1*	Waste Tank	None	106 gal	None
Building T99:				
T99-TK-1B*	Waste Tank	RTO	100 gal	RTO
T99-TK-3B*	Waste Tank	RTO	210 gal	RTO
T99-TK-7B*	Waste Tank	RTO	210 gal	RTO
T99-TK9DB*	Waste Tank	RTO	10 gal	RTO
T99-TK-D45A*	Waste Tank	RTO	100 gal	RTO
Building T100:				
T100-TK-10A*	Waste Tank	RTO	200 gal	RTO
T100-TK-48*	Waste Tank	RTO	3300 gal	RTO
Building T79:				
T79-TK301*	Equalization Tank	T79 - 321 stream	50,000 gal	T79 Incinerator
T79-TK302*	Equalization Tank	T79 - 321 stream	50,000 gal	T79 Incinerator
T79-TK303*	Neutralization Tank	T79 - 321 stream	5,000 gal	T79 Incinerator
Building T102-RTOs				
T102-TK102*	90 day RCRA Tank	RTO	700 gal	RTO
Tank Module Building T140:				
T140-TK3122	Waste Tank	T79	38,425 gal	T79
T140-TK3123	Waste Tank	T79	38,425 gal	T79
T140-TK3124	Waste Tank	T79	38,425 gal	T79
T140-TK3125	Waste Tank	T79	38,425 gal	T79
T140-TK3126	Waste Tank	T79	38,425 gal	T79
T140-TK3227*	Waste Tank	T79 -324 stream	18,130 gal	T79
T140-TK3228*	Waste Tank	T79 - 324 stream	18,130 gal	T79
T140-TK3229*	Waste Tank	T79 - 324 stream	500 gal	T79
Tank Module Building T142:				

T142-TK01	Waste Tank	T79 or RTO**	19,500 gal	T79 or RTO	
T142-TK02	Waste Tank	T79 or RTO**	19,500 gal	T79 or RTO	
T142-TK03	Waste Tank	T79 or RTO**	19,500 gal	T79 or RTO	
T142-TK04	Waste Tank	T79 or RTO**	19,500 gal	T79 or RTO	
T142-TK05	Waste Tank	T79 or RTO**	19,500 gal	T79 or RTO	
T142-TK06	Waste Tank	T79 or RTO**	19,500 gal	T79 or RTO	
T142-TK07	Waste Tank	T79 or RTO**	19,500 gal	T79 or RTO	
T142-TK08	Waste Tank	T79 or RTO**	19,500 gal	T79 or RTO	
T142-TK09	Waste Tank	T79 or RTO**	19,500 gal	T79 or RTO	
T142-TK10	Waste Tank	T79 or RTO**	19,500 gal	T79 or RTO	
T142-TK11	Waste Tank	T79 or RTO**	19,500 gal	T79 or RTO	
T142-TK12	Waste Tank	T79 or RTO**	19,500 gal	T79 or RTO	
T142-TK56*	Knock Out Pot	T79	32 gal	T79	
Tank Module Building T143:					
T143-TK02*	Waste Tank	T79 - 325 stream	19,500 gal	T79	
T143-TK06*	Waste Tank	T79 - 325 stream	19,500 gal	T79	
T143-TK10*	Waste Tank	T79 - 325 stream	19,500 gal	T79	
T143-TK13	Waste Tank	T79	18,500 gal	T79	
T143-TK14	Waste Tank	T79	18,500 gal	T79	
T143-TK15*	Waste Tank	T79 - 325 stream	18,500 gal	T79	
T143-TK16	Waste Tank	T79	18,500 gal	T79	
T143-TK56*	Knock Out Pot	T79	45 gal	T79	
Tank Module Building T145:					
T145-TK76*	Knock Out Pot	T79	45 gal	T79 Incinerator	
T145-TK77*	Knock Out Pot	T79 or RTO**	45 gal	T79 or RTO**	
Tank Module Building T146:					
T146-TK23	Waste Tank	RTO	19,000 gal	RTO	
T146-TK24	Waste Tank	RTO	19,000 gal	RTO	
T146-TK11*	Waste Tank	RTO	19,000 gal	RTO	
T146-TK18	Waste Tank	RTO	19,000 gal	RTO	
T146-TK20*	Waste Tank	RTO	19,000 gal	RTO	
T146-TK21*	Waste Tank	RTO	19,000 gal	RTO	
T146-TK12	Waste Tank	RTO	19,000 gal	RTO	
T146-TK56*	Knock Out Pot	RTO	45 gal	RTO	
T48 Tank Farm:					
T48-TK3207*	Waste Tank	T79 - 324 stream	102,759 gal	T79	
T48-TK3208*	Waste Tank	T79 - 324 stream	102,759 gal	T79	

T48-TK3209*	Waste Tank	T79 - 324 stream	102,759 gal	T79
T48-TK3211*	Waste Tank	T79 - 324 stream	260,049 gal	T79
T48-TK3212*	Waste Tank	T79 - 324 stream	260,650 gal	T79

* Emission units marked with an asterisk are insignificant activities as defined by 326 IAC 2-7-1(21)(A)-(C).
** This equipment is currently not in service; however, this equipment shall be tied into either the RTO control system or the T79 control system upon startup.
*** This equipment may store solvent or waste.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.10.0 VOC PSD BACT Requirements [326 IAC 2-2-3]

Pursuant to 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD), the Best Available Control Technology (BACT), VOC BACT of 20 parts per million (ppmv) based on a 24 - hour daily average, or 98% control of VOC emissions has been established for the BPM Support Operations – Waste Tank Operation.

D.10.1 Standards for BPM Waste Storage Tanks [40 CFR 63.1256(b), 40 CFR 63.685, 40 CFR 60.110b, 326 IAC 2-2-3, and 326 IAC 8-5-3]

The following streamlined standards for BPM waste storage tanks satisfy the requirements of the Pharmaceutical MACT Standards for wastewater tanks [40 CFR 63.1256(b)], Volatile Organic Liquid Storage Vessel Standards [40 CFR 60.110b], Offsite Waste MACT Standards for waste tanks [40 CFR 63.685], PSD BACT requirements [326 IAC 2-2-3], and RACT requirements for synthesized pharmaceutical manufacturing operations [326 IAC 8-5-3]:

(a) Definition Standards:

(1) A BPM waste storage tank is defined as any waste management unit that is designed to contain an accumulation of waste material containing VOCs and/or VOHAP. Pressure vessels greater than 204.9 kPa without emissions to the atmosphere or vessels attached to motor vehicles are not BPM waste storage tanks. For purposes of inspections in Section D.10.1(c), BPM waste storage tank includes any fixed roof, cover, and/or enclosure, and closed vent system section from the BPM waste storage tank to the inlet of the production building roof fan exhausting to the control device or to the BPM waste storage tank conservation vent.

(b) Operational Standards:

(1) Except as otherwise provided in this Condition and in Condition D.10.2, the emission limits and standards for each operating BPM waste storage tank are described in Section D.14 for equipment controlled by the RTO control system and described in Section D.15 for equipment controlled by the T79 fume incinerator control system.

(2) BPM waste storage tanks shall be of fixed-roof design.

(c) Inspection Standards:

(1) The Permittee shall conduct one-time Method 21 inspections on each new fixed roof BPM waste storage tank not operated under negative pressure and not

subject to LDAR within 150 days upon startup.

(2) The Permittee shall conduct semiannual visual inspections on the fixed roof and all openings of each BPM waste storage tank for:

(A) Improper work practices;

(B) Control equipment failures; and

(C) Visible, audible, or olfactory indications of leaks.

(3) The Permittee shall initiate repair of any leak on a BPM waste storage tank no later than 5 calendar days after identification, and complete the repair within 15 days after identification, unless:

(A) The repair is technically infeasible without a shutdown of an operation or process; or

(B) It is determined that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay or repair. Repairs delayed due to either of the causes described in (A) or (B) shall be completed by the end of the next shutdown.

D.10.2 Exceptions to Standards for BPM Waste Storage Tanks [40 CFR 63.1256(b), 40 CFR 63, 40 CFR 60.110b, 326 IAC 8-5-3, 326 IAC 2-7-24, and 326 IAC 2-2-3]

(a) Pursuant to 326 IAC 2-2 and 40 CFR 63.1256(b)(10), the BPM waste storage tanks are not subject to the standards established in Condition D.10.1 (b) during periods of planned routine maintenance on the control device, as long as the control device's planned routine maintenance activities do not exceed 240 hours per 365 day period. The tanks shall not be loaded during periods of planned routine maintenance on the control device.

(b) BPM waste storage tanks storing VOC/VOHAP with a vapor pressure less than 3.5 kPa are not subject to the requirements of D.10.1 (b)(1) and (c).

(c) BPM waste storage tanks that are unsafe or difficult to inspect are not subject to the requirements of D.10.1(c).

D.10.3 Leak Detection and Repair (LDAR) Standards [40 CFR 61, Subpart V and 326 IAC 2-2-3]

The LDAR standards that apply to components associated with the BPM waste storage tanks are described in Section E.2 of this permit.

D.10.4 Startup, Shutdown and Malfunction Requirements [40 CFR 60.7, 40 CFR 60.8(c), 40 CFR 63.1250(g), 40 CFR 63.697(b)(3), and 326 IAC 2-2-3]

(a) Volatile Organic Liquid Storage Vessel Standards [40 CFR 60.7, 40 CFR 60.8(c)], Offsite Waste MACT [40 CFR 63.697(b)(3)], and PSD BACT [326 IAC 2-2-3] SSM Requirements.

(1) The startup, shutdown and malfunction (SSM) Plan requirements are described in Sections D.14.3 and D.15.3.

(2) The SSM requirements for the RTO control system or T79 control system, and associated closed-vent systems, are described in Sections D.14.3 and D.15.3, respectively.

(b) Pharmaceutical MACT SSM Requirements [40 CFR 63.1250(g)]

The requirements for SSM events pursuant to the Pharmaceutical MACT are described in Section D.14.3 and D.15.3 of this permit.

Testing and Monitoring Requirements [326 IAC 2-7-6(1) (6)] [326 IAC 2-7-5(1)]

D.10.5 Testing Requirements

The testing requirements for the RTO control system and T79 fume incinerator control system, and associated closed-vent systems, used to control emissions from the emission units listed in this section are described in Sections D.14 and D.15 of this permit, respectively.

D.10.6 Monitoring Requirements

The monitoring requirements for the RTO control system and T79 fume incinerator control system used to control emissions from the emission units listed in this section are described in Sections D.14 and D.15 of this permit, respectively.

Record Keeping and Reporting Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12, 326 IAC 2-2, 40 CFR 60.7, 40 CFR 60 Subpart Kb, 40 CFR 63 Subpart DD, and 40 CFR 63 Subpart GGG]

D.10.7 Record Keeping and Reporting Requirements

(a) Record Keeping Requirements

(1) RTO Control System and T79 Control System Records - The record keeping requirements for the RTO control system and T79 fume incinerator control system used to control emissions from these emission units are described in Sections D.14 and D.15 of this permit, respectively.

(2) Inspection and Maintenance Records - The Permittee shall maintain the following records:

(A) Identification and explanation of all BPM waste storage tanks unsafe to inspect, including a plan for when these tanks will be inspected;

(B) Identification and explanation of all BPM waste storage tanks difficult to inspect, including a plan for when these tanks will be inspected;

(C) Visual inspection log of BPM waste storage tanks, including the date of inspection and a statement that no leaks were detected, if applicable;

(D) One-time Method 21 inspection log of each BPM waste storage tank, including the date of inspection and a statement that no leaks were detected, if applicable;

(E) Information on each BPM waste storage tank inspection during which a leak is detected, including:

(i) Instrument identification numbers, operator name or initials, and identification of the equipment;

(ii) Date the leak was detected and the date of the first attempt to repair the leak;

(iii) Maximum instrument reading measured after leak is successfully repaired or determined to be nonrepairable;

(iv) Reason for any delay of repair if leak not repaired within 15 calendar days after discovery of the leak;

(v) Name, initials, or other form of identification of person whose decision it was that repair could not be effected without a shutdown;

(vi) Expected date of successful repair of leak if leak not required within 15 calendar days after discovery of leak;

(vii) Dates of shutdowns that occur while the equipment is unrepaired; and

(viii) Date of successful repair of the leak.

(F) Periods of planned routine maintenance; and

(G) Records of BPM waste storage tanks storing VOC/VOHAP with a vapor pressure less than 3.5 kPa.

(3) SSM Records - The SSM record keeping requirements are described in Sections D.14.10(a) and D.15.8(a).

(4) LDAR Records - The record keeping requirements for the LDAR standards are described in Section E of this permit.

(5) Storage Tank Records - Pursuant to New Source Performance Standard for Volatile Organic Liquid Storage Vessels (40 CFR 60.116b(a) and (b)), the Permittee shall, for the life of the source, keep readily accessible records of the dimensions and capacity for all applicable BPM waste storage tanks.

(6) Operating Plan – Pursuant to 40 CFR 60.115b, the Permittee shall, for the life of the source, maintain a copy of the operating plan required by 40 CFR 60.113b for all tanks with design capacity greater than or equal to 75 cubic meters.

(b) Periodic Reporting Requirements

(1) The streamlined quarterly reporting requirements are described in Sections D.14.10(b), D.15.8(b), E.1.3, and E.2.3, which shall satisfy the Pharmaceutical MACT standards [40 CFR 63.1256(b)], Offsite Waste MACT [40 CFR 63.697(b)(3)], and the PSD BACT requirements [326 IAC 2-1.1-11].

(2) The streamlined quarterly report must also include:

(A) Inspections conducted during which a leak was detected; and

(B) Periods of planned routine maintenance.

(c) Immediate Reporting Requirements

(1) The immediate reporting requirements for the Offsite Waste MACT standards [40 CFR 63.697(b)(3)] and PSD BACT requirements [326 IAC 2-2-3] are described in Section D.14.10(c)(1) and D.15.8(c)(1).

(2) The immediate reporting requirements for the Pharmaceutical MACT [40 CFR 63.1250(g)] are described in Section D.14.10(c)(2) and D.15.8(c)(2).

Modifications and Construction Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12 and 326 IAC 2-2]

D.10.8 Modifications and Construction: Advance Approval of Permit Conditions

(a) The Permittee may modify any existing emission units listed in this section of the permit without obtaining a source modification approval (otherwise required by 326 IAC 2-7-10.5), a Title V permit modification (otherwise required by 326 IAC 2-7-12), or a Prevention of Significant Deterioration permit (otherwise required by 326 IAC 2-2), provided the modified emission units are subject to the same applicable requirements listed in this D section, and the Permittee shall comply with the Change Management and Flexible Permit provisions in Section F.1 of this permit.

(b) The Permittee may construct and install new emission units of the types described in this D section without obtaining a source modification approval (otherwise required by 326 IAC 2-7-10.5), a Title V permit modification (otherwise required by 326 IAC 2-7-12), or a Prevention of Significant Deterioration permit (otherwise required by 326 IAC 2-2), provided the new emission units are subject to the same applicable requirements listed in this D section, and the Permittee shall comply with the Change Management and Flexible Permit provisions in Section F.1 of this permit.

Alternative Operating Scenario [326 IAC 2-7-20(d)]

D.10.9 Alternative Operating Scenario

(a) For tanks listed in D section, the Permittee shall comply with one of the following alternative operating scenarios:

(1) The Permittee shall follow the conditions of D.9 when the tank is storing solvent;

(2) The Permittee shall follow the conditions of this D section when the tank is storing waste.

(b) The Permittee shall keep log of the scenario under which the tank is operating according to 326 IAC 2-7-5(9)(A). A summary of these records shall be included in the annual compliance certification.

SECTION D.11 BPM SUPPORT OPERATIONS - WASTE CONTAINER OPERATION CONDITIONS

Emissions Unit Description [326 IAC 2-7-5(15)]:

Emission Unit ID	Emission Unit Description	Stack/Vent	Nominal Capacity	Control Device
SMALL BPM WASTE CONTAINERS:*				
A small BPM waste container, such as a drum, is defined as containing VOC/VOHAP and having a capacity greater than 0.1 cubic meters (26.4 gallons) and equal to or less than 0.42 cubic meters (110.5 gallons). Identification of these types of containers have not been individually listed given they are portable and continually change. Each onsite wastewater container and offsite waste container with this description type will follow the compliance requirements outlined in this section.				
LARGE BPM WASTE CONTAINERS:*				
A large BPM waste container, such as tanker or melon, is defined as containing VOC/VOHAP and having a capacity greater than 0.42 cubic meters (110.5 gallons). Identification of these types of containers have not been individually listed given they are portable and continually change. Each container with this description type will follow the compliance requirements outlined in this section.				

* Emission units marked with an asterisk are insignificant activities as defined by 326 IAC 2-7-1(21)(A)-(C).

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.11.1 Standards for Small BPM Waste Containers [40 CFR 63.1256(d), 40 CFR 63.688, 326 IAC 2-2-3]

The following streamlined standards for small BPM waste containers satisfy the requirements of the Pharmaceutical MACT Standards for wastewater containers [40 CFR 63.1256(d)], Offsite Waste MACT Standards for waste containers [40 CFR 63.688], and PSD BACT requirements [326 IAC 2-2-3]:

(a) Definition Standards:

(1) A small BPM waste container is defined as any portable unit containing VOC/VOHAP material at concentrations greater than 500 ppmw with a storage capacity of greater than 0.1 cubic meters (26.4 gallons) and less than or equal to 0.42 cubic meters (110.5 gallons).

(b) Operational Standards:

(1) The cover and all openings on each BPM waste container shall be maintained in the closed position, except when adding material, removing material, accessing material for non-transfer-related routine activities, openings caused from a pressure relief device, or opening of a safety device.

(2) Each BPM waste container containing VOC/VOHAP shall meet existing Department of Transportation (DOT) specifications and testing requirements

under 49 CFR 178.

(c) Inspection Standards:

(1) Initial and semiannual visual inspections shall be conducted for improper work practices and control equipment failures.

(2) Inspections that are unsafe or difficult to inspect are not subject to the inspection requirements of D.11.1(c)(1).

(3) The Permittee shall attempt to repair any defect within 24 hours after detection of the defective container and complete the repair within 5 calendar days after detection. If repair of a defect cannot be completed within 5 calendar days, then the waste shall be removed from the container and the container shall not be used to manage waste until the defect is repaired.

D.11.2 Standards for Large BPM Waste Containers [40 CFR 63.1256(d), 40 CFR 63.688, 326 IAC 2-2-3, 326 IAC 2-7-24]

The following standards represent the streamlined requirements of the Pharmaceutical MACT Standards under 40 CFR 63.1256(d), Offsite Waste MACT Standards under 40 CFR 63.688, and Best Available Control Technology (BACT) requirements under 326 IAC 2-2-3:

(a) Definition Standards:

(1) A large BPM waste container is defined as any portable unit containing VOC/VOHAP material at concentrations greater than 500 ppmw with a storage capacity of greater than 0.42 cubic meters (110.5 gallons).

(b) Operational Standards:

(1) The cover and all openings on each large BPM waste container shall be maintained in the closed position, and without leaks, except when adding material, removing material, accessing material for non-transfer-related routine activities, opening from a pressure relief device, and opening of a safety device.

(2) A submerged fill pipe shall be used when pumping BPM liquid waste into a large BPM waste container. 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.

(c) Inspection Standards:

(1) One-time Method 21 inspections shall be conducted on each new large BPM waste container within 150 days upon first onsite usage.

(2) Initial and semiannual visual inspections shall be conducted for:

(A) Improper work practices;

(B) Control equipment failures; and

(C) Visible, audible, or olfactory indications of leaks.

(3) Inspections that are unsafe or difficult to inspect are not subject to the inspection requirements of D.11.2(c)(1) and (2).

(4) The Permittee shall attempt to repair any defect within 24 hours after detection of the defective container and complete the repair within 5 calendar days after detection. If repair of a defect cannot be completed within 5 calendar days, then the waste shall be removed from the container and the container shall not be used to manage waste until the defect is repaired.

(d) The LDAR standards that apply to the components associated with the emission units listed in this section are described in Section E.2.

Record Keeping and Reporting Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12 and 326 IAC 2-2]

D.11.3 Record Keeping and Reporting Requirements

(a) Record Keeping Requirements

(1) The Permittee shall maintain the following records for inspections required by Conditions D.11.1 and D.11.2:

(A) Identification and explanation of all containers unsafe to inspect, including a plan for when these containers will be inspected;

(B) Identification and explanation of all containers difficult to inspect, including a plan for when these containers will be inspected;

(C) Visual inspection log of BPM waste containers, including the date of inspection and a statement that no leaks were detected, if applicable;

(D) One-time Method 21 inspection log of each large BPM waste container, including the date of inspection and a statement that no leaks were detected, if applicable;

(E) Information on each BPM waste container inspection during which a leak is detected, including:

(i) Instrument identification numbers (for Method 21 inspections only), operator name or initials, and identification of the equipment;

(ii) Date the leak was detected and the date of the first attempt to repair the leak; and

(iii) Date of successful repair of the leak or date material removed from container.

(b) Quarterly Reporting Requirements

The Permittee shall include the inspection records specified in D.11.3 (a)(5) for each inspection conducted during which a leak was detected in the next quarterly report.

Modifications and Construction Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12 and 326 IAC 2-2]

D.11.4 Modifications and Construction: Advance Approval of Permit Conditions

(a) The Permittee may modify any existing emission units listed in this section of the permit without obtaining a source modification approval (otherwise required by 326 IAC 2-7-10.5), a Title V permit modification (otherwise required by 326 IAC 2-7-12), or a Prevention of Significant Deterioration permit (otherwise required by 326 IAC 2-2), provided the modified emission units are subject to the same applicable requirements

listed in this D section, and the Permittee shall comply with the Change Management and Flexible Permit provisions in Section F.1 of this permit.

(b) The Permittee may construct and install new emission units of the types described in this D section without obtaining a source modification approval (otherwise required by 326 IAC 2-7-10.5), a Title V permit modification (otherwise required by 326 IAC 2-7-12), or a Prevention of Significant Deterioration permit (otherwise required by 326 IAC 2-2), provided the new emission units are subject to the same applicable requirements listed in this D section, and the Permittee shall comply with the Change Management and Flexible Permit provisions in Section F.1 of this permit.

SECTION D.12 T49 LIQUID WASTE INCINERATOR, INCLUDING ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT AND CONTINUOUS MONITORING SYSTEMS OPERATION CONDITIONS

Emissions Unit Description [326 IAC 2-7-5(15):

Emission Unit Description	Building	Stack/Vent	Nominal Capacity	Control Device
T49 Liquid Waste Incinerator	T49	T49 Stack	75 MMBtu/hr	Condenser/Absorber; Hydro-SonicTM Scrubber

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.12.0 VOC, CO and Fluoride PSD BACT Requirements [326 IAC 2-2-3]

(a) Pursuant to 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD), the Best Available Control Technology (BACT), VOC BACT for the T49 is good combustion practices and compliance with the 100 ppmvdc CO limit.

The IDEM agrees that the VOC BACT for both the T49 liquid waste incinerator is a good combustion practice and compliance with CO limit.

(b) Pursuant to 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD), the Best Available Control Technology (BACT), CO BACT for the T49 is good combustion practices to control CO emissions to 100 ppmvdc based on a 1-hour block period.

The CO BACT for the T49 incinerator is proper combustion to limit CO emissions to no more than 100 ppmvdc, based on a 1-hour average. This is equivalent to the CO MACT limit contained in 40 CFR Part 63, Subpart EEE.

(c) Pursuant to 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD), the Best Available Control Technology (BACT), Fluorides (F-) BACT of NaOH injection to achieve 98% removal of hydrogen Chloride (HCl).

The fluorides BACT for the T49 incinerator is caustic scrubbing with NaOH to achieve 98% removal efficiency of HCl. This 98% removal efficiency corresponds to an outlet concentration of 77 ppmvdc, which is equivalent to the MACT HCl and Cl2 limit for existing sources contained in 40 CFR Part 63, Subpart EEE. IDEM, OAQ believes that this level of control is as stringent as or more stringent than any limit contained in applicable rules or permits for comparable emission units.

D.12.1 General Applicability Requirements with Emission Standards [326 IAC 2-2-3 and 40 CFR 63, Subparts DD and EEE]

(a) Pursuant to the Hazardous Waste Combustor (HWC) MACT Standards [40 CFR 63.1206(b)(1)(i)] and the PSD BACT requirements [326 IAC 2-2-3], the emission standards and operating requirements shall apply as specified in Conditions D.12.2, D.12.3, D.12.4, D.12.5, D.12.6, and D.12.7 except during periods of startup, shutdown, and malfunction.

(b) Pursuant to the Off-Site Waste and Recovery Operations MACT Standards [40 CFR 63.684(b)(5)(i)], the T49 liquid waste incinerator shall have a permit issued under 40 CFR 270 whenever off-site waste material is treated and destroyed in the T49 liquid waste

incinerator. The incinerator shall operate in accordance with the HWC MACT standards under 40 CFR 63, Subpart EEE.

(c) Pursuant to the HWC MACT standards [40 CFR 63.1206(b)(5)(ii) and (iii)] and the PSD requirements [326 IAC 2-2-3], the Permittee may make a change in the design, operation, or maintenance practices documented in the comprehensive performance test plan (CPT plan), Documentation of Compliance (DOC), Notification of Compliance (NOC), or startup, shutdown, and malfunction plan (SSM plan), as long as the Permittee complies with the following requirements:

(1) If it is determined that the change may adversely affect compliance with any emission standard, the Permittee shall comply with the requirements specified in 40 CFR 63.1206(b)(5)(i) prior to implementing the change(s).

(2) If it is determined that the change will not adversely affect compliance with the emission standards of this condition, the Permittee may implement the change(s) but must revise as necessary the performance test plan, DOC, NOC, and SSM plan, to reflect the change(s).

D.12.2 Particulate Matter Emission Standards [40 CFR 63.1219 and 326 IAC 4-2]

In order to satisfy the HWC MACT standards [40 CFR 63.1219(a)(7)], the particulate matter (PM) emissions from the T49 liquid waste incinerator stack exhaust shall not exceed 0.013 gr/dscf (30 mg/dscm) corrected to 7 percent oxygen.

D.12.3 Sulfur Dioxide (SO_2) Emission Standards [326 IAC 2-2-3 and 326 IAC 7-1.1-2]

In order to satisfy the PSD BACT requirements [326 IAC 2-2-3], the T49 liquid waste incinerator shall be equipped with a caustic scrubber system to control SO_2 emissions. The SO_2 emissions from the incinerator stack exhaust shall not exceed 500 ppmv dry corrected to 7% oxygen, averaged over a 24-hour daily period when burning waste streams. This facility is not subject to emission limitations and standards in 326 IAC 7 because the incinerator does not have the capability to burn fuel oil.

D.12.4 Oxides of Nitrogen (NOx) Emission Standards [326 IAC 2-2-3]

In order to satisfy the PSD BACT requirements [326 IAC 2-2-3], the T49 liquid waste incinerator shall implement good combustion practices to control NO_x emissions. The NOx emissions from the incinerator stack exhaust shall not exceed 975 ppmv dry corrected to 7% oxygen, expressed as NO_2, averaged over a 24-hour daily period when burning waste streams.

D.12.5 Hazardous Air Pollutant (HAP) and Fluoride Emission Standards [40 CFR 63.1219 and 326 IAC 2-2-3]

Except for periods of startup, shutdown and malfunction, the following emission standards shall apply at all times the T49 liquid waste incinerator is operating:

(a) Mercury – Pursuant to the HWC MACT standards [40 CFR 63.1219(a)(2)], the mercury emissions from the T49 liquid waste incinerator stack exhaust shall not exceed 130 ug/dscm, corrected to 7% oxygen on a 12-hour rolling average basis, from block hourly averages.

(b) Lead and Cadmium – In order to satisfy the HWC MACT standards [40 CFR 63.1219(a)(3)], the total semi-volatile metals (lead and cadmium) emissions from the T49 liquid waste incinerator stack exhaust shall not exceed 230 ug/dscm, corrected to 7% oxygen on a 12-hour rolling average basis, from block hourly averages.

(c) Arsenic, Beryllium, and Chromium – In order to satisfy the HWC MACT standards [40 CFR 63.1219(a)(4)], the total low volatile metals (arsenic, beryllium, and chromium) emissions from the T49 liquid waste incinerator stack exhaust shall not exceed 92 ug/dscm, corrected to 7 percent oxygen on a 12-hour rolling average basis, from block hourly averages.

(d) Hydrochloric Acid/Chlorine Gas (HCl/Cl_2) and Fluorides – In order to satisfy the HWC MACT standards [40 CFR 63.1219(a)(6)], the HCl/Cl_2 emissions from the T49 liquid waste incinerator stack exhaust shall not exceed 32 ppmv dry corrected to 7% oxygen, expressed as HCl equivalent. In order to satisfy the PSD BACT requirements for fluorides [326 IAC 2-2-3], the T49 liquid waste incinerator control system shall achieve an HCl control efficiency of 98 percent or greater.

(e) Dioxin/Furans – In order to satisfy HWC MACT standards [40 CFR 63.1219(a)(1)(ii)], the dioxin/furan emissions from the T49 liquid waste incinerator stack exhaust shall not exceed 0.40 ng TEQ/dscm, corrected to 7 percent oxygen.

(f) Principle Organic Hazardous Constituents (POHCs) – In order to satisfy the HWC MACT standards [40 CFR 63.1219(c)(1) and (2)], the Permittee shall comply with the following requirements:

(1) The destruction and removal efficiency (DRE) for each principle organic hazardous constituent (POHC), excluding dioxin-listed hazardous wastes F020, F021, F022, F023, F026, or F027 shall be at least 99.99 percent.

(2) Dioxin-listed hazardous wastes F020, F021, F022, F023, F026, or F027 shall not be burned in the T49 liquid waste incinerator.

(g) Operating Parameter Limits (OPLs) – In order to comply with the NESHAP from Hazardous Waste Combustors (HWC) emission limits in this condition, the operating parameters of the T49 Incinerator, as established during performance tests and documented in the Notification of Compliance (NOC) postmarked December 23, 2009, and associated emission control equipment shall not exceed limits described below as maximum limits or fail to achieve limits described as minimum limits.

For future performance tests, once the Permittee postmarks the NOC for the performance test according to D.12.13(a)(9), the OPLs from the NOC become effective and supersede the OPLs in the Documentation of Compliance (DOC), as well as the OPLs from the previous performance test listed in this section.

Operating Parameter	Limit	Units	Averaging Period	Demonstrates Compliance for:
Minimum Atomizing Air Media Pressure	60	psig	1-HR RA	D.12.5(f)
Maximum Primary Waste Feed Viscosity	460	centipoise	NA	D.12.5(f)
Maximum Secondary Waste Feed Viscosity	460	centipoise	NA	D.12.5(f)
Maximum Primary Waste Feed Rate	7,117	lbs/hr	1-HR RA	D.12.5(e) D.12.5(f)
Maximum Secondary Waste Feed Rate	18,326	lbs/hr	1-HR RA	D.12.5(e) D.12.5(f)
Minimum Combustion Temperature	1,850	^{o}F	1-HR RA	D.12.5(e) D.12.5(f)

Operating Parameter	Limit	Units	Averaging Period	Demonstrates Compliance for:
Maximum Combustion Air Flow Rate	14,512	acfm	1-HR RA	D.12.2 D.12.5(a) D.12.5(b) D.12.5(c) D.12.5(d) D.12.5(e) D.12.5(f)
Maximum Mercury Feed Rate	0.0040	lbs/hr	12-hr RA	D.12.5(a)
Maximum Semi-Volatile Metals (SVM) Feed Rate	0.20	lbs/hr	12-hr RA	D.12.5(b)
Maximum Low-Volatile Metals (LVM) Feed Rate	0.30	lbs/hr	12-hr RA	D.12.5(c)
Maximum Ash Feed Rate	1,850	lbs/hr	12-hr RA	D.12.2
Maximum Total Chlorine Feed Rate	3,503	lbs/hr	12-hr RA	D.12.5(d)
Minimum Condenser/Absorber Flow Rate	600	gpm	1-HR RA	D.12.5(a) D.12.5(b) D.12.5(c) D.12.5(d)
Minimum Differential Pressure across Condenser/Absorber	0.5	in.w.c	1-HR RA	D.12.5(a) D.12.5(b) D.12.5(c) D.12.5(d)
Minimum Hydro-Sonic Scrubber Flow Rate	291	gpm	1-HR RA	D.12.2 D.12.5(a) D.12.5(b) D.12.5(c) D.12.5(d)
Minimum Hydro-Sonic Equivalent Differential Pressure	75	in.w.c	1-HR RA	D.12.2 D.12.5(a) D.12.5(b) D.12.5(c) D.12.5(d)
Minimum Condenser/Absorber pH	5.0	S.U.	1-HR RA	D.12.5(d)
Maximum Condenser/Absorber % Solids	3.5	%TDS	12-hr RA	D.12.2 D.12.5(a) D.12.5(b) D.12.5(c)

D.12.6 Carbon Monoxide (CO) Emission Standards [326 IAC 2-2-3, 326 IAC 9-1, and 40 CFR 63.1219]

In order to satisfy the HWC MACT standards [40 CFR 63.1219(b)(5)(i)] and the PSD BACT requirements [326 IAC 2-2-3], the CO emissions from the T49 liquid waste incinerator stack exhaust shall not exceed 100 ppmv dry corrected to 7% oxygen, rolled on an hourly basis, at all times the incinerator is operating except during periods of startup, shutdown, and malfunction.

D.12.7 Hydrocarbon (HC) and Volatile Organic Compound (VOC) Emission Standards [326 IAC 2-2-3 and 40 CFR 63.1219]

(a) In order to satisfy the HWC MACT standards [40 CFR 63.1219(a)(5)(i) and the PSD BACT requirements [326 IAC 2-2-3], the highest hourly rolling average hydrocarbon emissions achieved, as monitored with a CEMS during an acceptable DRE test, shall not exceed 10 ppmv dry corrected to 7% oxygen or 99.99 percent, reported as propane.

(b) During the DRE test for hydrocarbons, the CO emissions shall not exceed an hourly rolling average of 100 ppmv dry corrected to 7% oxygen (monitored with continuous emissions monitoring system).

D.12.8 Automatic Waste Feed Cutoff System Requirements [40 CFR 63.1206]

In order to satisfy the HWC MACT standards [40 CFR 63.1206], the Permittee shall operate the T49 liquid waste incinerator with a functioning Automatic Waste Feed Cutoff (AWFCO) system that meets the requirements of 40 CFR 63.1206(c)(3).

(a) Except as allowed under (c) of this condition, the AWFCO system shall be operated such that it immediately and automatically cuts off the hazardous waste feed when any of the following occur at any time:

(1) An operating parameter is exceeded;

(2) An emission standard monitored by the CO CEMS is exceeded;

(3) A span value of any CMS, except a CEMS, is met or exceeded;

(4) Upon malfunction of a CMS (excluding the NOx and SO_2 CEMS) monitoring an operating parameter limit or emission level; or

(5) When any component of the automatic waste feed cutoff system fails.

(b) During all AWFCO events, the Permittee shall continue to:

(1) Duct combustion gases to the air pollution control system while hazardous waste remains in the combustion chamber; and

(2) Monitor the applicable combustor operating parameters and emission levels.

(c) The Permittee may ramp down the hazardous waste feed rate of pumpable hazardous waste over a period not to exceed one (1) minute during an AWFCO event in accordance with the procedures in the O&M plan, providing the automatic waste feed cutoff is not triggered by an exceedance of any of the following operating limits:

(1) Minimum combustion chamber temperature,

(2) Maximum hazardous waste feed rate, or

(3) Any hazardous waste combustor firing system operating limits.

The procedures for AWFCO events specified in the O& M plan must include a statement that the ramp down must begin immediately upon initiation of automatic waste feed cutoff and must prescribe a bona fide ramping down.

(d) After an AWFCO event, the Permittee shall not restart the hazardous waste feed until the operating parameters and emission levels are within their respective limits.

(e) If after any AWFCO event, there is an exceedance of an emission standard or operating requirement, irrespective of whether the exceedance occurred while hazardous waste remained in the combustion chamber, the Permittee shall:

(1) Investigate the cause of the AWFCO,

(2) Take appropriate corrective measures to minimize future AWFCOs, and

(3) Record the findings and corrective measures in the operating record.

D.12.9 Leak Detection and Repair (LDAR) Program [326 IAC 2-2-3, 40 CFR 63, Subpart DD, 40 CFR 61, Subpart V]

The LDAR standards that apply to components associated with the waste transfer/feed systems connected to the T49 liquid waste incinerator are described in Section E.2 of this permit.

D.12.10 Inspection Requirements [40 CFR 63.1206(c)]

(a) In order to satisfy the HWC MACT standards [40 CFR 63.1206(c)(5)], the Permittee shall conduct daily visual inspections of the T49 liquid waste incinerator to ensure the combustion zone is sealed.

(b) In order to satisfy the HWC MACT standards [40 CFR 63.1206(c)(3)(vii)], the Permittee shall test the AWFCO system and associated alarms at least once per week to verify operability, unless the operating record documents that the weekly inspections unduly restrict or upset operations and that less frequent inspection will be adequate. At a minimum, the Permittee shall conduct operability testing monthly.

D.12.11 Training and Certification Requirements [40 CFR 63.1206(c)(6)]

(a) Pursuant to the HWC MACT standards [40 CFR 63.1206(c)(6)], the Permittee shall establish a Training and Certification Program for all categories of personnel whose activities may reasonably be expected to directly affect emissions of HAPs from all operations associated with the T49 liquid waste incinerator.

Said programs shall be of a technical level commensurate with the person's duties as specified in the training manual. All operating training and certification programs shall be recorded in the operating record.

(b) A certified control room operator shall be on duty at the site at all times the T49 liquid waste incinerator is in operation and the T49 liquid waste incinerator, including associated air pollution control equipment and continuous monitoring systems, shall be operated and maintained at all times by persons who are trained and certified according to the Training and Certification Program.

D.12.12 Plans and Procedures [326 IAC 2-2-3, 40 CFR 63.1206, 40 CFR 63.1211, 326 IAC 2-7-5(13)]

In order to satisfy the HWC MACT Standards [40 CFR 63.1206] and the PSD BACT requirements [326 IAC 2-2-3], the Permittee shall develop and implement the following written plans, which shall be maintained in the operating record:

(a) Operations and Maintenance (O&M) Plan – The O&M Plan shall define operations during periods of normal operation pursuant to 40 CFR 63.1206(c)(1) and (7).

(b) Startup, Shutdown, and Malfunction (SSM) Plan shall be developed and implemented in accordance with 40 CFR 63.1206(c)(2), to ensure that the T49 liquid waste incinerator, including associated air emission control equipment and CEMS and CMS, is operated and maintained and that all malfunctions are corrected as soon as practicable after their occurrence in order to minimize excess emissions. The SSM Plan shall contain the

following information:

(1) Detailed procedures for operating and maintaining the T49 liquid waste incinerator system, including associated CEMS and CMS equipment, during periods of startup, shutdown, and malfunction; and

(2) Corrective action program for malfunctioning process, air pollution control, CEMS, and CMS equipment.

(c) Feedstream Analysis Plan -The Feedstream Analysis Plan shall be developed and implemented in accordance with 40 CFR 63.1209(c)(2) for those parameters with feed rate limits defined in Condition D.12.15.

(d) Continuous Emissions Monitoring System (CEMS) Standard Operating Procedures (SOP) – The Permittee shall prepare and implement a SOP that provides step-by-step procedures and operations of the CEMS in accordance with 326 IAC 3-5-4(c)(9) – Preventive maintenance procedures and corrective maintenance procedures that include those procedures taken to ensure continuous operation and to minimize malfunctions.

Testing and Monitoring Requirements [326 IAC 2-7-6(1) (6)] [326 IAC 2-7-5(1)]

D.12.13 Performance Test Requirements [40 CFR 63.1207, 326 IAC 2-1.1-11, 326 IAC 3-6]

The following streamlined performance test requirements shall satisfy the NESHAP General Provisions [40 CFR 63.7], the HWC MACT requirements [40 CFR 63.1207 and 63.1209], the PSD BACT requirements for VOC and fluorides [326 IAC 2-1.1-11] and the State emission testing requirements [326 IAC 3-6]:

(a) Comprehensive Performance Test

(1) The Permittee shall submit a notification of intention to conduct a comprehensive performance test and CMS performance evaluation and a site-specific test plan and CMS performance evaluation test plan at least one year before the performance test and performance evaluation are scheduled to begin.

(2) The Permittee shall perform initial comprehensive performance tests within 12 months after the HWC MACT compliance date unless an exemption is granted pursuant to 40 CFR 63.1207(e)(3).

(3) The Permittee shall submit a notification of intention to conduct the comprehensive performance test at least 60 calendar days before the test is scheduled to begin.

(4) The comprehensive performance tests shall be conducted under operating conditions representative of the extreme range of normal conditions as specified in 40 CFR 63.1207(g) and 63.7(e)(1) for the worst case mode associated with each applicable pollutant limit or emission standard.

(5) The operating parameters defined in Condition D.12.15 shall be monitored during the performance test to establish the parametric limits.

(6) All required comprehensive performance testing shall be completed within 60 days after the date of commencement of the tests pursuant to 40 CFR 63.1207(d)(3).

(7) The Permittee may use previous emissions test data in lieu of the initial comprehensive performance tests as allowed under 40 CFR 63.1207(c)(2).

(8) Pursuant to 40 CFR 63.7(h)(2), individual performance tests may be waived upon written application to the Administrator if, in the Administrator's judgment, the source is meeting the relevant standard(s) on a continuous basis, or the source is being operated under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering the request.

(9) Pursuant to 40 CFR 63.1207(j), the Permittee shall:

(A) Postmark a Notification of Compliance (NOC) documenting compliance or noncompliance with the emission standards and continuous monitoring system requirements and identify operating parameter limits under 40 CFR 63.1209 within 90 days of completion of the comprehensive performance test; and

(B) Comply with all operating requirements specified in the NOC in lieu of the limits specified in the Documentation of Compliance required under 40 CFR 63.1211(c) upon postmark of the NOC.

These submittal requirements satisfy the reporting requirements of 326 IAC 3-6 as allowed under extension provisions of 326 IAC 3-6-4(b).

(b) Confirmatory Performance Tests

(1) The Permittee shall submit a notification of intention to conduct a confirmatory performance test and CMS performance evaluation and a site-specific test plan and CMS performance evaluation test plan at least 60 days before the performance test and performance evaluation are scheduled to begin.

(2) The confirmatory performance tests shall be conducted under operating conditions representative of the range of normal conditions as specified in 40 CFR 63.1207(g)(2) and 63.7(e)(1) for the parameters specified in 40 CFR 63.1207(g)(2) associated with the dioxin/furan emission standard unless the Administrator approves an alternative range under 40 CFR 63.1207(g)(v).

(3) The operating parameters defined in Condition D.12.15 shall be monitored during the performance test.

(4) All required comprehensive performance testing shall be completed within 60 days after the date of commencement of the tests pursuant to 40 CFR 63.1207(d)(3).

(5) Pursuant to 40 CFR 63.7(h)(2), individual performance tests may be waived upon written application to the Administrator if, in the Administrator's judgment, the source is meeting the relevant standard(s) on a continuous basis, or the source is being operated under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering the request.

(6) Pursuant to 40 CFR 63.1207(j), the Permittee shall postmark a Notification of Compliance (NOC) documenting compliance or noncompliance with the applicable dioxin/furan emission standard within 90 days of completion of the confirmatory performance test. This submittal requirement satisfies the reporting requirements of 326 IAC 3-6 as allowed under extension provisions of 326 IAC 3-6-4(b).

(c) Subsequent Performance Tests

The Permittee shall conduct subsequent Comprehensive Performance Tests and Confirmatory Performance Tests at the frequencies specified in 40 CFR 63.1207(d).

(d) Pursuant to 326 IAC 3-6-4(b), 40 CFR 63.1207(i)(1) and 40 CFR 63.1207(i)(2), the Permittee shall submit the performance test reports within 90 days following the test.

D.12.14 Continuous Emissions Monitoring Systems (CEMS) Operating Requirements [40 CFR 63.1209, 40 CFR 63.8, 326 IAC 2-7-24, 326 IAC 3-5, 326 IAC 2-1.1-11, 40 CFR 60, Appendix B, and 40 CFR 60, Appendix F]

(a) CO and O_2 CEMS Operation Requirements – The following provisions shall be applied at all times the T49 incinerator is in operation and represent the streamlined requirements of the HWC MACT standards for CO and HC [40 CFR 63.1209(a), (d), (e), (f), and (h)], PSD BACT requirements for CO and VOC [326 IAC 2-1.1-11], and the emission monitoring requirements for MACT and PSD sources [326 IAC 3-5-1(b) and (d)]:

(1) The Permittee shall install and operate the CO and O_2 CEMS in accordance with the QA requirements of the HWC MACT standards [40 CFR 63, Appendix to Subpart EEE], the applicable QC and performance evaluation requirements of 40 CFR 63.1209(d), and the applicable performance specification requirements of 40 CFR 60, Appendix B.

(2) The CEMS shall be installed and operational upon certification of the DOC for the HWC MACT.

(3) Continuous monitor means a device which continuously samples the regulated parameter without interruption, evaluates the detector response at least once every 15 seconds and computes and records the average at least every 60 seconds, except during allowable periods of calibration and other exceptions identified in applicable requirements, plans and/or procedures. One-minute average means the average of detector responses calculated at least every 60 seconds from response obtained at least every 15 seconds.

(b) SO_2 and NOx CEMS Operation Requirements – The following requirements shall apply when the T49 Incinerator is burning waste

(1) The Permittee shall install and operate the SO_2 and NOx CEMS in accordance with the QA/QC criteria set forth in 40 CFR 60, Appendix B and 40 CFR 60, Appendix F, Procedure 1.

(2) Continuous operation is defined as the collection of at least one measurement for each successive 15-minute period.

(3) The Startup, Shutdown, and Malfunction (SSM) Plan required by Condition D.12.12 (b) shall include procedures for monitoring and recording the following information during times of SO_2 or NOx CEMS malfunction:

(A) When the SO_2 CEMS malfunctions, the Permittee shall monitor and record the Hydro-Sonic™ equivalent pressure drop and scrubber liquid flow rate as required by Condition D.12.15 (a) and the scrubber liquid pH as required by Condition D.12.15 (a).

(B) When the NOx CEMS malfunctions, the Permittee shall monitor and record the combustion chamber temperature, combustion air flow rate, and primary and secondary waste feed rates as required by Condition

D.12.15 (a), and assess NOx emissions, using waste testing, waste shipment and process knowledge, to determine whether the quantity of nitrogen fed into the incinerator during that time could have exceeded the worst case 24-hour daily average nitrogen feed rate of 1,650 pounds per hour that formed the basis of the NOx BACT limit.

D.12.15 Parametric Continuous Monitoring Systems (CMS) Requirements [40 CFR 63.8(c), 40 CFR 63.1209, and 326 IAC 2-1.1-11]

(a) The Permittee shall operate the CMS to monitor the Operating Parameter Limits (OPLs) listed in D.12.5(g) in accordance with the quality assurance requirements specified in 40 CFR 63.1209(d) at all times the T49 incinerator is in operation. To satisfy the HWC MACT standards [40 CFR 63.1209(b), (d), (e), (f), and (h)] and the requirements for PSD sources [326 IAC 2-1.1-11] the parameters listed in D.12.5(g) shall be monitored at all times the T49 incinerator is in operation.

(b) Continuous operation is defined as the collection of at least one measurement for each successive 15-second period, regardless of startup, shutdown and malfunction.

(c) Pursuant to the HWC MACT standards [40 CFR 63.1209(a)(5)] and the compliance monitoring methods for PSD sources [326 IAC 2-1.1-11], the Permittee may petition the Administrator to use CEMS for compliance monitoring in lieu of compliance with the operating parameter limits established in (a) of this condition.

(d) If applicable, the Permittee may document compliance using the waiver provisions of 40 CFR 63.1207(m) in lieu of complying with the requirements of (a) and (c) of this condition.

D.12.16 Minimum Data Requirements – SO_2 and NOx Compliance [326 IAC 2-1.1-11]

The following defines when CEMS data must be supplemented with data required by condition D.12.14 (b)(3), D.12.17 (a)(12), and D.12.18 (a)(2):

(a) When the period of incinerator operation (i.e., receiving waste streams) is 4 hours or greater in an operating day and monitoring data are insufficient to constitute a valid hour of data for at least 75 % of the operating hours, or

(b) When the period of incinerator operation (i.e., receiving waste streams) 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.

(c) Monitoring data are insufficient to constitute a valid hour of data if measured values are unavailable for any of the required 15-minute periods within the hour.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.12.17 Record Keeping Requirements

(a) The Permittee shall maintain the following records:

(1) Notifications, reports, and other documents, such as the Documentation of Compliance, as required by 40 CFR 63.1200, 63.1211(c), and 63.10(b) and (c).

(2) All data recorded by continuous monitoring systems (CMS), including continuous emission monitoring systems (CEMS), required by Conditions D.12.14 and D.12.15;

(3) Documentation that a change will not adversely affect compliance with the

emission standards or operating requirements as required by 40 CFR 63.1206(b)(5)(ii);

(4) Records of the estimated hazardous waste residence time as required by 40 CFR 63.1206(b)(11);

(5) Plans and procedures as required by Condition D.12.12;

(6) Documentation of the results of the investigation, corrective measures taken, and evaluation of excessive exceedances during malfunctions as required by 40 CFR 63.1206(c)(2)(v)(A);

(7) Corrective Measures for any AWFCO that results in an exceedance of an applicable emission standard or operating parameter limit as required by 40 CFR 63.1206(c)(3)(v);

(8) Documentation of the results of the AWFCO operability testing as required by Condition D.12.10 (b) and 40 CFR 63.1206(c)(3)(vii);

(9) Daily visual inspection records of the T49 liquid waste incinerator to ensure the combustion zone is sealed as required by Condition D.12.10 (a) and 40 CFR 63.1206(c)(5);

(10) A copy of the Operator Certification and Training Program required by Condition D.12.11 and 4 0 CFR 63.1206(c)(6);

(11) Documentation of the changes in modes of operation as required by 40 CFR 63.1209(q); and

(12) For days when Condition D.12.16 requires that CEMS data must be supplemented, the documentation of the information required by Condition D.12.14 (b)(3).

D.12.18 Reporting Requirements

(a) Quarterly Reporting Requirements

(1) The following streamlined quarterly reporting requirements shall satisfy the HWC MACT standards [40 CFR 63.1211], which references the MACT General Provisions [63.7-63.10], PSD BACT requirements [326 IAC 2-1.1-11], and the continuous emissions monitoring requirements [326 IAC 3-5]:

(A) Reports shall be submitted in accordance with Condition C.18;

(B) Summary reports of excess emissions, parameter exceedances, and monitor downtime including information specified in 63.10(c)(5)-(c)(13);

(C) SSM summary reports for the T49 waste incinerator control system, including associated CEMS and CMS equipment;

(D) Excessive exceedances report, if applicable, as required by 40 CFR 63.1206(c)(3)(vi); and

(2) In addition to the requirements described in (a)(1) of this condition, the Permittee shall report the following information for the NOx and SO_2 CEMS to satisfy the PSD BACT requirements [326 IAC 2-1.1-11]:

(A) A list of days when condition D.12.16 requires that CEMS data must be supplemented that provides:

(B) A detailed report for each day when condition D.12.16 requires that CEMS data must be supplemented:

(i) the information required by Condition D.12.14 (b)(3), and

(ii) an analysis of whether that information indicates continuous compliance with the limit established in Condition D.12.3 or D.12.4, and if the NOx CEMS malfunctions for greater than six continuous hours, an assessment of NOx emissions using waste testing, waste shipment, and process knowledge whether the quantity of nitrogen fed into the incinerator during that time could have exceeded the worst case 24-hour daily average nitrogen feed rate of 1,650 pounds per hour that formed the basis of the NOx BACT limit.

(b) Immediate Reporting Requirements

(1) The Permittee shall submit any revision to the SSM Plan that may significantly increase emissions of hazardous air pollutants to the Administrator for approval within 5 days after making a change to the plan to satisfy the reporting requirements under the HWC MACT standards [40 CFR 63.1206(c)(2)(ii)(C)].

(2) The reporting requirements in the HWC MACT standards [40 CFR 63.1211] for Startup, Shutdown and Malfunction (SSM) shall be used to satisfy the reporting requirements under the HWC MACT standards and PSD BACT requirements [326 IAC 2-2-3].

(A) The Permittee shall report all actions taken during a T49 incinerator system SSM event that results in an exceedance of a relevant emission standard when those actions are inconsistent with the procedures specified in the SSM Plan. The immediate report shall be submitted to the agency via a telephone call or facsimile within 2 working days after commencing actions inconsistent with the plan.

(B) Within 7 working days after the end of an SSM event that results in an exceedance of a relevant emission standard when those actions taken by the Permittee are inconsistent with the procedures specified in the SSM Plan, the Permittee shall submit a letter containing the following information:

(i) Name, title and signature of responsible official certifying accuracy;

(ii) Explanation of the circumstances of the event;

(iii) Reason for not following the SSM Plan;

(iv) Report any excess emissions and/or parameter monitoring exceedances are believed to have occurred; and

(v) Action taken to minimize emissions.

Modifications and Construction Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12 and 326 IAC 2-2]

D.12.19 Modifications and Construction: Advance Approval of Permit Conditions

(a) The Permittee may modify any existing emission units listed in this section of the permit without obtaining a source modification approval (otherwise required by 326 IAC 2-7-10.5), a Title V permit modification (otherwise required by 326 IAC 2-7-12), or a Prevention of Significant Deterioration permit (otherwise required by 326 IAC 2-2), provided the modified emission units are subject to the same applicable requirements listed in this D section, and the Permittee shall comply with the Change Management and Flexible Permit provisions in Section F.1 of this permit.

(b) The Permittee may construct and install new emission units of the types described in this D section without obtaining a source modification approval (otherwise required by 326 IAC 2-7-10.5), a Title V permit modification (otherwise required by 326 IAC 2-7-12), or a Prevention of Significant Deterioration permit (otherwise required by 326 IAC 2-2), provided the new emission units are subject to the same applicable requirements listed in this D section, and the Permittee shall comply with the Change Management and Flexible Permit provisions in Section F.1 of this permit.

SECTION D.13 T149 SOLID-LIQUID WASTE INCINERATOR, INCLUDING ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT AND CONTINUOUS MONITORING SYSTEMS OPERATION CONDITIONS

Emissions Unit Description [326 IAC 2-7-5(15)]:

Emission Unit Description	Building	Stack/Vent	Nominal Capacity	Control Device
T149 solid-liquid waste incinerator with Secondary Combustion Chamber (Natural Gas for Startup, Fuel Oil for Deslagging Operations)	T149	T149 Stack	50 MMBtu/hr	SNCR; Condenser/Absorber; Hydro-SonicTM Scrubber

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.13.0 VOC, CO and Fluoride PSD BACT Requirements [326 IAC 2-2-3]

(a) Pursuant to 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD), the Best Available Control Technology (BACT), VOC BACT for the T149 is good combustion practices and compliance with the 100 ppmvdc CO limit.

The VOC BACT for both the T49 (liquid waste incinerator) and T149 (solid-liquid waste incinerator) may be established as 10 ppm (or 100 ppm CO surrogate), which is equivalent to the MACT THC limits contained in 40 CFR Part 63, Subpart EEE.

(b) Pursuant to 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD), the Best Available Control Technology (BACT), CO BACT for the T149 is good combustion practices to control CO emissions to 100 ppmvdc based on a 1-hour block period.

The CO BACT for the T149 incinerator is proper combustion to limit CO emissions to no more than 100 ppmvdc, based on a 1-hour average. This is equivalent to the CO MACT limit contained in 40 CFR Part 63, Subpart EEE.

(c) Pursuant to 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD), the Best Available Control Technology (BACT), Fluorides (F-) BACT of NaOH injection to achieve 98% removal of hydrogen Chloride (HCl).

The fluorides BACT for the T149 incinerator is caustic scrubbing with NaOH to achieve 98% removal efficiency of HCl. This 98% removal efficiency corresponds to an outlet concentration of 77 ppmvdc, which is equivalent to the MACT HCl and Cl2 limit for existing sources contained in 40 CFR Part 63, Subpart EEE. IDEM, OAQ believes that this level of control is as stringent as or more stringent than any limit contained in applicable rules or permits for comparable emission units.

D.13.1 General Applicability Requirements with Emission Standards [326 IAC 2-2-3 and 40 CFR 63, Subparts DD and EEE]

(a) Pursuant to the Hazardous Waste Combustor (HWC) MACT Standards [40 CFR 63.1206(b)(1)(i)] and the PSD BACT requirements [326 IAC 2-2-3], the emission standards and operating requirements shall apply as specified in Conditions D.13.2, D.13.3, D.13.4, D.13.5, D.13.6, and D.13.7 except during periods of startup, shutdown, and malfunction.

(b) Pursuant to the Off-Site Waste and Recovery Operations MACT Standards [40 CFR 63.684(b)(5)(i)], the T149 solid-liquid waste incinerator shall have a permit issued under 40 CFR 270 whenever off-site waste material is treated and destroyed in the T149 solid-liquid waste incinerator. The incinerator shall operate in accordance with the HWC MACT standards under 40 CFR 63, Subpart EEE.

(c) Pursuant to the HWC MACT standards [40 CFR 63.1206(b)(5)(ii) and (iii)] and the PSD BACT requirements [326 IAC 2-2-3], the Permittee may make a change in the design, operation, or maintenance practices documented in the comprehensive performance test plan (CPT plan), Documentation of Compliance (DOC), Notification of Compliance (NOC), or startup, shutdown, and malfunction plan (SSM plan), as long as the Permittee complies with the following requirements:

(1) If it is determined that the change may adversely affect compliance with any emission standard, the Permittee shall comply with the requirements specified in 40 CFR 63.1206(b)(5)(i) prior to implementing the change(s).

(2) If it is determined that the change will not adversely affect compliance with the emission standards of this condition, the Permittee may implement the change(s) but must revise as necessary the performance test plan, Documentation of Compliance, Notification of Compliance, and startup, shutdown, and malfunction plan, to reflect the change(s).

D.13.2 Particulate Matter Emission Standards [40 CFR 63.1219]

In order to satisfy the HWC MACT standards [40 CFR 63.1219(a)(7)], the particulate matter (PM) emissions from the T149 solid-liquid waste incinerator stack exhaust shall not exceed 0.013 gr/dscf (30 mg/dscm), corrected to 7 percent oxygen.

D.13.3 Sulfur Dioxide (SO_2) Emission Standards [326 IAC 2-2-3 and 326 IAC 7-1.1-2]

(a) In order to satisfy the PSD BACT requirements [326 IAC 2-2-3], the T149 solid-liquid waste incinerator shall be equipped with a caustic scrubber system to control SO_2 emissions. The SO_2 emissions from the incinerator stack exhaust shall not exceed 400 ppmv dry corrected to 7% oxygen, averaged over a 24-hour daily period when burning waste streams.

(b) In order to satisfy the State SO_2 rules [326 IAC 7-1.1-2], the SO_2 emissions from the combustion of fuel oil during the deslagging process in the T149 solid-liquid waste incinerator shall not exceed 0.5 pounds per million British thermal units (lbs/MMBtu).

D.13.4 Oxides of Nitrogen (NOx) Emission Standards [326 IAC 2-2-3]

In order to satisfy the PSD BACT requirements [326 IAC 2-2-3], the T149 solid-liquid waste incinerator shall be equipped with selective non-catalytic reduction (SNCR) equipment to control NO_x emissions. The NOx emissions from the incinerator stack exhaust shall not exceed 170 ppmv dry corrected to 7% oxygen, expressed as NO_2, averaged over a 24-hour daily period when burning waste streams.

D.13.5 Hazardous Air Pollutant (HAP) Emission Standards [40 CFR 63.1219, US EPA approved Alternative Monitoring Petition initially approved January 27, 2006]

Except for periods of startup, shutdown and malfunctions, the following emission standards shall apply at all times the T149 solid-liquid waste incinerator is operating:

(a) Mercury – Pursuant to the HWC MACT standards [40 CFR 63.1219(a)(2)], the mercury emissions from the T149 solid-liquid waste incinerator stack exhaust shall not exceed 130 ug/dscm, corrected to 7% oxygen on a 12-hour rolling average basis, from block hourly averages.

(b) Lead and Cadmium – Pursuant to the HWC MACT standards [40 CFR 63.1219(a)(3)], the total semi-volatile metals (lead and cadmium) emissions from the T149 solid-liquid waste incinerator stack exhaust shall not exceed 230 ug/dscm, corrected to 7 percent oxygen on a 12-hour rolling average basis, from block hourly averages.

(c) Arsenic, Beryllium, and Chromium – Pursuant to the HWC MACT standards [40 CFR 63.1219(a)(4)], the total low volatile metals (arsenic, beryllium, and chromium) emissions from the T149 solid-liquid waste incinerator stack exhaust shall not exceed 92 ug/dscm, corrected to 7 percent oxygen on a 12-hour rolling average basis, from block hourly averages.

(d) Hydrochloric Acid/Chlorine Gas (HCl/Cl_2) and Fluorides - In order to satisfy the HWC MACT standards [40 CFR 63.1219(a)(6)], the HCl/Cl_2 emissions from the T149 solid-liquid waste incinerator stack exhaust shall not exceed 32 ppmvdc, expressed as HCl equivalent on a 12-hour rolling average basis, from block hourly averages. In order to satisfy the PSD BACT requirements for fluorides [326 IAC 2-2-3], the T149 solid-liquid waste incinerator control system shall achieve an HCl control efficiency of 98 percent or greater.

(e) Dioxin/Furans – Pursuant to HWC MACT standards [40 CFR 63.1219(a)(1)], the dioxin/furan emissions from the T149 solid-liquid waste incinerator stack exhaust shall not exceed 0.40 ng TEQ/dscm, corrected to 7 percent oxygen.

(f) Principle Organic Hazardous Constituents (POHCs) – Pursuant to the HWC MACT standards [40 CFR 63.1219(c)(1) and (2)], the Permittee shall comply with the following requirements:

(1) The destruction and removal efficiency (DRE) for each principle organic hazardous constituent (POHC), excluding dioxin-listed hazardous wastes F020, F021, F022, F023, F026, or F027 shall be at least 99.99 percent.

(2) Dioxin-listed hazardous wastes F020, F021, F022, F023, F026, or F027 shall not be burned in the T149 solid-liquid waste incinerator.

(g) Operating Parameter Limits (OPLs) – In order to comply with the NESHAP from Hazardous Waste Combustors (HWC) emission limits in this condition, the operating parameters of the T149 solid-liquid waste Incinerator, as established during the performance tests, and documented in the Notification of Compliance (NOC) postmarked December 15, 2010 and associated emission control equipment shall not exceed limits described below as maximum limits or fail to achieve limits described as minimum limits.

For future performance tests, once the Permittee postmarks the NOC for the performance test according to D.13.13(a)(9), the OPLs from the NOC become effective and supersede the OPLs in the Documentation of Compliance (DOC), as well as the OPLs from the previous performance test listed in this section.

The limits below are applicable when monitoring is required by D.13.15(a).

Operating Parameter Limit	Averaging Period	Operating Limit	Units
Maximum Primary Waste Feed to Primary Combustion Chamber	1-hr RA[1]	1,501	lbs/hr
Maximum Secondary Waste Feed to Primary Combustion Chamber	1-hr RA[1]	4,655	lbs/hr
Maximum Solid Feed Rate	1-hr RA[1]	5,529	lbs/hr
Minimum Primary Combustion Chamber Temperature	1-hr RA[1]	1,598	^{o}F
Maximum Primary Waste Feed to Secondary Combustion Chamber	1-hr RA[1]	1,801	lbs/hr
Maximum Secondary Waste Feed to Secondary Combustion Chamber	1-hr RA[1]	1,440	lbs/hr
Minimum Secondary Combustion Chamber Temperature	1-hr RA[1]	1,809	^{o}F
Maximum Stack Gas Flow Rate	1-hr RA[1]	18,812	dscfm
Maximum Waste Feed Viscosity	Monthly Analysis	460	Centi-poise
Minimum Waste Atomizing Pressure	1-hr RA[1]	75	psig
Maximum Mercury Feed Rate in all Feed Streams	12-hr RA	0.014	lbs/hr
Maximum SVM Feed Rate in all Feed Streams	12-hr RA	7.7	lbs/hr
Maximum LVM Feed Rate in all Feed Streams	12-hr RA	360	lbs/hr
Maximum LVM Feed Rate in all Pumpable Feed Streams	12-hr RA	8.3	lbs/hr
Maximum ash feed rate in all feed streams	12-hr RA	4,576	lbs/hr
Maximum Total Chlorine feed rate in all feed streams	12-hr RA	1,972	lbs/hr
Minimum Condenser/Absorber pressure drop	1-hr RA	1	in w.c.
Minimum Condenser/Absorber liquid feed pressure	1-hr RA	5	psig
Minimum Condenser/Absorber scrubber water pH	1-hr RA	2.3	pH
Minimum Condenser/Absorber scrubber liquid flow rate	1-hr RA	980	gpm
Minimum Hydro-Sonic Scrubber Equivalent Pressure Drop	1-hr RA	54	in w.c.
Maximum Hydro-Sonic Scrubber conductivity	12-hr RA	1.6	% solids
Minimum Hydro-Sonic Scrubber Liquid Feed Rate	1-hr RA	285	gpm
Minimum Hydro-Sonic Scrubber water pH	1-hr RA	3.3	pH

1. CMS shall be operated as described in D.13.15.

D.13.6 Carbon Monoxide (CO) Emission Standards [326 IAC 2-2-3, 326 IAC 9-1, and 40 CFR 63.1219]

In order to satisfy the HWC MACT standards [40 CFR 63.1219(a)(5)(i)] and the PSD BACT requirements [326 IAC 2-2-3], the CO emissions from the T149 solid-liquid waste incinerator stack exhaust, as monitored by a continuous emissions monitoring system (CEMS), shall not exceed 100 ppmv dry corrected to 7% oxygen, averaged over an hourly rolling basis, at all times the incinerator is operating except during startup, shutdown and malfunctions.

D.13.7 Hydrocarbon (HC) and Volatile Organic Compound (VOC) Emission Standards [326 IAC 2-2-3 and 40 CFR 63.1219]

(a) In order to satisfy the HWC MACT standards [40 CFR 63.1219(a)(5)(i)] and the PSD BACT requirements [326 IAC 2-2-3], the highest hourly rolling average hydrocarbon emissions achieved, as monitored with a CEMS during an acceptable DRE test, shall not exceed 10 ppmv dry corrected to 7% oxygen or 99.99 percent, reported as propane.

(b) During the DRE test for hydrocarbons, the CO emissions shall not exceed an hourly rolling average of 100 ppmv dry corrected to 7% oxygen (monitored with continuous emissions monitoring system).

D.13.8 Automatic Waste Feed Cutoff System Requirements [40 CFR 63.1206]

In order to satisfy the HWC MACT standards, the Permittee shall operate the T149 solid-liquid waste incinerator with a functioning Automatic Waste Feed Cutoff (AWFCO) system that meets the requirements of 40 CFR 63.1206(c)(3).

(a) Except as allowed under (c) of this condition, the AWFCO system shall be operated such that it immediately and automatically cuts off the hazardous waste feed when any of the following occur at any time:

(1) An operating parameter is exceeded;

(2) An emission standard monitored by the CO CEMS is exceeded;

(3) A span value of any CMS, except a CEMS, is met or exceeded;

(4) Upon malfunction of a CMS (excluding the NOx and SO_2 CEMS) monitoring an operating parameter limit or emission level; or

(5) When any component of the automatic waste feed cutoff system fails.

(b) During all AWFCO events, the Permittee shall continue to:

(1) Duct combustion gases to the air pollution control system while hazardous waste remains in the combustion chamber; and

(2) Monitor the applicable combustor operating parameters and emission levels.

(c) The Permittee may ramp down the hazardous waste feedrate of pumpable hazardous waste over a period not to exceed one (1) minute during an AWFCO event in accordance with the procedures in the O&M plan, providing the automatic waste feed cutoff is not triggered by an exceedance of any of the following operating limits:

(1) Minimum combustion chamber temperature,

(2) Maximum hazardous waste feed rate, or

(3) Any hazardous waste combustor firing system operating limits.

The procedures for AWFCO events specified in the O& M plan must include a statement that the ramp down must begin immediately upon initiation of automatic waste feed cutoff and must prescribe a bona fide ramping down.

(d) After an AWFCO event, the Permittee shall not restart the hazardous waste feed until the operating parameters and emission levels are within their respective limits.

(e) If after any AWFCO event, there is an exceedance of an emission standard or operating requirement, irrespective of whether the exceedance occurred while hazardous waste remained in the combustion chamber, the Permittee shall:

(1) Investigate the cause of the AWFCO,

(2) Take appropriate corrective measures to minimize future AWFCOs, and

(3) Record the findings and corrective measures in the operating record.

D.13.9 Leak Detection and Repair (LDAR) Program [326 IAC 2-2-3, 40 CFR 63, Subpart DD, 40 CFR 61, Subpart V]

The LDAR standards that apply to components associated with the waste transfer/feed systems connected to the T149 solid-liquid waste incinerator are described in Section E.2 of this permit.

D.13.10 Inspection Requirements [and 40 CFR 63.1206(c)]

(a) In order to satisfy the HWC MACT standards [40 CFR 63.1206(c)(5)], the Permittee shall conduct daily visual inspections of the T149 solid-liquid waste incinerator to ensure the combustion zone is sealed.

(b) In order to satisfy the HWC MACT standards [40 CFR 63.1206(c)(3)(vii)], the Permittee shall test the AWFCO system and associated alarms at least once per week to verify operability, unless the operating record documents that the weekly inspections unduly restrict or upset operations and that less frequent inspection will be adequate. At a minimum, the Permittee shall conduct operability testing monthly.

D.13.11 Training and Certification Requirements [40 CFR 63.1206(c)(6)]

(a) Pursuant to the HWC MACT standards [40 CFR 63.1206(c)(6)], the Permittee shall establish a Training and Certification Program for all categories of personnel whose activities may reasonably be expected to directly affect emissions of HAPs from all operations associated with the T149 solid-liquid waste incinerator.

Said programs shall be of a technical level commensurate with the person's duties as specified in the training manual. All operating training and certification programs shall be recorded in the operating record.

(b) A certified control room operator shall be on duty at the site at all times the T149 solid-liquid waste incinerator is in operation and the T149 solid-liquid waste incinerator, including associated air pollution control equipment and continuous monitoring systems, shall be operated and maintained at all times by persons who are trained and certified according to the Training and Certification Program.

D.13.12 Plans and Procedures [326 IAC 2-2-3, 40 CFR 63.1206, 40 CFR 63.1211, 326 IAC 2-7-5(13)]

In order to satisfy the HWC MACT Standards [40 CFR 63.1206] and the PSD BACT requirements [326 IAC 2-2-3], the Permittee shall develop and implement the following written plans, which shall be maintained in the operating record:

(a) Operations and Maintenance (O&M) Plan – The O&M Plan shall define operations during periods of normal operation pursuant to 40 CFR 63.1206(c)(1) and (7).

(b) Startup, Shutdown, and Malfunction (SSM) Plan – The SSM Plan shall be developed and implemented in accordance with 40 CFR 63.1206(c)(2), to ensure that the T149 solid-liquid waste incinerator, including associated air emission control equipment and CEMS and CMS, is operated and maintained and that all malfunctions are corrected as soon as practicable after their occurrence in order to minimize excess emissions. The SSM Plan shall contain the following information:

(1) Detailed procedures for operating and maintaining the T149 solid-liquid waste incinerator system, including associated CEMS and CMS equipment, during periods of startup, shutdown, and malfunction; and

(2) Corrective action program for malfunctioning process, air pollution control, CEMS, and CMS equipment.

(c) Emergency Safety Vent (ESV) Operating Plan – The ESV Operating Plan shall be developed and implemented in accordance with 40 CFR 63.1206(c)(4). The emission standards and operating plans apply even if hazardous waste is in the combustion chamber.

(d) Feedstream Analysis Plan – The Feedstream Analysis Plan shall be developed and implemented in accordance with 40 CFR 63.1209(c)(2) for those parameters with feed rate limits defined in Condition D.13.15.

(e) Continuous Emissions Monitoring System (CEMS) Standard Operating Procedures (SOP) – The Permittee shall prepare and implement an SOP that provides step-by-step procedures and operations of the CEMS in accordance with 326 IAC 3-5-4(c)(9) – Preventive maintenance procedures and corrective maintenance procedures that include those procedures taken to ensure continuous operation and to minimize malfunctions.

Testing and Monitoring Requirements [326 IAC 2-7-6(1) (6)] [326 IAC 2-7-5(1)]

D.13.13 Performance Test Requirements [40 CFR 63.1207, 326 IAC 2-1.1-11, 326 IAC 3-6]

The following streamlined performance test requirements shall satisfy the NESHAP General Provisions [40 CFR 63.7], the HWC MACT requirements [40 CFR 63.1207 and 63.1209], the PSD BACT requirements for VOC and fluorides [326 IAC 2-1.1-11] and the State emission testing requirements [326 IAC 3-6]:

(a) Comprehensive Performance Tests:

(1) The Permittee shall submit a notification of intention to conduct a comprehensive performance test and CMS performance evaluation and a site-specific test plan and CMS performance evaluation test plan at least one year before the performance test and performance evaluation are scheduled to begin.

(2) The Permittee shall perform initial comprehensive performance tests within 12 months after the HWC MACT compliance date unless an exemption is granted pursuant to 40 CFR 63.1207(e)(3).

(3) The Permittee shall submit a notification of intention to conduct the comprehensive performance test at least 60 calendar days before the test is scheduled to begin.

(4) The comprehensive performance tests shall be conducted under operating conditions representative of the extreme range of normal conditions as specified in 40 CFR 63.1207(g) and 63.7(e)(1) for the worst case mode associated with each applicable pollutant limit or emission standard.

(5) The operating parameters defined in Condition D.12.15 shall be monitored during the performance test to establish the parametric limits.

(6) All required comprehensive performance testing shall be completed within 60 days after the date of commencement of the tests pursuant to 40 CFR 63.1207(d)(3).

(7) The Permittee may use previous emissions test data in lieu of the initial comprehensive performance tests as allowed under 40 CFR 63.1207(c)(2).

(8) Pursuant to 40 CFR 63.7(h)(2), individual performance tests may be waived upon

written application to the Administrator if, in the Administrator's judgment, the source is meeting the relevant standard(s) on a continuous basis, or the source is being operated under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering the request.

(9) Pursuant to 40 CFR 63.1207(j), the Permittee shall:

(A) Postmark a Notification of Compliance (NOC) documenting compliance or noncompliance with the emission standards and continuous monitoring system requirements and identify operating parameter limits under 40 CFR 63.1209 within 90 days of completion of the comprehensive performance test; and

(B) Comply with all operating requirements specified in the NOC in lieu of the limits specified in the Documentation of Compliance required under 40 CFR 63.1211(c) upon postmark of the NOC.

These submittal requirements satisfy the reporting requirements of 326 IAC 3-6 as allowed under extension provisions of 326 IAC 3-6-4(b).

(b) Confirmatory Performance Tests

(1) The Permittee shall submit a notification of intention to conduct a confirmatory performance test and CMS performance evaluation and a site-specific test plan and CMS performance evaluation test plan at least 60 days before the performance test and performance evaluation are scheduled to begin.

(2) The confirmatory performance tests shall be conducted under operating conditions representative of the range of normal conditions as specified in 40 CFR 63.1207(g)(2) and 63.7(e)(1) for the parameters specified in 40 CFR 63.1207(g)(2) associated with the dioxin/furan emission standard unless the Administrator approves an alternative range under 40 CFR 63.1207(g)(v).

(3) The operating parameters defined in Condition D.13.15 shall be monitored during the performance test.

(4) All required comprehensive performance testing shall be completed within 60 days after the date of commencement of the tests pursuant to 40 CFR 63.1207(d)(3).

(5) Pursuant to 40 CFR 63.7(h)(2), individual performance tests may be waived upon written application to the Administrator if, in the Administrator's judgment, the source is meeting the relevant standard(s) on a continuous basis, or the source is being operated under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering the request.

(6) Pursuant to 40 CFR 63.1207(j), the Permittee shall postmark a Notification of Compliance (NOC) documenting compliance or noncompliance with the applicable dioxin/furan emission standard within 90 days of completion of the confirmatory performance test.

This submittal requirement satisfies the reporting requirements of 326 IAC 3-6 as allowed under extension provisions of 326 IAC 3-6-4(b).

(c) Subsequent Performance Tests

The Permittee shall conduct subsequent Comprehensive Performance Tests and Confirmatory Performance Tests at the frequencies specified in 40 CFR 63.1207(d).

(d) Pursuant to 326 IAC 3-6-4(b) and 40 CFR 63.1207(i)(2), the Permittee shall submit the performance test reports within 90 days following the test.

D.13.14 Continuous Emissions Monitoring Systems (CEMS) Operating Requirements [40 CFR 60, Appendix B and Appendix F, 40 CFR 63.8, 326 IAC 2-1.1-11, 326 IAC 3-5, US EPA approved Alternative Monitoring Petition initially approved January 27, 2006]

(a) CO and O_2 CEMS Operation Requirements – The following requirements shall be applied at all times the T149 solid-liquid waste incinerator is in operation and represent the streamlined requirements of the HWC MACT standards for CO and HC [40 CFR 63.1209(a), (d), (e), (f), and (h)], PSD BACT requirements for CO and VOC [326 IAC 2-1.1-11], and the emission monitoring requirements for MACT and PSD sources [326 IAC 3-5-1(b) and (d)]:

(1) The Permittee shall install and operate the CO and O_2 CEMS in accordance with the QA requirements of the HWC MACT standards [40 CFR 63, Appendix to Subpart EEE], the applicable QC and performance evaluation requirements of 40 CFR 63.1209(d), the applicable performance specification requirements of 40 CFR 60, Appendix B, and the Alternative Monitoring Petition ("AMP") initially approved on January 27, 2006 and all subsequent revisions to the AMP.

(2) The CEMS shall be installed and operational upon certification of the DOC for the HWC MACT.

(3) Continuous monitor means a device which continuously samples the regulated parameter without interruption, evaluates the detector response at least once every 15 seconds and computes and records the average at least every 60 seconds, except during allowable periods of calibration and other exceptions identified in applicable requirements, plans and/or procedures. One-minute average means the average of detector responses calculated at least every 60 seconds from response obtained at least every 15 seconds.

(b) SO_2 and NOx CEMS Operation Requirements – The following requirements shall apply when the T149 solid-liquid waste incinerator is burning waste:

(1) The Permittee shall install and operate the SO_2 and NOx CEMS in accordance with the QA/QC criteria set forth in 40 CFR 60, Appendix B, 40 CFR 60, Appendix F, Procedure 1, and the AMP approved on January 27, 2006.

(2) Continuous operation is defined as the collection of at least one measurement for each successive 15-minute period.

(3) The Startup, Shutdown, and Malfunction (SSM) Plan required by Condition D.13.12 (b) shall include procedures for monitoring and recording the following information during times of SO_2 or NOx CEMS malfunction:

(A) When the SO_2 CEMS malfunctions, the Permittee shall monitor and record the Hydro-Sonic™ equivalent pressure drop and scrubber liquid flow rate as required by Condition D.13.15 (a) and the scrubber liquid pH as required by Condition D.13.15 (a).

(B) When the NOx CEMS malfunctions, the Permittee shall monitor and

record the combustion chamber temperature, combustion air flow rate, and primary and secondary waste feed rates as required by Condition D.13.15 (a), and assess NOx emissions, using waste testing, waste shipment and process knowledge, to determine whether the quantity of nitrogen fed into the incinerator during that time could have exceeded the worst case 24-hour daily average nitrogen feed rate of 1,379 pounds per hour that formed the basis of the NOx BACT limit.

(c) Particulate Matter [PM] CEMS Alternative Operating Scenario Requirements –
This permit provides the Permittee with the following Alternative Operating Scenario for purposes of satisfying the monitoring requirements of 40 CFR 63.1209. The Permittee shall operate the PM CEMS at all times the T149 solid-liquid waste incinerator is in operation, except as provided in paragraphs (3) or (4) below.

(1) The Permittee shall install and operate the PM CEMS in accordance with the QA/QC criteria set forth the AMP approved on January 27, 2006, and all subsequent revisions to the AMP.

(2) Continuous operation is defined as the collection of at least one measurement for each successive 15-minute period. In order to calculate a valid one-hour block average, valid results must be available for at least three of the four 15-minute cycles in each hour.

(3) During periods when the PM CEMS is malfunctioning or inoperative, the Permittee may use data from the Multi-Metal CEMS, as provided in the AMP approved January 27, 2006.

(4) In lieu of operating the PM CEMS, the Permittee may satisfy the monitoring requirements of 40 CFR 63.1209 through operation of the Continuous Monitoring System requirements described in Section D.13.15(a).

(d) Multi-Metals [MMX] CEMS Alternative Operating Scenario Requirements –
This permit provides the Permittee with the following Alternative Operating Scenario for purposes of satisfying the monitoring requirements of 40 CFR 63.1209. The Permittee shall operate the MMX CEMS at all times the T149 solid-liquid waste incinerator is in operation, except as provided in paragraphs (3) or (4) below.

(1) The Permittee shall install and operate the MMX CEMS in accordance with the QA/QC criteria set forth the AMP approved on January 27, 2006, and all subsequent revisions to the AMP.

(2) Continuous operation is defined as the collection of at least one measurement for each successive 15-minute period. In order to calculate a valid one-hour block average, valid results must be available for at least three of the four 15-minute cycles in each hour.

(3) During periods when the MMX CEMS is malfunctioning or inoperative, the Permittee may use data from the PM CEMS, as provided in the AMP approved on January 27, 2006 and all subsequent revisions to the AMP.

(4) In lieu of operating the MMX CEMS, the Permittee may satisfy the monitoring requirements of 40 CFR 63.1209 through operation of the Continuous Monitoring System requirements described in Section D.13.15(a).

(e) Hydrogen Chloride [HCl] CEMS Alternative Operating Scenario Requirements –
This permit provides the Permittee with the following Alternative Operating Scenario for

purposes of satisfying the monitoring requirements of 40 CFR 63.1209. The Permittee shall operate the HCl CEMS at all times the T149 solid-liquid waste incinerator is in operation, except as provided in paragraphs (3) or (4) below.

(1) The Permittee shall install and operate the HCl CEMS in accordance with the QA/QC criteria set forth the AMP approved on January 27, 2006, and all subsequent revisions to the AMP.

(2) Continuous operation is defined as the collection of at least one measurement for each successive 15-minute period.

(3) In lieu of operating the HCl CEMS, the Permittee may satisfy the monitoring requirements of 40 CFR 63.1209 through operation of the following Continuous Monitoring System requirements described in Section D.13.15(a).

D.13.15 Parametric Continuous Monitoring Systems (CMS) Requirements [40 CFR 63.8(c), 40 CFR 63.1209, and 326 IAC 2-1.1-11]

(a) The Permittee shall operate the following CMSs in accordance with the quality assurance requirements specified in 40 CFR 63.1209(d) at all times the T149 solid-liquid waste incinerator is in operation. To satisfy the HWC MACT standards [40 CFR 63.1209(b), (d), (e), (f), and (h)] and the requirements for PSD sources [326 IAC 2-1.1-11], the following parameters shall be monitored at all times the T149 solid-liquid waste incinerator is in operation. The Permittee shall operate the CMS as provided in the table below. The CEMS mode is when the HCl CEMS, and either the PM and/or the Metal CEMS are in operation in accordance with Condition D.13.14. If the Permittee is not operating in CEMS mode, then the CMS in the Parametric Mode must be monitored.

Operating Parameter	Monitor when in CMS Parametric Mode	Monitor when in CEMS Mode	Averaging Period	Units	Parameter for
Maximum Primary Waste Feed to Primary Combustion Chamber	X	X	1-hr RA	lbs/hr	D.13.5(e) D.13.5(f)
Maximum Secondary Waste Feed to Primary Combustion Chamber	X	X	1-hr RA	lbs/hr	D.13.5(e) D.13.5(f)
Maximum Solid Feed Rate	X	X	1-hr RA	lbs/hr	D.13.5(e) D.13.5(f)
Minimum Primary Combustion Chamber Temperature	X	X	1-hr RA	^{o}F	D.13.5(e) D.13.5(f)
Maximum Primary Waste Feed to Secondary Combustion Chamber	X	X	1-hr RA	lbs/hr	D.13.5(e) D.13.5(f)
Maximum Secondary Waste Feed to Secondary Combustion Chamber	X	X	1-hr RA	lbs/hr	D.13.5(e) D.13.5(f)

Operating Parameter	Monitor when in CMS Parametric Mode	Monitor when in CEMS Mode	Averaging Period	Units	Parameter for
Minimum Secondary Combustion Chamber Temperature	X	X	1-hr RA	^{o}F	D.13.5(e) D.13.5(f)
Maximum Stack Gas Flow Rate	X	X	1-hr RA	dscfm	D.13.2(a) D.13.5(a) D.13.5(b) D.13.5(c) D.13.5(d) D.13.5(e) D.13.5(f)
Maximum waste feed viscosity	X	X	Monthly Analysis	Centi-poise	D.13.5(f)
Minimum Waste Atomizing Pressure	X	X	1-hr RA	psig	D.13.5(f)
Maximum Particulate Matter (PM) limit		X	6-hr RA	mg/dscm	D.13.2
Maximum HCl/Cl_2 emissions		X	12-hr RA	ppmv	D.13.5(d)
Maximum Mercury Emissions		X	12-hr RA	ug/dscm	D.13.5(a)
Maximum SVM emissions		X	12-hr RA	ug/dscm	D.13.5(b)
Maximum LVM Emissions		X	12-hr RA	ug/dscm	D.13.5(c)
Maximum mercury feed rate in all feed streams	X		12-hr RA	lbs/hr	D.13.5(a)
Maximum SVM feed rate in all feed streams	X		12-hr RA	lbs/hr	D.13.5(b)
Maximum LVM feed rate in all feed streams	X		12-hr RA	lbs/hr	D.13.5(c)
Maximum LVM feed rate in all pumpable feed streams	X		12-hr RA	lbs/hr	D.13.5(c)
Maximum ash feed rate in all feed streams	X		12-hr RA	lbs/hr	D.13.2
Maximum Total Chlorine feed rate in all feed streams	X		12-hr RA	lbs/hr	D.13.5(d)

Operating Parameter	Monitor when in CMS Parametric Mode	Monitor when in CEMS Mode	Averaging Period	Units	Parameter for
Minimum Condenser/Absorber pressure drop	X		1-hr RA	in w.c.	D.13.5(a) D.13.5(b) D.13.5(c) D.13.5(d)
Minimum Condenser/Absorber liquid feed pressure	X		1-hr RA	psig	D.13.5(a) D.13.5(b) D.13.5(c) D.13.5(d)
Minimum Condenser/Absorber scrubber water pH	X		1-hr RA	pH	D.13.5(d)
Minimum Condenser/Absorber scrubber liquid flow rate	X		1-hr RA	gpm	D.13.5(a) D.13.5(b) D.13.5(c) D.13.5(d)
Minimum Hydro-Sonic Scrubber Equivalent Pressure Drop	X		1-hr RA	in w.c.	D.13.2 D.13.5(a) D.13.5(b) D.13.5(c) D.13.5(d)
Maximum Hydro-Sonic Scrubber conductivity	X		12-hr RA	% solids	D.13.2 D.13.5 (a) D.13.5(b) D.13.5(c)
Minimum Hydro-Sonic Scrubber Liquid Feed Rate	X		1-hr RA	gpm	D.13.2 D.13.5(a) D.13.5(b) D.13.5(c) D.13.5(d)
Minimum Hydro-Sonic Scrubber water pH	X		1-hr RA	pH	D.13.5(d)

(b) Continuous operation is defined as the collection of at least one measurement for each successive 15-second period, regardless of startup, shutdown and malfunction.

(c) Pursuant to the HWC MACT standards [40 CFR 63.1209(a)(5)] and the compliance monitoring methods for PSD sources [326 IAC 2-1.1-11], the Permittee may petition the Administrator to use CEMS for compliance monitoring in lieu of compliance with the operating parameter limits established in (a) of this condition.

(d) If applicable, the Permittee may document compliance using the waiver provisions of 40 CFR 63.1207(m) in lieu of complying with (a) and (c) of this condition.

D.13.16 Fuel Oil Sampling and Analysis for SO_2 [326 IAC 2-1.1-11] [326 IAC 3-7-4]

Pursuant to 326 IAC 3-7-4, the Permittee shall maintain sampling and analysis certification records of the fuel oil sulfur content in accordance with approved ASTM methods.

D.13.17 Minimum Data Requirements – SO_2 and NOx Compliance [326 IAC 2-1.1-11]

The following defines when CEMS data must be supplemented with data required by condition D.13.14 (b)(3), D.13.18 (a)(13), and D.13.19 (a)(2):

(a) When the period of incinerator operation (i.e., receiving waste streams) is 4 hours or greater in an operating day and monitoring data are insufficient to constitute a valid hour of data for at least 75 percent of the operating hours, or

(b) When the period of incinerator operation (i.e., receiving waste streams) 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.

(c) Monitoring data are insufficient to constitute a valid hour of data if measured values are unavailable for any of the required 15-minute periods within the hour.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.13.18 Record Keeping Requirements

(a) The Permittee shall maintain the following records:

(1) Notifications, reports, and other documents, such as the Documentation of Compliance, as required by 40 CFR 63.1200, 63.1211(c), and 63.10(b) and (c).

(2) All data recorded by continuous monitoring systems (CMS), including continuous emission monitoring systems (CEMS), required by Conditions D.13.14, D.13.15, and D.13.17;

(3) Documentation that a change will not adversely affect compliance with the emission standards or operating requirements as required by 40 CFR 63.1206(b)(5)(ii);

(4) Records of the estimated hazardous waste residence time as required by 40 CFR 63.1206(b)(11);

(5) Plans and procedures as required by Condition D.13.12;

(6) Documentation of the results of the investigation, corrective measures taken, and evaluation of excessive exceedances during malfunctions as required by 40 CFR 63.1206(c)(2)(v)(A);

(7) Corrective Measures for any AWFCO that results in an exceedance of an applicable emission standard or operating parameter limit as required by 40 CFR 63.1206(c)(3)(v);

(8) Documentation and results of the AWFCO operability testing as required by Condition D.13.10 (b) and 40 CFR 63.1206(c)(3)(vii);

(9) Corrective measures for any ESV opening as required by 40 CFR 63.1206(c)(4)(iii);

(10) Daily visual inspection records of the T149 solid-liquid waste incinerator to

ensure the combustion zone is sealed as required by Condition D.13.10 (a) and 40 CFR 63.1206(c)(5);

(11) A copy of the Operator Certification and Training Program required by Condition D.13.11 and 40 CFR 63.1206(c)(6); and

(12) Documentation of the changes in modes of operation as required by 40 CFR 63.1209(q).

(13) For days when condition D.13.17 requires that CEMS data must be supplemented, the documentation of the information required by Condition D.13.14 (b)(3).

(14) The time periods in which the Permittee is operating in CEMS mode as the primary monitoring scenario or the CMS systems described in D.13.15 as the primary monitoring scenario.

(b) The record keeping and reporting requirements for the LDAR standards are described in Section E.2 of this permit.

(c) The Permittee shall maintain quarterly records of all fuel oil used in the T149 solid-liquid waste incinerator on a calendar month average basis, for the following:

(1) Sulfur content;

(2) Heat content;

(3) Fuel consumption; and

(4) Sulfur dioxide emission rate in pounds per MMBtu.

D.13.19 Reporting Requirements

(a) Quarterly Reporting Requirements

(1) The following streamlined quarterly reporting requirements shall satisfy the HWC MACT standards [40 CFR 63.1211], which references the MACT General Provisions [63.7-63.10], PSD BACT requirements [326 IAC 2-1.1-11], and the continuous emissions monitoring requirements [326 IAC 3-5]:

(A) Reports shall be submitted in accordance with Condition C.18;

(B) Summary reports of excess emissions, parameter exceedances, and monitor downtime including information specified in 63.10(c)(5-(c)(13);

(C) SSM summary reports for the T149 solid-liquid waste incinerator control system, including associated CEMS and CMS equipment;

(D) Excessive exceedances report, if applicable, as required by 40 CFR 63.1206(c)(3)(vi); and

(E) Emergency safety vent opening reports as require by 40 CFR 63.1206(c)(4)(iv); and

(2) In addition to the requirements described in (a)(1) of this condition, the Permittee shall report the following information for the NOx and SO_2 CEMS to satisfy the PSD BACT requirements [326 IAC 2-1.1-11]:

(A) A list of days when condition D.13.17 requires that CEMS data must be supplemented

(B) A detailed report for each day when condition D.13.17 requires that CEMS data must be supplemented that provides:

(i) the information required by Condition D.13.14 (b)(3), and

(ii) an analysis of whether that information indicates continuous compliance with the limit established in Condition D.13.3 or D.13.4, and if the NOx CEMS malfunctions for greater than six continuous hours, an assessment of NOx emissions using waste testing, waste shipment, and process knowledge whether the quantity of nitrogen fed into the incinerator during that time could have exceeded the worst case 24-hour daily average nitrogen feed rate of 1,379 pounds per hour that formed the basis of the NOx BACT limit.

(b) Immediate Reporting Requirements

(1) The Permittee shall submit any revision to the SSM Plan that may significantly increase emissions of hazardous air pollutants to the Administrator for approval within 5 days after making a change to the plan to satisfy the reporting requirements under the HWC MACT standards [40 CFR 63.1206(c)(2)(ii)(C)].

(2) The reporting requirements in the HWC MACT standards [40 CFR 63.1211] for Startup, Shutdown and Malfunction (SSM) shall be used to satisfy the reporting requirements under the HWC MACT standards and PSD BACT requirements [326 IAC 2-2-3].

(A) The Permittee shall report all actions taken during T149 solid-liquid waste incinerator system SSM event that results in an exceedance of a relevant emission standard when those actions are inconsistent with the procedures specified in the SSM Plan. The immediate report shall be submitted to the agency via a telephone call or facsimile within 2 working days after commencing actions inconsistent with the plan.

(B) Within 7 working days after the end of an SSM event that results in an exceedance of a relevant emission standard when those actions taken by the Permittee are inconsistent with the procedures specified in the SSM Plan, the Permittee shall submit a letter containing the following information:

(i) Name, title and signature of responsible official certifying accuracy;

(ii) Explanation of the circumstances of the event;

(iii) Reason for not following the SSM Plan;

(iv) Report any excess emissions and/or parameter monitoring exceedances are believed to have occurred; and

(v) Action taken to minimize emissions.

Modifications and Construction Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12 and 326 IAC 2-2]

D.13.20 Modifications and Construction: Advance Approval of Permit Conditions

(a) The Permittee may modify any existing emission units listed in this section of the permit without obtaining a source modification approval (otherwise required by 326 IAC 2-7-10.5), a Title V permit modification (otherwise required by 326 IAC 2-7-12), or a Prevention of Significant Deterioration permit (otherwise required by 326 IAC 2-2), provided the modified emission units are subject to the same applicable requirements listed in this D section, and the Permittee shall comply with the Change Management and Flexible Permit provisions in Section F.1 of this permit.

(b) The Permittee may construct and install new emission units of the types described in this D section without obtaining a source modification approval (otherwise required by 326 IAC 2-7-10.5), a Title V permit modification (otherwise required by 326 IAC 2-7-12), or a Prevention of Significant Deterioration permit (otherwise required by 326 IAC 2-2), provided the new emission units are subject to the same applicable requirements listed in this D section, and the Permittee shall comply with the Change Management and Flexible Permit provisions in Section F.1 of this permit.

SECTION D.14 BPM CONTROL SYSTEMS – RTO OPERATIONS CONDITIONS

Emissions Unit Description [326 IAC 2-7-5(15)]:

(a) The following emissions units are subject to applicable requirements described in this D section:

Emission Unit Description	Building	Stack/Vent	Nominal Capacity	Control Device
Regenerative Thermal Oxidizer 1 (RTO1)	RTO1	RTO1 Stack	36 MMBtu/hr	Caustic Scrubber System
Regenerative Thermal Oxidizer 2 (RTO2)	RTO2	RTO2 Stack	36 MMBtu/hr	Caustic Scrubber System

The RTO control system consists of two Regenerative Thermal Oxidizers, identified as RTO1 and RTO2, each equipped with caustic scrubbing systems and each exhausting to individual stacks.

The closed vent system (CVS) associated with the RTO control system begins at the production building process, storage, and waste tank vent lines and ends at the entrance of the RTO control system. The positive pressure portions of the CVS are at the outlet of the production building roof fans exhausting to the RTO fume transports system, and up to the inlet side of the tank conservation vents of the tank modules exhausting to the RTO fume transport system.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.14.0 Requirement to Control Emissions [40 CFR 60 Subpart Kb, 40 CFR 63 Subpart GGG, 40 CFR 63 Subpart DD, 326 IAC 2-2-3, and 326 IAC 8-5-3]

Except for equipment excluded from emission control requirements and except as otherwise provided by statute or rule, or in this permit, the fumes from all emission units which reference this section shall be continuously routed to the RTO control system while emission units vented to the control equipment are in operation. Except as otherwise provided by statute or rule, or in this permit, the RTO control system shall be operated at all times that the emission units vented to the control equipment are in operation. If the emission standard can be achieved during an RTO Fume Transport System bypass event, regardless of the cause of the event, then routing emissions to the RTO control system is not required.

D.14.1 Control Device and Closed Vent System Standards [40 CFR 63.1253(b), (c), and (d), 63.1254(a) and (c), 63.1256(b), (e), and (h), 63.1258(b), 40 CFR 63.685(c) and (d), 63.689(b), 63.690(b), 63.693(f), 40 CFR 60.112b(a) and 60.113b(c), 326 IAC 2-2-3, and 326 IAC 8-5-3(b)]

(a) RTO Control Device Standards – The RTO control device standards shall apply at all times the unit is burning waste fume streams, except as provided in Condition D.14.2 (a):

(1) Carbon Monoxide (CO) – In order to satisfy PSD BACT requirements [326 IAC 2-2-3], CO emissions at the outlet of the RTO system shall not exceed a 24-hour daily average of 73 parts per million by volume (ppmv).

(2) Oxides of Nitrogen (NOx) – In order to satisfy PSD BACT requirements [326 IAC

2-2-3], NOx emissions at the outlet of the RTO system shall not exceed a 24-hour daily average of 91 ppmv.

(3) Sulfur Dioxide (SO_2) – In order to satisfy PSD BACT requirements [326 IAC 2-2-3], SO_2 emissions, as measured at the outlet of the RTO system, shall not exceed a 24-hour daily average of 100 ppmv.

(4) Volatile Organic Compounds (VOC)/Volatile Organic Hazardous Air Pollutant (VOHAP) – In order to satisfy the Pharmaceutical MACT requirements [40 CFR 63.1253(b), (c), and (d), 63.1254(a) and (c), and 63.1256(b), (e) and (h), and 63.1258(b)], Offsite Waste and Recovery Operations MACT requirements [40 CFR 63.685(c) and (d), 63.689(b), 63.690(b), and 63.693(f)], PSD BACT requirements [326 IAC 2-2-3], Synthetic Pharmaceutical RACT requirements [326 IAC 8-5-3(b)], and New Source Performance Standards for Volatile Organic Liquid Storage Vessel requirements [40 CFR 60.112b(a) and 60.113b(c)], the Permittee shall meet one of the following streamlined VOC/VOHAP emission standards:

(A) Concentration Emission Standard:

(i) The VOC/VOHAP emissions shall not exceed 20 ppmv over a 24-hour daily average at the outlet of the RTO system, measured via a TOC CEMS;

(ii) The RTO combustion chamber temperature shall not be less than 1500F over a 24-hour daily average; and

(iii) The RTO combustion chamber residence time shall not be less than 0.75 seconds over a 24-hour daily average, which is equivalent to a maximum 24-hour daily average stack exhaust air flow rate of 3340 standard cubic feet per second; or

(B) Control Efficiency Emission Standard:

(i) The VOC/VOHAP emissions shall be reduced by a control efficiency of 98% or more at the outlet of the RTO system;

(ii) The RTO combustion chamber temperature shall not be less than 1500F over a 24-hour daily average; and

(iii) The solvent concentration going to the RTO, measured as a percent of the lower explosive limit (LEL), shall not exceed a 24-hour daily average established from a compliant stack test.

The Permittee shall conduct a performance test for TOC before the control efficiency monitoring approach is used to assess compliance with this control efficiency standard

(5) Hydrogen Halide/Halogen and Fluorides – In order to satisfy the Pharmaceutical MACT requirements [40 CFR 63.1253(b), (c), and (d), 63.1254(a) and (c), 63.1256(b), (e) and (h), and 63.1258(b)] and PSD BACT requirements for fluorides [326 IAC 2-2-3], the Permittee shall meet one of the following hydrogen halide and halogen emission standards:

(A) Concentration Emission Standard:

(i) The hydrogen halide and halogen emissions, which includes hydrogen fluoride emissions, shall not exceed 20 ppmv over a 24-hour daily average at the outlet of the RTO system, measured via a HCl CEMS; or

(B) Control Efficiency Emission Standard:

(i) The hydrogen halide and halogen emissions, which include hydrogen fluoride emissions, shall be reduced by a control efficiency of 98% or more at the outlet of the RTO system;

(ii) The 24-hour daily average scrubber liquid pH of the caustic scrubbing system shall not be less than the value established from a compliant stack test;

(iii) The 24-hour daily average scrubber liquid recirculation flow rate of the caustic scrubbing system shall not be less than the value established from a compliant stack test; and

(iv) The 24-hour daily average scrubber caustic flow rate of the caustic scrubbing system shall not exceed the value established from a compliant stack test.

The Permittee shall conduct a performance test for HCl before the control efficiency monitoring approach is used to assess compliance with this control efficiency standard.

(b) RTO Closed Vent System Inspection Standards – The following inspection standards shall apply to the RTO closed vent system (CVS), except as provided in Condition D.14.2 (b):

(1) The Permittee shall comply with the following closed vent system inspection requirements to satisfy the Pharmaceutical MACT requirements [40 CFR 63.1256(b)(3) and (e)(1) and 63.1258(h)], Offsite Waste MACT requirements [40 CFR 63.685(g), 63.689(b), 63.690(b), 63.693(b) and (c), and 63.695(c)], and PSD BACT requirements [326 IAC 2-2-3]:

(A) Initial one-time Method 21 inspections shall be conducted on new portions of the RTO closed vent system not operated under negative pressure within 150 days after startup, if not subject to the LDAR requirements established in Section E of this permit.

(B) Portions of the CVS that are operated under negative pressure shall be equipped with a pressure gauge or other pressure measurement/ detection. The data output must be viewable from a readily accessible location to verify that negative pressure is being maintained when waste fume streams are going to the control system.

(C) Annual visual inspections of the RTO closed vent system shall be performed for visible cracks, holes or gaps, loose connections, and broken or missing caps.

(D) Repair of any leak detected on the RTO closed vent system shall be initiated no later than 5 calendar days after identification, and completed

within 15 days after identification, unless:

(i) The repair is technically infeasible without a shutdown of an operation or process; or

(ii) It is determined that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair.

Repairs delayed due to either of the causes described in (A) or (B) shall be completed by the end of the next shutdown.

(2) The Permittee shall monitor each bypass line on the RTO closed vent system to satisfy the Pharmaceutical MACT requirements [40 CFR 63.1252(b), 63.1253(b) and (c), and 63.1258(b)], Offsite Waste MACT requirements [40 CFR 63.685(g), 63.689(b), 63.690(b), and 63.693(c)], and PSD BACT requirements [326 IAC 2-2-3] using one of the following methods:

(A) Install and monitor the position of the closed vent system bypass valve at least once every 15 minutes, where the closed position means there is no bypass flow; or

(B) Secure the bypass line valve in the closed position with a car seal or lock and key type configuration. Monthly visual inspections of seal or locking device shall be performed to ensure the seal is not broken or the valve is in the closed position and the vent stream is not diverted through the bypass line.

D.14.2 Exceptions to RTO Control System Standards [40 CFR 60.9(c), 40 CFR 63.1250(g), 40 CFR 63.681, 63.685(g), 63.693(b) and 326 IAC 2-2-3]

(a) Exceptions to RTO Control Device Operational Standards – The following streamlined standards satisfy the NSPS for Volatile Organic Liquid Storage [40 CFR 60.9(c), Pharmaceutical MACT standards [40 CFR 63.1250(g)], Offsite Waste MACT standards [40 CFR 63.681, 63.685(g) and 63.693(b)], and PSD BACT requirements [326 IAC 2-2-3]:

(1) The Permittee may open a safety device and bypass the RTO system at any time conditions require it to do so to avoid unsafe conditions.

(2) The provisions of Conditions D.14.1 (a) shall not apply during periods of startup, shutdown or malfunction that preclude the Permittee from complying with Condition D.14.1 (a). This exemption does not apply to requirements under the Pharmaceutical MACT standards.

(b) Exceptions to RTO Closed Vent System Inspection Standards – The following streamlined standards satisfy the Pharmaceutical MACT standards [40 CFR 63.1258(h)(6) and (7)], and PSD BACT requirements [326 IAC 2-2-3]:

(1) The Permittee is not required to inspect if unsafe or difficult to inspect.

D.14.3 Startup, Shutdown, and Malfunction Requirements for RTO Control System [40 CFR 60.8(c), 40 CFR 63.1250(g), 40 CFR 63.697(b)(3), and 326 IAC 2-2-3]

(a) At all times, the Permittee must operate and maintain processes and 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 have been achieved.

(b) Volatile Organic Liquid Storage Vessel Standards [40 CFR 60.7, 40 CFR 60.8(c)], Offsite Waste MACT [40 CFR 63.697(b)(3)] and PSD BACT [326 IAC 2-2-3] SSM Requirements

(1) The Offsite Waste MACT requirements for Startup, Shutdown, and Malfunction (SSM) [40 CFR 63.697(b)(3)] are applicable to SSM events involving emission units and processes subject to the Volatile Organic Liquid Storage Vessel standards [40 CFR 60.7, 40 CFR 60.8(c)], Offsite Waste MACT standards, and PSD BACT requirements [326 IAC 2-2-3].

(2) Pursuant to 40 CFR 63.697(b)(3), the Permittee shall develop an SSM Plan to ensure that processes and air pollution control devices subject to the Offsite Waste MACT and PSD BACT requirements are operated and maintained in a manner to prevent or minimize excess emissions to the extent practical [40 CFR 63.6(e)].The SSM Plan shall contain the following information:

(A) Detailed plans and/or procedures for operating and maintaining the processes and RTO system, including associated CEMS and CMS equipment, during periods of startup, shutdown, and malfunction; and

(B) Corrective action program for malfunctioning processes and air pollution control equipment, CEMS, and CMS equipment.

(c) Pharmaceutical MACT Requirements [40 CFR 63.1250(g)]

(1) In response to an action to enforce the Pharmaceutical MACT standards, the Permittee may assert an affirmative defense to a claim for civil penalties for exceedances of such standards that are cause by a malfunction by meeting the notification requirements in Section D.14.10 and proving by a preponderance of evidence the following:

(A) The excess emissions were caused by a sudden, infrequent, and unavoidable failure of air pollution control and monitoring equipment, or a process to operate in a normal and usual manner; and could not have been prevented through careful planning, proper design, or better operation and maintenance practices; and did not stem from any activity or event that could have been foreseen and avoided, or planned for; and were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;

(B) Repairs were made as expeditiously as possible when the applicable emission limitations were being exceeded. Off-shift and overtime labor were used, to the extent practicable to make these repairs;

(C) The frequency, amount, and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions;

(D) If the excess emissions resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(E) All possible steps were taken to minimize the impact of the excess emissions on ambient air quality, the environment, and human health;

(F) All emissions monitoring and control systems were kept in operation if at

all possible, consistent with safety and good air pollution control practices;

(G) All of the actions in response to the excess emissions were documented by properly signed, contemporaneous operating logs;

(H) At all times, the facility was operated in a manner consistent with good practices for minimizing emissions; and

(I) The owner or operator has prepared a written root cause analysis, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the excess emissions resulting from the malfunction event at issue. The analysis shall also specify, using the best monitoring methods and engineering judgment, the amount of excess emissions that were the result of the malfunction.

D.14.4 Reserved

Testing and Monitoring Requirements [326 IAC 2-7-6(1) (6)] [326 IAC 2-7-5(1)]

D.14.5 Continuous Emissions Monitoring System (CEMS) Requirements [40 CFR 60, Appendix B and Appendix F, 40 CFR 60.113b(c), 40 CFR 63.1258(b), 40 CFR 63.693(f), 40 CFR 63.8, 326 IAC 2-1.1-11, 326 IAC 2-7-24, 326 IAC 3-5]

(a) CO, NOx, and SO_2 CEMS Operation Requirements –The following requirements shall apply when the RTO is burning waste fume streams:

(1) The Permittee shall install and operate the CO, NOx, and SO_2 CEMS in accordance with the quality assurance/quality control (QA/QC) criteria set forth in 40 CFR 60, Appendix B, and 40 CFR 60, Appendix F, Procedure 1.

(2) Continuous operation is defined as the collection of at least one measurement for each successive 15-minute period.

(3) The Startup, Shutdown, and Malfunction (SSM) Plan required by Condition D.14. 3 (b) shall include procedures for monitoring and recording the following information during times of CO, SO_2 or NOx CEMS malfunction:

(A) When the SO_2 CEMS malfunctions, the Permittee shall monitor and record the scrubber liquid recirculation flow rate and caustic flow rate as required by Condition D.14.6(b)(1)(A) and (B), respectively, and the scrubber liquid pH as required by Condition D.14.6 (b)(1)(C).

(B) When CO CEMS malfunctions, the Permittee shall monitor and record the RTO combustion chamber temperature, and exhaust airflow rate from the RTO as required by D.14.6(a)(1) and (3), respectively.

(C) When the NOx CEMS malfunctions, the Permittee shall monitor and record the combustion chamber temperature and exhaust airflow rate from the RTO as required by D.14.7 (a) (1) and (3), and assess NOx emissions, using process knowledge, to determine whether the quantity of nitrogen fed into the RTOs during that time could have exceeded the worst case 24-hour daily average nitrogen feed rate of 1, 085 pounds per hour that formed the basis of the NOx BACT limit.

(b) TOC CEMS Operation Requirements –The following requirements shall apply only when burning waste fume streams and represent the streamlined requirements of the

Pharmaceutical MACT standards [40 CFR 63.1258(b)], Offsite Waste MACT standards [40 CFR 63.693(f)], NESHAP General Provisions monitoring requirements [40 CFR 63.8(c)], NSPS Volatile Organic Liquid Storage Vessel requirements [40 CFR 60.113b(c)], PSD BACT requirements for VOCs [326 IAC 2-1.1-11], and emission monitoring requirements for MACT and PSD sources [326 IAC 3-5-1(b) and (d)]:

(1) The Permittee shall install and operate the CEMS in accordance with the QA/QC criteria set forth in 40 CFR 60, Appendix B, 40 CFR 63.1258(b)(1)(x), and 40 CFR 63.8.

(2) Continuous operation is defined as the collection of at least one measurement for each successive 15-minute period.

(c) HCl CEMS Operation Requirements – The following requirements shall apply only when burning waste fume streams and represent streamlined requirements for the Pharmaceutical MACT standards for hydrogen halides and halogens [40 CFR 63.1258(b)], NESHAP General Provisions monitoring requirements [40 CFR 63.8(c)], and PSD BACT requirements for fluorides [326 IAC 2-1.1-11]:

(1) The Permittee shall install and operate the HCl CEMS in accordance with the performance and QA/QC criteria established in the *Updated Alternative Monitoring Plan for Hydrogen Chloride Continuous Emission Monitoring Systems for the Regenerative Thermal Oxidizers* ("AMP") submitted to EPA OAQPS on August 15, 2003, and all subsequent revisions to the AMP, as allowed by 40 CFR 63.1258(b) and 40 CFR 63.8.

(2) Continuous operation is defined as the collection of at least one measurement for each successive 15-minute period.

(d) CEMS Standard Operating Procedures (SOP) - The Permittee shall prepare and implement an SOP that provides step-by-step procedures and operations in accordance with 326 IAC 3-5-4(a) (9) – Preventive maintenance procedures and corrective maintenance procedures that include those procedures taken to ensure continuous operation and to minimize malfunctions.

D.14.6 Performance Testing Requirements [40 CFR 60.113b(c), 40 CFR 63.7, 40 CFR 63.1257(b), (c), and (d) and 63.1258(b)(3), 40 CFR 63.693(f), 326 IAC 3-6-3(c), 326 IAC 2-7-24, and 326 IAC 2-1.1-11]

(a) Initial Comprehensive Performance Test Requirements:

(1) VOC/VOHAP – When applying the control efficiency standard, the following streamlined requirements shall apply only when burning waste fume streams to satisfy the Pharmaceutical MACT standards [40 CFR 63.1257(b), (c), and (d) and 63.1258(b)], Offsite Waste MACT standards [40 CFR 63.693(f)], Volatile Organic Liquid Storage Vessel requirements [40 CFR 60.113b(c)], PSD BACT requirements [326 IAC 2-1.1-11], and emission testing requirements for MACT sources [326 IAC 3-6-3(c)]:

(A) Prior to applying the control efficiency emission standard, the Permittee shall conduct an initial performance test in accordance with the methods set forth in 40 CFR 63.1257.

(B) The Permittee shall submit a notification of the performance test and a site-specific test plan at least 60 days in advance of the intended performance test date.

(C) The operating parameters defined in Condition D.14.1 (a)(4)(B) shall be

monitored during the performance test to establish the 24-hour daily average parametric limits, according to the requirements of 40 CFR 63.1258(b)(3).

(D) The Permittee shall submit the performance test reports, and upon request, the CMS performance evaluation, within 45 days following the test. The Permittee is allowed an extension if a reasonable explanation is provided within 40 days following the test.

(2) Hydrogen Halide/Halogen – When applying the control efficiency standard, the following requirements shall apply only when burning waste fume streams to satisfy the Pharmaceutical MACT standards [40 CFR 63.1258(b)] and the PSD BACT requirements for fluorides [326 IAC 2-1.1-11]:

(A) Prior to applying the control efficiency emission standard, the Permittee shall conduct an initial performance test in accordance with the methods set forth in 40 CFR 63.1257.

(B) The Permittee shall submit a notification of the performance test and a site-specific test plan at least 60 days in advance of the intended performance test date.

(C) The operating parameters defined in Condition D.14.1 (a)(5)(B) shall be monitored during the performance test to establish the 24-hour daily average parametric limits, according to the requirements of 40 CFR 63.1258(b)(3).

(D) The Permittee shall submit the performance test reports, and upon request, the CMS performance evaluation, within 45 days following the test. The Permittee is allowed an extension of 15 days if a reasonable explanation is provided within 40 days following the test.

(b) Subsequent Comprehensive Performance Test Requirements:

If the Permittee is complying with the control efficiency emission standards for VOC/VOHAP and Hydrogen Halide/Halogens, the performance tests shall be repeated at least once every fifth year from the date of the most recent valid compliance demonstration.

D.14.7 Parametric Continuous Monitoring System (CMS) Requirements [40 CFR 63.8(c), 40 CFR 60.113b(c), 40 CFR 63.1257(b), 63.1258(a) and (b), and 63.1260(e), 40 CFR 63.693(b), 326 IAC 2-1.1-11, 326 IAC 2-7-24, and 326 IAC 3-5-5(d)]

(a) VOC/VOHAP CMS Operation Requirements - The following streamlined requirements shall apply only when burning waste fume streams to satisfy the Pharmaceutical MACT standards [40 CFR 63.1258(a) and (b)], Offsite Waste MACT standards [40 CFR 63.693(b)], Volatile Organic Liquid Storage Vessel requirements [40 CFR 60.113b(c)], PSD BACT requirements [326 IAC 2-1.1-11], and continuous monitoring requirements for flow rate [326 IAC 3-5-5(d)]:

(1) RTO Combustion Chamber Temperature – The Permittee shall install and operate the RTO combustion chamber temperature CMS in accordance with 40 CFR 63.8(c).

(2) Lower Explosive Level (LEL) Concentration – When applying the VOC/VOHAP control efficiency standard, the Permittee shall install and operate the LEL CMS in accordance with 40 CFR 63.8(c).

(3) Flow Rate Monitor – When applying the VOC/VOHAP concentration emission standard, the Permittee shall install and operate airflow rate CMS at the stack exhaust in accordance with 326 IAC 3-5-5(d).

(4) Continuous operation is defined as the collection of at least one measurement for each successive 15-minute period.

(b) Hydrogen Halide/Halogen and Fluorides CMS Requirements – When applying the control efficiency standard requirements shall apply only when burning waste fume streams:

(1) The Permittee shall install and operate the following CMSs in accordance with 40 CFR 63.8(c):

(A) Scrubber liquid pH monitor;

(B) Scrubber liquid recirculation flow rate monitor; and

(C) Scrubber caustic flow rate monitor.

(2) Continuous operation is defined as the collection of at least one measurement for each successive 15-minute period.

(c) CMS Standard Operating Procedure (SOP) – The Permittee shall prepare and implement a SOP for the CMS units in accordance with 40 CFR 63.8(d).

D.14.8 Excursions [40 CFR 63.1258(b)(6), 40 CFR 63.695(e)(4)]

(a) Pursuant to the Pharmaceutical MACT standards [40 CFR 63.1258(b)(7)] and the Offsite Waste MACT [40 CFR 63.695(e)(4)], excursions are defined as follows and apply to the CEMS and CMS required by Conditions D.14.4 (b) and (c), and D.14.6, respectively:

(1) When the period of control device operation (i.e., receiving waste fume streams) is 4 hours or greater in an operating day and monitoring data are insufficient to constitute a valid hour of data for at least 75 percent of the operating hours.

(2) When the period of control device operation (i.e., receiving waste fume streams) 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.

(b) A valid hour requires at least one data point for each 15-minute period in the operating hour.

D.14.9 Minimum Data Requirements – SO_2, CO, and NOx Compliance [326 IAC 2-1.1-11]

The following defines when CEMS data must be supplemented with data required by conditions D.14. 5 (a)(3), D.14.10 (a)(1)(L), and D.14.10 (b)(2):

(a) When the period of RTO operation (i.e., receiving waste streams) is 4 hours or greater in an operating day and monitoring data are insufficient to constitute a valid hour of data for at least 75 percent of the operating hours, or

(b) When the period of RTO operation (i.e., receiving waste streams) 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.

(c) Monitoring data are insufficient to constitute a valid hour of data if measured values are

unavailable for any of the required 15-minute periods within the hour.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.14.10 Record Keeping and Reporting Requirements

(a) Record Keeping Requirements

The Permittee shall maintain the following records:

(1) Control Device (RTO) Records – The following streamlined record keeping requirements satisfy the Pharmaceutical MACT requirements [40 CFR 63.1259], the Offsite Waste MACT standards [40 CFR 63.696], Volatile Organic Liquid Storage Vessel requirements [40 CFR 60.115b], PSD BACT requirements [326 IAC 2-1.1-11 and 326 IAC 2-7-5(3)], and the continuous emission monitoring and performance testing requirements [326 IAC 3-5 and 3-6]:

(A) Log of the operating scenario (i.e., concentration standard or control efficiency standard) applied to satisfy the VOC/VOHAP and hydrogen halide and halogen emission standards required by Conditions D.14.1 (a)(4) and D.14.1 (a)(5) in an On-Site Implementation Log (OSIL);

(B) Description of worst-case operating conditions, if complying with control efficiency standard;

(C) Results of control device performance tests and CMS performance evaluations, if complying with control efficiency standard;

(D) Records of all required CMS and CEMS data;

(E) Records of each CMS and CEMS calibration checks;

(F) Maintenance records for each control device, CMS, and CEMS;

(G) Record of the current standard operating procedure (SOP) for the RTO CEMS and CMS units.

(H) For days when condition D.14.8 requires that CEMS data must be supplemented, the documentation of the information required by Condition D.14.4 (a)(3).

(2) Closed Vent System (RTO CVS) Records – The following streamlined record keeping requirements satisfy the Pharmaceutical MACT requirements [40 CFR 63.1259], the Offsite Waste MACT standards [40 CFR 63.696], Volatile Organic Liquid Storage Vessel requirements [40 CFR 60.115b], PSD BACT requirements [326 IAC 2-1.1-11 and 326 IAC 2-7-5(3)], and the continuous emission monitoring and performance testing requirements [326 IAC 3-5 and 3-6]:

(A) Hourly records of bypass flow indicator operating status and the time and duration of all diversions detected by the bypass flow indicator, if complying via this method;

(B) Monthly visual inspection records of bypass line valves and the occurrence of all periods the valve position has changed, if complying via this method;

(C) Record each CVS component that is unsafe to inspect, and a plan for

inspecting the component as frequently as practicable during safe-to-inspect times;

(D) Record each CVS component that is difficult to inspect and a written plan for inspecting the component at least once every five years;

(E) Record the following information if no leaks are detected during applicable Method 21 inspections and CVS annual visual inspections:

(i) Date each inspection was performed; and

(ii) Statement for each inspection that no leaks were detected.

(F) For each part of the CVS not operated under negative pressure, record the following information for all leaks detected during the initial Method 21 inspection:

(i) Identification of leaking equipment;

(ii) Instrument ID and operator name or initials;

(iii) Date the leak was detected and date of first attempt to repair leak;

(iv) Maximum instrument reading after leak from initial Method 21 is successfully repaired or declared non-repairable; and

(v) Record of reason for any delay of repair, name of person responsible for decision, expected date of repair, dates of shutdowns when repair is made and date of successful repair of leak.

(G) Record the following information for all leaks detected from the CVS annual visual inspection:

(i) Identification of leaking equipment;

(ii) Date leak was detected and first attempt to repair leak; and

(iii) Record of reason for any delay of repair, name of person responsible for decision, expected date of repair, dates of shutdowns when repair is made and date of successful repair of leak.

(3) Volatile Organic Liquid Storage Vessel Standards, Offsite Waste MACT, and PSD BACT SSM Records – The Permittee shall maintain the following records:

(A) Current and superseded versions of SSM Plan.

(B) Occurrence/duration records of each process, control device malfunction, CMS malfunction, and CEMS malfunction.

(C) Information to demonstrate conformance with each SSM is consistent with the procedures in the SSM Plan.

(D) Records of actions taken during each SSM when different from SSM

Plan.

(4) Pharmaceuticals MACT Malfunction Records - Pursuant to 40 CFR 63.1259(a)(3), 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 40 CFR 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.

(b) Quarterly Periodic Reports

(1) The following streamlined reporting requirements satisfy the Pharmaceutical MACT [40 CFR 63.1260(g)] Offsite Waste MACT standards [40 CFR 63.697], Volatile Organic Liquid Storage Vessel [40 CFR 60.115b], PSD BACT [326 IAC 2-2-3], and the continuous emission monitoring [326 IAC 3-5] requirements:

(A) Condition C.18 describes General Reporting Requirements;

(B) If total duration of excess emissions, parameter exceedances, or excursions is 1% or greater of total operating time OR total CMS downtime is greater than 5% for reporting period, include:

(i) 15-minute data and daily averages for all operating days out of range;

(ii) duration of excursions; and

(iii) operating logs and scenarios for all operating days out of range;

(C) Summary reports of excess emissions, parameter exceedances, percentage of excursions and monitor downtime including information specified in 63.10(c)(5)-(c)(13);

(D) Report, when applicable, no excess emissions, no exceedances, no excursions, and no CMS have been inoperative, out of control, repaired or adjusted;

(E) CVS bypass lines with flow indicator: report all periods when vent stream is diverted from control device through bypass line;

(F) CVS bypass lines without flow indicator, report periods which seal mechanism is broken, position has changed or key to unlock bypass line valve was checked out;

(G) Report each new operating scenario that has been operated since last report; and

(H) Offsite Waste MACT and PSD BACT SSM summary reports for the RTO control system, including associated CEMS and CMS equipment and processes subject to the Offsite Waste MACT and PSD BACT requirements.

(I) Pharmaceutical MACT Malfunction summary including the number, duration, and a brief description of each type of malfunction which

occurred during the reporting period 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 to minimize emissions in accordance with 40 CFR 63.1250(g)(3).

(2) In addition to the requirements described in D.14.10(b)(1) of this condition, the Permittee shall report the following information for the SO_2, CO, and NOx CEMS to satisfy the PSD BACT requirements [326 IAC 2-1.1-11]:

(A) A list of days when condition D.14.8 requires that CEMS data must be supplemented:

(B) A detailed report for each day when condition D.14.8 requires that CEMS data must be supplemented that provides:

(i) the information required by Condition D.14.4 (a)(3), and

(ii) an analysis of whether that information indicates continuous compliance with the limits established in Condition D.14.1 and if the NOx CEMS malfunctions for greater than six continuous hours, an assessment of NOx emissions, using process knowledge, whether the quantity of nitrogen fed into the RTO during that time could have exceeded the worst case 24-hour daily average nitrogen feed rate of 1,085 pounds per hour that formed the basis of the NOx BACT limit.

(c) Immediate Reporting Requirements

(1) Offsite Waste MACT [40 CFR 63.697(b)(3)] and PSD BACT [326 IAC 2-2-3] Requirements

The SSM immediate reporting requirements in the Offsite Waste MACT standards [40 CFR 63.697(b)(3)] for SSM-Plans shall be used to satisfy the immediate reporting requirements under the, Offsite Waste MACT standards, and PSD BACT requirements [326 IAC 2-2-3].

(A) The Permittee shall report all actions taken during an SSM event involving a process venting to the RTO or the RTO system that results in an exceedance of a relevant emission standard when those actions are inconsistent with the procedures specified in the SSM Plan. The immediate report shall be submitted to the agency via a telephone call or facsimile within 2 working days after commencing actions inconsistent with the plan.

(B) Within 7 working days after the end of an SSM event that results in an exceedance of a relevant emission standard when those actions taken by the Permittee are inconsistent with the procedures specified in the SSM Plan, the Permittee shall submit a letter containing the following information:

(i) Name, title and signature of responsible official certifying accuracy;

(ii) Explanation of the circumstances of the event;

(iii) Reason for not following the SSM Plan;

(iv) Report any excess emissions and/or parameter monitoring exceedances

are believed to have occurred; and

(v) Action taken to minimize emissions.

(2) Pharmaceutical MACT Requirements [40 CFR 63.1250(g)]

If the Permittee wishes to assert an affirmative defense for a Pharmaceuticals MACT malfunction resulting in an exceedance of an applicable emission limit(s), the Permittee shall:

(A) Notify the IDEM by telephone or facsimile (FAX) transmission as soon as possible, but no later than 2 business days after the initial occurrence of the malfunction resulting in an exceedance; and

(B) Submit a written report to the IDEM within 45 days of the initial occurrence of the exceedance, with all necessary supporting documentation described in D.14.3(b). The Permittee may seek an extension of this deadline for up to 30 additional days by submitting a written request to the IDEM before the expiration of the 45 day period. Until a request for an extension has been approved by the IDEM, the Permittee is subject to the requirement to submit such report within 45 days of the initial occurrence of the exceedance.

(d) Control Device Performance Test Report

If complying with the control efficiency standard, as of January 1, 2012, and within 60 days after the date of completing each performance test, the Permittee must submit performance test data, except opacity data, electronically to EPA's Central Data Exchange by using the ERT (see http://www.epa.gov/ttn/chief/ert/ert tool.html/) or other compatible electronic spreadsheet. Only data collected using test methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFIRE database.

Modifications and Construction Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12 and 326 IAC 2-2]

D.14.11 Modifications and Construction: Advance Approval of Permit Conditions

(a) The Permittee may modify any existing emission units listed in this section of the permit without obtaining a source modification approval (otherwise required by 326 IAC 2-7-10.5), a Title V permit modification (otherwise required by 326 IAC 2-7-12), or a Prevention of Significant Deterioration permit (otherwise required by 326 IAC 2-2), provided the modified emission units are subject to the same applicable requirements listed in this D section, and the Permittee shall comply with the Change Management and Flexible Permit provisions in Section F.1 of this permit.

(b) The Permittee may construct and install new emission units comparable in function to the emission units listed in this D section without obtaining a source modification approval (otherwise required by 326 IAC 2-7-10.5), a Title V permit modification (otherwise required by 326 IAC 2-7-12), or a Prevention of Significant Deterioration permit (otherwise required by 326 IAC 2-2), provided the new emission units are subject to the same applicable requirements listed in this D section, and the Permittee shall comply with the Change Management and Flexible Permit provisions in Section F.1 of this permit.

SECTION D.15 BPM CONTROL SYSTEMS – T79 FUME INCINERATOR SYSTEM OPERATIONS CONDITIONS

Emissions Unit Description [326 IAC 2-7-5(15)]:

(a) The following emissions units are subject to applicable requirements described in this D section:

Emission Unit ID	Emission Unit Description	Stack/Vent	Nominal Capacity	Control Device
T79-INC309	Fume Incinerator	T79-INC309	7.6 MMBtu/hr	Scrubber (313)
T79-INC310	Fume Incinerator	T79-INC310	7.6 MMBtu/hr	Scrubber (314)

(b) The following emission units are not subject to applicable requirements described in this D section:

Emission Unit ID	Emission Unit Description	Stack/Vent	Nominal Capacity	Control Device
T79-COL304	Air Stripper Column	T79	1,500 cfm	T79
T79-COL305	Air Stripper Column	T79	1,500 cfm	T79
T79-TK320	Condensate Collection Tank	T79-321 Fume Stream	200 gal	T79
T79-TK315	Caustic Supply Tank	Atmosphere	750 gal	N/A

The T79 control system consists of two fume incinerators, identified as 309 and 310, each equipped with caustic scrubbing systems, and each exhausting to individual stacks.

The closed vent system (CVS) associated with the T79 control system begins at the production building process, storage, and waste tank vent lines and ends at the entrance of the T79 control system. The positive pressure portions of the CVS are after the steam jet prior to the T79 thermal oxidizer. In addition, the following fume streams have positive pressure portions as noted:

324 Fume Stream: The T140 tank system is positive up to the flow valve for the building, and the Secondary Tank Farm is positive up to the common flow valve.
325 Fume Stream: Waste tank vent lines prior to each tank's conservation vent.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.15.0 Requirement to Control Emissions [40 CFR 60 Subpart Kb, 40 CFR 63 Subpart GGG, 40 CFR 63 Subpart DD, 326 IAC 2-2-3, and 326 IAC 8-5-3]

Except for equipment excluded from emission control requirements and except as otherwise provided by statute or rule, or in this permit, the fumes from all emission units which reference this section shall be continuously routed to the T79 control system while emission units vented to the control equipment are in operation. Except as otherwise provided by statute or rule, or in this permit, the T79 control system shall be operated at all times that the emission units vented to the control equipment are in operation. If the emission standard can be achieved during a T79 control system bypass event, regardless of the cause of the event, then routing emissions to the T79 control system is not required.

D.15.1 T79 Control Device and Closed Vent System Standards [40 CFR 63.1253(b), (c), and (d), 63.1254(a) and (c), 63.1256(b), (e), and (h), 63.1258(b), 40 CFR 63.685(c) and (d), 63.689(b), 63.690(b), 63.693(f), 40 CFR 60.112b(a) and 60.113b(c), 326 IAC 2-2-3, and 326 IAC 8-5-3(b)]

(a) T79 Control Device Standards – The T79 control device standards shall apply at all times the unit is burning waste fume streams, except as provided in Condition D.15.2 (a):

(1) VOC/VOHAP Emission Standards – In order to satisfy the Pharmaceutical MACT requirements [40 CFR 63.1253(b), (c), and (d), 63.1254(a) and (c), and 63.1256(b), (e) and (h), and 63.1258(b)], the Offsite Waste and Recovery Operations MACT requirements [40 CFR 63.685(c) and (d), 63.689(b), 63.690(b), and 63.693(f)], the PSD BACT requirements [326 IAC 2-2-3], the Synthetic Pharmaceutical RACT requirements [326 IAC 8-5-3(b)], and the New Source Performance Standards for Volatile Organic Liquid Storage Vessel requirements [40 CFR 60.112b(a) and 60.113b(c)], the Permittee shall meet the following streamlined VOC/VOHAP emission standards:

(A) The VOC/VOHAP emissions shall be reduced by a control efficiency of 98% or more at the outlet of the T79 control system;

(B) The T79 combustion chamber shall maintain a minimum 24-hour daily average temperature of 1502 degrees Fahrenheit for the T79-INC309 and T79-INC310 Fume Incinerators established during the May 15-18, 2007 compliant stack test.

(2) Hydrogen halide and halogen Emission Standards – In order to satisfy the Pharmaceutical MACT requirements [40 CFR 63.1253(b), (c), and (d), 63.1254(a) and (c), 63.1256(b), (e) and (h), and 63.1258(b)] and PSD BACT requirements for fluorides [326 IAC 2-2-3], the Permittee shall meet the following streamlined hydrogen halide and halogen (including hydrogen fluoride) emission standards:

(A) The HCl/Cl_2 emissions shall be reduced by a control efficiency of 98% or more at the outlet of the T79 system; and

(B) The T79 caustic scrubber system shall maintain the following parametric conditions established during the May 15 - 18, 2007 compliant stack test:

(i) Minimum 24-hour daily average scrubber liquid pH of 2.45 for Scrubber 313 and 2.36 for Scrubber 314;

(ii) Minimum 24-hour daily average scrubber caustic flow rate of 0.84 gallons per minute for Scrubber 313 and 0.38 gallons per minute for Scrubber 314; and

(iii) Maximum 24-hour daily average scrubber liquid recirculation flow rate of 134 gallons per minute for Scrubbers 313 and 314.

(b) T79 Closed Vent System Inspection Standards – The following inspection standards shall apply to the T79 CVS, except as provided in Condition D.15.2 (b):

(1) The Permittee shall comply with the following CVS inspection requirements to satisfy the Pharmaceutical MACT requirements [40 CFR 63.1256(b)(3) and (e)(1) and 63.1258(h)], the Offsite Waste MACT requirements [40 CFR 63.685(g), 63.689(b), 63.690(b), 63.693(b) and (c), and 63.695(c)], and the PSD BACT requirements [326 IAC 2-2-3]:

(A) Conduct an initial one-time Method 21 inspection on new portions of the T79 CVS not operated under negative pressure and not subject to LDAR within 150 days after startup. Portions of the T79 CVS that are operated under negative pressure shall be equipped with a pressure gauge or other pressure measurement/detection. The data output must be viewable from a readily accessible location to verify that negative pressure is being maintained when waste fume streams are going to the control system.

(B) Perform annual visual inspections of the T79 CVS for visible cracks, holes or gaps, loose connections, and broken or missing caps.

(C) Initiate repair of any leak detected on the T79 CVS no later than 5 calendar days after identification, and complete the repair within 15 days after identification, unless:

(i) The repair is technically infeasible without a shutdown of an operation or process; or

(ii) It is determined that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair.

Repairs delayed due to either of the causes described in (A) or (B) shall be completed by the end of the next shutdown.

(2) The Permittee shall monitor each bypass line on the T79 CVS to satisfy the Pharmaceutical MACT requirements [40 CFR 63.1252(b), 63.1253(b) and (c), and 63.1258(b)], the Offsite Waste MACT requirements [40 CFR 63.685(g), 63.689(b), 63.690(b), and 63.693(c)], and the PSD BACT requirements [326 IAC 2-2-3] using one of the following methods:

(A) Install and monitor the position of the T79 CVS bypass valve at least once every 15 minutes, where the closed position means there is no bypass flow; or

(B) Secure the bypass line valve in the closed position with a car seal or lock and key type configuration. Monthly visual inspections of seal or locking device shall be performed to ensure the seal is not broken or the valve is in the closed position and the vent stream is not diverted through the bypass line.

D.15.2 Exceptions to T79 Control System Standards [40 CFR 60.9(c), 40 CFR 63.1250(g), 40 CFR 63.681, 63.685(g), 63.693(b) and 326 IAC 2-2-3]

(a) Exceptions to T79 Control Device Operational Standards – The following streamlined standards satisfy the NSPS for Volatile Organic Liquid Storage [40 CFR 60.9(c)], Pharmaceutical MACT standards [40 CFR 63.1250(g)], Offsite Waste MACT standards [40 CFR 63.681, 63.685(g) and 63.693(b)], and PSD BACT requirements [326 IAC 2-2-3]:

(1) The Permittee may open a safety device and bypass the T79 system at any time conditions require it to do so to avoid unsafe conditions.

(2) The provisions of Conditions D.15.1 (a) shall not apply during periods of startup, shutdown or malfunction that preclude the Permittee from complying with Condition D.15.1(a). This exemption does not apply to requirements under the

Pharmaceutical MACT standards.

(b) Exceptions to T79 CVS Inspection Standards – The following streamlined standards satisfy the Pharmaceutical MACT standards [40 CFR 63.1258(h)(6) and (7)], and PSD BACT requirements [326 IAC 2-2-3]:

(1) The Permittee is not required to inspect if unsafe or difficult to inspect.

D.15.3 Startup, Shutdown, and Malfunction Requirements for T79 Control System [40 CFR 60.8(c), 40 CFR 63.1250(g), 40 CFR 63.697(b)(3) and 326 IAC 2-2-3]

(a) At all times, the Permittee must operate and maintain processes and 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 have been achieved.

(b) Volatile Organic Liquid Storage Vessel Standards [40 CFR 60.7, 40 CFR 60.8(c)], Offsite Waste MACT [40 CFR 63.697(b)(3)] and PSD BACT [326 IAC 2-2-3] SSM Requirements

(1) The Offsite Waste MACT requirements for Startup, Shutdown, and Malfunction (SSM) [40 CFR 63.697(b)(3)] are applicable to SSM events involving emission units and processes subject to the Volatile Organic Liquid Storage Vessel standards [40 CFR 60.7, 40 CFR 60.8(c)], Offsite Waste MACT standards, and PSD BACT requirements [326 IAC 2-2-3].

(2) Pursuant to 40 CFR 63.697(b)(3), the Permittee shall develop an SSM Plan to ensure that processes and air pollution control devices subject to the Offsite Waste MACT and PSD BACT requirements are operated and maintained in a manner to prevent or minimize excess emissions to the extent practical [40 CFR 63.6(e)]. The SSM Plan shall contain the following information:

(A) Detailed procedures for operating and maintaining the processes and T79 system, including associated CEMS and CMS equipment, during periods of startup, shutdown, and malfunction; and

(B) Corrective action program for malfunctioning processes and air pollution control equipment.

(b) Pharmaceutical MACT Requirements [40 CFR 63.1250(g)]

(1) In response to an action to enforce the Pharmaceutical MACT standards, the Permittee may assert an affirmative defense to a claim for civil penalties for exceedances of such standards that are cause by a malfunction by meeting the notification requirements in Section D.14.10 and proving by a preponderance of evidence the following:

(A) The excess emissions were caused by a sudden, infrequent, and unavoidable failure of air pollution control and monitoring equipment, or a process to operate in a normal and usual manner; and could not have been prevented through careful planning, proper design, or better operation and maintenance practices; and did not stem from any activity or event that could have been foreseen and avoided, or planned for; and were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;

(B) Repairs were made as expeditiously as possible when the applicable

emission limitations were being exceeded. Off-shift and overtime labor were used, to the extent practicable to make these repairs;

(C) The frequency, amount, and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions;

(D) If the excess emissions resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(E) All possible steps were taken to minimize the impact of the excess emissions on ambient air quality, the environment, and human health;

(F) All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices;

(G) All of the actions in response to the excess emissions were documented by properly signed, contemporaneous operating logs;

(H) At all times, the facility was operated in a manner consistent with good practices for minimizing emissions; and

(I) The owner or operator has prepared a written root cause analysis, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the excess emissions resulting from the malfunction event at issue. The analysis shall also specify, using the best monitoring methods and engineering judgment, the amount of excess emissions that were the result of the malfunction.

D.15.4 Reserved

Testing and Monitoring Requirements [326 IAC 2-7-6(1) (6)] [326 IAC 2-7-5(1)]

D.15.5 Performance Testing Requirements [40 CFR 60.113b(c), 40 CFR 63.7, 40 CFR 63.1257(b), (c), and (d) and 63.1258(b)(3), 40 CFR 63.693(f), 326 IAC 3-6-3(c), and 326 IAC 2-1.1-11]

(a) Reserved

(b) Comprehensive Performance Test Requirements:

If at any time the Permittee changes the design, operation and maintenance features of the T79 Fume Incinerator System in a manner that could reasonably be expected to affect its ability to meet the VOC/VOHAP control efficiency, then the Permittee shall conduct a performance test to demonstrate compliance with the VOC/VOHAP control efficiency requirements. If at any time the Permittee changes the design, operation and maintenance features of the T79 Fume Incinerator System in a manner that could reasonably be expected to affect its ability to meet the Hydrogen Halide/Halogens control efficiency, then the Permittee shall conduct a performance test to demonstrate compliance with the Halide/Halogen control efficiency requirements.

D.15.6 Parametric Continuous Monitoring System (CMS) Requirements [40 CFR 63.8(c), 40 CFR 60.113b(c), 40 CFR 63.1257(b), 63.1258(a) and (b), and 63.1260(e), 40 CFR 63.693(b), 326 IAC 2-1.1-11, and 326 IAC 3-5-5(d)]

(a) VOC/VOHAP CMS Requirements - The following streamlined requirements apply only

when burning waste fume streams to satisfy the Pharmaceutical MACT standards [40 CFR 63.1258(a) and (b)], Offsite Waste MACT standards [40 CFR 63.684(e)(1)], Volatile Organic Liquid Storage Vessel requirements [40 CFR 60.113b(c)], and PSD BACT requirements [326 IAC 2-1.1-11]:

(1) T79 Combustion Chamber Temperature – The Permittee shall install and operate the T79 combustion chamber temperature CMS in accordance with 40 CFR 63.8(c).

(2) Continuous operation is defined as the collection of at least one measurement for each successive 15-minute period.

(b) Hydrogen Halide/Halogen and Fluorides CMS Requirements – The following requirements apply only when burning waste fume streams to satisfy the Pharmaceutical MACT standards for hydrogen halides and halogens [40 CFR 63.1257(b), 63.1258(b), and 63.1260(e)] and the PSD BACT requirements for fluorides [326 IAC 2-1.1-11]:

(1) The Permittee shall install and operate the following CMSs in accordance with 40 CFR 63.8(c):

(A) Scrubber liquid pH monitor;

(B) Scrubber liquid recirculation flow rate monitor; and

(C) Scrubber caustic flow rate monitor.

(2) Continuous operation is defined as the collection of at least one measurement for each successive 15-minute period.

(c) CMS Quality Control Program – The Permittee shall prepare and implement a quality control program for the CMS units in accordance with 40 CFR 63.8(d).

D.15.7 Excursions [40 CFR 63.1258(b)(6) and 40 CFR 63.695(e)(4)]

(a) Pursuant to the Pharmaceutical MACT standards [40 CFR 63.1258(b)(7)] and the Offsite Waste MACT [40 CFR 63.695(e)(4)], and to satisfy the monitoring for the BACT requirement [326 IAC 2-1.1-11], excursions are defined as follows and apply to the CEMS and CMS required by Condition D.15.5:

(1) When the period of control device operation (i.e., receiving waste fume streams) is 4 hours or greater in an operating day and monitoring data are insufficient to constitute a valid hour of data for at least 75 percent of the operating hours.

(2) When the period of control device operation (i.e., receiving waste fume streams) 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.

(b) A valid hour requires at least one data point for each 15-minute period in the operating hour.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.15.8 Record Keeping and Reporting Requirements

(a) Record Keeping Requirements

The Permittee shall maintain the following records:

(1) Control Device (T79) Records – The Pharmaceutical MACT record keeping requirements [40 CFR 63.1259] shall serve as the streamlined requirement that satisfies the Offsite Waste MACT standards [40 CFR 63.696], Volatile Organic Liquid Storage Vessel requirements [40 CFR 60.115b], PSD BACT requirements [326 IAC 2-1.1-11], and continuous emission monitoring and performance testing requirements [326 IAC 3-5 and 3-6]:

(A) Description of worst-case operating conditions;

(B) Results of control device performance tests and CMS performance evaluations;

(C) Records of all required CMS data;

(D) Records of each CMS calibration checks;

(E) Maintenance records for each control device and CMSs;

(F) Record of the current standard operating procedure (SOP) for the T79 CMS units.

(2) Closed Vent System (T79 CVS) Records – The Pharmaceutical MACT record keeping requirements [40 CFR 63.1259] shall serve as the streamlined requirement that satisfies the Offsite Waste MACT standards [40 CFR 63.696], Volatile Organic Liquid Storage Vessel requirements [40 CFR 60.115b], PSD BACT requirements [326 IAC 2-1.1-11], and continuous emission monitoring and performance testing requirements [326 IAC 3-5 and 3-6]:

(A) Hourly records of bypass flow indicator operating status and the time and duration of all diversions detected by the bypass flow indicator, if complying via this method;

(B) Monthly visual inspection records of bypass line valves and the occurrence of all periods the valve position has changed, if complying via this method;

(C) For each portion of the CVS not operated under negative pressure, record each component that is unsafe to inspect, and a plan for inspecting the component as frequently as practicable during safe-to-inspect times;

(D) For each portion of the CVS not operated under negative pressure, record each component that is difficult to inspect and a written plan for inspecting the component at least once every five years;

(E) For each part of the CVS not operated under negative pressure, record the following information if no leaks are detected during the initial Method 21 inspection or annual visual inspections:

(i) Date each inspection was performed; and

(ii) Statement for each inspection that no leaks were detected.

(F) For each part of the CVS not operated under negative pressure, record

the following information for all leaks detected during the initial Method 21 inspection:

(i) Identification of leaking equipment;

(ii) Instrument ID and operator name or initials;

(iii) Date the leak was detected and date of first attempt to repair leak;

(iv) Maximum instrument reading after leak from initial Method 21 is successfully repaired or declared non-repairable; and

(v) Record of reason for any delay of repair, name of person responsible for decision, expected date of repair, dates of shutdowns when repair is made and date of successful repair of leak.

(G) For each part of the CVS not operated under negative pressure, record the following information for all leaks detected from the annual visual inspection:

(i) Identification of leaking equipment;

(ii) Date leak was detected and first attempt to repair leak; and

(iii) Record of reason for any delay of repair, name of person responsible for decision, expected date of repair, dates of shutdowns when repair is made and date of successful repair of leak.

(3) Volatile Organic Liquid Storage Vessel Standards, Offsite Waste MACT, and PSD BACT SSM Records – The Permittee shall maintain the following records:

(A) Current and superseded versions of SSM Plan.

(B) Occurrence/duration records of each process, control device malfunction, CMS malfunction, and CEMS malfunction.

(C) Information to demonstrate conformance with each SSM is consistent with the procedures in the SSM Plan.

(D) Records of actions taken during each SSM when different from SSM Plan.

(4) Pharmaceuticals MACT Malfunction Records - Pursuant to 40 CFR 63.1259(a)(3), 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 40 CFR 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.

(b) Quarterly Periodic Reporting Requirements

(1) The following Pharmaceutical MACT reporting requirements [40 CFR 63.1260(g)] shall serve as the streamlined reporting requirements that satisfy the Offsite Waste MACT standards [40 CFR 63.697], Volatile Organic Liquid Storage Vessel requirements [40 CFR 60.115b], PSD BACT requirements [326 IAC 2-2-3], and continuous emission monitoring requirements [326 IAC 3-5]:

(A) Condition C.18 describes General Reporting Requirements;

(B) If total duration of excess emissions, parameter exceedances, or excursions is 1% or greater of total operating time or total CMS downtime is greater than 5% for reporting period, include:

(i) 15-minute data and daily averages for all operating days out of range;

(ii) duration of excursions; and

(iii) operating logs and scenarios for all operating days out of range;

(C) Summary reports of excess emissions, parameter exceedances, and monitor downtime including information specified in 63.10(c)(5)-(c)(13);

(D) Report, when applicable, no excess emissions, no exceedances, no excursions, and no CMS have been inoperative, out of control, repaired or adjusted;

(E) CVS bypass lines with flow indicator: report all periods when vent stream is diverted from control device through bypass line;

(F) CVS with bypass lines without flow indicator: report periods which seal mechanism is broken, position has changed or key to unlock bypass line valve was checked out;

(G) Report each new operating scenario that has been operated since last report;

(H) Offsite Waste MACT and PSD BACT SSM summary reports for the T79 control system, including associated CEMS and CMS equipment and processes subject to the Offsite Waste MACT and PSD BACT requirements.

(I) Pharmaceutical MACT Malfunction summary including the number, duration, and a brief description of each type of malfunction which occurred during the reporting period 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 to minimize emissions in accordance with 40 CFR 63.1250(g)(3).

(c) Immediate Reporting Requirements

(1) Offsite Waste MACT [40 CFR 63.697(b)(3)] and PSD BACT [326 IAC 2-2-3] Requirements

The SSM immediate reporting requirements in the Offsite Waste MACT standards [40 CFR 63.697(b)(3)] for Startup, Shutdown and Malfunction (SSM) Plans shall be used to satisfy the immediate reporting requirements under the Offsite Waste MACT standards and PSD BACT requirements [326 IAC 2-2-3].

(A) The Permittee shall report all actions taken during an SSM event involving a process venting to T79 or the T79 system that results in an exceedance of a relevant emission standard when those actions are inconsistent with the procedures specified in the SSM Plan. The immediate report shall be submitted to the agency via a telephone call or facsimile within 2 working days after commencing actions inconsistent with the plan.

(B) Within 7 working days after the end of an SSM event that results in an exceedance of a relevant emission standard when those actions taken by the Permittee are inconsistent with the procedures specified in the SSM Plan, the Permittee shall submit a letter containing the following information:

(i) Name, title and signature of responsible official certifying accuracy;

(ii) Explanation of the circumstances for the event;

(iii) Reason for not following the SSM Plan;

(iv) Report any excess emissions and/or parameter monitoring exceedances are believed to have occurred; and

(v) Actions taken to minimize emissions.

(2) Pharmaceutical MACT Requirements [40 CFR 63.1250(g)]

If the Permittee wishes to assert an affirmative defense for a Pharmaceuticals MACT malfunction resulting in an exceedance of an applicable emission limit(s), the Permittee shall:

(A) Notify the IDEM by telephone or facsimile (FAX) transmission as soon as possible, but no later than 2 business days after the initial occurrence of the malfunction resulting in an exceedance; and

(B) Submit a written report to the IDEM within 45 days of the initial occurrence of the exceedance, with all necessary supporting documentation described in D.15.3(b)(2). The Permittee may seek an extension of this deadline for up to 30 additional days by submitting a written request to the IDEM before the expiration of the 45 day period. Until a request for an extension has been approved by the IDEM, the Permittee is subject to the requirement to submit such report within 45 days of the initial occurrence of the exceedance.

(d) Control Device Performance Test Report

If complying with control efficiency standard, as of January 1, 2012, and within 60 days after the date of completing each performance test, the Permittee must submit performance test data, except opacity data, electronically to EPA's Central Data Exchange by using the ERT (see http://www.epa.gov/ttn/chief/ert/ert tool.html/) or other compatible electronic spreadsheet. Only data collected using test methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFIRE database.

Modifications and Construction Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12 and 326 IAC 2-2]

D.15.9 Modifications and Construction: Advance Approval of Permit Conditions

(a) The Permittee may modify any existing emission units listed in this section of the permit without obtaining a source modification approval (otherwise required by 326 IAC 2-7-10.5), a Title V permit modification (otherwise required by 326 IAC 2-7-12), or a Prevention of Significant Deterioration permit (otherwise required by 326 IAC 2-2), provided the modified emission units are subject to the same applicable requirements listed in this D section, and the Permittee shall comply with the Change Management and Flexible Permit provisions in Section F.1 of this permit.

(b) The Permittee may construct and install new emission units comparable in function to the emission units listed in this D section without obtaining a source modification approval (otherwise required by 326 IAC 2-7-10.5), a Title V permit modification (otherwise required by 326 IAC 2-7-12), or a Prevention of Significant Deterioration permit (otherwise required by 326 IAC 2-2), provided the new emission units are subject to the same applicable requirements listed in this D section, and the Permittee shall comply with the Change Management and Flexible Permit provisions in Section F.1 of this permit.

SECTION D.16 BPM SUPPORT OPERATIONS – RESEARCH AND DEVELOPMENT OPERATIONS AND PHARMACEUTICAL MANUFACTURING OPERATIONS CONDITIONS

Emissions Unit Description [326 IAC 2-7-5(15)]:

(a) The emission units listed below are insignificant activities as defined in 326 IAC 2-7-1(21), but are subject to applicable requirements described or referred to in this D section.

Emission Unit ID	Emission Unit Description	Stack/Vent	Nominal Capacity	Control Device
Building T171:				
T171-31A985DUCHT4	Charge Tank	Atmosphere	10 gallons	Cryogenic Condenser*
T171-TI0031000MS001	Slurry Mill	Atmosphere	NA	Cryogenic Condenser*
T171-T46109	Slurry Mill	Atmosphere	NA	Cryogenic Condenser*
T171-T69126	Centrifuge	Atmosphere	5 liters	Cryogenic Condenser*
T171-T63150	Plate Filter Press	Atmosphere	150 liters	Cryogenic Condenser*
T171-FLDR-9803	Filter Dryer	Atmosphere	75 liters	Cryogenic Condenser*
T171-FLDR-9804	Filter Dryer	Atmosphere	150 liters	Cryogenic Condenser*
T171-TK5700	Waste/Wastewater Tank	Atmosphere	1,000 gallons	None
T 171-TK9601	Portable Process Tank	Atmosphere	50 gallons	Cryogenic Condenser*
T 171-TK9602	Portable Process Tank	Atmosphere	50 gallons	Cryogenic Condenser*
T171-TK9605	Portable Process Tank	Atmosphere	30 gallons	Cryogenic Condenser*
T171-TK9606	Portable Process Tank	Atmosphere	50 gallons	Cryogenic Condenser*
T171-TK9609	Portable Process Tank	Atmosphere	30 gallons	Cryogenic Condenser*
T171-TK9610	Portable Process Tank	Atmosphere	50 gallons	Cryogenic Condenser*
T171-TK9611	Portable Process Tank	Atmosphere	50 gallons	Cryogenic Condenser*
T171-TK9612	Portable Process Tank	Atmosphere	50 gallons	Cryogenic Condenser*
T171-PG9108	Portable Process Tank	Atmosphere	30 gallons	Cryogenic Condenser*
T171-PG9109	Portable Process Tank	Atmosphere	30 gallons	Cryogenic Condenser*
T171-TK9613	Condensate Collection Tank	Atmosphere	10 gallons	Cryogenic Condenser*
T171-TK9614	Condensate Collection Tank	Atmosphere	10 gallons	Cryogenic Condenser*
T171-TK9615	Condensate Collection Tank	Atmosphere	10 gallons	Cryogenic Condenser*
T171-TK9616	Condensate Collection Tank	Atmosphere	10 gallons	Cryogenic Condenser*
T171-TK9617	Condensate Collection Tank	Atmosphere	20 gallons	Cryogenic Condenser*

T171-TK9622	Charge Tank	Atmosphere	15 gallons	Cryogenic Condenser*
T171-TK9623	Charge Tank	Atmosphere	10 gallons	Cryogenic Condenser*
T171-TK9624	Charge Tank	Atmosphere	10 gallons	Cryogenic Condenser*
T171-TK9625	Charge Tank	Atmosphere	10 gallons	Cryogenic Condenser*
T171-TK9626	Charge Tank	Atmosphere	10 gallons	Cryogenic Condenser*
T171-RVD9801	Rotary Vacuum Dryer	Atmosphere	19 gallons	Cryogenic Condenser*
T171-FLT9901	Single-Plate Filter Press	Atmosphere	22 gallons	Cryogenic Condenser*
T171-FLT9902	Multi-Plate Filter Press	Atmosphere	3 gallons	Cryogenic Condenser*

* Control devices marked with an asterisk are voluntary control units and are not required to demonstrate compliance with any regulations unless specified in a Pharmaceutical MACT operating scenario.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.16.1 Non-Applicability Determination [40 CFR 63, Subpart GGG and 326 IAC 8-5-3]

(a) The emission units listed above are not subject to the requirements of 40 CFR 63, Subpart GGG (Pharmaceutical MACT Standards) when the operations are serving as research and development facilities that are exempt pursuant to 40 CFR 63.1250(d) and 63.1251.

(b) The emission units listed above are not subject to the requirements of 326 IAC 8-5-3 because the potential to emit VOC of any facility is less than 15 pounds per day.

D.16.2 Pharmaceutical MACT Process-Based Annual Mass Limit [40 CFR 63.1254]

When an emission unit listed above is not serving as a research and development facility and is engaged in the manufacture of products for commercial sale in commerce greater than a de minimis manner, the following apply:

(a) The undiluted and uncontrolled process vent streams equal to or greater than 50 ppmv hazardous air pollutants (HAP) from the emission unit that use the process-based annual mass limit shall limit actual process vent emissions to 900 kilograms (kg) per 365-day period to comply with the individual process-based mass limit standards under 40 CFR 63.1254(a)(2)(i); and

(b) The Permittee may switch from compliance with the process-based annual mass limit to another Pharmaceutical MACT process vent compliance method only after at least 1 year of operation using the process-based annual mass limit.

D.16.3 Standards for Pharmaceutical MACT Wastewater Tanks [40 CFR 63,1256]

In accordance with the Pharmaceutical MACT, when T171-TK5700 is functioning as a wastewater tank that receives affected wastewater or residual removed from affected wastewater, the following shall apply:

(a) The tank shall have a fixed-roof design; and

(b) The inspection, record keeping, and reporting standards in Section D.10 of this permit shall be followed, as applicable.

D.16.4 Leak Detection and Repair (LDAR) for Fugitive Emissions [CP157-4148 (Revised by this permit)]

The LDAR standards that apply to components associated with the process operations in Building T171 are described in Section E.1 of this permit and the waste tank in T171 are described in Section E.2 of this permit.

Testing and Monitoring Requirements [326 IAC 2-7-5(1), 326 IAC 2-7-6(1), 40 CFR 63.1257, and 40 CFR 63.1258]

D.16.5 Pharmaceutical MACT Testing and Monitoring Requirements [40 CFR 63, Subpart GGG and326 IAC 20]

For each process subject to Pharmaceutical MACT standards, the following apply:

(a) Pursuant to 40 CFR 63.1258(c), the Permittee shall demonstrate continuous compliance with the process-based annual mass limits by calculating daily 365 day rolling summations of emissions. The procedures in 40 CFR 63.1257 should be used to determine emissions.

(b) When control devices are used to meet the process-based annual mass limits, the Permittee must monitor control devices and demonstrate compliance pursuant to 40 CFR 63.1258(b), as follows when such control devices are in use:

(1) For control devices that control vent streams totaling less than 1 ton per year HAP emissions, before control, the Permittee shall verify daily or per batch that the control 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. Measurements taken for this verification are not considered continuous monitoring systems.

(2) For condensers that control vent streams totaling greater than 1 ton per year and less than 10 tons per year HAP emissions, before control:

(A) The Permittee shall establish the maximum condenser outlet temperature or product side temperature as a site-specific operating parameter pursuant to 40 CFR 63.1258(b)(3) and 63.1257(d)(3).

(B) The Permittee shall measure and record the outlet gas temperature at least every 15 minutes during the period in which the condenser is functioning in achieving HAP removal. The outlet gas temperature continuous monitoring system must meet all applicable requirements of 40 CFR 63.8.

(C) The temperature monitoring device must be accurate to within ± 2 percent of the temperature measured in degrees Celsius or ± 2.5 degrees Celsius whichever is greater.

(D) The temperature monitoring device must be calibrated annually.

(E) Reserved.

(F) Reserved.

(G) Reserved.

(3) For scrubbers that control vent streams totaling greater than 1 ton per year and less than 10 tons per year HAP emissions, before control:

(A) The Permittee shall establish a minimum scrubber liquid flow rate or pressure drop as a site-specific operating parameter. 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 pursuant to 40 CFR 63.1258(b)(3).

(B) The Permittee shall measure and record either the scrubber liquid flow rate or pressure drop every 15 minutes during the period in which the scrubber is functioning in achieving HAP removal. If the scrubber uses a caustic solution to remove acid emissions, the Permittee shall monitor the pH of the effluent scrubber liquid at least once per day. The continuous monitoring system must meet all applicable requirements of 40 CFR 63.8.

(C) The monitoring device(s) used to determine the pressure drop shall be certified by the manufacturer to be accurate to within a gage pressure of ± 10 percent of the maximum pressure drop measured.

(D) The monitoring device(s) used for measurement of scrubber liquid flow rate shall be certified by the manufacturer to be accurate within ± 10 percent of the design scrubber liquid flow rate.

(E) The monitoring device(s) shall be calibrated annually.

(F) Reserved.

(G) Reserved.

(4) In accordance with 63.1257(d)(3)(iii), for process condensers that are either followed by no control device or followed by a control device other than a condenser, the Permittee shall demonstrate for all appropriate operating scenarios that the process condenser is properly operated by either:

(A) Measure the condenser exhaust gas temperature and show it is less than the boiling or bubble point of the substance(s) in the vessel; or

(B) Perform a material balance around the vessel and condenser to show that at least 99 percent of the material vaporized while boiling is condensed.

(c) When a control device is used to comply with Condition D.16.2, the Permittee shall meet the requirements of (1) or (2) below for any bypass lines on the T171 closed-vent system (CVS) that could divert a vent stream away from the control device:

(1) Install, calibrate, maintain, and operate a flow indicator that determines whether vent stream flow is present at least once every 15 minutes. 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.

(2) 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 the valve is maintained in the closed position and the vent stream is not diverted through the bypass line.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3) and 326 IAC 2-7-19]

D.16.6 Record Keeping Requirements [40 CFR 63, Subpart GGG and 326 IAC 20]

(a) For each process using the annual mass limit compliance option, the Permittee shall keep daily records of the rolling annual total emissions required in D.16.2.

(b) For each process subject to Pharmaceutical MACT standards, the Permittee shall keep the following records pursuant to 40 CFR 63.1259(b)(5), as appropriate:

(1) The number of batches per year for each batch process;

(2) The operating hours per year for continuous processes;

(3) Standard batch uncontrolled and controlled emissions for each process;

(4) Actual uncontrolled and controlled emissions for each nonstandard batch;

(5) A record whether each batch operated was considered a standard batch;

(c) Pursuant to 40 CFR 63.1259(c), for each process subject to Pharmaceutical MACT standards, the Permittee shall keep records of each operating scenario, which demonstrates compliance with 40 CFR 63, Subpart GGG.

(d) For each process subject to Pharmaceutical MACT standards, the Permittee shall keep a schedule or log of each operating scenario updated daily or, at a minimum, each time a different operating scenario is put into operation.

(e) For control devices controlling Pharmaceutical MACT-subject vent streams totaling less than 1 ton per year HAP emissions, before control, the Permittee shall keep records of the daily verifications that each control device is operating properly as required in Condition D.16.5.

(f) For each condenser or scrubber controlling Pharmaceutical MACT-subject vent streams totaling greater than 1 ton per year and less than 10 tons per year HAP emissions, before control, the Permittee shall keep records of condenser outlet gas temperature and scrubber liquid flow rate or pressure drop as applicable and as required in Condition D.16.5.

(g) For each process using continuous monitoring systems to meet Pharmaceutical MACT standards, the Permittee shall maintain continuous monitoring system records specified in 40 CFR 63.10(c)(1) through (14). Pursuant to 40 CFR 63.1259(b)(3), the Permittee shall maintain records documenting the completion of calibration checks and maintenance of continuous monitoring systems.

(h) The Permittee shall keep a description of worst-case operating conditions as required in 40 CFR 63.1257(b)(8), as applicable.

(i) The Permittee shall keep records of all maintenance performed on the air pollution control equipment, as applicable.

(j) For any control devices used to meet Pharmaceutical MACT standards, the Permittee shall keep the following records:

(1) Hourly records of bypass flow indicator operating status and the time and duration of all diversions detected by the bypass flow indicator, if complying via this method; or

(2) Monthly visual inspection records of bypass line valves and the occurrence of all periods the valve position has changed, if complying via this method.

D.16.7 Reporting Requirements [40 CFR 63, Subpart GGG] [326 IAC 20]

(a) For each process subject to Pharmaceutical MACT standards, the Permittee shall submit the following information with the Quarterly Periodic Report required by Condition C.18:

(1) Exceedance of a limit established in accordance with Condition D.16.5.

(2) If total duration of excess emissions, parameter exceedances, or excursions is 1% or greater of total operating time or total CMS downtime is greater than 5% for reporting period when continuous monitoring is required, include:

(A) 15-minute data and daily averages for all operating days out of range;

(B) duration of excursions; and

(C) operating logs and scenarios for all operating days out of range;

(D) Summary reports of excess emissions, parameter exceedances, and monitor downtime including information specified in 63.10(c)(5)-(c)(13);

(3) Report, when applicable, no excess emissions, no exceedances, no excursions, and no CMS have been inoperative, out of control, repaired or adjusted;

(4) CVS bypass lines with flow indicator: report all periods when vent stream is diverted from control device through bypass line when cryogenic condenser is functioning as a control unit.

(5) CVS bypass lines without flow indicator: report periods which seal mechanism is broken, valve position has changed, or key to unlock bypass line valve was checked out.

(6) Reserved.

(7) Each new operating scenario that has been operated since last report.

(b) The Permittee must submit a report 90 days before the scheduled implementation date of either any change in the activity covered by the Pharmaceuticals MACT Precompliance report or a change in the status of a control device from small to large.

(c) Except as specified in (b) above, whenever a process change is made or there is a change in any of the information submitted in the Pharmaceuticals MACT Notification of Compliance Status Report, the Permittee shall submit the following information with the next Periodic report:

(1) A brief description of the process change;

(2) A description of any modifications to standard procedures or quality assurance procedures;

(3) Revisions to any of the information reported in the original Notification of Compliance Status Report;

(4) Information required by the Notification of Compliance Status Report for changes involving the addition of processes or equipment;

(5) Initial compliance demonstration for process condensers.

Modifications and Construction Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12 and 326 IAC 2-2]

D.16.8 Modifications and Construction: Advance Approval of Permit Conditions

The emission units described in this D section are not subject to the advance approval permit conditions.

SECTION D.17 BPM SUPPORT OPERATIONS – GENERAL WASTEWATER OPERATION CONDITIONS

Emissions Unit Description[326 IAC 2-7-5(15)]:

(a) BPM Wastewater Operations – The emission units associated with the BPM wastewater operations can generally be described as storage and transfer facilities (wastewater tanks, containers and individual drain systems) and treatment facilities (chemical wastewater treatment plant, incineration, or offsite treatment). The specific emission units are described in Sections D.8, D.10, D.11, D.12, D.13, D.18 and D.19 of this permit.

(b) Fermented Products Wastewater Operations – The emission units associated with the fermented products wastewater operations can generally be described as storage and transfer facilities (biosolids tanks) and treatment facilities (biological wastewater treatment plant. The specific emission units are described in Section D.5 of this permit. The wastewater operations associated with fermented products are not subject to the storage, transfer and treatment requirements of this section of the permit because the wastewater does not meet the definition of an affected wastewater.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.17.1 Definition of Wastewater [40 CFR 63.1251 and 40 CFR 63.1256(a)(1)(i)]

(a) Wastewater in this section of the permit is defined as any water that is discarded from a pharmaceutical manufacturing process unit through a single point of determination (POD) that contains an annual average concentration of partially soluble and/or soluble HAP compounds of at least 5 parts per million by weight and a load of at least 0.05 kg/yr. Wastewater does not include the following:

(1) Stormwater from segregated sewers;

(2) Water from fire-fighting and deluge systems, including testing of such systems;

(3) Spills;

(4) Water from safety showers;

(5) Samples of a size not greater than reasonably necessary for the method of analysis that is used;

(6) Equipment leaks;

(7) Wastewater drips from procedures such as disconnecting hoses after clearing lines;

(8) Noncontact cooling water; and

(9) Primary waste (waste with a net positive heating value).

(b) Point of determination (POD) is defined as the point where a wastewater stream exits the process, storage tank, or last recovery device. If soluble and/or partially soluble HAP compounds are not recovered from water before discharge, the discharge point from the

process equipment or storage tank is a POD. If water streams are routed to a recovery device, the discharge from the recovery device is a POD. There can be more than one POD per process or pharmaceutical manufacturing process unit. [40 CFR 63.1251]

(c) Affected wastewater is defined as follows:

(1) Any wastewater stream containing partially soluble HAP compounds at an annual average concentration greater than 1300 ppmw, and the total soluble and partially soluble HAP load in all wastewater from the PMPU exceeds 0.25 Mg/yr [40 CFR 63.1256(a)(1)(i)(A)]; or

(2) Any wastewater stream containing partially soluble and/or soluble HAP compounds at an annual average concentration greater than 5200 ppmw, and the total soluble and partially soluble HAP load in all wastewater from the PMPU exceeds 0.25 Mg/yr [40 CFR 63.1256(a)(1)(i)(B)].

Maintenance wastewater is not considered an affected wastewater stream.

D.17.2 Maintenance Wastewater [40 CFR 63.1256(a)(4)(i)]

The Permittee shall prepare a document that is maintained at the plant site that includes 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).

D.17.3 Storage and Transfer of Affected Wastewater [40 CFR 63.1256(b), (d), and (e)]

(a) The following emission units are used to store or transfer affected wastewater from the BPM operations:

(1) BPM Containers – The emission units and performance standards are described in Section D.11 of this permit.

(2) BPM Individual Drain Systems – These emission units and performance standards for the individual drain systems are described in Section D.8 of this permit.

(3) Affected Wastewater Tanks – These emission units and performance standards are streamlined with the requirements for BPM waste tanks described in Section D.10 of this permit.

(b) The emission units in the fermented products operations do not store or transfer affected wastewater.

D.17.4 Treatment of Affected Wastewater [40 CFR 63.1256]

Pursuant to the Pharmaceutical MACT requirements under 40 CFR 63.1256, the affected wastewater and residuals shall be treated using the following methods as applicable:

(a) Enhanced biological treatment system – The equipment and performance standards for the treatment of affected wastewater using the enhanced biological treatment system are described in Section D.18 of this permit.

(b) Waste incineration – The equipment and performance standards for the thermal destruction of the affected wastewater by incineration are described in Sections D.12 and D.13 of this permit.

(c) Transfer of affected wastewater streams for offsite treatment – The performance standards for offsite disposal of affected wastewater are described in Section D.19 of this permit.

Testing and Monitoring Requirements [326 IAC 2-7-6(1) (6)] [326 IAC 2-7-5(1)]

D.17.5 Testing and Monitoring Requirements

The requirements for the storage, transfer and treatment of the affected wastewater are described in Sections D.8, D.10, D.11, D.12, D.13, D.18 and D.19 of this permit.

Record Keeping and Reporting Requirements

D.17.6 Record keeping and Reporting Requirements

(a) In accordance with 40 CFR 63.1256(a)(4)(ii), the Permittee shall modify and update the information required in Condition D.17.2 as needed following each maintenance procedure based on the actions taken and the wastewater generated in the procedure.

(b) Each POD as defined in Condition D.17.1 (b) shall be identified and its wastewater HAP concentration documented in the On-Site Implementation Log (OSIL) as required by 40 CFR 63.1259(b)(6) and 40 CFR 63.1251 – Operating Scenario.

SECTION D.18 BPM SUPPORT OPERATIONS – CHEMICAL WASTEWATER TREATMENT PLANT OPERATION CONDITIONS

Emissions Unit Description:

(a) The following emission units are subject to applicable requirements described or referred to in this D section. These emission units represent the enhanced biological treatment system.

Emission Unit ID	Emission Unit Description	Stack/Vent	Nominal Capacity	Control Device
BPM Wastewater Treatment Plant (WWTP):				
T78-TK511	Activated Sludge Tank	Atmosphere	8 million gallons	N/A
T78-TK512	Activated Sludge Tank	Atmosphere	8 million gallons	N/A

(b) The following emission units of the wastewater treatment system are not subject to applicable requirements described in this D section.

Emission Unit ID	Emission Unit Description	Stack/Vent	Nominal Capacity	Control Device
BPM Wastewater Treatment Plant (WWTP):				
T78-TK517*	Clarifier Influent Tank	Atmosphere	27,000 gal	N/A
T78-TK518*	Clarifier Influent Tank	Atmosphere	27,000 gal	N/A
T78-TK520A*	Clarifier	Atmosphere	1.4 million gal	N/A
T78-TK520B*	Clarifier	Atmosphere	1.4 million gal	N/A
T78-TK520C*	Clarifier	Atmosphere	1.4 million gal	N/A
T78-TK522*	Thickener	Atmosphere	1.3 million gal	N/A
T78-TK523*	Lift Station	Atmosphere	20,500 gal	N/A
T78-TK550*	Emergency Diversion Tank	Atmosphere	900,000 gal	N/A
T78-TK551*	Sludge Collection Tank	Atmosphere	700,000 gal	N/A
TK525*	Sludge Tank	Atmosphere	193,000 gal	N/A
TK526*	Sludge Tank	Atmosphere	193,000 gal	N/A

* Emission units marked with an asterisk are insignificant activities as defined by 326 IAC 2-7-1(21)(A)-(C) and 326 IAC 2-7-1(21)(G)(ix)(AA).

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.18.1 Pharmaceutical MACT Standards [40 CFR 63.1256, 40 CFR 63.683(b)(2)]

(a) Pursuant to the Pharmaceutical MACT standards for wastewater [40 CFR 63.1256(g)(10)], the Permittee may use the enhanced biological treatment system (activated sludge tank T78-TK511 or T78-TK512) to treat affected wastewater streams, defined in Section D.17 of this permit, except:

(1) Mixed (soluble and partially soluble HAP) wastewater streams greater than 5200 ppmw, where the partially soluble HAP component is equal to or greater than 50 ppmw; or

(2) Wastewater streams containing combined partially soluble HAPs greater than 1300 ppmw.

(b) Pursuant to the Pharmaceutical MACT standards for wastewater [40 CFR 63.1251 and 40 CFR 63.1256(g)(10)], the Permittee shall maintain a minimum mixed liquor volatile suspended solids (biomass) concentration of 1 kg/cubic meter (942 mg/l) of the mixed liquor in the enhanced biological treatment system.

Testing and Monitoring Requirements [326 IAC 2-7-6(1) (6)] [326 IAC 2-7-5(1)]

D.18.2 Sampling and Analysis Requirements [40 CFR 63.1258(g)(2)]

Pursuant to the Pharmaceutical MACT standards [40 CFR 63.1258(g)(2)], the Permittee shall measure the following parameters for each enhanced biological treatment unit in use at least once per week and record the weekly average data:

(a) Total suspended solids (TSS), chemical oxygen demand (COD); and

(b) Biomass (VSS) concentration.

Recordkeeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.18.3 Record Keeping and Reporting Requirements

(a) The Permittee shall maintain the sampling and analysis records required by Condition D.18.2 in accordance with the Pharmaceutical MACT record keeping requirements [40 CFR 63.1259(b)(1)].

Modifications and Construction Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12 and 326 IAC 2-2]

D.18.4 Modifications and Construction: Advance Approval of Permit Conditions

The emission units described in this D section are not subject to the advance approval permit conditions.

SECTION D.19 BPM SUPPORT OPERATIONS – TRANSFER OF AFFECTED WASTEWATER FOR OFFSITE TREATMENT CONDITIONS OPERATION CONDITIONS

Emissions Unit Description [326 IAC 2-7-5(15)]:

(a) Shipment of affected wastewater generated onsite to an offsite treatment facility; or

(b) Receipt of an offsite affected wastewater to be treated onsite.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.19.1 Shipment of Affected Wastewater to an Offsite Treatment Facility [40 CFR 63.1256(a)(5)]

(a) Pursuant to the Pharmaceutical MACT standards for wastewater [40 CFR 63.1256(a)(5)(i)(B)], the Permittee shall include a notice with each shipment of affected wastewater or residual removed from affected wastewater to an offsite treatment facility. The notice shall state that the affected wastewater or residual contains organic HAP that must be treated in accordance with the treatment requirements of the Pharmaceutical MACT standards. When the transport is continuous or ongoing, the notice shall be submitted to the treatment operator initially and whenever there is a change in the required treatment.

(b) Pursuant to the Pharmaceutical MACT standards for wastewater [40 CFR 63.1256(a)(5)(ii)], the Permittee shall 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 this subpart in accordance with the treatment requirements of the Pharmaceutical MACT standards.

D.19.2 Receipt of Offsite Affected Wastewater for Onsite Treatment [40 CFR 63.1256(a)(5)]

(a) Where the Permittee is the transferee, the Permittee shall submit to EPA a written certification that it will manage and treat any affected wastewater or residual removed from affected wastewater received from a source subject to the requirements of this subpart in accordance with the treatment requirements of the Pharmaceutical MACT standards for wastewater [40 CFR 63.1256(a)(5)(ii) and (iv)].

(b) The Permittee may revoke its certification as allowed under 40 CFR 63.1256(a)(5)(iii).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.19.3 Record keeping and Reporting Requirements

(a) The Permittee shall keep records of all notifications required by Conditions D.19.1 and D.19.2 in accordance with 40 CFR 63.1259(g).

Modifications and Construction Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12 and 326 IAC 2-2]

D.19.4 Modifications and Construction: Advance Approval of Permit Conditions

The emission units described in this D section are not subject to the advance approval permit conditions.

SECTION D.20 UTILITIES OPERATION CONDITIONS

Emissions Unit Description: [326 IAC 2-7-5(1)]

The following emissions units are subject to applicable requirements described in this D section:

Emissions Unit ID	Emissions Unit Description	Stack/Vent	Nominal Capacity	UOM	Control Device
Building T26					
BLR006	Natural Gas/Fuel Oil Boiler No. 6	S-T26-BLR006	156.1	MMBtu/hr	None
BLR007	Natural Gas/Fuel Oil Boiler No. 7	S-T26-BLR007	156.1	MMBtu/hr	None
T26-GEN-7500A*	Diesel Powered Emergency Generator	S-T26- GEN-7500A	201	HP	None
T26-COMP 5600A*	Diesel Powered Emergency Air Compressor	S-T26- COMP 5600A	125	HP	None

* Emission units marked with a single asterisk are insignificant activities as defined in 326 IAC 2-7-1(21).

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.20.0 Reserved

D.20.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]

(a) The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to Boilers No. 6 and No.7 described in this section except when otherwise specified in 40 CFR Part 60, Subpart Db.

(b) Reserved

D.20.2 Opacity Limitations [326 IAC 5] [40 CFR 60.43b] [326 IAC 12] [326 IAC 2-7-24]

(a) Reserved

(b) When starting up or shutting down Boilers No. 6 and No.7, opacity may exceed the applicable limit in Condition C.2. However, opacity levels shall not exceed sixty percent (60%) for any six (6)-minute averaging period. Opacity in excess of the applicable limit established in 326 IAC 5-1-2 shall not continue for more than two (2) six (6)-minute averaging periods in any twenty-four (24) hour period.

(c) Pursuant to 40 CFR 60.43b(h)(5), because Boilers No. 6 and No. 7 will burn only very low sulfur oil or natural gas, the boilers are not subject to opacity limitations in 40 CFR 60.43b(f) and (g).

D.20.3 Sulfur Dioxide (SO_2) Limitations [326 IAC 7-1.1-2] [40 CFR 60.41b] [40 CFR 60.42b(k)] [326 IAC 12] [326 IAC 2-7-24]

(a) Pursuant to 326 IAC 7-1.1 (SO_2 Emission Limitations), 326 IAC 12, and 40 CFR 60, Subpart Db (Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units):

(1) The SO_2 emission rate from Boilers No. 6 and No.7 shall not exceed 0.32 pounds per million Btu heat input; or

(2) The fuel oil shall contain no more than 0.3 weight percent sulfur.

(3) If the Permittee burns either natural gas or very low sulfur oil, the Permittee shall be in compliance with Conditions D.20.3(a)(1) and (2).

(b) Pursuant to 40 CFR 60 Subpart Db, the fuel oil sulfur content or sulfur dioxide emission limit applies at all times, including periods of startup, shutdown, and malfunction.

(c) Reserved

D.20.4 Nitrogen Oxides (NOx) Limitations [40 CFR 60.44b] [326 IAC 12]

Pursuant to 40 CFR 60.44b(a), the NOx emission rate from Boilers No. 6 and No.7 shall not exceed 0.2 lb per MMBtu per boiler. The NOx emission limit shall be based on a 30-day rolling average. The NOx emission limit applies at all times, including periods of startup, shutdown, and malfunction.

D.20.5 Particulate Matter (PM) Limitations [326 IAC 20-1] [326 IAC 6-2-4] [326 IAC 2-7-24]

(a) Reserved

(b) Reserved

(c) Reserved

(d) Pursuant to 326 IAC 6-2-4(a), the PM emission rate from each of Boilers No. 6 and No.7 shall not exceed 0.19 pounds per MMBtu heat input.

D.20.6 Reserved

D.20.7 Reserved

D.20.8 PSD Minor Limitations for CO [326 IAC 2-2]

(a) The total carbon monoxide emissions from Boilers No. 6 and No.7 shall be less than 98 tons per twelve consecutive month period with the compliance determined at the end of each month.

(b) The hours of operation of the T26-COMP-5600A emergency air compressor shall be limited to 500 hours per twelve (12) consecutive month period, with compliance determined at the end of each month. The Permittee shall monitor the operating hours of the emergency air compressor with a non-resettable hour meter, as required by 40 CFR 60.4209(a).

Compliance with the CO emission limit of Boilers No. 6 and No. 7, and the hours of operation of the T26-COMP-5600A emergency air compressor will render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to this modification.

D.20.9 PSD Minor Limitations for PM and PM10 [326 IAC 2-2]

The amount of very low sulfur oil with a maximum sulfur content of 0.3%, burned in each of Boilers No. 6 and No. 7 shall be less than 976,740 gallons per twelve consecutive month period with compliance determined at the end of each month.

Compliance with the fuel oil consumption limit will render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to this modification.

A quarterly summary of the very low sulfur oil use report shall be submitted. Each quarterly report must be submitted within 30-days after the end of each quarter (January-March, April-June, July-September, and October-December).

D.20.10 Reserved

D.20.11 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the boilers.

Testing and Monitoring Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-7-5(1)]

D.20.12 Reserved

D.20.13 Compliance Requirements for SO_2 [326 IAC 7-2] [40 CFR 60.45b(j)] [40 CFR 60.47b(f)] [326 IAC 12]

Boilers No. 6 and No. 7 are subject to the following requirements:

(a) The Permittee shall burn only natural gas or very low sulfur fuel oil.

(b) The Permittee shall demonstrate that the oil burned meets the definition of very low sulfur fuel oil by:

(1) Following the performance testing procedures as described in 40 CFR 60.45b(c) or 40 CFR 60.45b(d); or

(2) Maintaining fuel receipts as described in 40 CFR 60.49b(r).

Compliance monitoring is not required when burning very low sulfur fuel oil.

D.20.14 Initial Performance Test Requirements for NOx [40 CFR 60.46b] [326 IAC 12] [326 IAC 3-6-3] [326 IAC 2-7-24] [326 IAC 2-1.1-11] [40 CFR Part 60.8]

(a) Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup, the NOx emissions from Boilers No. 6 and No. 7 shall be monitored for 30 successive steam generating unit operating days and the 30-day average emission rate shall be used to determine compliance with the nitrogen oxides emission standards under 40 CFR 60.44b. The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period.

Testing was performed October 22, 2007 through November 22, 2007. The 30-day average emission rate was calculated to be less than 0.2 lb NOx/MMBtu.

(b) Subsequent performance test shall be performed upon request by IDEM, OAQ [40 CFR 60.46b (e) (4)].

D.20.15 Reserved

D.20.16 Continuous Emission Monitoring System (CEMS) Requirements [40 CFR 60.13] [40 CFR 60.48b] [326 IAC 2-1.1-11] [326 IAC 2-7-24] [326 IAC 3-5] [40 CFR 60.48b (e) (2)] [326 IAC 12]

(a) NOx CEMS Operation Requirements – The following requirements shall apply to Boilers

No. 6 and No. 7 when burning natural gas and/or fuel oil:

(1) The Permittee shall install, calibrate, maintain, evaluate, and operate the NOx CEMS in accordance with the procedures in 40 CFR 60.13 and 40 CFR 60, Appendix F. Tippecanoe Laboratories received approval from the IDEM on January 30, 2007 to set the span value for the NOx CEMS at 1,000 ppm in lieu of 500 ppm.

(2) The CEMS shall be operational upon startup of the boilers.

(3) Continuous operation is defined as one data point every 15-minute period.

(4) The NOx emissions shall be calculated using stack flow data, or an appropriate F- Factor per 40 CFR 60 Appendix A, Method 19.

(5) The Standard Operating Procedure (SOP) shall include procedures to obtain emission data when nitrogen oxides emission data are not obtained because of continuous monitoring system breakdowns, repairs, calibration checks and zero and span adjustments. The emission data will be obtained by using standby monitoring systems, Method 7, Method 7A, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.

(6) The 1-hour average nitrogen oxides emission rates measured by the continuous nitrogen oxides monitor shall be expressed in lb/MMBTU heat input and shall be used to calculate the average emission rates under 40 CFR 60.44b. The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13 (h). At least four data points must be used to calculate each 1-hour average.

(b) CO CEMS Operation Requirements – The following requirements shall apply to Boilers No. 6 and No. 7 when burning natural gas and/or fuel oil:

(1) The Permittee shall install, operate, and maintain the CO CEMS according to the procedures in 40 CFR part 60, Appendix F and Performance Specification (PS) 4B of 40 CFR part 60, appendix B.

(2) The CEMS shall be installed and operational upon startup of the boilers.

(3) Continuous operation is defined as the collection of at least one measurement for each successive 15-minute period, regardless of startup, shutdown and malfunction. [326 IAC 2-1.1-11]

(4) Reserved

(5) Data recorded during periods of monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities, shall not be used to determine compliance. Any period for which the monitoring system is out of control and data are not available for required calculations constitute a deviation from the monitoring requirements. [326 IAC 2-1.1-11]

(c) CEMS Standard Operating Procedures (SOP) – The Permittee shall prepare and implement an SOP that provides step-by-step procedures and operations in accordance with 326 IAC 3-5-4(a). This includes preventive maintenance procedures and corrective actions that include those procedures taken to ensure continuous operation and to minimize malfunctions. The SOP must be submitted to IDEM within 90 days of installation

of the monitors.

(d) The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U.S. EPA.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.20.17 Record Keeping Requirements

The Permittee shall maintain the following records:

(a) The records of the carbon monoxide emissions, in tons per month, from Boilers No. 6 and No. 7 and hours of operation of the T26-COMP-5600A emergency compressor;

(b) The monthly records of the amount of very low sulfur oil burned in each Boilers No. 6 and No. 7;

(c) Receipts or test analysis for fuel oil burned in Boilers No. 6 and No. 7 certifying that the fuel oil is less than 0.3% sulfur content [40 CFR 60.42b(j), 40 CFR 60.49b(r)];

(d) Daily records of all fuel burned in Boilers No. 6 and No. 7 [40 CFR 60.49b(d);

(e) Annual capacity factor for fuel oil burned in Boilers No. 6 and No. 7 calculated monthly using a 12-month rolling average [40 CFR60.49b(d)];

(f) Reserved

(g) NOx Emissions data for each of Boilers No. 6 and No. 7 operating day:

(1) Average hourly NOx emissions in lbs/MMBtu [40 CFR 60.49b(g)(2)];

(2) Rolling 30-day average NOx emissions in lbs/MMBtu [40 CFR 60.49b(g)(3)];

(3) Periods when the 30-day NOx average exceeds the limit in D.20.4 [40 CFR 60.49b (g) (4) and 40 CFR 60.49b (h) (4)];

(4) Days when sufficient data was not obtained [40 CFR 60.49b(g)(5)];

(5) Times and reasons for excluding data [40 CFR 60.49b(g)(6)];

(6) Any F factors used to calculate NOx emissions, method of determination, and type of fuel combusted [40 CFR 60.49b(g)(7)];

(7) Times when full span was exceeded [40 CFR 60.49b(g)(8)];

(8) Description of any modifications to the CEMS that could affect the ability of the system to comply with Performance Standard 2 [40 CFR 60.49b(g)(9)]; and

(9) Results of CEMS daily drift tests and quarterly accuracy assessments [40 CFR 60.49b(g)(10)].

(h) CO Emissions data for Boilers No. 6 and No. 7:

(1) Each period during which a CEMS on Boilers No. 6 and No.7 is malfunctioning or inoperative (including out-of-control periods) [326 IAC 2-1.1-11];

(2) All required measurements needed to demonstrate compliance with the CO standard for Boilers No. 6 and No.7 (including, but not limited to, 15-minute averages of CEMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report) [326 IAC 2-1.1-11];

(3) All results of CEMS performance evaluations [326 IAC 2-1.1-11];

(4) All measurements as may be necessary to determine the conditions of performance evaluations [326 IAC 2-1.1-11];

(5) All CMS calibration checks [326 IAC 2-1.1-11];

(6) All adjustments and maintenance performed on the CEMS [326 IAC 2-1.1-11];

(7) Previous (i.e., superseded) versions of the CEMS SOP as required in [326 IAC 2-1.1-11];

(8) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period [326 IAC 2-1.1-11];

(9) Reserved;

(10) Reserved

(11) The boiler emissions shall be computed using the data points required under condition D.20.16(b), appropriate F factors, and/or the emission factors in the paragraphs (ii) and (iii):

(i) Reserved;

(ii) When burning natural gas: 84 lbs of CO/million cubic feet of gas burned or 12.9 lbs/hr; and

(iii) When burning fuel oil: 5 lbs of CO/thousand gallons of oil or 5.58 lbs/hr.

(i) Reserved.

(j) Reserved

(k) Reserved

D.20.18 Reporting Requirements

(a) A certification shall be submitted to the IDEM, OAQ, stating that only Very Low Sulfur Oil was burned in Boilers No. 6 and No. 7 [40 CFR 60.49b(r)]. The certification does require the certification by a “responsible official” as defined by 326 IAC 2-7-1(34).

(b) A quarterly summary of the information to document compliance with Conditions D.20.8 (a) and (b) shall be submitted to the IDEM, OAQ, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by a “responsible official” as defined by 326 IAC 2-7-1(34).

(c) A quarterly summary of the information to document compliance with Condition D.20.9 shall be submitted to the IDEM, OAQ, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by a "responsible official" as defined by 326 IAC 2-7-1(34).

(d) The following information shall be reported quarterly:

(1) For Boilers No. 6 and No. 7, all NOx emission records described in D.20.17(g) [40 CFR 60.49b(i)];

(2) A statement that only very low sulfur fuel was burned in Boilers No. 6 and No. 7 [40 CFR 60.49b(r)];

(3) The total fuel used by Boilers No. 6 and No. 7 for each calendar month

(4) Reserved;

(5) Reserved;

(6) Reserved;

(7) Description of any CEMS downtime events, or a statement that there were none;

(8) Reserved

(9) Reserved

(e) Reserved

(f) Reserved

D.20.19 Applicability of 40 CFR Part 63 Subpart ZZZZ-National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE MACT).

The emergency generator or the air compressor has a site-rating of less than 500 brake horsepower. Therefore, the emergency generator and the air compressor are not subject to the requirements of 40 CFR 63, Subpart ZZZZ (National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines).

SECTION D.21 DEGREASER OPERATION CONDITIONS

Emissions Unit Description: Insignificant Activities:

Cold cleaning organic solvent degreasing operations that do not exceed 145 gallons of solvent usage per 12 months, except if subject to 326 IAC 20-6.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

D.21.1 Cold Cleaner Degreasers Constructed after July 1, 1990

(a) Pursuant to 326 IAC 8-3-1(b)(2) for cold cleaner degreasers without remote solvent reservoirs constructed after July 1, 1990, the Permittee shall ensure that the following control equipment requirements of 326 IAC 8-3-5 are met:

(1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

(A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38ºC) (one hundred degrees Fahrenheit (100ºF));
(B) The solvent is agitated; or
(C) The solvent is heated.

(2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38ºC) (one hundred degrees Fahrenheit (100ºF)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees
Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
(B) A water cover when solvent used is insoluble in, and heavier than, water.
(C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

(b) The owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:

(1) Close the cover whenever articles are not being handled in the degreaser.

(2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.

(3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

SECTION D.22 ARCHITECHTURAL AND INDUSTRIAL MAINTENANCE COATINGS CONDITIONS

Emissions Unit Description:

Entire source.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.22.1 Architectural and Industrial Maintenance (AIM) Coatings [326 IAC 8-14]

(a) Pursuant to 326 IAC 8-14, on and after October 1, 2011, the Permittee shall comply with the applicable standards for Architectural and Industrial Maintenance (AIM) Coatings. 326 IAC 8-14 is not Federally enforceable.

(b) The Permittee shall comply with the standards for AIM coatings according to 326 IAC 8-14-3.

(c) The Permittee shall comply with the following work practices:

(1) All AIM coatings containers used to apply the contents therein to a surface directly from the container by any of the following shall be closed when not in use:

(A) pouring;
(B) siphoning;
(C) brushing;
(D) rolling;
(E) padding;
(F) ragging; or
(G) other means;

(2) Containers of any VOC-containing materials used for thinning and cleanup shall be closed when not in use.

SECTION E.1 LEAK DETECTION AND REPAIR (LDAR) CONDITIONS FOR BPM PROCESS SYSTEM COMPONENTS

Emissions Unit Description [326 IAC 2-7-5(15)]:

(a) BPM process systems consist of process operations and non-waste storage serving bulk pharmaceutical manufacturing operations. LDAR applies to BPM process system components such as pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves and lines, valves, connectors, instrumentation systems, control devices, and closed-vent systems intended to operate in volatile organic hazardous air pollutant and/or volatile organic compound (VOHAP/VOC) service for 300 hours or more during the calendar year. In VOHAP/VOC service means that a piece of equipment either contains or contacts a fluid (liquid or gas) that is at least 5 percent by weight VOHAP/VOC.

(b) LDAR BPM process system components are located from the point at which raw material serving the BPM operations is unloaded at the plant site to the point of determination (POD) or point where waste exits the pharmaceutical manufacturing process unit (PMPU). The closed-vent systems not used to control emissions from LDAR components are not subject to the conditions of this section, but instead are subject to the conditions in Sections D.14, and D.15, as applicable.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

E.1.1 LDAR Standards for BPM Process System Components [40 CFR 63.1255, 40 CFR 61 Subpart I, 326 IAC 8-5-3(b)(6), 326 IAC 2-2, CP157-4148 (Revised by this permit)]

Except as provided in Condition E.1.2, the following LDAR standards satisfy the requirements of the Pharmaceutical Production MACT (Pharmaceutical MACT) standards [40 CFR 63.1255], Best Available Control Technology (BACT) requirements [326 IAC 2-2-3], Reasonably Available Control Technology (RACT) LDAR requirements for synthesized pharmaceutical manufacturing operations [326 IAC 8-5-3(b)(6)], and construction permit [CP157-4148] requirements for LDAR components associated with the research and development operations in Building T171:

(a) The Permittee shall implement the LDAR program under 40 CFR 63.1255 for all BPM process system component types listed in item (a) of the facility description section from the point at which raw material serving BPM is unloaded at the plant site to the point of determination (POD) or point where waste exits the pharmaceutical manufacturing process unit (PMPU).

(b) The Permittee conducted an initial monitoring survey that included the total number of each existing BPM process component type and initial monitoring as follows:

(1) Existing BPM process system components in VOHAP service were initially monitored between October 21, 2002 and October 21, 2003.

(2) Existing BPM process system components in VOC service were initially monitored for purposes of this permit between October 21, 2002 and October 21, 2003.

(3) Subsequent monitoring periods shall be calendar periods, beginning October 22, 2003.

(c) Each new or changed BPM process system component in VOC/VOHAP service identified during the course of each monitoring period shall be incorporated into the existing component list as necessary within 90 days, or by the next LDAR Periodic Report, following the end of the monitoring period for the type of component monitored, whichever is later.

(d) The following BPM process system components in VOHAP/VOC service shall comply with design standards, shall be operated in accordance with work practice standards or shall undergo periodic LDAR monitoring in accordance with the provisions cited below. Periodic LDAR monitoring shall be performed in accordance with 40 CFR 60, Appendix A, Method 21 and 40 CFR 63.1255(b)(4)(v). The regulatory language cited by reference in this section appears in full in Appendix A.

(1) Pumps in light liquid service shall be operated in accordance with the standard at 63.1255(c). This section provides, generally and in part:

(A) Single seal pumps shall undergo periodic monitoring and visual inspections;

(B) Dual mechanical seal pumps shall meet design, operation, inspection, and alarm requirements;

(C) Pumps designed without a shaft penetrating the pump housing are not required to be inspected or monitored; and

(D) Pumps equipped with a closed-vent system capable of capturing and transporting any leakage from the seals back to the process or to a control device are not required to be inspected or monitored.

(2) Compressors shall be operated in accordance with the standards at 63.1255(b)(3), which requires compliance with 63.164. This section provides, generally and in part:

(A) Compressors with barrier fluid seal systems shall meet design, operation, inspection, and alarm requirements.

(B) Compressors equipped with a closed-vent system to capture and transport leakage from the compressor drive shaft seal back to a process or a fuel gas system or to a control device are not required to be inspected or monitored.

(C) Compressors designated to operate with an instrument reading of less than 500 ppmv above background shall be monitored initially and annually.

(3) Pressure relief devices in gas/vapor service shall be operated in accordance with the standard at 63.1255(b)(3), which requires compliance with 63.165. This section provides, generally and in part:

(A) Except during pressure releases, pressure relief devices shall be operated with an instrument reading of less than 500 ppmv above background.

(B) After each pressure release, the device shall be returned to a monitored condition of less than 500 ppmv above background within 5 calendar days after the release, except if delay of repair applies.

(C) A rupture disk satisfies conditions E.1.1 (d)(3)(A) and (B) without monitoring if it is replaced within 5 calendar days after each pressure release, except if delay of repair applies.

(D) Any pressure relief device satisfies conditions E.1.1 (d)(3)(A) and (B) without monitoring if it is routed to a process or fuel gas system or equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device.

(4) Sampling connection systems shall be operated in accordance with the standard at 63.1255(b)(3), which requires compliance with 63.166. This section provides, generally and in part:

(A) Gases displaced during filling of a sample container are not required to be captured or collected.

(B) Each sampling connection system shall be equipped with a closed-purge, closed-loop or closed-vent system, which shall:

(i) Return the purged process fluid directly to the process line;

(ii) Collect and recycle the purged process fluid to a process;

(iii) Be designed and operated to capture and transport the purged process fluid to a control device;

(iv) Collect, store, and transport the purged process fluid to a SOCMI/HON waste management unit (40 CFR Part 63, Subpart G) operated according to the provisions which apply to Group 1 wastewater streams, or to a treatment, storage, or disposal facility subject to regulation under 40 CFR Part 262, 264, 265 or 266 (a RCRA unit), or, if the purged fluids are not hazardous waste, to a facility with an appropriate State permit to manage municipal or industrial solid waste; or

(v) In-situ sampling systems, and sampling systems without purges, have no other obligations under this section.

(5) Open-ended valves or lines shall be operated in accordance with the standard at 63.1255(d). This section provides, generally and in part:

(A) Each open-ended valve and line shall be equipped with a cap, blind flange, plug or second valve, which shall seal the open end at all times except when operations require fluid flow through the open-ended valve or line, or during maintenance or repair.

(B) The cap, blind flange, plug or second valve shall be in place and closed within one hour of cessation of operations requiring fluid flow through the open-ended valve or line, or maintenance or repair. No records are required to document compliance with this provision.

(C) If a second valve is used, the valve on the process fluid end shall be closed before the other valve is closed.

(D) If a double block and bleed arrangement is used, the bleed valve may

remain open during operations requiring venting the line between the block valves, but shall be closed otherwise in accordance with E.1.1 (d)(5)(B).

(E) Open-ended valves and lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are not required to comply with E.1.1 (d)(5)(A) through (C).

(F) Open-ended valves or lines containing materials, which would autocatalytically polymerize are not required to comply with E.1.1 (d)(5)(A) through (C).

(G) Open-ended valves or lines containing materials which could cause a serious safety hazard if capped or equipped with a double block and bleed system are not required to comply with E.1.1 (d)(5)(A) through (C).

(6) Valves in gas/vapor and light liquid service shall be operated in accordance with the standard at 63.1255(e). This section provides, generally and in part:

(A) Valves shall undergo periodic monitoring.

(B) Each monitoring period shall be determined by a calculation based on the percentage of leaking valves measured in prior monitoring periods.

(C) Valves may be placed into subgroups for periodic monitoring purposes, and may be reassigned among subgroups.

(D) After a leaking valve is repaired, it shall be monitored again within 3 months after repair. This monitoring may be considered part of the periodic monitoring, or may, if conducted prior to the periodic monitoring, be considered separately from the periodic monitoring data in determining percent leaking valves for the monitoring period.

(7) Closed-vent systems and control devices used to comply with LDAR shall be operated in accordance with the standard at 63.1255(b)(4)(ii). Operation of these systems, in conformance with Sections D.14 or D.15, shall constitute compliance with these requirements;

(8) Agitators in gas/vapor and light liquid service shall be operated in accordance with the standard at 63.1255(c); This section provides, generally and in part:

(A) Single seal agitators shall undergo periodic monitoring and visual inspections.

(B) Dual mechanical seal agitators shall meet design, operation, inspection, and alarm requirements.

(C) Agitators designed without a shaft penetrating the agitator housing are not required to be inspected or monitored.

(D) Agitators equipped with a closed-vent system capable of capturing and transporting any leakage from the seals back to the process or to a control device are not required to be inspected or monitored.

(9) Pumps, valves, connectors, and agitators in heavy liquid service, instrumentation

systems, and pressure relief devices in liquid service shall be operated in accordance with the standard at 63.1255(b)(3), which requires compliance with 63.169. This section provides, generally and in part:

(A) If a component presents visual, audible, or olfactory evidence of a leak, the leak shall be deemed repaired without monitoring if the component meets any of the following:

(i) The visual, audible, or olfactory evidence has been eliminated;

(ii) No bubbles are observed at potential leak sites during a leak check using soap solutions; or

(iii) The system will hold a test pressure.

(B) If there is visual, audible, or olfactory evidence of a leak at one of these components, and the leak is not repaired without monitoring, the component shall be monitored within 5 calendar days to confirm whether a leak is in fact present.

(10) Connectors in gas/vapor and light liquid service shall be operated in accordance with the standard at 63.1255(b)(4)(iii) and 63.1255 (f)(4). This section provides, generally and in part:

(A) Connectors shall undergo periodic monitoring.

(B) Each monitoring period shall be determined by a calculation based on the percentage of leaking connectors measured in prior monitoring periods.

(C) Nonrepairable connectors may not be counted in monitoring period calculations. C_{AN} shall be set to zero in the percent leaking connector calculation.

(D) Inaccessible, ceramic, or ceramic-lined connectors are not required to be monitored, and are exempt from record keeping and reporting. If they are observed to be leaking, they shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except if delay of repair applies. There is no obligation to make a first attempt at repair within 5 days.

(E) Connectors that are not required to be monitored are not included in the calculation of the percentage of leaking connectors.

(F) An optional credit may be taken for removed connectors where the weld meets certain testing requirements.

(e) As an alternative to complying with E.1.1(d), except E.1.1(d)(7), BPM process system components may comply with 63.1255(b)(4)(iv), which incorporates by reference 63.178(b) (Alternative Means of Emission Limitation: Batch Processes) as follows:

(1) Components shall be pressure tested each time the equipment is reconfigured for production of a different product or intermediate and at least once per calendar year. The pressure testing shall be conducted in accordance with 63.180(f) or (g); and

(2) Components must comply with the leak repair requirements before startup of a process as described in 63.178(b)(4).

(f) As an alternative to complying with E.1.1 (d), except E.1.1 (d)(7), BPM process system components may comply with 63.179 (Alternative means of emission limitation: Enclosed-vented process units), which requires that process units be enclosed in such a manner that all emissions from equipment leaks are vented through a closed-vent system to a control device. The enclosure is to be maintained under a negative pressure at all times while the process unit is in operation to ensure that all emissions are routed to the control device. The closed vent system and control device must comply with E.1.1 (d)(7).

(g) With the exception of equipment following the requirement of E.1.1(e) or (f), any visible audible, or olfactory leak containing VOHAP/VOC shall be considered a leak for purposes of the obligation to repair. If it is not clear whether the leak contains VOHAP/VOC, then Method 21 may be used to confirm whether a leak exists. For each component type, the relevant leak definition and leak repair requirements in E.1.1 (d) shall apply for this purpose. All leaks shall be marked as provided in 63.1255(a)(10).

(1) The Permittee shall initiate repair of any leak no later than 5 calendar days after identification, and complete the repair within 15 days after identification, except where delay of repair is allowed under 63.1255(b)(4)(i), which incorporates by reference 63.171. This shall not affect repair periods under Conditions E.1.1 (d)(3) or (e). 63.1255(b)(4)(i) provides, generally and in part:

(i) Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next scheduled process unit shutdown.

(ii) Delay of repair for equipment for which leaks have been detected is allowed if the owner or operator determines that repair personnel would be exposed to an immediate danger if attempting to repair without a process shutdown. Such repair shall occur by the end of the next scheduled process shutdown.

(iii) Delay of repair of equipment for which leaks have been detected will be allowed for equipment that is isolated from the process and that does not remain in VOC/VOHAP service.

(iv) Delay of repair for valves, connectors, and agitators will be allowed if emissions immediate repair would result in greater emissions than delay of repair, and if purged material generated during the repair is collected and destroyed or recovered in a control device.

(v) Delay of repair for pumps will be allowed if the repair requires the use of a dual mechanical seal system, or a pump designed without an externally actuated shaft penetrating the pump housing, or ducting of the pump fugitive emissions to a closed vent system and control device, and is completed within 6 months.

(vi) Delay of repair beyond a process unit shutdown will be allowed for a valve if valve assembly replacement is necessary during the process unit shutdown, but the supplies, although adequately stocked, have been depleted. Delay of repair beyond the second process unit shutdown is not allowed unless the second shutdown occurs sooner than 6 months after the first shutdown.

(h) Alternative means of emission limitations not already included in 63.1255 may be approved in accordance with 63.1255(b)(3), which incorporates by reference 63.177.

E.1.2 Exceptions to LDAR Standards for BPM Process System Components

(a) The following facilities are not subject to the LDAR standards under this section of the permit:

(1) Research and development facilities, activities and equipment (40 CFR 63.1250(d)) not subject to BACT or construction permit requirements;

(2) Reserved (Condition E.1.2(a)(2) was deleted pursuant to Administrative Permit Amendment 157-20003-00006.);

(3) Utilities and non-process lines (40 CFR 63.1255(a)(5));

(4) Bench scale processes (40 CFR 63.1255(a)(6));

(5) Equipment in vacuum service (40 CFR 63.1255(a)(8));

(6) Waste components (covered by Section E.2 of this permit).

(7) Fermented Products operations;

(8) Equipment in VOHAP/VOC service but that is in such service less than 300 hours per calendar year (40 CFR 63.1255(a)(9));

(9) Closed loop heat exchange systems (40 CFR 63.1255(a)(5)); and

(10) Welded fittings (40 CFR 63.1251).

(b) Equipment that is designated as unsafe to monitor, unsafe to inspect, difficult to monitor, difficult to inspect, or inaccessible shall comply with 63.1255(f). This section provides, generally, that accessible equipment shall be monitored according to a written plan that provides for monitoring as often as practicable, considering safety concerns, but not more often than otherwise applicable. Inaccessible equipment is not required to be routinely monitored at any time, although any observed leaks must be repaired within 15 days.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

E.1.3 Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)]

(a) Records shall be kept in accordance with 63.1255(g), including but not limited to:

(1) Identification of components that are subject to the rule with information indicating their method of compliance, with justifications as appropriate, except that inaccessible, ceramic, or ceramic-lined connectors subject to 40 CFR 63.1255(f)(4) need not be identified;

(2) Schedule for monitoring connectors and valves and the percent connectors and valves found leaking;

(3) Design criteria and any changes to these criteria for each dual mechanical seal system;

(4) List of equipment designated as unsafe to monitor/inspect or difficult to monitor/inspect and a copy of the plan for monitoring or inspecting such

equipment;

(5) Equipment complying via the provisions of 40 CFR 63.178(c);

(6) List of equipment added since the last monitoring period, and

(7) If monitoring frequencies are adjusted for time in use, records demonstrating the proportion of the time the equipment is in VOC/VOHAP use during the calendar year;

(8) Records of visual inspections;

(9) Records of leaks detected, repair information, and delays of repair. The Permittee may develop a written procedure that identifies the conditions that justify a delay of repair. The written procedures shall be included in a 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;

(10) Records of pressure tests, the test pressure, and the pressure drop observed during the test;

(11) Records of compressor and relief device compliance tests;

(12) Records for closed-vent systems and control devices subject to E.1.1(d)(7);

(13) For components in heavy liquid service, records demonstrating that they are in heavy liquid service;

(14) Identification of components (either by location, area, or group of equipment) exempt because they are in VOHAP/VOC service for less than 300 hours per year; and

(15) Records of alternative means of compliance determination.

(b) Reserved (Condition E.1.3(b) was deleted pursuant to Administrative Permit Amendment 157-20003-00006.);

(c) Reporting requirements shall be conducted in accordance with 63.1255(h), including:

(1) LDAR Periodic Reports shall cover the monitoring periods from January 1 to June 30, and July 1 to December 31, respectively. Reports shall be submitted 30 days following the 6-month monitoring period. The report shall include any revisions to the information reported earlier if the method of compliance has changed since the last report. The report shall also contain the following information:

(A) For equipment not complying via the alternative standard, the Permittee shall report the following information for pumps, valves, agitators, and connectors subject to periodic LDAR monitoring:

(i) Number of leaks detected and percent leakers;

(ii) Number of leaks not repaired within the required timeframe;

(iii) An explanation of any delay of repairs;

(iv) Notice of a change to monthly monitoring for either pumps or valves, if applicable; and

(v) Notification of a change in connector monitoring alternatives, if applicable.

(B) Results of all monitoring required for applicable compressors, pressure relief devices in gas/vapor service, and closed-vent systems;

(i) Number of leaks not repaired within the required timeframe; and

(ii) An explanation of any delay of repairs.

(C) For equipment complying via the alternative standard at 1255(b)(4)(iv), the Permittee shall report the following information for each product process equipment train:

(i) Number of pressure tests conducted;

(ii) Number of instances where the equipment failed either a retest or 2 consecutive pressure tests;

(iii) Facts that explain any delay of repairs; and

(iv) Results of all monitoring to determine compliance for closed-vent systems used to comply with this section of the permit.

Modifications and Construction Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12, 326 IAC 2-2]

E.1.4 Modifications and Construction: Advance Approval of Permit Conditions

(a) The Permittee may modify any existing components listed in this section of the permit without obtaining a source modification approval (otherwise required by 326 IAC 2-7-10.5), a Title V permit modification (otherwise required by 326 IAC 2-7-12), or a Prevention of Significant Deterioration permit (otherwise required by 326 IAC 2-2), provided the modified emission units are subject to the same applicable requirements listed in this D section, and the Permittee shall comply with the Change Management and Flexible Permit provisions in Section F.1 of this permit.

(b) The Permittee may construct and install new emission units of the types described in this D section without obtaining a source modification approval (otherwise required by 326 IAC 2-7-10.5), a Title V permit modification (otherwise required by 326 IAC 2-7-12), or a Prevention of Significant Deterioration permit (otherwise required by 326 IAC 2-2), provided the new emission units are subject to the same applicable requirements listed in this D section, and the Permittee shall comply with the Change Management and Flexible Permit provisions in Section F.1 of this permit.

SECTION E.2 LEAK DETECTION AND REPAIR (LDAR) CONDITIONS FOR BPM WASTE SYSTEM COMPONENTS

Emissions Unit Description [326 IAC 2-7-5(15)]:

(a) LDAR applies to BPM waste system components consisting of pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves and lines, valves, connectors, control devices, and closed-vent systems used to comply with this LDAR program, intended to operate in volatile organic hazardous air pollutant and/or volatile organic compound (VOHAP/VOC) service for 300 hours or more during the calendar year. In VOHAP/VOC service means that a piece of equipment either contains or contacts a fluid (liquid or gas) that is at least 10 percent by weight of total VOHAP/VOC.

(b) LDAR BPM waste system components are located from the point of generation (POG) or point of determination (POD), as applicable, to the last component prior to entering the hazardous waste combustor or being loaded onto tankers for transport offsite. The closed-vent systems not used to control emissions from LDAR components are not subject to the conditions of this section, but instead are subject to the conditions in Sections D.14 and D.15.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

E.2.1 LDAR Standards for BPM Waste System Components [40 CFR 63.691, 326 IAC 8-5-3(b)(6), 326 IAC 2-2, CP157-4148 (Revised by this permit)]

Except as provided in Condition E.2, the following LDAR standards satisfy the requirements of the Volatile Organic Liquid Storage Vessel Standards [40 CFR 60.110b], Offsite Waste and Recovery Operations (Offsite Waste) MACT Standards [40 CFR 63.691], Best Available Control Technology (BACT) requirements [326 IAC 2-2-3], Reasonably Available Control Technology (RACT) LDAR requirements for synthesized pharmaceutical manufacturing operations [326 IAC 8-5-3(b)(6)], and construction permit [CP157-4148] requirements for LDAR components associated with the research and development operations in Building T171:

(a) The Permittee shall implement the LDAR program under 40 CFR 61 Subpart V for all BPM waste system component types listed in item (a) of the facility description section from the point of determination (POD) or at the exit of the pharmaceutical manufacturing process unit (PMPU) to the last piece of regulated equipment prior to entering the hazardous waste combustor or loaded onto tankers for transport offsite.

(b) Existing BPM waste system components in VOC/VOHAP service are covered under 40 CFR 264 and 265, Subpart BB. Data taken and notifications submitted for purposes of Subpart BB shall satisfy the data and notification requirements for entry into the alternative standard at 40 CFR 61.243-1 and 40 CFR 61.243-2. Monitoring periods are calendar periods as defined at 40 CFR 61 Subpart V and 40 CFR 264 and 265, Subpart BB.

(c) Each new or changed BPM waste system component in VOC/VOHAP service identified during the course of each monitoring period shall be incorporated into the existing component list as necessary within 90 days, or by the next LDAR Periodic Report, following the end of the monitoring period for the type of component monitored, whichever is later.

(d) The following BPM waste system components in VOHAP/VOC service shall comply with

design standards, shall be operated in accordance with work practice standards, or shall undergo periodic LDAR monitoring in accordance with the provisions cited below. Periodic LDAR monitoring shall be performed in accordance with 40 CFR 60, Appendix A, Method 21. The regulatory language cited by reference in this section appears in full in Appendix A.

(1) Pumps shall be operated in accordance with the standard at 61.242-2. This section provides, generally and in part:

(A) Single seal pumps shall undergo periodic monitoring and visual inspections.

(B) Dual mechanical seal pumps shall meet design, operation, inspection, and alarm requirements.

(C) Pumps designed without a shaft penetrating the pump housing shall be monitored initially and annually, but are not subject to other inspections.

(D) Pumps equipped with a closed-vent system capable of capturing and transporting any leakage from the seals back to the process or to a control device are not required to be inspected or monitored.

(E) Pumps designated as unsafe-to-monitor shall be monitored according to a written plan by which they are monitored as frequently as possible during safe-to-monitor times, but not more frequently than otherwise applicable.

(2) Compressors shall be operated in accordance with the standard at 61.242-3. This section provides, generally and in part:

(A) Compressors with barrier fluid seal systems shall meet design, operation, inspection, and alarm requirements.

(B) Compressors equipped with a closed-vent system to capture and transport leakage from the compressor drive shaft seal back to a process or a fuel gas system or to a control device are not required to be inspected or monitored.

(C) Compressors designated to operate with an instrument reading of less than 500 ppmv above background shall be monitored initially and annually.

(3) Pressure relief devices in gas/vapor service shall be operated in accordance with the standard at 61.242-4. This section provides, generally and in part:

(A) Except during pressure releases, pressure relief devices shall be operated with an instrument reading of less than 500 ppmv above background.

(B) After each pressure release, the device shall be returned to a monitored condition of less than 500 ppmv above background within 5 calendar days after the release, except if delay of repair applies.

(C) A rupture disk is satisfies conditions E.2.1 (d)(3)(A) and (B) without monitoring if it is replaced within 5 calendar days after each pressure release, except if delay of repair applies.

(D) Any pressure relief device satisfies conditions E.2.1 (d)(3)(A) and (B) without monitoring if it is routed to a process or fuel gas system or equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device.

(4) Sampling Connection Systems shall be operated in accordance with the standard at 61.242-5. This section provides, generally and in part:

(A) Gases displaced during filling of a sample container are not required to be captured or collected.

(B) Each sampling connection system shall be equipped with a closed-purge, closed-loop or closed-vent system, which shall:

(i) Return the purged process fluid directly to the process line;

(ii) Collect and recycle the purged process fluid;

(iii) Be designed and operated to capture and transport the purged process fluid to a control device;

(iv) Collect, store, and transport the purged process fluid to a SOCMI/HON waste management unit (40 CFR Part 63, Subpart G) operated according to the provisions which apply to Group 1 wastewater streams, or to a treatment, storage, or disposal facility subject to regulation under 40 CFR Part 262, 264, 265 or 266 (a RCRA unit), or, if the purged fluids are not hazardous waste, to a facility with an appropriate State permit to manage municipal or industrial solid waste; or

(v) In-situ sampling systems, and sampling systems without purges, have no other obligations under this section.

(5) Open-ended valves or lines shall be operated in accordance with the standard at 61.242-6. This section provides, generally and in part:

(A) Each open-ended valve and line shall be equipped with a cap, blind flange, plug or second valve, which shall seal the open end at all times except when operations require fluid flow through the open-ended valve or line, or during maintenance or repair.

(B) If a second valve is used, the valve on the process fluid end shall be closed before the other valve is closed.

(C) If a double block and bleed arrangement is used, the bleed valve may remain open during operations requiring venting the line between the block valves, but shall be closed otherwise in accordance with E.2.1 (d)(5)(B).

(D) Open-ended valves and lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are not required to comply with E.2.1 (d)(5)(A) through (C).

(E) Open-ended valves or lines containing materials, which would autocatalytically polymerize are not required to comply with E.2.1

(d)(5)(A) through (C).

(F) Open-ended valves or lines containing materials which could cause a serious safety hazard if capped or equipped with a double block and bleed system are not required to comply with E.2.1 (d)(5)(A) through (C).

(6) Valves shall be operated in accordance with the standard at 61.242-7. This section provides, generally and in part:

(A) Each valve shall be monitored monthly, except as provided below.

(B) Any valve may be monitored quarterly, in the first month of the quarter, if it has completed two successive months without a leak, as long as it does not leak.

(C) Each leaking valve shall be monitored monthly after it is repaired until it has completed two successive months without a leak.

(D) Valves designed for no detectable emissions, which have no external actuating mechanism in contact with process fluid, are required only to be monitored initially and annually.

(E) Valves designated as unsafe-to-monitor are required to be monitored only according to a written plan, which provides for their monitoring during safe-to-monitor times.

(F) Valves designated as difficult-to-monitor are required to be monitored only according to a written plan that provides for their monitoring at least once per year.

(7) Pressure relief devices in liquid service and connectors shall be operated in accordance with the standard at 61.242-8. This section provides, generally and in part:

(A) If a component presents visual, audible, or olfactory evidence of a leak, the leak shall be deemed repaired without monitoring if the visual, audible, or olfactory evidence has been eliminated.

(B) If there is visual, audible, or olfactory evidence of a leak at one of these components, and the leak is not repaired without monitoring, the component shall be monitored within 5 calendar days to confirm whether a leak is in fact present.

(8) Closed-vent systems and control devices used to comply with Section E.2 of this permit shall be operated in accordance with the standard at 61.242-11, as may be applicable. Operation of these systems in conformance with Sections D.14 or D.15 shall constitute compliance with these requirements.

(9) As an alternative to complying with E.2.1 (d)(6), above, valves may comply with the alternative standards for valves-allowable percentage of valves leaking under 61.243-1. This section provides, generally and in part:

(A) Upon 90 days' advance notice to the Administrator, the designated process unit shall have no more than 2.0 percent leaking valves.

(B) All valves in the designated process unit shall be monitored initially upon

designation, and annually thereafter, and

(C) The annual monitoring of all valves in the designated process unit shall be completed within one week.

(D) Valve leaks detected shall be repaired within 15 days, except if delay of repair applies, in accordance with 40 CFR 61.242-7(d) and (e).

(10) As an alternative to complying with the monitoring requirements in E.2.1 (d)(6), above, with respect to monitoring requirements alone, valves may comply with the alternative standards for valves-skip period leak detection and repair under 61.243-2. This section provides, generally and in part:

(A) All valves in the process unit shall comply initially with the monitoring requirements of E.2.1 (d)(6).

(B) After 2 consecutive quarterly monitoring periods with the percent leaking valves in the process unit at less than or equal to 2.0 percent, upon 90 days' advance notice to the Administrator, the designated process unit may begin to skip one of the quarterly monitoring periods.

(C) After 5 consecutive quarterly monitoring periods with the percent leaking valves in the process unit at less than or equal to 2.0 percent, upon notice to the Administrator, the designated process unit may begin to skip three of the quarterly monitoring periods.

(D) If for any monitoring period the percentage of leaking valves exceeds 2.0 percent, all valves in the process unit shall comply with the monitoring requirements of E.2.1 (d)(6), but may again elect to use this alternative.

(e) Any visible, audible, or olfactory leak containing VOHAP/VOC shall be considered a leak for purposes of the obligation to repair. If it is not clear whether the leak contains VOHAP/VOC, then Method 21 may be used to confirm whether a leak exists. For each component type, the relevant leak definition in E.2.2 (d) shall apply for this purpose. All leaks shall be marked as provided in 40 CFR 61.246(b) with a weatherproof and readily visible identification marked with the equipment identification number. This identification may be removed from the equipment after it has been successfully repaired, except that the identification on a leaking valve may not be removed until the valve has been monitored for 2 successive months without a leak being detected.

(f) The Permittee shall initiate repair of any leak no later than 5 calendar days after identification, and complete the repair within 15 days after identification, except where delay of repair is allowed under 40 CFR 61.242-10. This shall not affect repair periods under Condition E.2.1 (d)(3). 40 CFR 61.242-10 provides, generally and in part:

(A) Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown.

(B) Delay of repair of equipment for which leaks have been detected will be allowed for equipment that is isolated from the process and that does not remain in VOC/VOHAP service.

(C) Delay of repair for valves will be allowed if emissions immediate repair would result in greater emissions than delay of repair, and if purged material generated

during the repair is collected and destroyed or recovered in a control device.

(D) Delay of repair for pumps will be allowed if the repair requires the use of a dual mechanical seal system, and is completed within 6 months.

(E) Delay of repair beyond a process unit shutdown will be allowed for a valve if valve assembly replacement is necessary during the process unit shutdown, but the supplies, although adequately stocked, have been depleted. Delay of repair beyond the second process unit shutdown is not allowed unless the second shutdown occurs sooner than 6 months after the first shutdown.

(g) Alternative means of emission limitations not already included in 40 CFR 61, Subpart V may be approved in accordance with 40 CFR 61.242-1(d) and 61.244

E.2.2 Exceptions to LDAR Standards for BPM Waste System Components

The following equipment types are not subject to the LDAR standards described in E.2.1:

(a) Research and development facilities, activities and equipment;

(b) Components on transportation equipment and containers such as tanker trucks, railroad cars, and drums (40 CFR 63.1256 and 40 CFR 63, Subpart DD);

(c) BPM process systems including non-waste storage and process operations (covered by Section E.1 of this permit);

(d) Utilities and non-process lines;

(e) Components in vacuum service (40 CFR 61.242-1);

(f) Equipment in VOC/VOHAP service that is in such service less than 300 hours per calendar year (40 CFR 63.680(c)(3)(iii)); and

(g) Closed loop heat exchange systems.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

E.2.3 Record Keeping and Reporting Requirements

(a) Records shall be kept in accordance with 61.246, including but not limited to:

(1) Identification of components that are subject to the rule with information indicating their method of compliance, with justifications and signatures as appropriate. No identification is required for welded fittings;

(2) For valves complying via the “skip period” alternative, a schedule for monitoring the valves and the percent valves found leaking during each monitoring period;

(3) Changes to each dual mechanical seal system design and operating criteria, including seal system failure criteria;

(4) List of equipment designated as unsafe to monitor/inspect or difficult to monitor/inspect, with the reason for the designation, and a copy of the plan for monitoring or inspecting such equipment;

(5) Records of leaks detected, repair information, and delays of repair;

(6) Records of compliance tests on equipment (compressors, pumps, or valves)

designated for no detectable emissions and for pressure relief devices in gas/vapor service;

(7) Records for closed-vent systems and control devices, subject to E.2.1 (d)(8);

(8) Records of information supporting designation that components are not in VOHAP/VOC service or are in vacuum service;

(9) Identification of components exempt because they are in VOC/VOHAP service for less than 300 hours per year;

(10) Records of alternative means of compliance determination; and

(11) Records may be kept in one or more recordkeeping systems, providing each record is identified by process unit.

(b) Reserved (Condition E.2.3(b) was deleted pursuant to Administrative Permit Amendment 157-20003-00006.)

(c) Reporting requirements shall be conducted in accordance with 61.247, including:

(1) LDAR Periodic Reports shall cover the periods from January 1 to June 30, and July 1 to December 31, respectively. Reports shall be submitted 30 days following the 6-month period. The report shall include any revisions to the information reported earlier if the method of compliance has changed since the last report. The report shall also contain the following information, divided and identified by process unit:

(A) For each month during the period covered by the report, the number of leaks detected for valves, pumps, and compressors and the number not repaired within 15 days, with the facts that explain any delay of repairs, and, where appropriate, why a process unit shutdown was technically infeasible;

(B) The results of all performance tests and monitoring to determine compliance with the alternative standards for valves at 40 CFR 61.243-1 and 61.243-2;

(C) Results of all monitoring and performance tests required to determine compliance with no detectable emissions; and

(D) The dates of process unit shutdowns which occurred during the reporting period.

Modifications and Construction Requirements [326 IAC 2-7-10.5, 326 IAC 2-7-12, 326 IAC 2-2]

E.2.4 Modifications and Construction: Advance Approval of Permit Conditions

(a) The Permittee may modify any existing emission units listed in this section of the permit without obtaining a source modification approval (otherwise required by 326 IAC 2-7-10.5), a Title V permit modification (otherwise required by 326 IAC 2-7-12), or a Prevention of Significant Deterioration permit (otherwise required by 326 IAC 2-2), provided the modified emission units are subject to the same applicable requirements listed in this D section, and the Permittee shall comply with the Change Management and Flexible Permit provisions in Section F.1 of this permit.

(b) The Permittee may construct and install new emission units of the types described in this

D section without obtaining a source modification approval (otherwise required by 326 IAC 2-7-10.5), a Title V permit modification (otherwise required by 326 IAC 2-7-12), or a Prevention of Significant Deterioration permit (otherwise required by 326 IAC 2-2), provided the new emission units are subject to the same applicable requirements listed in this D section, and the Permittee shall comply with the Change Management and Flexible Permit provisions in Section F.1 of this permit.

SECTION F.1 CHANGE MANAGEMENT AND FLEXIBLE PERMIT OPERATION CONDITIONS

Emissions Unit Description:

(a) The areas of the plant site listed below are subject to the change management and flexible permit conditions described in this F section. These conditions apply to all emission units listed in the specific sections of the permit listed below and emission units added to the site pursuant to the provisions of this section:

(1) D.6 BPM - Process Operations [referred to as "BPM"]
(2) D.7 BPM Support – Solvent Recovery Operations
(3) D.8 BPM Support – Individual Drain Systems
(4) D.9 BPM Support – Solvent Storage Tank Operations
(5) D.10 BPM Support – Waste Storage Tank Operations
(6) D.11 BPM Support – Waste Containers
(7) D.12 BPM Control Systems – T49 Liquid Waste Incinerator
(8) D.13 BPM Control Systems – T149 Solid-Liquid Waste Incinerator
(9) D.14 BPM Control Systems – RTO Operations
(10) D.15 BPM Control Systems – T79 Fume Incinerator Operations

(b) The following operation is not subject to the change management provisions of this section except for the VOC emission limit requirements in Sections F.1.1(e) and F.1.7(c):

(1) D.18 BPM Support – Chemical Wastewater Treatment Plant

(c) The operations in the areas listed below are not subject to the change management and flexible permit conditions in this G section:

(1) D.1 Utilities
(2) D.2 Utilities Support
(3) D.3 – D.5 Fermented Products
(4) D.16 Research and Development Operations
(5) D.19 BPM Transfer Activities
(6) Insignificant Activities described in Section A and outside the BPM production and support operations

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

F.1.1 Emission Limits [326 IAC 2-2]

(a) Carbon monoxide (CO) emissions from the facilities operating under the flexible permit conditions shall not exceed 150 tons per 12-month period, rolled on a calendar month basis. Carbon monoxide emissions from the T79 fume incinerators shall not exceed 30 tons per 12-month period, rolled on a calendar month basis.

(b) Fluoride (F) emissions from the facilities operating under the flexible permit conditions shall not exceed 6 tons per 12-month period, rolled on a calendar month basis. Fluoride emissions from the T79 fume incinerators shall not exceed 2 tons per 12-month period, rolled on a calendar month basis.

(c) Nitrogen oxides (NOx) emissions from the facilities operating under the flexible permit

conditions shall not exceed 300 tons per 12-month period, rolled on a calendar month basis. Nitrogen oxide emissions from the T79 fume incinerators shall not exceed 30 tons per 12-month period, rolled on a calendar month basis.

(d) Sulfur dioxide (SO_2) emissions from the facilities operating under the flexible permit conditions shall not exceed 300 tons per 12-month period, rolled on a calendar month basis. Sulfur dioxide emissions from the T79 fume incinerators shall not exceed 5 tons per 12-month period, rolled on a calendar month basis.

(e) Volatile organic compounds (VOC) emissions from the facilities operating under the flexible permit conditions shall not exceed 300 tons per 12-month period, rolled on a calendar month basis.

F.1.2 Site Modifications and Advance Approval of Modifications [326 IAC 2-7-5(9)] [326 IAC 2-7-5(16)]

The Permittee may make modifications described in subsection (a) below to the operations in Sections D.6 through D.15 of this permit. If actual emissions do not exceed the limits in section F.1.1, and the Permittee complies with the other provisions of this section, then the Permittee is not required to obtain a source modification approval (otherwise required by 326 IAC 2-7-10.5), a Title V permit modification (otherwise required by 326 IAC 2-7-12), or a Prevention of Significant Deterioration permit (otherwise required by 326 IAC 2-2).

(a) Permitted modifications

The Permittee may implement changes, including but not limited to, the following modifications without triggering the administrative review processes described above:

(1) BPM Process Operations:

(A) A change in bulk pharmaceutical products or intermediate products manufactured;
(B) A change in raw materials stored and utilized;
(C) A change in the method of operation to a process or existing equipment;
(D) Piping changes, including but not limited to, process piping, waste piping and fume transport piping;
(E) A physical change to existing equipment;
(F) Reconstruction or replacement of existing equipment, including but not limited to, process tanks, crystallizers, distillation operations, filters, centrifuges, and dryers;
(G) Installation of new equipment, including but not limited to, process tanks, crystallizers, distillation operations, filters, centrifuges, and dryers;
(H) Reconstruction or replacement of existing production buildings; and

(2) BPM Support Operations:

(A) A change in solvent material recovered;
(B) A change in raw materials stored and utilized;
(C) A change in the method of operation to a process or existing equipment;
(D) Piping changes, including but not limited to, process piping, waste piping and fume transport piping;
(E) A physical change to existing equipment;
(F) Reconstruction or replacement of existing equipment, including but not limited to, process tanks, receivers, stills, storage tanks, and container transfer operations;
(G) Installation of new equipment, including but not limited to, process tanks, receivers, stills, storage tanks, and container transfer operations;
(H) Reconstruction or replacement of existing solvent recovery operations,

storage tanks, storage tank modules, and distillation operations; and

(3) T49 liquid waste incinerator and T149 solid-liquid waste incinerator:

(A) A change in waste materials disposed in the incinerators;
(B) A change in the use of portable containers, including but not limited to, drums, melons, and tank trailers;
(C) A change in the method of operation that does not affect compliance with 40 CFR 63, Subpart EEE;
(D) Piping changes;
(E) A physical change that does not affect compliance with 40 CFR 63, Subpart EEE;
(F) Reconstruction or replacement of incinerator components and support equipment, including but not limited to, cooling towers and waste container management; and
(G) Installation of new incinerator equipment components, support equipment or emission control equipment.

(b) Advance approval and applicable requirements

In addition to the emission limits identified in Condition F.1.1 of this permit, the emission limits and standards, compliance demonstration requirements, compliance monitoring requirements, record keeping requirements, reporting requirements, and other permit conditions applicable to the type of equipment or operation being modified, replaced, reconstructed or installed are described in Sections D.6 through D.15 of this permit. Each modification will be subject to the relevant provisions of those permit conditions. If a modification would cause an applicable requirement that is not described in this permit to apply, the Permittee must obtain a source modification approval if otherwise required by 326 IAC 2-7-10.5 and a Title V permit modification pursuant to 326 IAC 2-7-12.

Testing and Monitoring Requirements [326 IAC 2-7-6(1) (6)] [326 IAC 2-7-5(1)]

F.1.3 Carbon Monoxide (CO) Emission Limit Determination

The Permittee shall determine actual annual emissions by employing the following techniques:

(a) The following requirements apply to the RTOs, the T49 liquid waste incinerator, and the T149 solid-liquid waste incinerator:

(1) **CO measurement**: The Permittee shall measure CO concentration in the exhaust of with a CO continuous emission monitoring system (CEMS) that meets the requirements of 40 CFR Part 60, Appendix B and 326 IAC 3.

(2) **Flow rate measurement**: The Permittee shall measure the actual exhaust gas flow rate from the RTOs, T149 solid-liquid waste incinerator, and T49 liquid waste incinerator.

(3) **Mass emission calculation**: The Permittee shall calculate CO emissions, in tons, each calendar month by using the CEMS data and flow rate data.

(4) **Minimum data collection requirements:**

(A) For the RTOs, the Permittee shall monitor and record CO concentrations as required in Section D.14.

(B) For the T49 liquid waste incinerator, the Permittee shall monitor and record CO concentrations as required in Section D.12.

(C) For the T149 solid-liquid waste incinerator, the Permittee shall monitor and record CO concentrations as required in Section D.13.

(5) **Data substitution:**

(A) During periods of CEMS calibration, the Permittee shall substitute, in one-minute increments, the last valid one-minute CO concentration measurement obtained prior to the calibration in lieu of actual readings from the CO CEMS for the RTO and T149 CEMS, and the last valid one-minute CO emission rate measurement obtained prior to the calibration in lieu of actual readings from the CO CEMS for the T49 CEMS.

(B) During periods of flow meter calibration, the Permittee shall substitute, in one-minute increments, the last valid one-minute exhaust gas flow rate measurement obtained prior to the calibration in lieu of actual readings from the flow meter.

(C) During periods of CEMS maintenance, malfunction, repair, or other periods of invalid CO data collection, the Permittee shall substitute the following data in lieu of actual readings from the CO CEMS:

(i) When combusting only natural gas, the following CO mass emission rates shall be substituted:

(1) RTO CO mass emission rate = 0.05 lb/min
(2) T49 CO mass emission rate = 0.10 lb/min
(3) T149 CO mass emission rate = 0.07 lb/min

(ii) When incinerating a waste stream, the following CO concentrations shall be substituted:

(1) RTO CO concentration = 73 ppmv
(2) T49 CO concentration = 100 ppmv
(3) T149 CO concentration = 100 ppmv

(D) During periods of flow meter maintenance, malfunction, repair, or other periods of invalid exhaust gas flow rate data collection, the Permittee shall substitute the following data in lieu of actual readings from the flow meter:

(i) When combusting only natural gas, the following CO mass emission rates shall be substituted:

(1) RTO CO mass emission rate = 0.05 lb/min
(2) T49 CO mass emission rate = 0.10 lb/min
(3) T149 CO mass emission rate = 0.07 lb/min

(ii) When incinerating a waste stream, the following exhaust gas flow rates shall be substituted:

(1) RTO exhaust gas flow rate = 93,000 scfm
(2) T49 exhaust gas flow rate = 17,735 dscfm
(3) T149 exhaust gas flow rate = 14,340 dscfm

(6) **Emissions during RTO bypass periods**: When determining compliance with the CO emission limit, the Permittee shall include any known CO emissions from BPM production buildings not emitted through the RTO due to diversions at the fume transport system. The Permittee may use engineering calculation methods based on ideal gas law equations, stoichiometry, or mass balance, to estimate these emissions.

(b) The following requirements apply to the T79 fume incinerators (309 and 310):

(1) **Natural gas usage**: The Permittee shall determine the amount of natural gas burned by the T79 fume incinerators each calendar month.

(2) **Emission calculation**: The Permittee shall calculate CO emissions, in tons, each calendar month by multiplying the monthly natural gas usage, in mmscf, by an emission factor of 84 lbs/mmscf and converting the resulting emissions to tons.

(3) **Data substitution**: During periods of time when the Permittee is unable to determine natural gas usage because of auditing, calibration, maintenance, malfunction, repair, or other periods when the natural gas meters for the T79 fume incinerators are not collecting valid data, the Permittee shall substitute a natural gas consumption rate for each incinerator of 0.0075 mmscf/hour [based on the nominal heat input rate of 7.626 MMBtu/hr per incinerator].

F.1.4 Fluorides Emission Limit Determination

The Permittee shall determine actual annual emissions by employing the following techniques:

(a) The following requirements apply to the RTOs and the T79 fume incinerators:

(1) **Uncontrolled hydrogen fluoride emissions**: The Permittee shall determine the mass of fluorine atoms emitted to the RTOs and T79 fume incinerators [as components of fluorinated solvents] by BPM and BPM Support operations, by using engineering calculation methods based on ideal gas law equations, stoichiometry and mass balance. All fluorine atoms shall be considered emitted as hydrogen fluoride (HF) after combustion in the RTOs or the T79 fume incinerators.

(2) **HF control efficiency:** The Permittee shall base fluoride emissions on an RTO and T79 scrubber control efficiency of 98% or a control efficiency determined from an approved stack test. If the compliance monitoring data is not available or indicates the scrubbers are not achieving this control efficiency, the Permittee shall use a control efficiency of zero percent (0%).

(3) **Emission calculation**: The Permittee shall calculate fluoride emissions, in tons, for each calendar month by multiplying the amount of HF created by combustion of the fluorine atoms in the RTOs and T79 fume incinerators by the respective HF control efficiency.

(4) **Emissions during RTO bypass periods**: When determining compliance with the fluoride emission limit, the Permittee shall include any known fluoride emissions from BPM production buildings not emitted through the RTO due to diversions at the fume transport system. The Permittee may use engineering calculation methods based on ideal gas law equations, stoichiometry, and mass balance, to estimate these emissions.

(b) The following requirements apply to the T49 liquid waste incinerator and the T149 solid-liquid waste incinerator:

(1) **Uncontrolled hydrogen fluoride emissions**: When burning liquid wastes, the Permittee shall determine the mass of fluorine atoms burned in the incinerators by sampling the liquid waste and analyzing the sample for fluorine content, no less frequently than once per quarter. All fluorine atoms shall be considered emitted as hydrogen fluoride (HF). When burning solid wastes in the T149 solid-liquid waste incinerator, the Permittee shall determine monthly HF emissions by multiplying an emission factor of 0.149 pounds/ton solid waste burned by the monthly solid waste throughput.

(2) **HF control efficiency:** The Permittee shall base fluoride emissions on an incinerator scrubber control efficiency of 98.0% or a control efficiency determined from an approved stack test. If the compliance monitoring data is not available or indicates the scrubbers are not achieving this control efficiency, the Permittee shall use a control efficiency of zero percent (0%).

(3) **Emission calculation**: The Permittee shall calculate fluoride emissions, in tons, for each calendar month by multiplying the amount of uncontrolled HF emissions by the HF control efficiency.

F.1.5 Nitrogen oxides (NO_X) Emission Limit Determination

The Permittee shall determine actual annual emissions by employing the following techniques:

(a) The following requirements apply to the RTOs, the T49 liquid waste incinerator, and the T149 solid-liquid waste incinerator:

(1) **NOx measurement**: The Permittee shall measure NOx concentration in the exhaust of with a NOx continuous emission monitoring system (CEMS) in accordance with the requirements of 40 CFR Part 60, Appendix B and 326 IAC 3.

(2) **Flow rate measurement**: The Permittee shall measure the actual exhaust gas flow rate from the RTOs, T149 solid-liquid waste incinerator, and T49 liquid waste incinerator with a system.

(3) **Emission calculation**: The Permittee shall calculate NOx emissions, in tons, each calendar month by using the CEMS data and flow rate data.

(4) **Data substitution:**

(A) During periods of CEMS calibration, the Permittee shall substitute, in one-minute increments, the last valid one-minute NOx concentration measurement obtained prior to the calibration in lieu of actual readings from the NOx CEMS for the RTO and T149 CEMS, and the last valid one-minute NOx emission rate measurement obtained prior to the calibration in lieu of actual readings from the NOx CEMS for the T49 CEMS.

(B) During periods of flow meter calibration, the Permittee shall substitute, in one-minute increments, the last valid one-minute exhaust gas flow rate measurement obtained prior to the calibration in lieu of actual readings from the flow meter.

(C) During periods of CEMS maintenance, malfunction, repair, or other periods of invalid NOx data collection, the Permittee shall substitute the following data in lieu of actual readings from the NOx CEMS:

(i) When combusting only natural gas, the following NOx mass emission rates shall be substituted:

(1) RTO NOx mass emission rate = 0.03 lb/min
(2) T49 NOx mass emission rate = 0.12 lb/min
(3) T149 NOx mass emission rate = 0.08 lb/min

(ii) When incinerating a waste stream, the following NOx concentrations shall be substituted:

(1) RTO NOx concentration = 91 ppmv
(2) T49 NOx concentration = 975 ppmvdc
(3) T149 NOx concentration = 170 ppmvdc

(D) During periods of flow meter maintenance, malfunction, repair, or other periods of invalid exhaust gas flow rate data collection, the Permittee shall substitute the following data in lieu of actual readings from the flow meter:

(i) When combusting only natural gas, the following NOx mass emission rates shall be substituted:

(1) RTO NOx mass emission rate = 0.03 lb/min
(2) T49 NOx mass emission rate = 0.12 lb/min
(3) T149 NOx mass emission rate = 0.08 lb/min

(ii) When incinerating a waste stream, the following exhaust gas flow rates shall be substituted:

(1) RTO exhaust gas flow rate = 93,000 scfm
(2) T49 exhaust gas flow rate = 17,735 dscfm
(3) T149 exhaust gas flow rate = 14,340 dscfm

(5) **Minimum data collection requirements:**

(A) For the RTOs, the Permittee shall monitor and record NOx concentrations as required in Section D.14.
(B) For the T49 liquid waste incinerator, the Permittee shall monitor and record NOx concentrations as required in Condition D.12.
(C) For the T149 solid-liquid waste incinerator, the Permittee shall monitor and record NOx concentrations as required in Section D.13.

(6) **Emissions during RTO bypass periods**: When determining compliance with the NOx emission limit, the Permittee shall include any known NOx emissions from BPM production buildings or storage tank modules not emitted through the RTO due to diversions in the fume transport system. The Permittee may use engineering calculation methods based on ideal gas law equations, stoichiometry, or mass balance to estimate these emissions.

(b) The following requirements apply to the T79 Fume Incinerators:

(1) **NOx emission calculation for natural gas usage:** The Permittee shall determine the amount of natural gas burned by the T79 Fume Incinerators each calendar month. The Permittee shall calculate NOx emissions from natural gas combustion, in tons, each calendar month by multiplying the monthly natural gas

usage by an emission factor of 50 lbs/mmscf and converting the resulting emissions to tons.

(2) **NOx emission calculation for combustion of nitrogen-containing solvents**: The Permittee shall determine the mass of nitrogen atoms emitted to the T79 fume incinerators [as components of solvents containing nitrogen] by the BPM Support operations by using engineering calculations based on ideal gas law equations, stoichiometry, or mass balance. Six (6%) of the nitrogen atoms shall be considered emitted as nitrogen oxides after combustion in the T79 fume incinerators.

(3) **Data substitution:** During periods of time when the Permittee is unable to determine natural gas usage because of auditing, calibration, maintenance, malfunction, repair, or other periods when the natural gas meters for the T79 fume incinerators are not collecting valid data, the Permittee shall determine NOx emissions based on a natural gas consumption rate of 0.0075 mmscf/hour [based on the nominal heat input rate of 7.626 MMBtu/hr per incinerator].

F.1.6 Sulfur dioxide (SO_2) Emission Limit Determination

The Permittee shall determine actual annual emissions by employing the following techniques:

(a) The following requirements apply to RTOs, the T49 liquid waste incinerator, and the T149 solid-liquid waste incinerator:

(1) **SO_2 measurement**: The Permittee shall measure SO_2 concentration in the exhaust of RTO, and incinerators with a SO_2 continuous emission monitoring system (CEMS) that meets the requirements of 40 CFR Part 60, Appendix B and 326 IAC 3.

(2) **Flow rate measurement**: The Permittee shall measure the actual exhaust gas flow rate from the RTO, T149 solid-liquid waste incinerator, and T49 liquid waste incinerator.

(3) **Emission calculation**: The Permittee shall calculate SO_2 emissions, in tons, each calendar month by using the CEMS data and flow rate data.

(4) **Data substitution:**

(A) During periods of CEMS calibration, the Permittee shall substitute, in one-minute increments, the last valid one-minute SO_2 concentration measurement obtained prior to the calibration in lieu of actual readings from the SO_2 CEMS for the RTO and T149 CEMS, and the last valid one-minute SO_2 emission rate measurement obtained prior to the calibration in lieu of actual readings from the SO_2 CEMS for the T49 CEMS.

(B) During periods of flow meter calibration, the Permittee shall substitute, in one-minute increments, the last valid one-minute exhaust gas flow rate measurement obtained prior to the calibration in lieu of actual readings from the flow meter.

(C) During periods of CEMS maintenance, malfunction, repair, or other periods of invalid SO_2 data collection, the Permittee shall substitute the following data in lieu of actual readings from the SO_2 CEMS:

(i) When combusting only natural gas, the following SO_2 mass emission rates shall be substituted:

(1) RTO SO_2 mass emission rate = 0.0004 lb/min
(2) T49 SO_2 mass emission rate = 0.0007 lb/min
(3) T149 SO_2 mass emission rate = 0.0005 lb/min

(ii) When incinerating a waste stream, the following SO_2 concentrations shall be substituted:

(1) RTO SO_2 concentration = 100 ppmv
(2) T49 SO_2 Concentration = 500 ppmv
(3) T149 SO_2 concentration = 400 ppmv

(D) During periods of flow meter maintenance, malfunction, repair, or other periods of invalid exhaust gas flow rate data collection, the Permittee shall substitute the following data in lieu of actual readings from the flow meter:

(i) When combusting only natural gas, the following SO_2 mass emission rates shall be substituted:

(1) RTO SO_2 mass emission rate = 0.0004 lb/min
(2) T49 SO_2 mass emission rate = 0.0007 lb/min
(3) T149 SO_2 mass emission rate = 0.0005 lb/min

(ii) When incinerating a waste stream, the following exhaust gas flow rates shall be substituted:

(1) RTO exhaust gas flow rate = 93,000 scfm
(2) T49 exhaust gas flow rate = 17,735 dscfm
(3) T149 exhaust gas flow rate = 14,340 dscfm

(5) **Minimum data collection requirements:**

(A) For the RTOs, the Permittee shall monitor and record SO_2 concentrations as required in Section D.14.
(B) For the T49 liquid waste incinerator, the Permittee shall monitor and record SO_2 concentrations as required in Condition D.12.
(C) For the T149 solid-liquid waste incinerator, the Permittee shall monitor and record SO_2 concentrations as required in Condition D.13.

(6) **Emissions during RTO bypass periods:** When determining compliance with the SO_2 emission limit, the Permittee shall include any known SO_2 emissions from BPM production buildings and storage tank modules not emitted through the RTO due to diversions in the fume transport system. The Permittee may use engineering calculation methods based on ideal gas law equations, stoichiometry, or mass balance to estimate these emissions.

(b) The following requirements apply to the T79 fume incinerators:

(1) **SO_2 emission calculation for natural gas usage:** The Permittee shall determine the amount of natural gas burned by the T79 fume incinerators each calendar month. The Permittee shall calculate SO_2 emissions from natural gas combustion, in tons, each calendar month by multiplying the monthly natural gas usage by an emission factor of 0.6 lbs/mmscf and converting the resulting emissions to tons.

(2) **Uncontrolled SO_2 emission calculation for combustion of sulfur-containing solvents:** The Permittee shall determine the mass of sulfur atoms emitted to the T79 fume incinerators [as components of solvents containing sulfur] by the BPM Support operations by using engineering calculation methods based on ideal gas law equations, stoichiometry, or mass balance. All of the sulfur atoms shall be considered converted to SO_2 as a result of combustion in the T79 fume incinerators.

(3) **SO_2 control efficiency:** The Permittee shall base SO_2 emissions on T79 scrubber control efficiency of 95%. If the compliance monitoring data is not available or indicates the scrubbers are not achieving this control efficiency, the Permittee shall use a control efficiency of zero percent (0%).

(4) **Emission calculation:** The Permittee shall calculate SO_2 emissions, in tons, each calendar month by multiplying the amount of SO_2 created by combustion of the sulfur atoms in the T79 fume incinerators by the scrubber SO_2 control efficiency.

(5) **Data substitution:** During periods of time when the Permittee is unable to determine natural gas usage because of auditing, calibration, maintenance, malfunction, repair, or other periods when the natural gas meters for the T79 fume incinerators are not collecting data properly, the Permittee shall determine SO_2 emissions based on a natural gas consumption rate of 0.0075 mmscf/hour [based on the nominal heat input rate of 7.626 MMBtu/hr per incinerator].

F.1.7 Volatile Organic Compound (VOC) Emission Limit Determination

The Permittee shall determine actual annual emissions by employing the following techniques:

(a) The following requirements apply to the RTOs when compliance is based on the 20 ppmv alternative standard, the T49 liquid waste incinerator, and the T149 solid-liquid waste incinerator:

(1) **VOC measurement:**

(A) For the RTO operations, the Permittee shall directly measure TOC concentration, as methane**,** in the exhaust gas using a TOC continuous emission monitoring system (CEMS) that meets the requirements of 40 CFR Part 63. The Permittee shall assume VOC, a subset of total organic compounds (TOC), is equal to TOC.

(B) For the T49 liquid waste incinerator and the T149 solid-liquid waste incinerator, the Permittee shall use 10 ppmdvc methane or shall use the highest hourly rolling average HC level achieved during the DRE test runs as the TOC concentration in the exhaust gas, as long as the CO concentration, as measured by the CO CEMS, is less than 100 ppmvdc, averaged over a rolling hourly period. VOC, a subset of total organic compounds (TOC), shall be equal to TOC.

(2) **Flow rate measurement:** The Permittee shall measure the actual exhaust gas flow rate from the RTOs, T149 solid-liquid waste incinerator, and T49 liquid waste incinerator.

(3) **Emission calculation**: The Permittee shall calculate VOC emissions, in tons, each calendar month by using the TOC CEMS concentration data, measured as methane (MW = 16), and exhaust gas flow rate data.

(4) **Data substitution:**

(A) During periods of CEMS calibration, the Permittee shall substitute, in one-minute increments, the last valid one-minute TOC/CO concentration measurement obtained prior to the calibration in lieu of actual readings from the TOC/CO CEMS.

(B) During periods of flow meter calibration, the Permittee shall substitute, in one-minute increments, the last valid one-minute exhaust gas flow rate measurement obtained prior to the calibration in lieu of actual readings from the flow meter.

(C) During periods of CEMS maintenance, malfunction, repair, or other periods of invalid TOC/CO data collection, the Permittee shall substitute the following data in lieu of actual readings from the TOC/CO CEMS:

(i) When combusting only natural gas, the following VOC mass emission rates shall be substituted:

(1) RTO VOC mass emission rate = 0.003 lb/min
(2) T49 VOC mass emission rate = 0.007 lb/min
(3) T149 VOC mass emission rate = 0.004 lb/min

(ii) When incinerating a waste stream, the following TOC concentrations shall be substituted:

(1) RTO TOC concentration = 20 ppmv methane
(2) T49 TOC concentration = 10 ppmv methane
(3) T149 TOC concentration = 10 ppmv methane

(D) During periods of flow meter maintenance, malfunction, repair, or other periods of invalid exhaust gas flow rate data collection, the Permittee shall substitute the following data in lieu of actual readings from the flow meter:

(i) When combusting only natural gas, the following VOC mass emission rates shall be substituted:

(1) RTO VOC mass emission rate = 0.003 lb/min
(2) T49 VOC mass emission rate = 0.007 lb/min
(3) T149 VOC mass emission rate = 0.004 lb/min

(ii) When incinerating a waste stream, the following exhaust gas flow rates shall be substituted:

(1) RTO exhaust gas flow rate = 93,000 scfm
(2) T49 exhaust gas flow rate = 17,735 dscfm
(3) T149 exhaust gas flow rate = 14,340 dscfm

(5) **Minimum data collection requirements:**

(A) For the RTOs, the Permittee shall monitor and record VOC concentrations as required in condition D.14.

(B) For the T49 liquid waste incinerator, the Permittee shall monitor and record VOC concentrations as required in condition D.12.

(C) For the T149 solid-liquid waste incinerator, the Permittee shall monitor and record VOC concentrations as required in D.13.

(6) **Emissions during RTO bypass periods:** The Permittee shall include any known VOC emissions from BPM production buildings not emitted through the RTO due to diversions in the fume transport system. The Permittee may use engineering calculation methods based on ideal gas law equations, stoichiometry, or mass balance to estimate these emissions.

(b) The following requirements apply to the RTOs when compliance is based on the 98% control efficiency standard and the T79 fume incinerators:

(1) **VOC emission calculation for natural gas usage:** The Permittee shall determine the amount of natural gas burned by the RTOs and the T79 fume incinerators each calendar month. The Permittee shall calculate VOC emissions from natural gas combustion, in tons, each calendar month by multiplying the monthly natural gas usage by an emission factor of 5.5 lbs/mmscf and converting the resulting emissions to tons.

(2) **VOC emission calculation from BPM production operations and BPM support operations exhausting to the RTOs and the T79 fume incinerator system:** The Permittee shall estimate the uncontrolled VOC emissions from the BPM production operations and the BPM support operations exhausting to the RTOs and the T79 fume incinerator system by using engineering calculation methods based on ideal gas law equations, stoichiometry, or mass balance. The Permittee shall base VOC emissions on an RTO and T79 fume incinerator control efficiency of 98%. If the compliance monitoring data is not available or indicates the RTO or T79 fume incinerator is not achieving this control efficiency, the Permittee shall use a control efficiency of zero percent (0%).

(3) **Data substitution:** During periods of time when the Permittee is unable to determine natural gas usage because of auditing, calibration, maintenance, malfunction, repair, or other periods when the natural gas meters for the RTOs or T79 fume incinerator system are not collecting valid data, the Permittee may assume that natural gas is consumed at a rate of 0.0075 mmscf/hour [based on the nominal heat input rate of 7.626 MMBtu/hr per incinerator].

(c) Fugitive VOC emissions from BPM and BPM Support Operations, *including the Chemical Wastewater Treatment Plant*: The Permittee shall determine monthly fugitive VOC emissions using the following calculation methods:

(1) **Emission factors:** The Permittee shall develop emission factors to calculate monthly fugitive VOC emissions. The emission factors shall be developed according to the following methods.

(A) For each VOC compound that the Permittee reports release of in the annual SARA Title III TRI report ("reportable SARA VOCs"), the Permittee shall develop a compound-specific emission factor, expressed in pounds of emissions per 100 pounds of solvent usage. Reportable SARA VOC emission factors shall be derived from mass-balance data used to submit SARA reports. Each compound-specific fugitive emission factor for reportable SARA VOCs shall be updated and applied to monthly fugitive emission calculations beginning July 1 of each year.

(B) For VOC compounds not reported under SARA Title III, the Permittee

shall use a generic fugitive emission factor, expressed in pounds of emissions per 100 pounds of solvent usage. The generic fugitive emission factor shall be equal to the highest representative emission factor developed in (A) above for a reportable SARA VOC used as a raw material in production processes. In the alternative, the Permittee may develop and apply a compound-specific emission factor for a compound not reported under SARA Title III. The generic fugitive emission factor and any compound-specific fugitive emission factor shall be updated and applied to monthly fugitive emission calculations beginning July 1 of each year.

(2) **Emission calculation method:** For VOCs with a compound-specific emission factor described in (1), the Permittee shall calculate monthly fugitive VOC emissions by multiplying the compound-specific emission factor by the corresponding compound-specific monthly solvent usage. For VOCs without a compound-specific emission factor, the Permittee shall calculate monthly fugitive VOC emissions by multiplying the generic emission factor described in (1)(B) by the monthly solvent usage of those compounds.

Record keeping and reporting [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

F.1.8 Record Keeping and Reporting of Emission Limits [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

(a) The Permittee shall record and maintain records of all information including all measurements and calculations described in Sections F.1.3 through F.1.7.

(b) The Permittee shall submit a quarterly report of actual emissions of CO, fluorides, NOx, SO_2, and VOC, as determined in accordance with Sections F.1.3 through F.1.7, to the address listed in Section C – General Reporting Requirements, within thirty (30) days after the end of the calendar quarter being reported. This report requires the certification by a “responsible official” as defined by 326 IAC 2-7-1(34).

F.1.9 Change Management Evaluation Process

For purposes of the requirements of the Pharmaceutical MACT standards [40 CFR 63, Subpart GGG], the Permittee shall employ a change management evaluation process to determine whether changes will affect compliance. This change evaluation process shall include the following elements:

(a) New processes, process changes, and physical changes to process equipment that increase hazardous air pollutant emissions from process vents, wastewater streams, and storage tanks will be considered “new process operating scenarios”. Changes which affect fugitive emissions equipment components will not be considered new operating scenarios and will be managed per the relevant provisions of the leak detection and repair program, which includes provisions addressing the addition of, and changes to, components.

(b) Each new process operating scenario [as defined in F.1.10 (a)] will be reviewed to determine whether the change will affect compliance with the emission standards under the Pharmaceutical MACT requirements. Compliance with the following standards will be evaluated: process vent standards [40 CFR 63.1254]; storage tank standards [40 CFR 63.1253]; and wastewater streams [40 CFR 63.1256].

(c) Documentation of the evaluation of each new process operating scenario will contain the following information:

(1) For new or changed process vents, a statement regarding the method for complying with 40 CFR 63.1254. The statement shall include an analysis that

shows whether the new or changed process vents fit within an existing compliance demonstration, or whether another demonstration must be conducted.

(2) For new or changed storage tanks, a statement regarding the method for complying with 40 CFR 63.1253. The statement shall include an analysis that shows whether the new or changed storage tank fits within an existing compliance demonstration, or whether another demonstration must be conducted.

(3) For new or changed wastewater streams, a statement regarding the method for complying with 40 CFR 63.1256. The statement shall include an analysis that shows whether the new or changed wastewater stream fits within an existing compliance demonstration, or whether another demonstration must be conducted.

(d) If a new process-operating scenario will trigger applicable requirements not described in this permit or compliance with applicable requirements will be demonstrated by methodologies not described in this permit, this permit must be revised pursuant to 326 IAC 2-7-12.

F.1.10 Record Keeping and Reporting of Site Modifications [326 IAC 2-7-5(16)] [326 IAC 2-7-20(a)] [40 CFR 63.1259] [40 CFR 63.1260]

(a) Changes made pursuant to advance approval provisions:

The Permittee shall record and maintain records of all modifications that would have otherwise required a revision to this permit pursuant to 326 IAC 2-7-12 or a source modification approval if the provisions of 326 IAC 2-7-10.5 were applicable.

(b) Pharmaceutical MACT operating scenarios:

(1) Pursuant to 40 CFR 63.1259(c), for all equipment subject to the pharmaceutical MACT requirements, the Permittee shall develop a record describing operating scenarios that may occur in the BPM operations and BPM Support operations.

(2) Pursuant to 40 CFR 63.1259(f)(4), for all equipment subject to the pharmaceutical MACT requirements, the Permittee shall list all known operating scenarios that may occur in the BPM operations and BPM Support operations in the notification of compliance status report.

(3) Pursuant to 40 CFR 63.1259(b)(8), for all equipment subject to the pharmaceutical MACT requirements, the Permittee shall maintain a log that records, which operating scenarios have been, put into effect in the BPM operations and BPM Support operations.

F.1.11 Notifications for Site Modifications [326 IAC 2-1.1-12(e)-(f)]

(a) The Permittee shall submit a notification for any modification that would have otherwise required a source modification approval if the provisions of 326 IAC 2-7-10.5 were applicable, to the address listed in Section C – General Reporting Requirements, at least ten (10) days before implementing the modification.

(b) The notification shall include the following information:

(1) the company name and address and source and permit identification numbers;

(2) a description of the physical or operational change, including an estimate of the potential to emit of the emissions associated with the change;

(3) an identification of the emission unit or units being changed on the layout diagram of the source;

(4) the schedule for constructing each physical change and implementing each operational change;

(5) identification of any applicable requirements that are applicable to the physical or operational change and include any monitoring, record keeping, or reporting requirements to assure compliance with the applicable requirements;

(6) a statement for all regulated pollutants, except the pollutant for which the emissions limit has been established, that demonstrates that the physical or operational change will not trigger any federal or state permitting requirement for any regulated pollutant; and

(7) a statement that the physical or operational change will not result in emissions greater than the emissions limit.

(c) This notification does not require the certification by a “responsible official” as defined by 326 IAC 2-7-1(34).

F.1.12 Inclusion of Site Modifications in Pharmaceutical MACT Periodic Report

(a) Pursuant to 40 CFR 63.1260(g)(2)(vii), the Permittee shall include in the Periodic Report information for each new operating scenario operated since the time period covered by the last periodic report. These reports shall be submitted as required in Conditions D.14.10 or D.15.8 – Reporting Requirements.

(b) Pursuant to 40 CFR 63.1260(h)(1), whenever a new process is introduced, or a change in any of the information submitted in the Notification of Compliance Status Report, the Permittee shall submit the following information with the next Periodic report as required in Conditions D.14.9 or D.15.8 – Reporting Requirements:

(1) A brief description of the process change;

(2) A description of any modifications to standard procedures or quality assurance procedures;

(3) Revisions to any of the information reported in the original Notification of Compliance Status Report under paragraph (f) of this section; and

(4) Information required by the Notification of Compliance Status Report under paragraph (f) of this section for changes involving the addition of processes or equipment.

(c) Pursuant to 40 CFR 63.1260(h)(2), the Permittee must submit a report 60 days before the scheduled implementation date of either of the following:

(1) Any change in the activity covered by the Precompliance report.

(2) A change in the status of a control device from small to large.

F.1.13 Reports of Changes Affected by Hazardous Waste Combustor MACT

(a) Pursuant to 40 CFR 63.1206(b)(5)(iii), a change is defined as any change in design, operation or maintenance practices that were documented in the comprehensive

performance test plan, Notification of Compliance, or startup, shutdown, and malfunction plan.

(b) For changes that may adversely affect compliance which are not monitored with a CEMS, the Permittee shall:

(1) Notify the Administrator at least 60 days prior to the change, unless circumstances are documented that dictate that such prior notice is not reasonably feasible.

(2) Conduct a comprehensive performance test under the requirements of 40 CFR 63.1207(f)(1) and (g)(1) to document compliance with the affected emission standard(s) and establish operating parameter limits as required under 40 CFR 63.1209, and submit the Administrator a Notification of Compliance under 40 CFR 63.1207(j) and 40 CFR 63.1210(d); and

(3) Not burn hazardous waste for more than a total of 720 hours after such change is made and prior to submitting the notification of compliance unless the Administrator provides a written approval to burn hazardous waste in the interim.

(c) For changes that will not affect compliance, the Permittee shall document the change in the operating record upon making such change. The Permittee shall revise as necessary the performance test plan, Documentation of Compliance, Notification of Compliance, and startup, shutdown and malfunction plan to reflect these changes.

Other flexible permit requirements

F.1.14 Valid Period for Best Available Control Technology [326 IAC 2-2-3(4)]

The modifications that occur under this permit qualify as a single, ongoing phase of construction and modification to Tippecanoe Laboratories. The BACT requirements established in Sections D.6 through D.15 shall remain valid over the entire period of this permit. If the time between consecutive modifications exceeds 18 months, the Permittee shall demonstrate that the initial BACT determination incorporated into the permit is still valid or propose new BACT requirements. Upon expiration of this permit, Major New Source Review requirements (Prevention of Significant Deterioration and Nonattainment NSR) shall apply.

F.1.15 Emission Increases from Increased Utilization of Ancillary Equipment [326 IAC 2-2] (Deleted)

Condition F.1.15 was deleted pursuant to Administrative Permit Amendment 157-20003-00006.

F.1.16 NSPS and NESHAP Pre-Construction Notification and Reviews

The provisions of this permit do not relieve the Permittee of the notification and pre-construction approval requirements found in 40 CFR 60.7, 40 CFR 61.07, 40 CFR 61.08, and 40 CFR 63.5. If the Permittee constructs, reconstructs, or modifies an affected facility in a manner that requires notification or pre-construction approval under 40 CFR 60.7, 40 CFR 61.07, 40 CFR 61.08, or 40 CFR 63.5, the Permittee shall comply with those requirements.

F.1.17 Pollution Prevention Program

The Permittee shall implement a pollution prevention program as described below:

(a) The Permittee shall develop a pollution prevention strategy that describes the site's involvement and efforts to reduce the use of raw materials and reduce waste and emissions generation. The plan shall be available to IDEM upon request.

(b) The Permittee shall communicate its pollution prevention strategy to the public by

conducting public outreach meetings.

Tippecanoe Laboratories will submit an annual report to IDEM describing specific pollution prevention efforts that took place during the calendar year. The report shall include an estimate of the air emission, wastewater, and waste reductions prevented or achieved by pollution prevention activities.

SECTION G.1 PLANTWIDE APPLICABILITY LIMITATIONS REQUIREMENTS

Emissions Unit Description [326 IAC 2-7-5(15)]:

The entire plant site is subject to the plantwide applicability limitations [PAL] requirements described in this G section.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

Source wide emission limits [326 IAC 2-2.4-7(1)]

G.1.1 Emission Limits [326 IAC 2-2.4-7(1)]

(a) Nitrogen oxides (NOx) emissions from the entire source shall not exceed 648 tons per 12 consecutive month period with compliance determined at the end of each month. This provision does not supersede any other NOx emission limits contained in this permit.

(b) Sulfur dioxide (SO_2) emissions from the entire source shall not exceed 2059 tons per 12-consecutive month period, with compliance determined at the end of each month. This provision does not supersede any other SO_2 emission limits contained in this permit.

General PAL requirements [326 IAC 2-2.4-1]

G.1.2 Major New Source Review Applicability [326 IAC 2-2.4-1(c)]

Any physical change in or change in the method of operation of this source is not a major modification for NOx or SO_2, and not subject to the review requirements of 326 IAC 2-2 provided the actual emissions of NOx and SO_2 from the entire source do not exceed the emission limits in Condition G.1.1 of this permit. This provision does not supersede or affect the Flexible Permit requirements in Section F of this permit.

G.1.3 General PAL Requirements [326 IAC 2-2.4-7, 326 IAC 2-2.4-8, 326 IAC 2-2.4-9, 326 IAC 2-2.4-10, 326 IAC 2-2.4-11, 326 IAC 2-2.4-15]

(a) The requirements of this section G become effective on the issuance date of the PAL permit, and expire ten years after the issuance date of the PAL permit.

(b) If the Permittee applies to renew this PAL at least six months prior to expiration of the PAL, but no earlier than eighteen months prior to the expiration of the PAL, then notwithstanding the expiration date in subsection G.1.3(a), the PAL shall continue to be effective until the revised permit with the renewed PAL is issued. The application must contain the elements described in 326 IAC 2-2.4-3 and 326 IAC 2-2.4-10.

(c) Once this PAL expires, if not otherwise renewed, then the requirements of 326 IAC 2-2.4-9 are applicable.

(d) The requirements for renewing this PAL are described in 326 IAC 2-2.4-10.

(e) The requirements for increasing the emissions limits described in Condition G.1.1 are described in 326 IAC 2-2.4-11.

(f) The requirements applicable to terminating or revoking this PAL are described in 326 IAC 2-2.4-15.

Testing and Monitoring Requirements [326 IAC 2-2.4-7(6) & (7)] [326 IAC 2-2.4-12]

G.1.4 Nitrogen Oxides (NO_X) Emission Limit Determination [326 IAC 2-2.4-7(6) & (7)] [326 IAC 2-2.4-12]

The Permittee shall determine actual annual emissions of NOx by employing the following techniques:

(a) The Permittee shall calculate NOx emissions from Boilers 1, 2, and 3, in tons, each calendar month, by multiplying the amount of coal consumed in each calendar month by a NOx emission factor of 16 lb NOx/ton of coal burned. After the coal feed to Boilers No. 1, No. 2, and No. 3 is shutdown, the NOx emissions from these boilers shall be calculated using an emission factor of 100 lbs NOx/million cubic feet of natural gas burned.

(b) The Permittee shall calculate NOx emissions from burning natural gas in Boilers 4 and 5, in tons, each calendar month, by multiplying the amount of natural gas burned in each calendar month by an NOx emission factor of 280 lb NOx/million cubic feet of natural gas burned in Boiler 4 and 100 lb NOx/million cubic feet of natural gas burned in Boiler 5.

(c) The Permittee shall calculate NOx emissions from burning fuel oil in Boilers 4 and 5, in tons, each calendar month, by multiplying the amount of fuel oil burned in each calendar month by an NOx emission factor of 24 lb NOx/1000 gallons of fuel oil burned in Boiler 4 and 20 lb NOx/1000 gallons of fuel oil burned in Boiler 5.

(d) The Permittee shall determine NOx emissions from diesel engines, in tons, each calendar month, through one of the methods described in (1) and (2) below. The Permittee shall identify which method it used when it reports emissions pursuant to Condition G.1.8.

(1) **Potential to emit method**: The Permittee shall use the following values, which represent the NOx potential to emit of the diesel engines, as the actual emissions:

(A) For the T121 1,676 HP diesel electrical generator – 1.5 ton/month [18.1 ton/yr].

(B) For the T5 380 HP diesel emergency generator – 0.2 ton/month [2.9 ton/yr]

(C) For the T62 1,475 HP diesel emergency generator – 0.7 ton/month [8.9 ton/yr].

(D) For the T135 390 HP diesel emergency generator – 0.3 ton/month [3.0 ton/yr].

(E) For the Server Room 402 HP diesel emergency generator – 0.3 ton/month [3.12 ton/yr].

(F) For the T70 402 HP diesel emergency generator – 0.3 ton/month [3.12 ton/yr].

(G) For the T26-GEN-7500A 201 HP-diesel emergency generator – 0.1 ton/month [1.56 ton/yr].

(H) For the T26-COMP-5600A 125 HP diesel emergency air compressor – 0.1 ton/month [0.97 ton/yr].

(l) For the T62 300 HP diesel emergency air compressor – 0.2 ton/month [2.33 ton/yr].

(2) **Actual hours of operation method:** The Permittee shall calculate NOx emissions from diesel engines by multiplying the actual hours of operation per calendar month for each diesel engine by the engine's horsepower rating and by an NOx emission factor of 0.024 lb NOx/brake horsepower-hour for diesel engines greater than 600 brake horse power and 0.031 lb NOx/brake horsepower-hour for diesel engines smaller than 600 brake horse power

(e) The Permittee shall calculate NOx emissions from the T174 Thermal Research Incinerator, in tons, each calendar month, by multiplying the actual hours of operation of the incinerator for each month by a NOx emission factor of 2.5 lb NOx/hour of operation.

(f) The methods for determining monthly NOx emissions from the T49 Incinerator, the T149 solid-liquid waste Incinerator, the RTOs, and the T79 Fume Incinerators are described in Condition F.1.5 of this permit.

(g) NOx emissions from building T171 are equivalent to the potential to emit for this facility – 0.1 ton/yr.

(h) When determining actual annual emissions of NOx, the Permittee shall include emissions occurring as a result of startups, shutdown, and malfunctions.

(i) The Permittee shall determine NOx emissions from boilers No. 6 and No. 7, in tons, each calendar month, using CEMS data from Condition D.20.16 and using the following method to determine NOx emission limits in Condition D.20.4: NOx emissions in lbs = lbs NOx/MMBTU * fuel usage(scf for natural gas, and gallons for fuel oil) * Heat content per unit of fuel used. A value of 1000 BTU/scf of natural gas shall be used if heat content data for the natural gas is unavailable. If data is not available for calculating the NOx emissions, the following substitution value shall be used: 32.0 lbs NOx/Hour. This value represents the maximum potential emissions of each boiler.

G.1.5 Sulfur Dioxides (SO_2) Emission Limit Determination [326 IAC 2-2.4-7(6) & (7)] [326 IAC 2-2.4-12]

The Permittee shall determine actual annual emissions of SO_2 by employing the following techniques:

(a) The Permittee shall calculate SO_2 emissions from Boilers 1, 2, and 3, in tons, each calendar month, by multiplying the amount of coal consumed in each calendar month by an SO_2 emission factor of 38*S lb SO_2/ton of coal burned, where S = the percent sulfur content of the coal as determined by Condition D.1.7. In addition, the Permittee shall calculate the SO_2 emissions from burning natural gas in Boilers 1, 2, and 3, in tons, each calendar month, by multiplying the amount of natural gas burned in each calendar month by an SO_2 emission factor of 0.6 lb SO_2/million cubic feet of natural gas burned.

After the coal feed to Boilers No. 1, No. 2, and No. 3 is shutdown, the Permittee shall calculate, one hundred percent (100%) of the SO_2 emissions from Boilers 1, 2, and 3, each calendar month, by multiplying the amount of natural gas burned in each calendar month by a SO_2 emission factor of 0.6 lbs SO_2 /million cubic feet of natural gas burned.

(b) The Permittee shall calculate SO_2 emissions from burning natural gas in Boilers 4 and 5, in tons, each calendar month, by multiplying the amount of natural gas burned in each calendar month by an SO_2 emission factor of 0.6 lb SO_2/million cubic feet of natural gas burned.

(c) The Permittee shall calculate SO_2 emissions from burning fuel oil in Boilers 4 and 5, in

tons, each calendar month, by multiplying the amount of fuel oil burned in each calendar month by an SO_2 emission factor of 69.6 lb SO_2/1000 gallons of fuel oil burned.

(d) The Permittee shall determine SO_2 emissions from diesel engines, in tons, each calendar month, through one of the methods described in (1) and (2) below. The Permittee shall identify which method it used when it reports emissions pursuant to Condition G.1.8.

(1) Potential to emit method: The Permittee shall use the following values, which represent the SO_2 potential to emit of the diesel engines, as the actual emissions:

(A) For the T121 1,676 HP diesel electrical generator – 0.25 ton/month [3.0 ton/yr].

(B) For the T5 380 HP diesel emergency generator – 0.02 ton/month [0.2 ton/yr]

(C) For the T62 1,475 HP diesel emergency generator – 0.1 ton/month [1.5 ton/yr].

(D) For the T135 390 HP diesel emergency generator – 0.02 ton/month [0.2 ton/yr].

(E) For the Server Room 402 HP diesel emergency generator – 0.02 ton/month [0.21 ton/yr].

(F) For the T70 402 HP diesel emergency generator – 0.02 ton/month [0.21 ton/yr].

(G) For the T26-GEN-7500A 201 HP diesel emergency generator – 0.01 ton/month [0.10 ton/yr].

(H) For the T26-COMP-5600A 125 HP diesel emergency air compressor – 0.01 ton/month [0.06 ton/yr].

(I) For the T62 300 HP diesel emergency air compressor – 0.01 ton/month [0.15 ton/yr].

(2) Actual hours of operation method: The Permittee shall calculate SO_2 emissions from diesel engines by multiplying the actual hours of operation per calendar month for each diesel engine by the engine's horsepower rating and by an SO_2 emission factor of 0.0004045 lb SO_2/brake horsepower-hour for diesel engines greater than 600 brake horse power and 0.00205 lb SO_2/brake horsepower-hour for diesel engines smaller than 600 brake horse power

(e) The Permittee shall calculate SO_2 emissions from the T174 Thermal Research Incinerator, in tons, each calendar month, by multiplying the actual hours of operation of the incinerator for each month by a SO_2 emission factor of 4.56 lb SO_2/hour of operation.

(f) The methods for determining monthly SO_2 emissions from the T49 Incinerator, the T149 solid-liquid waste Incinerator, the RTOs, and the T79 Fume Incinerators are described in Condition F.1.6 of this permit.

(g) SO_2 emissions from building T171 are equivalent to the potential to emit for this facility – 1.5 ton/yr [0.125 ton/month].

(h) When determining actual annual emissions of SO_2, the Permittee shall include emissions occurring as a result of startups, shutdown, and malfunctions.

(i) The Permittee shall calculate SO_2 emissions from burning natural gas in boilers No. 6 and No. 7, in tons, each calendar month by multiplying the amount of natural gas burned in each calendar month by an SO_2 emission factor of 0.6 lb SO_2/million cubic feet of natural gas burned.

(j) The Permittee shall calculate SO_2 emissions from burning fuel oil in boilers No. 6 and No. 7, in tons, each calendar month, by multiplying the amount of fuel oil burned in each calendar month by an SO_2 emission factor of 42.6 lb SO_2/1000 gallons of fuel oil burned.

G.1.6 Revalidation of Emissions Determination Methods [326 IAC 2-2.4-12(i)]

The Permittee shall revalidate the emissions determination methods described in Conditions G.1.4 and G.1.5 through performance testing or other scientifically valid means approved by the department no later than five years after the effective date of the PAL provisions.

Record keeping and reporting [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

G.1.7 Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-2.4-13]

(a) The Permittee shall retain a copy of all records necessary to determine compliance with the requirements of this G Section, including a determination of each emissions unit's twelve (12) month rolling total emissions, for five years from the date of the record.

(b) The Permittee shall retain a copy of the PAL permit application, any applications for revisions to the PAL, each annual compliance certification as required by Condition B.9 of this permit, and data relied on in the certification for the duration of the PAL plus five years.

G.1.8 Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-2.4-14]

(a) The Permittee shall submit a semi-annual report, containing the information described below, to the address listed in Section C – General Reporting Requirements, within thirty (30) days after the end of the calendar quarter being reported. This report requires the certification by a "responsible official" as defined by 326 IAC 2-7-1(34). The report shall include the following information:

(1) The identification of the owner and operator of the facility and the permit number.

(2) Total emissions of NOx and SO_2, in tons per rolling 12 month period for each month in the reporting period, as determined by Conditions G.1.4 and G.1.5.

(3) All data relied upon, including but not limited to, any quality assurance or quality control data, in determining emissions.

(4) A list of any emissions units modified or added to the major stationary source during the reporting period.

(5) If not previously reported pursuant to another condition in this permit, the number, duration, and cause of any deviations or monitoring malfunctions, other than the time associated with zero and span calibration checks, and any corrective action taken.

(6) If not required to be reported pursuant to another condition in this permit, information about monitoring system shutdowns including the following information:

(A) Notification to the department of the shutdown of any monitoring system.

(B) Whether the shutdown was permanent or temporary.

(C) The reason for the shutdown.

(D) The anticipated date that the monitoring system will be fully operational or replaced with another monitoring system.

(E) Whether the emissions unit monitored by the monitoring system continued to operate.

(F) If the emission unit monitored by the monitoring system continued to operate, the calculation of the:

(i) Emissions of the pollutant; or

(ii) Number determined by method included in the permit, as provided by 326 IAC 2-2.4-12(g).

(b) The procedures for reporting deviations from the requirements of this Section G, and the procedures for reporting emissions in excess of the limits described in Condition G.1.1 are described in Condition B.14. A report that describes emissions exceeding the PAL limits shall include the quantity of emissions emitted by the source. This term satisfies the requirements of 326 IAC 2-2.4-14(c).

(c) The Permittee shall submit to the department the results of any revalidation test or method within three months of completion of the test or method. These results do not require responsible official certification.

SECTION H.1 SYNTHETIC ORGANIC CHEMICAL MANUFACTURING REQUIREMENTS

Emissions Unit Description:

The emission units listed below may function as chemical manufacturing process units, as defined in 40 CFR 63.101, if they manufacture as a primary product one or more of the chemicals listed in Table 1 of 40 CFR part 63 Subpart F, and/or Tetrahydrobenzaldehyde (CAS Number 100–50–5), and/or Crotonaldehyde (CAS Number 123–73–9), but do not use as a reactant or manufacture as a product, or co-product, one or more of the organic hazardous air pollutants listed in table 2 of 40 CFR part 63 subpart F.

Source ID	Equipment Description	Stack/Vent ID	Nominal Capacity	Control Device
Building T27:				
T27-TK3001	Process Tank	RTO	200 gal	RTO
T27-TK3002	Process Tank	RTO	200 gal	RTO
T27-TK3101	Process Tank	RTO	1000 gal	RTO
T27-TK3102	Process Tank	RTO	1000 gal	RTO
T27-TK3103	Process Tank	RTO	1000 gal	RTO
T27-TK3104	Process Tank	RTO	1000 gal	RTO
T27-TK3105	Process Tank	RTO	1000 gal	RTO
T27-TK3201	Process Tank	RTO	1000 gal	RTO
T27-TK3202	Process Tank	RTO	1000 gal	RTO
T27-TK3203	Process Tank	RTO	1000 gal	RTO
T27-TK3204	Process Tank	RTO	1000 gal	RTO
T27-TK3205	Process Tank	RTO	1000 gal	RTO
T27-TK3207	Process Tank	RTO	350 gal	RTO
T27-TK3301	Process Tank	RTO	2000 gal	RTO
T27-TK3302	Process Tank	RTO	2000 gal	RTO
T27-TK3303	Process Tank	RTO	2000 gal	RTO
T27-TK3304	Process Tank	RTO	2000 gal	RTO
T27-TK3305	Process Tank	RTO	500 gal	RTO
T27-TK3401	Process Tank	RTO	750 gal	RTO
T27-TK3402	Process Tank	RTO	750 gal	RTO
T27-TK3404	Process Tank	RTO	750 gal	RTO
T27-TK3405	Process Tank	RTO	750 gal	RTO
T27-TK3406	Process Tank	RTO	750 gal	RTO
T27-TK3407	Process Tank	RTO	1000 gal	RTO
T27-TK3408	Process Tank	RTO	350 gal	RTO
T27-TK3501	Process Tank	RTO	2000 gal	RTO
T27-TK3502	Process Tank	RTO	2000 gal	RTO
T27-TK3503	Process Tank	RTO	2000 gal	RTO
T27-TK3504	Process Tank	RTO	2000 gal	RTO
T27-TK3505	Process Tank	RTO	500 gal	RTO
T27-TK3506	Process Tank	RTO	2000 gal	RTO
T27-TK3601	Process Tank	RTO	2000 gal	RTO
T27-TK3602	Process Tank	RTO	1000 gal	RTO

	T27-TK3603	Process Tank	RTO	2000 gal	RTO	
	T27-TK3605	Process Tank	RTO	500 gal	RTO	
	T27-TK3606	Process Tank	RTO	2000 gal	RTO	
	T27-TK3607	Process Tank	RTO	500 gal	RTO	
	T27-TK3803	Process Tank	RTO	1000 gal	RTO	
	T27-TK4001	Process Tank	RTO	2000 gal	RTO	
	T27-TK4002	Process Tank	RTO	2000 gal	RTO	
	T27-TK4004	Process Tank	RTO	1000 gal	RTO	
	T27-TK4005	Process Tank	RTO	1500 gal	RTO	
	T27-TK4006	Process Tank	RTO	2000 gal	RTO	
	T27-TK4006A	Process Tank	RTO	2000 gal	RTO	
	T27-TK4007	Process Tank	RTO	2000 gal	RTO	
	T27-TK4007A	Process Tank	RTO	2000 gal	RTO	
	T27-TK4008	Process Tank	RTO	2000 gal	RTO	
	T27-TK4009	Process Tank	RTO	1000 gal	RTO	
	T27-TK4010	Process Tank	RTO	1000 gal	RTO	
	T27-TK4011	Process Tank	RTO	1000 gal	RTO	
	T27-TK4013	Process Tank	RTO	750 gal	RTO	
	T27-TK4014	Process Tank	RTO	300 gal	RTO	
	T27-TK4031	Process Tank	RTO	500 gal	RTO	
	T27-TK4101	Process Tank	RTO	750 gal	RTO	
	T27-TK4103	Process Tank	RTO	500 gal	RTO	
	T27-TK4104	Process Tank	RTO	500 gal	RTO	
	T27-TK4105	Process Tank	RTO	1000 gal	RTO	
	T27-TK4203	Process Tank	RTO	500 gal	RTO	
	T27-TK4205	Process Tank	RTO	1000 gal	RTO	
	T27-TK4301	Process Tank	RTO	750 gal	RTO	
	T27-TK4302	Process Tank	RTO	500 gal	RTO	
	T27-TK4401	Process Tank	RTO	2000 gal	RTO	
	T27-TK4404	Process Tank	RTO	2000 gal	RTO	
	T27-TK4502	Process Tank	RTO	1000 gal	RTO	
	T27-TK4601	Process Tank	RTO	1000 gal	RTO	
	T27-TK4603	Process Tank	RTO	75 gal	RTO	
	T27-TK4605	Process Tank	RTO	1000 gal	RTO	
	T27-TK4701	Process Tank	RTO	1000 gal	RTO	
	T27-TK4801A	Process Tank	RTO	1000 gal	RTO	
	T27-TK4802A	Process Tank	RTO	100 gal	RTO	
	T27-TK4803A	Process Tank	RTO	500 gal	RTO	
	T27-TK4901	Process Tank	RTO	200 gal	RTO	
	T27-TK4906	Process Tank	RTO	75 gal	RTO	
	T27-TK5004	Process Tank	RTO	500 gal	RTO	
	T27-TK371-A	Process Tank	RTO	50 gal	RTO	
	T27-TK372-A	Process Tank	RTO	500 gal	RTO	
	T27-TK372-B	Process Tank	RTO	100 gal	RTO	
	T27-CENT30	Centrifuge	RTO	NA	RTO	
	T27-CENT38	Centrifuge	RTO	NA	RTO	
	T27-CENT42	Centrifuge	RTO	NA	RTO	
	T27-RVD53-1	Rotary Vacuum Dryer	RTO	NA	RTO	

	T27-FD3702A	Filter Dryer	RTO	793 gal	RTO
	Building T29:				
	T29-CENT1401	Heinkel Centrifuge	RTO	140 gal	RTO
	T29-CENT2401	Heinkel Centrifuge	RTO	140 gal	RTO
	T29-CENT3401	Heinkel Centrifuge	RTO	140 gal	RTO
	T29-CD1501	Cone Dryer	RTO	2,640 gal	RTO
	T29-FD8501	Filter Dryer	RTO	42 gal	RTO
	T29-FD-8503	Filter Dryer	RTO	175 gal	RTO
	T29-FD2502	Filter Dryer	RTO	70 gal	RTO
	T29-CD3501	Cone Dryer	RTO	2,640 gal	RTO
	T29-IBC8251	Process Tank	RTO	150 gal	RTO
	T29-IBC8253	Process Tank	RTO	150 gal	RTO
	T29-IBC8254	Process Tank	RTO	150 gal	RTO
	T29-IBC8257	Process Tank	RTO	150 gal	RTO
	T29-IBC8259	Process Tank	RTO	150 gal	RTO
	T29-SFH1121	Process Tank	RTO	NA	RTO
	T29-SFH3121	Process Tank	RTO	NA	RTO
	T29- REAC1201	Process Tank	RTO	2000 gal	RTO
	T29- REAC 1202	Process Tank	RTO	2000 gal	RTO
	T29- REAC 1203	Process Tank	RTO	2000 gal	RTO
	T29- REAC 1204	Process Tank	RTO	2000 gal	RTO
	T29- REAC 1205	Process Tank	RTO	2000 gal	RTO
	T29- REAC 2201	Process Tank	RTO	1600 gal	RTO
	T29- REAC 2202	Process Tank	RTO	2000 gal	RTO
	T29- REAC 2203	Process Tank	RTO	2000 gal	RTO
	T29- REAC 2204	Process Tank	RTO	2000 gal	RTO
	T29- REAC 2205	Process Tank	RTO	2000 gal	RTO
	T29- REAC 3201	Process Tank	RTO	2000 gal	RTO
	T29- REAC 3202	Process Tank	RTO	2000 gal	RTO
	T29- REAC 3203	Process Tank	RTO	2000 gal	RTO
	T29- REAC 3204	Process Tank	RTO	2000 gal	RTO
	T29- REAC 3205	Process Tank	RTO	2000 gal	RTO
	T29- REAC 4201	Process Tank	RTO	2,000 gal	RTO
	T29- REAC 4202	Process Tank	RTO	500 gal	RTO
	T29- REAC 4203	Process Tank	RTO	2000 gal	RTO
	T29-TK7920	Process Tank	RTO	200 gal	RTO
	T29-TK7921	Process Tank	RTO	80 gal	RTO
	T29-TK7922	Process Tank	RTO	200 gal	RTO
	T29-TK8123	Process Tank	RTO	200 gal	RTO
	T29-TK8211	Process Tank	RTO	100 gal	RTO
	T29-TK8212	Process Tank	RTO	100 gal	RTO
	T29-TK8213	Process Tank	RTO	100 gal	RTO
	T29-TK8214	Process Tank	RTO	100 gal	RTO
	T29-TK8216	Accumulator Tank	RTO	50 gal	RTO
	T29-TK8217	Accumulator Tank	RTO	50 gal	RTO
	T29-TK8218	Accumulator Tank	RTO	50 gal	RTO
	T29-TK8220	Accumulator Tank	RTO	50 gal	RTO

	T29-TK8256	Process Tank	RTO	150 gal	RTO
	T29-TK8219	Accumulator Tank	RTO	50 gal	RTO
	T29-TK2502M	Accumulator Tank	RTO	100 gal	RTO
	T29-TK1401	Accumulator Tank	RTO	50 gal	RTO
	T29-TK2401	Accumulator Tank	RTO	50 gal	RTO
	T29-TK3401	Accumulator Tank	RTO	50 gal	RTO
	Building T31:				
	T31-CENT	Centrifuge	RTO	98 gal	RTO
	T31-FD803	Filter Dryer	RTO	50 gal	RTO
	T31-TK601	Process Tank	RTO	500 gal	RTO
	T31-TK602	Process Tank	RTO	500 gal	RTO
	T31-TK603	Process Tank	RTO	500 gal	RTO
	T31-TK604	Process Tank	RTO	500 gal	RTO
	T31-TK611	Process Tank	RTO	500 gal	RTO
	T31-TK611DT01	Process Tank	RTO	50 gal	RTO
	T31-TK612	Process Tank	RTO	500 gal	RTO
	T31-TK613	Process Tank	RTO	500 gal	RTO
	T31-TK614	Process Tank	RTO	500 gal	RTO
	T31-TK631	Process Tank	RTO	300 gal	RTO
	T31-TK641	Process Tank	RTO	100 gal	RTO
	T31-TK643	Process Tank	**	100 gal	T79 or RTO**
	Building T31A:				
	T31A-CENT985	Centrifuge	RTO	N/A	RTO
	T31A-FD861	Filter Dryer	RTO	50 gal	RTO
	T31A-FD874	Filter Dryer	RTO	50 gal	RTO
	T31A-TK61	Process Tank	RTO	50 gal	RTO
	T31A-TK63	Process Tank	RTO	100 gal	RTO
	T31A-TK64	Process Tank	RTO	50 gal	RTO
	T31A-TK621	Process Tank	RTO	300 gal	RTO
	T31A-TK622	Process Tank	RTO	800 gal	RTO
	T31A-TK651	Process Tank	RTO	450 gal	RTO
	T31A-TK661	Process Tank	RTO	300 gal	RTO
	T31A-TK681	Process Tank	RTO	500 gal	RTO
	T31A-TK682	Process Tank	RTO	500 gal	RTO
	T31A-TK683	Process Tank	RTO	500 gal	RTO
	T31A-TK684	Process Tank	RTO	500 gal	RTO
	T31A-TK691	Process Tank	RTO	500 gal	RTO
	T31A-TK692	Process Tank	RTO	500 gal	RTO
	T31A-TK693	Process Tank	RTO	500 gal	RTO
	T31A-TK694	Process Tank	RTO	500 gal	RTO
	Building T99:				
	T99-ED42	Heinkel Centrifuge	RTO	NA	RTO
	T99-PD43	Pan Dryer	RTO	793 gal	RTO
	T99-PD44	Pan Dryer	RTO	793 gal	RTO
	T99-RVD1	Rotary Vacuum Dryer	RTO	1200 gal	RTO

	T99-RVD2	Rotary Vacuum Dryer	RTO	1200 gal	RTO	
	T99-RVD3	Rotary Vacuum Dryer	RTO	1200 gal	RTO	
	T99-RVD5	Rotary Vacuum Dryer	RTO	1200 gal	RTO	
	T99-RVD6	Rotary Vacuum Dryer	RTO	1200 gal	RTO	
	T99-RVD7	Rotary Vacuum Dryer	RTO	1200 gal	RTO	
	T99-RVD8	Rotary Vacuum Dryer	RTO	1200 gal	RTO	
	T99-TK-D9	Process Tank	RTO	449 gal	RTO	
	T99-FD-D9*	Filter Dryer	RTO	NA	RTO	
	T99-TK-D-9D*	Portable Tank	RTO	155 gal	RTO	
	T99-TK-D41	Process Tank	RTO	300 gal	RTO	
	T99-TK-D42	Process Tank	RTO	150 gal	RTO	
	Building T100:					
	T100-CENT60	Centrifuge	RTO	N/A	RTO	
	T100-CENT61	Centrifuge	RTO	N/A	RTO	
	T100-CENT62	Centrifuge	RTO	N/A	RTO	
	T100-CENT63	Centrifuge	RTO	N/A	RTO	
	T100-CENT64	Centrifuge	RTO	N/A	RTO	
	T100-CENT65	Centrifuge	RTO	N/A	RTO	
	T100-CENT66	Centrifuge	RTO	N/A	RTO	
	T100-CENT67	Centrifuge	RTO	N/A	RTO	
	T100-CENT68	Centrifuge	RTO	N/A	RTO	
	T100-CENT69	Centrifuge	RTO	N/A	RTO	
	T100-CENT70	Centrifuge	RTO	N/A	RTO	
	T100-TK1	Process Tank	RTO	2000 gal	RTO	
	T100-TK2	Process Tank	RTO	4000 gal	RTO	
	T100-TK3	Process Tank	RTO	2000 gal	RTO	
	T100-TK4	Process Tank	RTO	2000 gal	RTO	
	T100-TK5	Process Tank	RTO	2000 gal	RTO	
	T100-TK5A*	Accumulator Tank	RTO	50 gal	RTO	
	T100-TK6	Process Tank	RTO	2000 gal	RTO	
	T100-TK7	Process Tank	RTO	4000 gal	RTO	
	T100-TK8	Process Tank	RTO	4000 gal	RTO	
	T100-TK8C	Process Tank	RTO	30 gal	RTO	
	T100-TK9	Process Tank	RTO	4000 gal	RTO	
	T100-TK10	Process Tank	RTO	4000 gal	RTO	
	T100-TK11	Process Tank	RTO	4000 gal	RTO	
	T100-TK12	Process Tank	RTO	4000 gal	RTO	
	T100-TK13	Process Tank	RTO	3300 Gal	RTO	
	T100-TK14	Process Tank	RTO	4000 gal	RTO	
	T100-TK15	Process Tank	RTO	2000 gal	RTO	
	T100-TK16	Process Tank	RTO	2000 gal	RTO	
	T100-TK17	Process Tank	RTO	2000 gal	RTO	
	T100-TK18	Process Tank	RTO	2000 gal	RTO	
	T100-TK18A*	Distillate Tank	RTO	200 gal	RTO	
	T100-TK18B*	Charge Tank	RTO	60 gal	RTO	
	T100-TK20	Process Tank	RTO	4000 gal	RTO	
	T100-TK21	Process Tank	RTO	4000 gal	RTO	

T100-TK22	Process Tank	RTO	2000 gal	RTO
T100-TK24	Process Tank	RTO	4000 gal	RTO
T100-TK24D*	Distillate Tank	RTO	50 gal	RTO
T100-TK25	Process Tank	RTO	4000 gal	RTO
T100-TK26	Process Tank	RTO	4000 gal	RTO
T100-TK27	Process Tank	RTO	4000 gal	RTO
T100-TK28	Process Tank	RTO	4000 gal	RTO
T100-TK29	Process Tank	RTO	4000 gal	RTO
T100-TK30	Process Tank	RTO	4000 gal	RTO
T100-TK-30A	Process Tank	RTO	70 gal	RTO
T100-TK31	Process Tank	RTO	4000 gal	RTO
T100-TK31B	Process Tank	RTO	50 gal	RTO
T100-TK32	Process Tank	RTO	4000 gal	RTO
T100-TK33	Process Tank	RTO	1000 gal	RTO
T100-TK34	Process Tank	RTO	1000 gal	RTO
T100-TK35	Process Tank	RTO	1000 gal	RTO
T100-TK36	Process Tank	RTO	1000 gal	RTO
T100-TK37	Process Tank	RTO	1000 gal	RTO
T100-TK38	Process Tank	RTO	1000 gal	RTO
T100-TK40	Portable Process Tank	RTO	100 gal	RTO
T100	Portable Process Tank	RTO	N/A	RTO
T100-PTK1	Portable Cleaning Tank	RTO	150 gal	RTO
T100-TK14A	Accumulator Tank	RTO	50 gal	RTO
T100-TK21A	Accumulator Tank	RTO	50 gal	RTO
T100-TK39	CIP Tank	RTO	500 gal	RTO
Spare Equipment (not associated with a single building)				
T27-CENT 16	Centrifuge	***	NA	***
T27-CENT 19	Centrifuge	***	NA	***
T27-CENT 37	Centrifuge	***	NA	***
T27-CENT 40	Centrifuge	***	NA	***
T28-CENT15	Centrifuge	***	NA	***
T31-CENT504	Centrifuge	***	13 gal	***
T31-RVD T47733	Rotary Vacuum Dryer	**	37 gal	***
T31A-TK65	Portable Process Tank	**	100 gal	***
T31A-TK8252	Portable Process Tank	**	150 gal	***

* Emission units marked with an asterisk are insignificant activities as defined by 326 IAC 2-7-1(21).

** This equipment is currently not in service; however, this equipment shall be tied into either the RTO control system or the T79 control system upon startup.

*** Spare equipment may be used anywhere on the plant site. If the equipment is used in T27, T31, T31A, T99, or T100, it will be vented to the RTO as required by Section D.6 of the permit. If the equipment is used in the T171 area, it will be vented to the atmosphere as allowed by Section D.16 of the permit.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Applicability of National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry (SOCMI Rule) [40 CFR part 63 subpart F]

H.1.1 Compliance Demonstration Requirements [40 CFR 63.103(e)]

The Permittee shall meet one of the following requirements:

(a) Retain information, data, and analysis used to determine that the chemical manufacturing process unit does not use as a reactant or manufacture as a product or co-product any organic hazardous air pollutant. 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.

(b) When requested by the Administrator, demonstrate that the chemical manufacturing process unit does not use as a reactant or manufacture as a product or co-product any organic hazardous air pollutant.

H.1.2 Modifications and Construction: Advance Approval of Permit Conditions

The emission units described in this H section are not subject to the advance approval permit conditions.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
PART 70 OPERATING PERMIT
CERTIFICATION

Source Name: Evonik Degussa Corporation -Tippecanoe Laboratories
Source Address: 1650 Lilly Road, Lafayette, Indiana 47909
Part 70 Permit No.: T157-26575-00006

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)

☐ Report (specify)

☐ Notification (specify)

☐ Affidavit (specify)

☐ Other (specify)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
Signature:
Printed Name:
Title/Position:
Phone:
Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

COMPLIANCE AND ENFORCEMENT BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Evonik Degussa Corporation -Tippecanoe Laboratories
Source Address: 1650 Lilly Road, Lafayette, Indiana 47909
Part 70 Permit No.: T157-26575-00006

This form consists of 2 pages **Page 1 of 2**

☐ This is an emergency as defined in 326 IAC 2-7-1(12)

- The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by:_____

Title / Position: _____

Date:_____

Phone: _____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

PART 70 OPERATING PERMIT
SEMI-ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION

Source Name: Evonik Degussa Corporation -Tippecanoe Laboratories
Source Address: 1650 Lilly Road, Lafayette, Indiana 47909
Part 70 Permit No.: T157-26575-00006
Facility: Boilers No. 6 and No.7

☐ Natural Gas Only ☐ Very low Sulfur Oil From:_____ To:_____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Signature:
Printed Name:
Title/Position:
Phone:
Date:

A certification by a responsible official as defined by 326 IAC 2-7-1(34) is required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

Section D.1 – Utilities Operations
Quarterly Coal Characteristic and Consumption Report

Source Name: Evonik Degussa Corporation -Tippecanoe Laboratories
Source Address: 1650 Lilly Road, Lafayette, IN 47909-9201
Part 70 Permit No.: T157-26575-00006
Facility: Boilers 1, 2 and 3
Parameter: SO_2 emissions
Limit: 6.0 lbs/MMBtu

Quarter: _____ **Year:** _____

Month	Sulfur Content (% Wt.)	Heating Value (Btu/lb)	Coal Consumption (tons)	Emission Rate (lbs/MMBtu)

Check one of the following:

☐ No deviation occurred in this quarter.

☐ The following deviation/s occurred in this quarter.

Submitted by:_____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

Section D.1 – Utilities Operations
Quarterly Fuel Oil Characteristic and Consumption Report

Source Name: Evonik Degussa Corporation -Tippecanoe Laboratories
Source Address: 1650 Lilly Road, Lafayette, IN 47909-9201
Part 70 Permit No.: T157-26575-00006
Facility: Boilers 4 and 5
Parameter: SO_2 emissions
Limit: 0.5 lbs/MMBtu

Quarter: _____ **Year:** _____

Month	Sulfur Content (% Wt.)	Heating Value (Btu/lb)	Fuel Oil Consumption (gallons)	Emission Rate (lbs/MMBtu)
Boiler 4:				
Boiler 5:				

Check one of the following:

☐ No deviation occurred in this quarter.

☐ The following deviation/s occurred in this quarter.

Submitted by:_____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

Section D.12-D.15 – Control Device CMS Operations
Streamlined CMS Periodic Report

Source Name: Evonik Degussa Corporation -Tippecanoe Laboratories
Source Address: 1650 Lilly Road, Lafayette, IN 47909-9201
Part 70 Permit No.: T157-26575-00006
Quarter: _____ Year: _____

PART 1: CMS Exceedance Summary

Regulated Entity	CMS	Brief Description	Limits/UOM	Manufacturer/ Model #	Last Audit/ Annual Calibration Date	Description of changes in CMS/CEMS

PART 2: CMS Downtime Summary

Regulated Entity	Operating Time (days)	CMS	Exceedance Time by Cause (days)					Total Exceedance Time (days)	Exceedances (as % of Operating Time)
			Startup/ Shutdown	Control Equipment Problem	Process Problem	Other known	Other Unknown		

PART 3: CMS Downtime Details, If Applicable

Control Device: _____
CMS/CEMS: _____
Operating Time: _____

Start Date	Start Time	End Date	End Time	Downtime Type	SSM (yes/no)	Nature and Cause of Malfunction	Nature of Repairs or Adjustment/ Corrective Actions/ Preventive Measures

Control Device: _____
CMS/CEMS: _____
Operating Time: _____

Start Date	Start Time	End Date	End Time	Downtime Type	SSM (yes/no)	Nature and Cause of Malfunction	Nature of Repairs or Adjustment/ Corrective Actions/ Preventive Measures

Control Device: _____
CMS/CEMS: _____
Operating Time: _____

Start Date	Start Time	End Date	End Time	Downtime Type	SSM (yes/no)	Nature and Cause of Malfunction	Nature of Repairs or Adjustment/ Corrective Actions/ Preventive Measures

PART 4: CMS Excursion Summary, If Applicable

Regulated Entity	Operating Time (days)	CMS	Number of Excursions	% Excursion

PART 5: CMS Excursion Details, If Applicable

Control Device: _____
CMS/CEMS: _____
Operating Time: _____

Date	Duration (days)

PART 6: Bypass Summary

Regulated Entity	Date	Start Time	Building or Fume Stream	Duration (hrs)	SSM Event?

PART 7: SSM Summary

REGULATED SOURCE	DATE	DURATION (hours)	SSM EVENT TYPE	SSM PLAN FOLLOWED?	NOTES

Submitted by:_____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Section E – Leak Detection and Repair (LDAR) Program
Streamlined LDAR Periodic Report

Source Name: Evonik Degussa Corporation -Tippecanoe Laboratories
Source Address: 1650 Lilly Road, Lafayette, IN 47909-9201
Part 70 Permit No.: T157-26575-00006

Period: _____ **Year:** _____

PART 1: LDAR Report for Process System Components

Process Unit:
Equipment Type:
Service

Monitoring Period	Number Tested	Number Leakers	Percent Leakers

Process Unit Shutdown Periods

Number of Components	Number Added	Number Removed

Process Unit:
Equipment Type:
Service

Monitoring Period	Number Tested	Number Leakers	Percent Leakers

Process Unit Shutdown Periods

Number of Components	Number Added	Number Removed

PART 2: LDAR Report for Waste Components

Process Unit:
Equipment Type:
Service

Monitoring Period	Number Tested	Number Leakers	Percent Leakers

Process Unit Shutdown Periods

Number of Components	Number Added	Number Removed

Process Unit:
Equipment Type:
Service

Monitoring Period	Number Tested	Number Leakers	Percent Leakers

Process Unit Shutdown Periods

Number of Components	Number Added	Number Removed

Submitted by:_____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Evonik Degussa Corporation -Tippecanoe Laboratories
Source Address: 1650 Lilly Road, Lafayette, IN 47909-9201
Part 70 Permit No.: T157-26575-00006
Facility: Boilers No. 6 and No.7
Parameter: CO
Limit: 98 tons/12 months

Quarter:_____ YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:_____

Submitted by:_____

Title / Position: _____

Signature:_____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report
for First 12 months of Operation

Source Name: Evonik Degussa Corporation -Tippecanoe Laboratories
Source Address: 1650 Lilly Road, Lafayette, IN 47909-9201
Part 70 Permit No.: T157-26575-00006
Facility: Boilers No. 6 and No.7
Parameter: CO
Limits: (1) 98 ton/12 months
(2) Running Monthly Average: 8.17 tons

Quarter:_____ YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2	(Column 1 + Column 2) / (Total Months of Operation)
	This Month	Previous 11 Months	*Total Months of Operation	Running average up to current month
Month 1				
Month 2				
Month 3				

* When determining the total usage for previous 11 months, assume zero usage during the months when the boilers were not in operation.

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:_____

Submitted by:_____

Title / Position: _____

Signature:_____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Evonik Degussa Corporation -Tippecanoe Laboratories
Source Address: 1650 Lilly Road, Lafayette, IN 47909-9201
Part 70 Permit No.: T157-26575-00006
Facility: Boiler No.6
Parameter: Very low sulfur oil and hours fuel oil burned
Limit: Less than 976,740 gallons/year = < 10% annual capacity for fuel oil

Quarter:_____ YEAR:_____

Quarter	Column 1 This Quarter		Column 2 Year Total		Column 3 (Column 1 + Column 2) Year Total		Annual Capacity for fuel oil
	No. of gallons	No. of hours	No. of gallons	No. of hours	No. of gallons	No. of hours	
Quarter 1 January-March			0.0	0.0			
Quarter 2 April-June							
Quarter 3 July-September							
Quarter 4 October-December							

The boiler's maximum capacity to burn fuel oil is 9,767,400 gallons.
Annual Capacity = No. of gallons of fuel oil burned up to date for the year /9,767,400 gallons

☐ No deviation occurred in this quarter.
☐ Deviation/s occurred in this quarter.
Deviation has been reported on:_____

Submitted by:_____

Title / Position: _____

Signature:_____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Evonik Degussa Corporation -Tippecanoe Laboratories
Source Address: 1650 Lilly Road, Lafayette, IN 47909-9201
Part 70 Permit No.: T157-26575-00006
Facility: Boiler No. 7
Parameter: Very low sulfur oil and hours fuel oil burned
Limit: Less than 976,740 gallons/year = < 10% annual capacity for fuel oil
Quarter:_____ YEAR:_____

Quarter	Column 1 This Quarter		Column 2 Year Total		Column 3 (Column 1 + Column 2) Year Total		Annual Capacity
	No. of gallons	No. of hours	No. of gallons	No. of hours	No. of gallons	No. of hours	
Quarter 1 January-March			0.0	0.0			
Quarter 2 April-June							
Quarter 3 July-September							
Quarter 4 October-December							

The boiler's maximum capacity to burn fuel oil is 9,767,400 gallons.
Annual Capacity = No. of gallons of fuel oil burned up to date for the year /9,767,400 gallons

☐ No deviation occurred in this quarter.
☐ Deviation/s occurred in this quarter.
Deviation has been reported on:_____

Submitted by:_____

Title / Position: _____

Signature:_____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Annual Report

Source Name:	Evonik Degussa Corporation -Tippecanoe Laboratories
Source Address:	1650 Lilly Road, Lafayette, IN 47909-9201
Part 70 Permit No.:	T157-26575-00006
Facility:	Emergency Air Compressor (T26-COMP 5600A)
Parameter:	Hour of operation
Limit:	500 Hours/year

YEAR: _____

Hours of Operation

☐ No deviation occurred in quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:_____

Submitted by:_____

Title / Position: _____

Signature:_____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Evonik Degussa Corporation -Tippecanoe Laboratories
Source Address: 1650 Lilly Road, Lafayette, Indiana 47909
Part 70 Permit No.: T157-26575-00006

Months: _____ to _ Year: _____

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".	
☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed by:_____

Title / Position: _____

Date:_____

Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

Sections F.1 and G.1 – Change Management and Flexible Permit Requirements, and Plantwide Applicability Limitations Requirements
Quarterly Emission Limit Report

Source Name: Evonik Degussa Corporation -Tippecanoe Laboratories
Source Address: 1650 Lilly Road, Lafayette, IN 47909-9201
Part 70 Permit No.: T157-26575-00006
Facility: BPM Operations (RTOs, T79, T49, T149, Chemical WWTP, BPM Building Fugitives)
Parameter: BPM Operations Emission Limit for VOC, CO, NOx, SO_2, and Fluorides;
T79 Fume Incinerator System Emission Sublimit for VOC
Limit:

Pollutant	BPM Operations (tons/yr)	T79 Fume Incinerator (tons/yr)
VOC	300	300
CO	150	30
NOx	300	30
SO_2	300	5
Fluorides	6	2

Facility: Source wide
Parameter: Plantwide Emission Limits for NOx, and SO_2;
PAL Limit:

Pollutant	(Tons/yr)
NOx	648
SO_2	2,059

The attached spreadsheet provides the monthly actual emissions for the BPM operations and PAL NOx and SO_2 limits. The information is used to determine compliance with the emission limits provided above. This emission summary report was:

Submitted by:_____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Source Name: Evonik Degussa Corporation -Tippecanoe Laboratories
Source Address: 1650 Lilly Road, Lafayette, IN 47909-9201
Part 70 Permit No.: T157-26575-00006

Quarter: Year: Pollutant	Actual Emission Estimates, tons								
	Month 1	Previous 11 Months	12-month Total	Month 2	Previous 11 Months	12-month Total	Month 3	Previous 11 Months	12-month total
RTOs									
VOC, Point									
CO									
NOx									
SO_2									
Fluorides									
T79 Fume Incinerator System									
VOC, Point									
CO									
NOx									
SO_2									
Fluorides									
T49 Liquid Waste Incinerator									
VOC, Point									
CO									
NOx									
SO_2									
Fluorides									
T149 Solid-Liquid Waste Incinerator									
VOC, Point									
CO									
NOx									
SO_2									
Fluorides									
Chemical Wastewater Treatment Plant Operations									
VOC, Point									
BPM Building Operations									
VOC, Fugitive									
BPM Total									
VOC (Point+ Fugitive)									
CO									
NOx									

Quarter: Year: Pollutant	Actual Emission Estimates, tons								
	Month 1	Previous 11 Months	12-month Total	Month 2	Previous 11 Months	12-month Total	Month 3	Previous 11 Months	12-month total
SO_2									
Fluorides									
Boilers									
NOx									
SO_2									
Foul Air Incinerator									
NOx									
SO_2									
Reciprocating Engines									
NOx									
SO_2									
Site Total PAL Limits									
NOx									
SO_2									

Submitted by:_____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the Technical Support Document (ATSD)
for a Part 70 Significant Permit Modification

Source Description and Location

Source Name:	Evonik Degussa Corp. - Tippecanoe Laboratories
Source Location:	1650 Lilly Road, Lafayette, Indiana 47909
County:	Tippecanoe
SIC Code:	2833 and 2879
Operation Permit No.:	T 157-26575-00006
Operation Permit Issuance Date:	October 6, 2009
Significant Permit Modification No.:	157-32172-00006
Permit Reviewer:	Josiah Balogun

Public Notice Information

On September 22, 2012, the Office of Air Quality (OAQ) had a notice published in the Journal and Courier in Lafayette, Indiana, stating that Evonik Degussa Corporation - Tippecanoe Laboratories had applied for a Significant Modification to its Part 70 Operating Title V Permit issued on October 6, 2009 relating to updates in their permit. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Comments Received

On October 19, 2012, IDEM, OAQ received comments from Teresa Reksel of Evonik Degussa Corporation - Tippecanoe Laboratories. The comments are summarized in the subsequent pages, with IDEM's corresponding responses.

No changes have been made to the TSD because the OAQ prefers that the Technical Support Document reflects the permit that was on public notice. Changes that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result, ensuring that these types of concerns are documented and part of the record regarding this permit decision.

The summary of the comments and IDEM, OAQ responses, including changes to the permit No T157-26575-00006 (language deleted is shown in ~~strikeout~~ and language added is shown in **bold**) are as follows:

Comment 1: Evonik Degussa Corporation - Tippecanoe Laboratories is Requesting IDEM to remove Building T28 from footnote of table, since that building no longer exists at the source.

Response 1: The building indentified as T28 has been removed from Section D.6 of the permit accordingly.

SECTION D.6 BULK PHARMACEUTICAL MANUFACTURING (BPM) PRODUCTION OPERATION CONDITIONS

Emissions Unit Description: [326 IAC 2-7-5(1)]

(a) The emission units listed below are subject to applicable requirements described or referred to in this D section. The emission units in the BPM production operations can be generally described as process vessels (tanks), crystallizers, filters, centrifuges, dryers, process scrubber systems, and process condenser systems and are referred to as process vents under the National Emission Standards of Hazardous Air Pollutants for Pharmaceutical Production Operations (Pharmaceutical MACT) found at 40 CFR Part 63, Subpart GGG.

General activities such as open manway operations, charging a liquid from a drum to a tank, centrifuge emptying operations, drum filling operations, or loading wetcake into driers are also defined as process vents. Individual identification of these activities are not listed in the description tables given they are not stationary or continually change. Each of these activity types will follow the compliance requirements outlined in this permit section.

Ancillary activities, such as heat exchange systems, are not considered process vents and have not been included in the description tables.

****

* Emission units marked with an asterisk are insignificant activities as defined by 326 IAC 2-7-1(21).
** This equipment is currently not in service; however, this equipment shall be tied into either the RTO control system or the T79 control system upon startup.
*** Spare equipment may be used anywhere on the plant site. If the equipment is used in T27, ~~T28,~~ T31, T31A, T99, or T100, it will be vented to the RTO as required by Section D.6 of the permit. If the equipment is used in the T171 area, it will be vented to the atmosphere as allowed by Section D.16 of the permit.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Comment 2: Evonik Degussa Corporation - Tippecanoe Laboratories is Requesting IDEM to remove the last comment of table since it applied to Building T28, which no longer exists.

Response 2: The foot note associated with Building T28 has been deleted from Section D.8 of the permit accordingly.

SECTION D.8 BPM SUPPORT OPERATIONS - INDIVIDUAL DRAIN SYSTEM OPERATION CONDITIONS

Emissions Unit Description: BPM SUPPORT OPERATIONS – INDIVIDUAL DRAIN SYSTEM CONDITIONS

The emission units listed below are subject to applicable requirements described or referred to in this D section when they are accepting affected wastewater. These sumps and the drain systems associated with the sumps are defined as individual drain systems under the National Emission Standards for Hazardous Air Pollutants for Pharmaceutical Production Operations (Pharmaceutical MACT) found at 40 CFR 63, Subpart GGG or under the National Emission Standards of Hazardous Air Pollutants from Off-site Waste and Recovery Operations (Offsite Waste MACT) found at 40 CFR 63, Subpart DD.

****

* Emission units marked with an asterisk are insignificant activities as defined by 326 IAC 2-7-1(21)(A)-(C).
~~** This equipment is currently not in service; however, this equipment shall be tied into either the RTO control system or the T79 control system upon startup.~~

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Comment 3: Evonik Degussa Corporation - Tippecanoe Laboratories is Requesting IDEM to remove equipment associated with Building T28, because the building no longer exists.

Response 3: The emission unit, identified as T28-TK-28HW associated with Building T28 has been removed from Section D.10 since Building T28 no longer exist at the source.

SECTION D.10 BPM SUPPORT OPERATIONS - WASTE TANK OPERATION CONDITIONS

Emissions Unit Description: [326 IAC 2-7-5(1)]

Emission Unit ID	Emission Unit Description ***	Stack/Vent	Nominal Capacity	Control Device
Building T27:				
T27-TK53-10*	Waste Tank	RTO	500 gal	RTO
~~*Building T28:*~~				
~~T28-TK-28HW*~~	~~Waste Tank~~	~~T79 or RTO**~~	~~250 gal~~	~~T79 or RTO**~~
Building T29:				
T29-TK7902*	Waste Tank	RTO	1000 gal	RTO
Building T31:				
T31-TK609*	Waste Tank	RTO	100 gal	RTO
T31-TK669*	Waste Tank	RTO	100 gal	RTO
Building T31A:				
T31A-TK451K*	Waste Tank	RTO	100 gal	RTO
T31A-TK688*	Waste Tank	RTO	125 gal	RTO

****
* Emission units marked with an asterisk are insignificant activities as defined by 326 IAC 2-7-1(21)(A)-(C).
** This equipment is currently not in service; however, this equipment shall be tied into either the RTO control system or the T79 control system upon startup.
*** This equipment may store solvent or waste.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Comment 4: Evonik Degussa Corporation - Tippecanoe Laboratories is Requesting IDEM to correct a typo in Condition D.14.5

Response 4: The typo in Condition D.14.5 has been corrected accordingly in the permit.

D.14.5 Continuous Emissions Monitoring System (CEMS) Requirements [40 CFR 60, Appendix B and Appendix F, 40 CFR 60.113b(c), 40 CFR 63.1258(b), 40 CFR 63.693(f), 40 CFR 63.8, 326 IAC 2-1.1-11, 326 IAC 2-7-24, 326 IAC 3-5]

(a) CO, NOx, and SO_2 CEMS Operation Requirements –The following requirements shall

apply when the RTO is burning waste fume streams:

****

(C) When the NOx CEMS malfunctions, the Permittee shall monitor and record the combustion chamber temperature and exhaust airflow rate from the RTO as required by D.14.~~6~~ **7**(a) (1) and (3), and assess NOx emissions, using process knowledge, to determine whether the quantity of nitrogen fed into the RTOs during that time could have exceeded the worst case 24-hour daily average nitrogen feed rate of 1, 085 pounds per hour that formed the basis of the NOx BACT limit.

Comment 5: Evonik Degussa Corporation - Tippecanoe Laboratories is Requesting IDEM to remove Building T28 from footnote of Section H.1 description table, since that building no longer exists.

Response 5: The building indentified as T28 has been removed from Section H.1 of the permit accordingly.

SECTION H.1 SYNTHETIC ORGANIC CHEMICAL MANUFACTURING REQUIREMENTS

Emissions Unit Description:

The emission units listed below may function as chemical manufacturing process units, as defined in 40 CFR 63.101, if they manufacture as a primary product one or more of the chemicals listed in Table 1 of 40 CFR part 63 Subpart F, and/or Tetrahydrobenzaldehyde (CAS Number 100–50–5), and/or Crotonaldehyde (CAS Number 123–73–9), but do not use as a reactant or manufacture as a product, or co-product, one or more of the organic hazardous air pollutants listed in table 2 of 40 CFR part 63 subpart F.

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* Emission units marked with an asterisk are insignificant activities as defined by 326 IAC 2-7-1(21).

** This equipment is currently not in service; however, this equipment shall be tied into either the RTO control system or the T79 control system upon startup.

*** Spare equipment may be used anywhere on the plant site. If the equipment is used in T27, ~~T28,~~ T31, T31A, T99, or T100, it will be vented to the RTO as required by Section D.6 of the permit. If the equipment is used in the T171 area, it will be vented to the atmosphere as allowed by Section D.16 of the permit.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

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Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Significant Permit Modification

Source Description and Location

Source Name:	Evonik Degussa Corp. - Tippecanoe Laboratories
Source Location:	1650 Lilly Road, Lafayette, Indiana 47909
County:	Tippecanoe
SIC Code:	2833 and 2879
Operation Permit No.:	T 157-26575-00006
Operation Permit Issuance Date:	October 6, 2009
Significant Permit Modification No.:	157-32172-00006
Permit Reviewer:	Josiah Balogun

Existing Approvals

The source was issued Part 70 Operating Permit No. T157-26575-00006 on October 6, 2009. The source has since received the following approvals:

(a) Significant Source Modification No. 157-26577-00006, issued on October 6, 2009;

(b) Minor Source Modification No. 157-28530-00006, issued on November 9, 2009;

(c) Administrative Amendment No. 157-28636-00006, issued on November 9, 2009;

(d) Administrative Amendment No. 157-28727-00006, issued on January 6, 2010;

(e) Significant Permit Modification No. 157-29126-00006, issued on June 15, 2010;

(f) Review Request No. 157-30430-00006, issued on April 28, 2011; and

(g) Significant Permit Modification No. 157-31009-00006, issued on January 23, 2012.

County Attainment Status

The source is located in Tippecanoe County

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard.[1]
$PM_{2.5}$	Unclassifiable or attainment effective April 5, 2005.
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Not designated.

[1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM2.5.

(a) Ozone Standards
Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Tippecanoe County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) $PM_{2.5}$
Tippecanoe County has been classified as attainment for $PM_{2.5}$. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for $PM_{2.5}$ emissions. These rules became effective on July 15, 2008. On May 4, 2011 the air pollution control board issued an emergency rule establishing the direct $PM_{2.5}$ significant level at ten (10) tons per year. This rule became effective, June 28, 2011. Therefore, direct $PM_{2.5}$ and SO_2 emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

(c) Other Criteria Pollutants
Tippecanoe County has been classified as attainment or unclassifiable in Indiana for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

Since this source is classified as a pharmacuetical manufacturing plant, it is considered one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7. Therefore, fugitive emissions are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Source Status

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

Pollutant	**Emissions** (ton/yr)
PM	> 100
PM_{10}	> 100
$PM_{2.5}$	> 100
SO_2	> 100
VOC	> 100
CO	> 100
NO_X	> 100
GHGs as CO_2e	> 100,000
HAPs	
Single HAP	> 10
Total HAPs	> 25

(a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because a regulated pollutant is emitted at a rate of 100 tons per year or more, emissions of GHGs are equal to or greater than one hundred thousand (100,000) tons of CO_2 equivalent emissions (CO_2e) per year and it is one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).

(b) These emissions are based upon Significant Permit Modification 157-31009-00006, issued on January 23, 2012.

(c) This existing source is a major source of HAPs, as defined in 40 CFR 63.2, because HAP emissions are greater than ten (10) tons per year for a single HAP and greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by Evonik Degussa Corporation - Tippecanoe Laboratories on August 1, 2012, relating to the addition of new insignificant activities and updates in their permit.

PROPOSED MODIFICATIONS

Section A.3
Evonik is adding a compounder and injection molder that will serve a research and development (R&D) function associated with the high performance polymers business unit. This equipment will be located in building T39.

Section D.2 and D.20 Engines
Evonik is requesting the removal of diesel compressors T78 and T89-1 from Section D.2, because these are mobile sources/non-road engines and therefore outside the scope of Title V permitting requirements. Each of these devices qualifies as a non-road engine because they meet the third criterion of the definition of non-road engine found in 40 CFR Parts 89 and 90, and other EPA rules.

Section D.10
Evonik is requesting the removal of the T28 sump from Section D.8, because building T28, including the T28 sump has been removed.

Section D.12 and D.13
Evonik is requesting to update the continuous monitoring requirements for NOx and SO_2 in Sections D.12.14(b)(2) and D.13.14(b)(2) to correct an error that was made during the 2008-2009 Title V permit renewal. The continuous monitoring requirements for NOx and SO_2 were inadvertently updated to match the Hazardous Waste Combustor Maximum Achievable Control Technology (HWC MACT) requirements, which do not apply to NOx and SO_2.

Section D.16
Evonik is requesting the addition of various clarifications to this permit section to better reflect the requirements of the Pharmaceuticals Production MACT (40 CFR part 63, subpart GGG) as well as to consolidate redundant permit conditions.

Section D.20
Evonik is requesting changes to Section D.20 to remove residual 2007 Boiler Maximum Achievable Control Technology (Boiler MACT) verbiage and to correct regulatory citations.

Section E.1
A minor addition is being made to condition E.1.3(a)(9) to incorporate repair delay requirements from 40 CFR 63.1255(g)(4)(v)(4) of the Pharmaceuticals Production MACT.

Section F
Corrections are being made to Section F regarding flow calculations. Section F incorrectly states that the “combustion and atomized air flow rate into the T49 liquid waste incinerator” will be monitored for Section F of the permit. Emissions cannot be calculated from such information.

Section G
Evonik is proposing to update conditions G.1.4(d)(1) and G.1.5(d)(1) to incorporate T26-COMP-5600A and the T62 300 HP diesel emergency air compressor.

Section H
Evonik plans to modify the production capability in the Bulk Pharmaceutical Manufacturing (BPM) Production area (i.e., in the equipment listed in Section D.6 of the Title V permit) to enable this equipment to purify amino acids. Section H is being added to the permit to incorporate applicable portions of the National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry (SOCMI Rule, 40 CFR part 63 subpart F) that apply to some of the amino acids.

Enforcement Issues

There are no pending enforcement actions.

Emission Calculations

See Appendix A of this Technical Support Document for detailed emission calculations.

Permit Level Determination – Part 70

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, IDEM, or the appropriate local air pollution control agency."

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Increase in PTE Before Controls of the Modification	
Pollutant	**Potential To Emit** (ton/yr)
PM	0.17
PM_{10}	0.17
$PM_{2.5}$	0.17
SO_2	0.15
VOC	0.38
CO	0.57
NO_X	2.43
GHGs as CO2e	162

This modification is not subject to the source modification requirements under 326 IAC 2-7-10.5. Pursuant to 326 IAC 2-7-12(d)(1), this modification is considered a Significant Permit Modification because modifying the existing part 70 Operating Permit modification requires a case-by-case determination of emission limits.

Permit Level Determination – PSD

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 permit modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

	Potential to Emit (ton/yr)								
Process / Emission Unit	**PM**	**PM_{10}**	**$PM_{2.5}$***	**SO_2**	**VOC**	**CO**	**NO_X**	**GHGs**	**Pb**
Compounder	0	0	0	0	0.11	0	0	0	0
Injection Molder	0	0	0	0	0.07	0	0	0	0
T62 Emergency Diesel Air Compressor	0.17	0.17	0.17	0.15	0.19	0.5	2.33	86.5	neg
T6 Emergency Natural Gas Generator	0	0	0	0.000023	0.0044	0.02	0.03	61.7	neg
T148 Emergency Natural Gas Generator	0	0	0	0.00005	0.01	0.05	0.07	13.9	neg
Total for Modification	0.17	0.17	0.17	0.15	0.38	0.57	2.43	162	neg
Significant Level	25	15	10	40	40	100	40	75,000 CO_2e	0.6

This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

Federal Rule Applicability Determination

(a) All the new and modified emission units are insignificant units, therefore, based on this evaluation, the requirements of 40 CFR Part 64, CAM are not applicable to any of the new or modified units as part of this modification.

(b) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.

(c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) applicable to this proposed modification.

State Rule Applicability Determination

326 IAC 2-1.1-5 (Nonattainment New Source Review)
Nonattainment New Source Review applicability is discussed under the Permit Level Determination – PSD and Emission Offset section.

326 IAC 2-2 (PSD)
PSD applicability is discussed under the Permit Level Determination – PSD section.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

There are no Compliance Monitoring and Determination Requirements applicable to this modification at this time.

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. 157-26575-00006. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

Change 1: The source is adding a compounder and injection molder that will serve a research and development (R&D) function associated with the high performance polymers business unit. The Research and Development Operations ID has been updated. This reference [See Section D.21] does not apply to this insignificant activity.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

(a) This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

(6) D.16 Research and Development Operations: The T**1**71 equipment components from process piping systems, including pumps, valves, and piping connections [flanges] are classified as insignificant activities under the research and development facility clause pursuant to 326 IAC 2-7-1(21)(E). [40 CFR 63.1255 and 40 CFR 61, Subpart V]

.....

(39) Research and development facility as defined in 326 AIC 2-7-1(E); ~~[See Section D.21]~~

.....

(42) T39 research and development activities defined in 326 IAC 2-7-1(21)(H).

Change 2: The source is requesting the removal of diesel compressors T78 and T89-1 from Section D.2, because these are mobile sources/non-road engines and therefore outside the scope of Title V permitting requirements. The source is proposing to remove the headings associated with each of the engines identified in the Emission Unit Description, because some of the headings are incorrect, and the Emission Unit ID reflects the location of each unit. The source is also requesting the addition of three (3) emergency engines as insignificant activities to Section D.2. A permit condition in Condition D.2.1 expired, therefore the condition has been removed from the permit.

SECTION D.2 UTILITIES SUPPORT OPERATION CONDITIONS

Emissions Unit Description: [326 IAC 2-7-5(1)]

(a) The following emissions units is subject to applicable requirements described in this D section:

Emission Unit ID	Emission Unit Description	Stack/Vent	Nominal Capacity	UOM	Control Device
~~*Server Room:*~~					
Server Room*	Emergency Diesel Generator	N/A	~~300~~ **402**	~~KW~~ **HP**	None

(b) The following emission units are not subject to applicable requirements described in this D section and are listed only for informational purposes:

Emission Unit ID	Emission Unit Description	Stack/Vent	Nominal Capacity	UOM	Control Device
~~*Building T5:*~~					
T5*	Emergency Diesel Generator	N/A	380	HP	None
T6*	**Emergency Natural Gas Generator**	**N/A**	**60**	**HP**	**None**
~~*Building T6:*~~					
~~T121~~	~~Diesel Generator~~	~~N/A~~	~~1,250~~	~~KW~~	~~None~~
~~*Portable Units:*~~					
T62*	Emergency Diesel Generator	N/A	~~1,100~~ **1,475**	~~KW~~ **HP**	None
T62*	**Emergency Diesel Air Compressor**	**N/A**	**300**	**HP**	**None**
T70*	**Emergency Diesel Generator**	**N/A**	**402**	**HP**	**None**
T121*	**Diesel Generator**	**N/A**	**1,676**	**HP**	**None**
T135*	Emergency Diesel Generator	N/A	390	HP	None
T148*	**Emergency Natural Gas Generator**	**N/A**	**134**	**HP**	**None**
~~T78*~~	~~Diesel Compressor~~	~~N/A~~	~~58~~	~~KW~~	~~None~~
~~T89-1*~~	~~Diesel Compressor~~	~~N/A~~	~~58~~	~~KW~~	~~None~~
~~*Building T97/T98:*~~					
T97/T98*	Glycol System	N/A	45,000	gallon	None
~~*Building T9/T23:*~~					
T9/T23*	Lime Storage Silo	N/A	79.5	lb/hr	None
~~Building T70:~~					
~~Gen 7001*~~	~~Emergency Diesel Generator~~	~~N/A~~	~~300~~	~~KW~~	~~None~~

* Emission units marked with a single asterisk are insignificant activities as defined in 326 IAC 2-7-1(21).

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)][326 IAC 12] [326 IAC 20-82] [40 CFR Part 60, Subpart IIII] [40 CFR Part 63, Subpart ZZZZ]

D.2.1 Engines Subject to Standards of Performance for Stationary Compression Ignition Internal Combustion Engines and National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [40 CFR Part 60, Subpart IIII and 40 CFR Part 63, Subpart ZZZZ]

.....

(b) Pursuant to 40 CFR Part 60.4200 for the emission units listed in item (a) of the emission unit description, which includes those engines which the Permittee ordered after July 11, 2005 and where the stationary combustion ignition internal combustion engine was manufactured after April 1, 2006 and is not a fire pump engine, the Permittee shall comply with the provisions of Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE), pursuant to 40 CFR Part 60, Subpart IIII, which are incorporated by reference as 326 IAC 12, as follows.

.....

(4) Pursuant to 40 CFR Part 60.4207 and 40 CFR Part 80.510, the following fuel standards shall apply:

(A) **Reserved** ~~Beginning October 1, 2007, the Permittee must use diesel fuel that meets one of the following requirements:~~

~~(i) Maximum sulfur content of 500 parts per million (ppm) and minimum cetane index of 40.~~

~~(ii) Maximum sulfur content of 500 parts per million (ppm) and maximum aromatic content of 35 volume percent.~~

.....

Change 3: The source is requesting the removal of the T28 sump from Section D.8, because building T28, including the T28 sump has been removed.

SECTION D.8 BPM SUPPORT OPERATIONS - INDIVIDUAL DRAIN SYSTEM OPERATION CONDITIONS

Emissions Unit Description: BPM SUPPORT OPERATIONS – INDIVIDUAL DRAIN SYSTEM CONDITIONS

The emission units listed below are subject to applicable requirements described or referred to in this D section when they are accepting affected wastewater. These sumps and the drain systems associated with the sumps are defined as individual drain systems under the National Emission Standards for Hazardous Air Pollutants for Pharmaceutical Production Operations (Pharmaceutical MACT) found at 40 CFR 63, Subpart GGG or under the National Emission Standards of Hazardous Air Pollutants from Off-site Waste and Recovery Operations (Offsite Waste MACT) found at 40 CFR 63, Subpart DD.

Unit ID	Unit Description	Stack/Vent	Nominal Capacity	Control Device
Building T27:				
T27-Sump*	Sump Tank/Lift Station	RTO	2,000 gallons	RTO
~~*Building T28:*~~				
~~T28-Sump*~~	~~Sump~~	~~T79 or RTO**~~	~~1,300 gallons~~	~~T79 or RTO**~~
Building T31:				

T31-Sump*	Sump	RTO	5,900 gallons	RTO
Building T31A:				
T31A-Sump*	Sump	RTO	300 gallons	RTO
Building T19:				
T19-1-Sump*	Sump	None	NA	None
Building T99:				
T99-Sump*	Sump	RTO	7,500 gallons	RTO
Building T100:				
IDS	Drain system to T100 Tank 48 and/or T79	RTO	NA	RTO
Building T148:				
T148-TK782*	IDS	None	100 gallons	None

* Emission units marked with an asterisk are insignificant activities as defined by 326 IAC 2-7-1(21)(A)-(C).
** This equipment is currently not in service; however, this equipment shall be tied into either the RTO control system or the T79 control system upon startup.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

.....

Change 4: The source is requesting to update condition D.10.1(c)(2) to provide further detail regarding the semiannual visual inspections. The proposed verbiage is consistent with the streamlined requirements.

D.10.1 Standards for BPM Waste Storage Tanks [40 CFR 63.1256(b), 40 CFR 63.685, 40 CFR 60.110b, 326 IAC 2-2-3, and 326 IAC 8-5-3]

The following streamlined standards for BPM waste storage tanks satisfy the requirements of the Pharmaceutical MACT Standards for wastewater tanks [40 CFR 63.1256(b)], Volatile Organic Liquid Storage Vessel Standards [40 CFR 60.110b], Offsite Waste MACT Standards for waste tanks [40 CFR 63.685], PSD BACT requirements [326 IAC 2-2-3], and RACT requirements for synthesized pharmaceutical manufacturing operations [326 IAC 8-5-3]:

.....

(c) Inspection Standards:

(1) The Permittee shall conduct one-time Method 21 inspections on each new fixed roof BPM waste storage tank not operated under negative pressure and not subject to LDAR within 150 days upon startup.

(2) The Permittee shall conduct semiannual visual inspections on the fixed roof and all openings of each BPM waste storage tank for ~~visible, audible, or olfactory indications of leaks~~.

(A) Improper work practices;

(B) Control equipment failures; and

(C) Visible, audible, or olfactory indications of leaks.

.....

Change 5: The source is requesting to update the continuous monitoring requirements for NOx and SO_2 in Sections D.12.14(b)(2) and D.13.14(b)(2) to correct an error that was made during the 2008-2009 Title V permit renewal. The continuous monitoring requirements for NOx and SO_2 were inadvertently updated to match the Hazardous Waste Combustor Maximum

Achievable Control Technology (HWC MACT) requirements, which do not apply to NOx and SO_2.

D.12.12 Plans and Procedures [326 IAC 2-2-3, 40 CFR 63.1206, 40 CFR 63.1211, 326 IAC 2-7-5(13)]

.....

(d) Continuous Emissions Monitoring System (CEMS) Standard Operating Procedures (SOP) – The Permittee shall prepare and implement a SOP that provides step-by-step procedures and operations of the CEMS in accordance with 326 IAC 3-5-4(~~a~~**c**)(9) – Preventive maintenance procedures and corrective maintenance procedures that include those procedures taken to ensure continuous operation and to minimize malfunctions.

D.12.13 Performance Test Requirements [40 CFR 63.1207, 326 IAC 2-1.1-11, 326 IAC 3-6]

The following streamlined performance test requirements shall satisfy the NESHAP General Provisions [40 CFR 63.7], the HWC MACT requirements [40 CFR 63.1207 and 63.1209], the PSD BACT requirements for VOC and fluorides [326 IAC 2-1.1-11] and the State emission testing requirements [326 IAC 3-6]:

.....

(b) Confirmatory Performance Tests

.....

(6) Pursuant to 40 CFR 63.1207(j), the Permittee shall postmark a Notification of Compliance (NOC) documenting compliance or noncompliance with the applicable dioxin/furan emission standard within 90 days of completion of the ~~comprehensive~~ **confirmatory** performance test.
This submittal requirement satisfies the reporting requirements of 326 IAC 3-6 as allowed under extension provisions of 326 IAC 3-6-4(b).

D.12.14 Continuous Emissions Monitoring Systems (CEMS) Operating Requirements [40 CFR 63.1209, 40 CFR 63.8, 326 IAC 2-7-24, 326 IAC 3-5, 326 IAC 2-1.1-11, 40 CFR 60, Appendix B, and 40 CFR 60, Appendix F]

.....

(b) SO_2 and NOx CEMS Operation Requirements – The following requirements shall apply when the T49 Incinerator is burning waste

(1) The Permittee shall install and operate the SO_2 and NOx CEMS in accordance with the QA/QC criteria set forth in 40 CFR 60, Appendix B and 40 CFR 60, Appendix F, Procedure 1.

(2) **Continuous operation is defined as the collection of at least one measurement for each successive 15-minute period.** ~~Continuous monitor means a device which continuously samples the regulated parameter without interruption, evaluates the detector response at least once every 15 seconds and computes and records the average at least every 60 seconds, except during allowable periods of calibration and other exceptions identified in applicable requirements, plans and/or procedures. One-minute average means the average of detector responses calculated at least every 60 seconds from response obtained at least every 15 seconds.~~

(3) The Startup, Shutdown, and Malfunction (SSM) Plan required by Condition D.12.12 (b) shall include procedures for monitoring and recording the following information during times of SO_2 or NOx CEMS malfunction:

(A) When the SO_2 CEMS malfunctions, the Permittee shall monitor and record the Hydro-Sonic™ equivalent pressure drop and scrubber liquid flow rate as required by Condition D.12.15 (a) ~~(3)(C) and (D)~~ and the

scrubber liquid pH as required by Condition D.12.15 (a) ~~(5)(C)~~.

(B) When the NOx CEMS malfunctions, the Permittee shall monitor and record the combustion chamber temperature, combustion air flow rate, and primary and secondary waste feed rates as required by Condition D.12.15 (a) ~~(1)~~, and assess NOx emissions, using waste testing, waste shipment and process knowledge, to determine whether the quantity of nitrogen fed into the incinerator during that time could have exceeded the worst case 24-hour daily average nitrogen feed rate of 1,650 pounds per hour that formed the basis of the NOx BACT limit.

D.13.12 Plans and Procedures [326 IAC 2-2-3, 40 CFR 63.1206, 40 CFR 63.1211, 326 IAC 2-7-5(13)]

In order to satisfy the HWC MACT Standards [40 CFR 63.1206] and the PSD BACT requirements [326 IAC 2-2-3], the Permittee shall develop and implement the following written plans, which shall be maintained in the operating record:

.....

(e) Continuous Emissions Monitoring System (CEMS) Standard Operating Procedures (SOP) – The Permittee shall prepare and implement an SOP that provides step-by-step procedures and operations of the CEMS in accordance with 326 IAC 3-5-4(~~a~~**c**) (9) – Preventive maintenance procedures and corrective maintenance procedures that include those procedures taken to ensure continuous operation and to minimize malfunctions.

D.13.13 Performance Test Requirements [40 CFR 63.1207, 326 IAC 2-1.1-11, 326 IAC 3-6]

The following streamlined performance test requirements shall satisfy the NESHAP General Provisions [40 CFR 63.7], the HWC MACT requirements [40 CFR 63.1207 and 63.1209], the PSD BACT requirements for VOC and fluorides [326 IAC 2-1.1-11] and the State emission testing requirements [326 IAC 3-6]:

.....

(b) Confirmatory Performance Tests

.....

(6) Pursuant to 40 CFR 63.1207(j), the Permittee shall postmark a Notification of Compliance (NOC) documenting compliance or noncompliance with the applicable dioxin/furan emission standard within 90 days of completion of the ~~comprehensive~~ **confirmatory** performance test.

This submittal requirement satisfies the reporting requirements of 326 IAC 3-6 as allowed under extension provisions of 326 IAC 3-6-4(b).

.....

D.13.14 Continuous Emissions Monitoring Systems (CEMS) Operating Requirements [40 CFR 60, Appendix B and Appendix F, 40 CFR 63.8, 326 IAC 2-1.1-11, 326 IAC 3-5, US EPA approved Alternative Monitoring Petition initially approved January 27, 2006]

.....

(b) SO_2 and NOx CEMS Operation Requirements – The following requirements shall apply when the T149 solid-liquid waste incinerator is burning waste:

(1) The Permittee shall install and operate the SO_2 and NOx CEMS in accordance with the QA/QC criteria set forth in 40 CFR 60, Appendix B, 40 CFR 60, Appendix F, Procedure 1, and the AMP approved on January 27, 2006.

(2) **Continuous operation is defined as the collection of at least one measurement for each successive 15-minute period.** ~~Continuous monitor means a device which continuously samples the regulated parameter without interruption, evaluates the detector response at least once every 15 seconds and~~

~~computes and records the average at least every 60 seconds, except during allowable periods of calibration and other exceptions identified in applicable requirements, plans and/or procedures. One-minute average means the average of detector responses calculated at least every 60 seconds from response obtained at least every 15 seconds.~~

(3) The Startup, Shutdown, and Malfunction (SSM) Plan required by Condition D.13.12 (b) shall include procedures for monitoring and recording the following information during times of SO_2 or NOx CEMS malfunction:

(A) When the SO_2 CEMS malfunctions, the Permittee shall monitor and record the Hydro-Sonic™ equivalent pressure drop and scrubber liquid flow rate as required by Condition D.13.15 (a) ~~(3)(C) and (D)~~ and the scrubber liquid pH as required by Condition D.13.15 (a) ~~(5)(C).~~

(B) When the NOx CEMS malfunctions, the Permittee shall monitor and record the combustion chamber temperature, combustion air flow rate, and primary and secondary waste feed rates as required by Condition D.13.15 (a) ~~(1)~~, and assess NOx emissions, using waste testing, waste shipment and process knowledge, to determine whether the quantity of nitrogen fed into the incinerator during that time could have exceeded the worst case 24-hour daily average nitrogen feed rate of 1,379 pounds per hour that formed the basis of the NOx BACT limit.

.....

Change 6: The source is changing the numbering of the Condition in Condition D.15.3

D.15.1 T79 Control Device and Closed Vent System Standards [40 CFR 63.1253(b), (c), and (d), 63.1254(a) and (c), 63.1256(b), (e), and (h), 63.1258(b), 40 CFR 63.685(c) and (d), 63.689(b), 63.690(b), 63.693(f), 40 CFR 60.112b(a) and 60.113b(c), 326 IAC 2-2-3, and 326 IAC 8-5-3(b)]

(a) **********

(2) ******

(A) *****

(B) *****

(i) Minimum 24-hour daily average scrubber liquid pH of 2.45 for Scrubber 313 and 2.36 for Scrubber 314;

(ii) Minimum 24-hour daily average scrubber ~~liquid recirculation~~ **caustic** flow rate of 0.84 gallons per minute for Scrubber 313 and 0.38 gallons per minute for Scrubber 314; and

(iii) Maximum 24-hour daily average scrubber ~~caustic~~ **liquid recirculation** flow rate of 134 gallons per minute for Scrubbers 313 and 314.

.....

D.15.3 Startup, Shutdown, and Malfunction Requirements for T79 Control System [40 CFR 60.8(c), 40 CFR 63.1250(g), 40 CFR 63.697(b)(3) and 326 IAC 2-2-3]

.....

(2) Pursuant to 40 CFR 63.697(b)(3), the Permittee shall develop an SSM Plan to ensure that processes and air pollution control devices subject to the Offsite Waste MACT and PSD BACT requirements are operated and maintained in a manner to prevent or minimize excess emissions to the extent practical [40 CFR 63.6(e)]. The SSM Plan shall contain

the following information:

(~~1~~**A**) Detailed procedures for operating and maintaining the processes and T79 system, including associated CEMS and CMS equipment, during periods of startup, shutdown, and malfunction; and

(~~2~~**B**) Corrective action program for malfunctioning processes and air pollution control equipment.

.....

Change 7: Evonik is requesting the addition of various clarifications to this permit section to better reflect the requirements of the Pharmaceuticals Production MACT (40 CFR part 63, subpart GGG) as well as to consolidate redundant permit conditions.

SECTION D.16 BPM SUPPORT OPERATIONS – RESEARCH AND DEVELOPMENT OPERATIONS AND PHARMACEUTICAL MANUFACTURING OPERATIONS CONDITIONS

Emissions Unit Description [326 IAC 2-7-5(15)]:

(a) The emission units listed below are insignificant activities as defined in 326 IAC 2-7-1(21), but are subject to applicable requirements described or referred to in this D section.

Emission Unit ID	Emission Unit Description	Stack/Vent	Nominal Capacity	Control Device
Building T171:				
T171-31A985DUCHT4	Charge Tank	Atmosphere	10 gallons	Cryogenic Condenser*
T171-TI0031000MS001	Slurry Mill	Atmosphere	NA	Cryogenic Condenser*
T171-TK9616	Condensate Collection Tank	Atmosphere	10 gallons	Cryogenic Condenser*
.....	.....	.....	.....	.....
T171-TK9622	**Charge Tank**	**Atmosphere**	**15 gallons**	**Cryogenic Condenser***
----------	.....	.....	.....	.....

* Control devices marked with an asterisk are voluntary control units and are not required to demonstrate compliance with any regulations unless specified in a Pharmaceutical MACT operating scenario.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

.....

D.16.2 Pharmaceutical MACT Process-Based Annual Mass Limit [40 CFR 63.1254]

When an emission unit listed above is not serving as a research and development facility and is engaged in the manufacture of products for commercial sale in commerce greater than a de minimis manner, the following apply:

(~~1~~**a**) The undiluted and uncontrolled process vent streams equal to or greater than 50 ppmv hazardous air pollutants (HAP) from the emission unit **that use the process-based annual mass limit** shall ~~be~~ limit~~ed~~ **actual process vent emissions** to 900 kilograms (kg) per 365-day period to comply with the individual process-based mass limit standards under 40 CFR 63.1254(a)(2)(i); and

(~~2~~**b**) The Permittee may switch from compliance with the process-based annual mass limit to

another Pharmaceutical MACT process vent compliance method only after at least 1 year of operation using the process-based annual mass limit.

.....

Testing and Monitoring Requirements [326 IAC 2-7-5(1), 326 IAC 2-7-6(1), 40 CFR 63.1257, and 40 CFR 63.1258]

D.16.5 Pharmaceutical MACT Testing and Monitoring Requirements [40 CFR 63, Subpart GGG and326 IAC 20]

For each process subject to Pharmaceutical MACT standards, the following apply:

(a) Pursuant to 40 CFR 63.1258(c), the Permittee shall demonstrate continuous compliance with the process-based annual mass limits by calculating daily 365 day rolling summations of emissions. **The procedures in 40 CFR 63.1257 should be used to determine emissions.**

(b) When control devices are used to meet the process-based annual mass limits, the Permittee must monitor control devices and demonstrate compliance pursuant to 40 CFR 63.1258(b), as follows when such control devices are in use:

(1) For control devices that control vent streams totaling less than 1 ton per year HAP emissions, before control, the Permittee shall verify daily or per batch that the control 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. Measurements taken for this verification are not considered continuous monitoring systems.

(2) For condensers that control vent streams totaling greater than 1 ton per year and less than 10 tons per year HAP emissions, before control:

(A) The Permittee shall establish the maximum condenser outlet temperature **or product side temperature** as a site-specific operating parameter~~.~~ **pursuant to 40 CFR 63.1258(b)(3) and 63.1257(d)(3).**

(B) The Permittee shall measure and record the outlet gas temperature at least every 15 minutes during the period in which the condenser is functioning in achieving HAP removal. **The outlet gas temperature continuous monitoring system must meet all applicable requirements of 40 CFR 63.8.**

(C) The temperature monitoring device must be accurate to within ± 2 percent of the temperature measured in degrees Celsius or ± 2.5 degrees Celsius whichever is greater.

(D) The temperature monitoring device must be calibrated annually.

(E) **Reserved** ~~Averaging periods for the site-specific operating parameters shall be established according to 40 CFR 63.1258(b)(2)(i) through (iii)~~.

(F) **Reserved** ~~The site specific operating parameters shall be set pursuant to 40 CFR 63.1258(b)(3) and 63.1257(d)(3)~~.

(G) **Reserved** ~~The outlet gas temperature continuous monitoring system must meet all applicable requirements of 40 CFR 60.8~~.

(3) For scrubbers that control vent streams totaling greater than 1 ton per year and less than 10 tons per year HAP emissions, before control:

(A) The Permittee shall establish a minimum scrubber liquid flow rate or pressure drop as a site-specific operating parameter. 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~~.~~ **pursuant to 40 CFR 63.1258(b)(3).**

(B) The Permittee shall measure and record either the scrubber liquid flow rate or pressure drop every 15 minutes during the period in which the scrubber is functioning in achieving HAP removal. If the scrubber uses a caustic solution to remove acid emissions, the Permittee shall monitor the pH of the effluent scrubber liquid at least once per day. **The continuous monitoring system must meet all applicable requirements of 40 CFR 63.8.**

(C) The monitoring device(s) used to determine the pressure drop shall be certified by the manufacturer to be accurate to within a gage pressure of ± 10 percent of the maximum pressure drop measured.

(D) The monitoring device(s) used for measurement of scrubber liquid flow rate shall be certified by the manufacturer to be accurate within ± 10 percent of the design scrubber liquid flow rate.

(E) The monitoring device(s) shall be calibrated annually.

(F) **Reserved** ~~The site specific operating parameters shall be set pursuant to 40 CFR 63.1258(b)(3)~~.

(G) **Reserved** ~~The continuous monitoring system must meet all applicable requirements of 40 CFR 63.8~~.

.....

D.16.7 Reporting Requirements [40 CFR 63, Subpart GGG] [326 IAC 20]

(a) *******

.....

(6) **Reserved** ~~Report, when applicable, no excess emissions, no exceedances, no excursions, and no CMS have been inoperative, out of control, repaired or adjusted~~.

.....

Change 8: The source is requesting changes to Section D.20 to remove residual 2007 Boiler Maximum Achievable Control Technology (Boiler MACT) verbiage and to correct regulatory citations.

SECTION D.20 UTILITIES OPERATION CONDITIONS

Emissions Unit Description: [326 IAC 2-7-5(1)]

The following emissions units are subject to applicable requirements described in this D section:

Emissions Unit ID	Emissions Unit Description	Stack/Vent	Nominal Capacity	UOM	Control Device
Building T26					
BLR006	Natural Gas/Fuel Oil Boiler No. 6	S-T26-BLR006	156.1	MMBtu/hr	None
BLR007	Natural Gas/Fuel Oil	S-T26-	156.1	MMBtu/hr	None

	Boiler No. 7	BLR007			
T26-GEN-7500A*	Diesel Powered Emergency Generator	S-T26- GEN-7500A	~~150~~ **201**	~~KW~~ **HP**	None
T26-COMP 5600A*	Diesel Powered Emergency Air Compressor	S-T26- COMP 5600A	125	~~Hp~~ **HP**	None

* Emission units marked with a single asterisk are insignificant activities as defined in 326 IAC 2-7-1(21).

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

.....

D.20.8 PSD Minor Limitations for CO [326 IAC 2-2]

(a) The total carbon monoxide emissions from Boilers No. 6 and No.7 shall be less than 98 tons per twelve consecutive month period with the compliance determined at the end of each month.

~~During the first twelve (12) months after startup of either Boilers No. 6 or No. 7, the total carbon monoxide emissions divided by the accumulated months of operation shall not exceed 8.17 tons up to a maximum total of 98 tons for the first twelve (12) months of operation of the boilers.~~

(b) The hours of operation of the **T26-COMP-5600A** emergency air compressor shall be limited to 500 hours per **twelve (12) consecutive month period, with compliance determined at the end of each month** ~~year~~. The Permittee shall monitor the operating hours of the emergency air compressor with a non-resettable hour meter, as required by 40 CFR 60.4209(a).

Compliance with the CO emission limit of Boilers No. 6 and No. 7, and the hours of operation of the **T26-COMP-5600A** emergency air compressor will render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to this modification.

.....

D.20.16 Continuous Emission Monitoring System (CEMS) Requirements [40 CFR 60.13] [40 CFR 60.48b] [326 IAC 2-1.1-11] [326 IAC 2-7-24] [326 IAC 3-5] [40 CFR 60.48b (e) (2)] [326 IAC 12]

.....

(b) CO CEMS Operation Requirements – The following requirements shall apply to Boilers No. 6 and No. 7 when burning natural gas and/or fuel oil:

(1) The Permittee shall install, operate, and maintain the CO CEMS according to **the procedures in 40 CFR part 60, Appendix F and** Performance Specification (PS) 4**B**~~A~~ of 40 CFR part 60, appendix B.

(2) The CEMS shall be installed and operational upon startup of the boilers.

(3) Continuous operation is defined as the collection of at least one measurement for each successive 15-minute period, regardless of startup, shutdown and malfunction. [326 IAC 2-1.1-11]

(4) Reserved

(5) Data recorded during periods of monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities, shall not be used to determine compliance. Any period for which the monitoring system is out of control and data are not available for required calculations constitute a deviation from the monitoring requirements. [326 IAC 2-1.1-11]

.....

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.20.17 Record Keeping Requirements

The Permittee shall maintain the following records:

(a) The records of the carbon monoxide emissions, in tons per month, from Boilers No. 6 and No. 7 and hours of operation of the **T26-COMP-5600A** emergency compressor;

(b) The monthly records of the amount of very low sulfur oil burned in each Boilers No. 6 and No. 7~~, and the capacity factor of each of Boilers No. 6 and No. 7~~;

.....

(h) CO Emissions data for Boilers No. 6 and No. 7:

(1) Each period during which a ~~CMS or~~ CEMS on Boilers No. 6 and No.7 is malfunctioning or inoperative (including out-of-control periods) [326 IAC 2-1.1-11];

.....

(9) **Reserved** ~~Hourly CO average in ppmdv [326 IAC 2-1.1-11];~~

(10) Reserved

(11) The boiler ~~hourly~~ emissions shall be computed using the data points required under condition D.20.16(b), appropriate F factors, and/or the emission factors in the paragraphs (ii) and (iii):

(i) **Reserved** ~~1-hour averages shall be computed from four or more data points equally spaced over each 1-hour period, except during periods when calibration, quality assurance, or maintenance activities are being performed. During these periods, a valid hourly average shall consist of at least two data points with each representing a 15-minute period. Alternatively, an arithmetic or integrated 1-hour average of CEMS data may be used. At least two equally spaced data points must be used to calculate each 1 - hour average [326 IAC 201.1-11]~~;

(ii) When burning natural gas: 84 lbs of CO/million cubic feet of gas burned or 12.9 lbs/hr; and

(iii) When burning fuel oil: 5 lbs of CO/thousand gallons of oil or 5.58 lbs/hr.

(i) **Reserved** ~~Records of the operation of T26-GEN-7500A Diesel Powered Emergency Generator in emergency and non-emergency service. This shall include the time of operation and the reason the engine was in operation at that time [40CFR 60.4214(b)]~~**.**

.....

Change 9: A minor addition is being made to condition E.1.3(a)(9) to incorporate repair delay requirements from 40 CFR 63.1255(g)(4)(v)(4) of the Pharmaceuticals Production MACT.

E.1.1 LDAR Standards for BPM Process System Components [40 CFR 63.1255, 40 CFR 61 Subpart I, 326 IAC 8-5-3(b)(6), 326 IAC 2-2, CP157-4148 (Revised by this permit)]

Except as provided in Condition E.1.2, the following LDAR standards satisfy the requirements of the Pharmaceutical Production MACT (Pharmaceutical MACT) standards [40 CFR 63.1255], Best Available Control Technology (BACT) requirements [326 IAC 2-2-3], Reasonably Available Control Technology (RACT) LDAR requirements for synthesized pharmaceutical manufacturing operations [326 IAC 8-5-3(b)(6)], and construction permit [CP157-4148] requirements for LDAR components associated with the research and development operations in Building T **1**71:

.....

(d) The following BPM process system components in VOHAP/VOC service shall comply

with design standards, shall be operated in accordance with work practice standards or shall undergo periodic LDAR monitoring in accordance with the provisions cited below. Periodic LDAR monitoring shall be performed in accordance with 40 CFR 60, Appendix A, Method 21 and 40 CFR 63.1255(b)(4)(v). The regulatory language cited by reference in this section appears in full in Appendix A.

(1) Pumps in light liquid service shall be operated in accordance with the standard at 63.1255(c). This section provides, generally and in part:

(A) Single seal pumps shall undergo periodic monitoring and visual inspections;

(B) Dual mechanical seal pumps shall meet design, operation, inspection, and alarm requirements;

(C) Pumps designed without a shaft penetrating the pump housing are not required to be inspected or monitored; and

(D) Pumps equipped with a closed-vent system ~~limitable~~ **capable** of capturing and transporting any leakage from the seals back to the process or to a control device are not required to be inspected or monitored.

.....

(8) Agitators in gas/vapor and light liquid service shall be operated in accordance with the standard at 63.1255(c); This section provides, generally and in part:

(A) Single seal agitators shall undergo periodic monitoring and visual inspections.

(B) Dual mechanical seal agitators shall meet design, operation, inspection, and alarm requirements.

(C) Agitators designed without a shaft penetrating the agitator housing are not required to be inspected or monitored.

(D) Agitators equipped with a closed-vent system ~~limitable~~ **capable** of capturing and transporting any leakage from the seals back to the process or to a control device are not required to be inspected or monitored.

.....

(g) With the exception of equipment following the requirement of E.1.1(e) or (f), any visible audible, or olfactory leak containing VOHAP/VOC shall be considered a leak for purposes of the obligation to repair. If it is not clear whether the leak contains VOHAP/VOC, then Method 21 may be used to confirm whether a leak exists. For each component type, the relevant leak definition and leak repair requirements in E.1.1 (d) shall apply for this purpose. All leaks shall be marked as provided in 63.1255(a)(10).

(1) The Permittee shall initiate repair of any leak no later than 5 calendar days after identification, and complete the repair within 15 days after identification, except where delay of repair is allowed under **63.**1255(b)(4)(i), which incorporates by reference 63.171. This shall not affect repair periods under Conditions E.1.1 (d)(3) or (e). 63.1255(b)(4)(i) provides, generally and in part:

.....

E.1.3 Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)]

(a) Records shall be kept in accordance with 63.1255(g), including but not limited to:

.....

(9) Records of leaks detected, repair information, and delays of repair~~;~~**. The Permittee may develop a written procedure that identifies the conditions that justify a delay of repair. The written procedures shall be included in a 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;**

.....

E.2.1 LDAR Standards for BPM Waste System Components [40 CFR 63.691, 326 IAC 8-5-3(b)(6), 326 IAC 2-2, CP157-4148 (Revised by this permit)]

Except as provided in Condition E.2, the following LDAR standards satisfy the requirements of the Volatile Organic Liquid Storage Vessel Standards [40 CFR 60.110b], Offsite Waste and Recovery Operations (Offsite Waste) MACT Standards [40 CFR 63.691], Best Available Control Technology (BACT) requirements [326 IAC 2-2-3], Reasonably Available Control Technology (RACT) LDAR requirements for synthesized pharmaceutical manufacturing operations [326 IAC 8-5-3(b)(6)], and construction permit [CP157-4148] requirements for LDAR components associated with the research and development operations in Building T **1**71:

.....

(d) The following BPM waste system components in VOHAP/VOC service shall comply with design standards, shall be operated in accordance with work practice standards, or shall undergo periodic LDAR monitoring in accordance with the provisions cited below. Periodic LDAR monitoring shall be performed in accordance with 40 CFR 60, Appendix A, Method 21. The regulatory language cited by reference in this section appears in full in Appendix A.

(1) Pumps shall be operated in accordance with the standard at 61.242-2. This section provides, generally and in part:

.....

(D) Pumps equipped with a closed-vent system ~~limitable~~ **capable** of capturing and transporting any leakage from the seals back to the process or to a control device are not required to be inspected or monitored.

.....

(3) Pressure relief devices in gas/vapor service shall be operated in accordance with the standard at 61.242-4. This section provides, generally and in part:

.....

(D) Any pressure relief device satisfies conditions E.2.1 (d)(3)(A) and (B) without monitoring if it is routed to a process or fuel gas system or equipped with a closed-vent system ~~limitable~~ **capable** of capturing and transporting leakage from the pressure relief device to a control device.

.....

(5) Open-ended valves or lines shall be operated in accordance with the standard at 61.242-6. This section provides, generally and in part:

(A) Each open-ended valve and line shall be equipped with a ~~limit~~ **cap**, blind flange, plug or second valve, which shall seal the open end at all times except when operations require fluid flow through the open-ended valve or line, or during maintenance or repair.

.....

Change 10: Section F incorrectly states that the "combustion and atomized air flow rate into the T49 liquid waste incinerator" will be monitored for Section F of the permit. Emissions cannot be calculated from such information. Therefore, Evonik proposes to correct this verbiage to state that the T49 "actual exhaust gas flow rate" will be monitored. This modification is consistent with the data substitution terminology in Section F.

F.1.3 Carbon Monoxide (CO) Emission Limit Determination

The Permittee shall determine actual annual emissions by employing the following techniques:

(a) The following requirements apply to the RTOs, the T49 liquid waste incinerator, and the T149 solid-liquid waste incinerator:

(1) **CO measurement**: The Permittee shall measure CO concentration in the exhaust of with a CO continuous emission monitoring system (CEMS) that meets the requirements of 40 CFR Part 60, Appendix B and 326 IAC 3.

(2) **Flow rate measurement**: The Permittee shall measure the actual exhaust gas flow rate from the RTOs**,** ~~and~~ T149 solid-liquid waste incinerator, and ~~measure the combustion and atomized air flow rate into the~~ T49 liquid waste incinerator.

(3) **Mass emission calculation**: The Permittee shall calculate CO emissions, in tons, each calendar month by using the CEMS data and flow rate data.

F.1.5 Nitrogen oxides (NO_X) Emission Limit Determination

The Permittee shall determine actual annual emissions by employing the following techniques:

(a) The following requirements apply to the RTOs, the T49 liquid waste incinerator, and the T149 solid-liquid waste incinerator:

(1) **NOx measurement**: The Permittee shall measure NOx concentration in the exhaust of with a NOx continuous emission monitoring system (CEMS) in accordance with the requirements of 40 CFR Part 60, Appendix B and 326 IAC 3.

(2) **Flow rate measurement**: The Permittee shall measure the actual exhaust gas flow rate from the RTOs**,** ~~and~~ T149 solid-liquid waste incinerator, and ~~measure the combustion and atomized air flow rate into the~~ T49 liquid waste incinerator with a system.

(3) **Emission calculation**: The Permittee shall calculate NOx emissions, in tons, each calendar month by using the CEMS data and flow rate data.

F.1.6 Sulfur dioxide (SO_2) Emission Limit Determination

The Permittee shall determine actual annual emissions by employing the following techniques:

(a) The following requirements apply to RTOs, the T49 liquid waste incinerator, and the T149 solid-liquid waste incinerator:

(1) **SO_2 measurement**: The Permittee shall measure SO_2 concentration in the exhaust of RTO, and incinerators with a SO_2 continuous emission monitoring system (CEMS) that meets the requirements of 40 CFR Part 60, Appendix B and 326 IAC 3.

(2) **Flow rate measurement**: The Permittee shall measure the actual exhaust gas flow rate from the RTOs**,** ~~and the~~ T149 solid-liquid waste incinerator, and ~~measure the combustion and atomized air flow rate into the~~ T49 liquid waste incinerator.

F.1.7 Volatile Organic Compound (VOC) Emission Limit Determination

The Permittee shall determine actual annual emissions by employing the following techniques:

(a) The following requirements apply to the RTOs when compliance is based on the 20 ppmv alternative standard, the T49 liquid waste incinerator, and the T149 solid-liquid waste incinerator:

(1) **VOC measurement:**

(A) For the RTO operations, the Permittee shall directly measure TOC concentration, as methane**,** in the exhaust gas using a TOC continuous emission monitoring system (CEMS) that meets the requirements of 40 CFR Part 63. The Permittee shall assume VOC, a subset of total organic compounds (TOC), is equal to TOC.

(B) For the T49 liquid waste incinerator and the T149 solid-liquid waste incinerator, the Permittee shall use 10 ppmdvc methane or shall use the highest hourly rolling average HC level achieved during the DRE test runs as the TOC concentration in the exhaust gas, as long as the CO concentration, as measured by the CO CEMS, is less than 100 ppmvdc, averaged over a rolling hourly period. VOC, a subset of total organic compounds (TOC), shall be equal to TOC.

(2) **Flow rate measurement:** The Permittee shall measure the actual exhaust gas flow rate from the RTOs**,** ~~and the~~ T149 solid-liquid waste incinerator, and ~~measure the combustion and atomized air flow rate into the~~ T49 liquid waste incinerator.

F.1.8 Record Keeping and Reporting of Emission Limits [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

(a) The Permittee shall record and maintain records of all information including all measurements and calculations described in Sections F.1.3 through F.1.7.

(b) The Permittee shall submit a quarterly report of actual emissions of CO, fluorides, NOx, SO_2, and VOC, as determined in accordance with Sections F.1.**3** 4 through F.1.**7**~~8~~, to the address listed in Section C – General Reporting Requirements, within thirty (30) days after the end of the calendar quarter being reported. This report requires the certification by a "responsible official" as defined by 326 IAC 2-7-1(34).

Change 11: Evonik is proposing to update conditions G.1.4(d)(1) and G.1.5(d)(1) to incorporate T26-COMP-5600A and the T62 300 HP diesel emergency air compressor. Note that NO_x and SO_2 emissions from these engines have been recorded and reported in the quarterly compliance reports submitted since these units were installed. Emissions for these units were determined using the actual hours of operation method in G.1.4(d)(2) and G.1.5(d)(2), so all requirements have been met.

G.1.4 Nitrogen Oxides (NO_X) Emission Limit Determination [326 IAC 2-2.4-7(6) & (7)] [326 IAC 2-2.4-12]

The Permittee shall determine actual annual emissions of NOx by employing the following techniques:

.....

(d) The Permittee shall determine NOx emissions from diesel engines, in tons, each calendar month, through one of the methods described in (1) and (2) below. The Permittee shall identify which method it used when it reports emissions pursuant to Condition G.1.8.

(1) **Potential to emit method**: The Permittee shall use the following values, which represent the NOx potential to emit of the diesel engines, as the actual emissions:

(A) For the T121 **1,676 HP** ~~1250 KW~~ diesel electrical generator – 1.5 ton/month [18.1 ton/yr].

(B) For the T5 380 HP diesel emergency generator – 0.2 ton/month [2.9 ton/yr]

(C) For the T62 **1,475 HP** ~~1100 KW~~ diesel emergency generator – 0.7 ton/month [8.9 ton/yr].

(D) For the T135 390 HP diesel emergency generator – 0.3 ton/month [3.0 ton/yr].

(E) For the Server Room **402 HP** ~~300 KW~~ diesel emergency generator – 0.3 ton/month [3.12 ton/yr].

(F) For the ~~Gen-7001~~ **T70 402 HP**~~300 KW~~ diesel emergency generator – 0.3 ton/month [3.12 ton/yr].

(G) For the T26-GEN-7500A **201 HP**~~150 KW~~ diesel emergency generator – 0.1 ton/month [1.56 ton/yr].

(H) For the T26-COMP-5600A 125 HP diesel emergency air compressor – 0.1 ton/month [0.97 ton/yr].

(I) For the T62 300 HP diesel emergency air compressor – 0.2 ton/month [2.33 ton/yr].

(2) **Actual hours of operation method:** The Permittee shall calculate NOx emissions from diesel engines by multiplying the actual hours of operation per calendar month for each diesel engine by the engine's horsepower rating and by an NOx emission factor of 0.024 lb NOx/brake horsepower-hour for diesel engines greater than 600 brake horse power and 0.031 lb NOx/brake horsepower-hour for diesel engines smaller than 600 brake horse power

.....

(g) NOx emissions from **building** ~~the~~ T**1**71 ~~Pilot Plant~~ are equivalent to the potential to emit for this facility – 0.1 ton/yr.

.....

G.1.5 Sulfur Dioxides (SO_2) Emission Limit Determination [326 IAC 2-2.4-7(6) & (7)] [326 IAC 2-2.4-12]

The Permittee shall determine actual annual emissions of SO_2 by employing the following techniques:

.....

(d) The Permittee shall determine SO_2 emissions from diesel engines, in tons, each calendar month, through one of the methods described in (1) and (2) below. The Permittee shall identify which method it used when it reports emissions pursuant to Condition G.1.8.

(1) Potential to emit method: The Permittee shall use the following values, which represent the SO_2 potential to emit of the diesel engines, as the actual emissions:

(A) For the T121 **1,676 HP**~~1250 KW~~ diesel electrical generator – 0.25 ton/month [3.0 ton/yr].

(B) For the T5 380 HP diesel emergency generator – 0.02 ton/month [0.2 ton/yr]

(C) For the T62 **1,475 HP**~~1100 KW~~ diesel emergency generator – 0.1 ton/month [1.5 ton/yr].

(D) For the T135 390 HP diesel emergency generator – 0.02 ton/month [0.2 ton/yr].

(E) For the Server Room **402 HP**~~300 KW~~ diesel emergency generator – 0.02 ton/month [0.21 ton/yr].

(F) For the ~~Gen 7001~~ **T70 402 HP**~~300 KW~~ diesel emergency generator – 0.02 ton/month [0.21 ton/yr].

(G) For the T26-GEN-7500A **201 HP**~~150 KW~~ diesel emergency generator – 0.01 ton/month [0.10 ton/yr].

(H) For the T26-COMP-5600A 125 HP diesel emergency air compressor – 0.01 ton/month [0.06 ton/yr].

(I) For the T62 300 HP diesel emergency air compressor – 0.01 ton/month [0.15 ton/yr].

(2) Actual hours of operation method: The Permittee shall calculate SO_2 emissions from diesel engines by multiplying the actual hours of operation per calendar month for each diesel engine by the engine's horsepower rating and by an SO_2 emission factor of 0.0004045 lb SO_2/brake horsepower-hour for diesel engines greater than 600 brake horse power and 0.00205 lb SO_2/brake horsepower-hour for diesel engines smaller than 600 brake horse power

.....

(g) SO_2 emissions from **building** ~~the~~ T**1**71 ~~Pilot Plant~~ are equivalent to the potential to emit for this facility – 1.5 ton/yr [0.125 ton/month].

.....

Change 12: The applicable portion of the Applicability of National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry (SOCMI Rule) [40 CFR part 63 subpart F] has been added to the permit in Section H for the new insignificant units.

SECTION H.1 SYNTHETIC ORGANIC CHEMICAL MANUFACTURING REQUIREMENTS

Emissions Unit Description:

The emission units listed below may function as chemical manufacturing process units, as defined in 40 CFR 63.101, if they manufacture as a primary product one or more of the chemicals listed in Table 1 of 40 CFR part 63 Subpart F, and/or Tetrahydrobenzaldehyde (CAS Number 100–50–5), and/or Crotonaldehyde (CAS Number 123–73–9), but do not use as a reactant or manufacture as a product, or co-product, one or more of the organic hazardous air pollutants listed in table 2 of 40 CFR part 63 subpart F.

Source ID	Equipment Description	Stack/Vent ID	Nominal Capacity	Control Device
Building T27:				
T27-TK3001	**Process Tank**	**RTO**	**200 gal**	**RTO**
T27-TK3002	**Process Tank**	**RTO**	**200 gal**	**RTO**
T27-TK3101	**Process Tank**	**RTO**	**1000 gal**	**RTO**
T27-TK3102	**Process Tank**	**RTO**	**1000 gal**	**RTO**
T27-TK3103	**Process Tank**	**RTO**	**1000 gal**	**RTO**
T27-TK3104	**Process Tank**	**RTO**	**1000 gal**	**RTO**

	T27-TK3105	Process Tank	RTO	1000 gal	RTO	
	T27-TK3201	Process Tank	RTO	1000 gal	RTO	
	T27-TK3202	Process Tank	RTO	1000 gal	RTO	
	T27-TK3203	Process Tank	RTO	1000 gal	RTO	
	T27-TK3204	Process Tank	RTO	1000 gal	RTO	
	T27-TK3205	Process Tank	RTO	1000 gal	RTO	
	T27-TK3207	Process Tank	RTO	350 gal	RTO	
	T27-TK3301	Process Tank	RTO	2000 gal	RTO	
	T27-TK3302	Process Tank	RTO	2000 gal	RTO	
	T27-TK3303	Process Tank	RTO	2000 gal	RTO	
	T27-TK3304	Process Tank	RTO	2000 gal	RTO	
	T27-TK3305	Process Tank	RTO	500 gal	RTO	
	T27-TK3401	Process Tank	RTO	750 gal	RTO	
	T27-TK3402	Process Tank	RTO	750 gal	RTO	
	T27-TK3404	Process Tank	RTO	750 gal	RTO	
	T27-TK3405	Process Tank	RTO	750 gal	RTO	
	T27-TK3406	Process Tank	RTO	750 gal	RTO	
	T27-TK3407	Process Tank	RTO	1000 gal	RTO	
	T27-TK3408	Process Tank	RTO	350 gal	RTO	
	T27-TK3501	Process Tank	RTO	2000 gal	RTO	
	T27-TK3502	Process Tank	RTO	2000 gal	RTO	
	T27-TK3503	Process Tank	RTO	2000 gal	RTO	
	T27-TK3504	Process Tank	RTO	2000 gal	RTO	
	T27-TK3505	Process Tank	RTO	500 gal	RTO	
	T27-TK3506	Process Tank	RTO	2000 gal	RTO	
	T27-TK3601	Process Tank	RTO	2000 gal	RTO	
	T27-TK3602	Process Tank	RTO	1000 gal	RTO	
	T27-TK3603	Process Tank	RTO	2000 gal	RTO	
	T27-TK3605	Process Tank	RTO	500 gal	RTO	
	T27-TK3606	Process Tank	RTO	2000 gal	RTO	
	T27-TK3607	Process Tank	RTO	500 gal	RTO	
	T27-TK3803	Process Tank	RTO	1000 gal	RTO	
	T27-TK4001	Process Tank	RTO	2000 gal	RTO	
	T27-TK4002	Process Tank	RTO	2000 gal	RTO	
	T27-TK4004	Process Tank	RTO	1000 gal	RTO	
	T27-TK4005	Process Tank	RTO	1500 gal	RTO	
	T27-TK4006	Process Tank	RTO	2000 gal	RTO	
	T27-TK4006A	Process Tank	RTO	2000 gal	RTO	
	T27-TK4007	Process Tank	RTO	2000 gal	RTO	
	T27-TK4007A	Process Tank	RTO	2000 gal	RTO	
	T27-TK4008	Process Tank	RTO	2000 gal	RTO	
	T27-TK4009	Process Tank	RTO	1000 gal	RTO	
	T27-TK4010	Process Tank	RTO	1000 gal	RTO	
	T27-TK4011	Process Tank	RTO	1000 gal	RTO	
	T27-TK4013	Process Tank	RTO	750 gal	RTO	
	T27-TK4014	Process Tank	RTO	300 gal	RTO	
	T27-TK4031	Process Tank	RTO	500 gal	RTO	
	T27-TK4101	Process Tank	RTO	750 gal	RTO	
	T27-TK4103	Process Tank	RTO	500 gal	RTO	
	T27-TK4104	Process Tank	RTO	500 gal	RTO	

	T27-TK4105	**Process Tank**	**RTO**	**1000 gal**	**RTO**
	T27-TK4203	**Process Tank**	**RTO**	**500 gal**	**RTO**
	T27-TK4205	**Process Tank**	**RTO**	**1000 gal**	**RTO**
	T27-TK4301	**Process Tank**	**RTO**	**750 gal**	**RTO**
	T27-TK4302	**Process Tank**	**RTO**	**500 gal**	**RTO**
	T27-TK4401	**Process Tank**	**RTO**	**2000 gal**	**RTO**
	T27-TK4404	**Process Tank**	**RTO**	**2000 gal**	**RTO**
	T27-TK4502	**Process Tank**	**RTO**	**1000 gal**	**RTO**
	T27-TK4601	**Process Tank**	**RTO**	**1000 gal**	**RTO**
	T27-TK4603	**Process Tank**	**RTO**	**75 gal**	**RTO**
	T27-TK4605	**Process Tank**	**RTO**	**1000 gal**	**RTO**
	T27-TK4701	**Process Tank**	**RTO**	**1000 gal**	**RTO**
	T27-TK4801A	**Process Tank**	**RTO**	**1000 gal**	**RTO**
	T27-TK4802A	**Process Tank**	**RTO**	**100 gal**	**RTO**
	T27-TK4803A	**Process Tank**	**RTO**	**500 gal**	**RTO**
	T27-TK4901	**Process Tank**	**RTO**	**200 gal**	**RTO**
	T27-TK4906	**Process Tank**	**RTO**	**75 gal**	**RTO**
	T27-TK5004	**Process Tank**	**RTO**	**500 gal**	**RTO**
	T27-TK371-A	**Process Tank**	**RTO**	**50 gal**	**RTO**
	T27-TK372-A	**Process Tank**	**RTO**	**500 gal**	**RTO**
	T27-TK372-B	**Process Tank**	**RTO**	**100 gal**	**RTO**
	T27-CENT30	**Centrifuge**	**RTO**	**NA**	**RTO**
	T27-CENT38	**Centrifuge**	**RTO**	**NA**	**RTO**
	T27-CENT42	**Centrifuge**	**RTO**	**NA**	**RTO**
	T27-RVD53-1	**Rotary Vacuum Dryer**	**RTO**	**NA**	**RTO**
	T27-FD3702A	**Filter Dryer**	**RTO**	**793 gal**	**RTO**
	Building T29:				
	T29-CENT1401	**Heinkel Centrifuge**	**RTO**	**140 gal**	**RTO**
	T29-CENT2401	**Heinkel Centrifuge**	**RTO**	**140 gal**	**RTO**
	T29-CENT3401	**Heinkel Centrifuge**	**RTO**	**140 gal**	**RTO**
	T29-CD1501	**Cone Dryer**	**RTO**	**2,640 gal**	**RTO**
	T29-FD8501	**Filter Dryer**	**RTO**	**42 gal**	**RTO**
	T29-FD-8503	**Filter Dryer**	**RTO**	**175 gal**	**RTO**
	T29-FD2502	**Filter Dryer**	**RTO**	**70 gal**	**RTO**
	T29-CD3501	**Cone Dryer**	**RTO**	**2,640 gal**	**RTO**
	T29-IBC8251	**Process Tank**	**RTO**	**150 gal**	**RTO**
	T29-IBC8253	**Process Tank**	**RTO**	**150 gal**	**RTO**
	T29-IBC8254	**Process Tank**	**RTO**	**150 gal**	**RTO**
	T29-IBC8257	**Process Tank**	**RTO**	**150 gal**	**RTO**
	T29-IBC8259	**Process Tank**	**RTO**	**150 gal**	**RTO**
	T29-SFH1121	**Process Tank**	**RTO**	**NA**	**RTO**
	T29-SFH3121	**Process Tank**	**RTO**	**NA**	**RTO**
	T29- REAC1201	**Process Tank**	**RTO**	**2000 gal**	**RTO**
	T29- REAC 1202	**Process Tank**	**RTO**	**2000 gal**	**RTO**
	T29- REAC 1203	**Process Tank**	**RTO**	**2000 gal**	**RTO**
	T29- REAC 1204	**Process Tank**	**RTO**	**2000 gal**	**RTO**
	T29- REAC 1205	**Process Tank**	**RTO**	**2000 gal**	**RTO**
	T29- REAC 2201	**Process Tank**	**RTO**	**1600 gal**	**RTO**
	T29- REAC 2202	**Process Tank**	**RTO**	**2000 gal**	**RTO**
	T29- REAC 2203	**Process Tank**	**RTO**	**2000 gal**	**RTO**

T29- REAC 2204	Process Tank	RTO	2000 gal	RTO
T29- REAC 2205	Process Tank	RTO	2000 gal	RTO
T29- REAC 3201	Process Tank	RTO	2000 gal	RTO
T29- REAC 3202	Process Tank	RTO	2000 gal	RTO
T29- REAC 3203	Process Tank	RTO	2000 gal	RTO
T29- REAC 3204	Process Tank	RTO	2000 gal	RTO
T29- REAC 3205	Process Tank	RTO	2000 gal	RTO
T29- REAC 4201	Process Tank	RTO	2,000 gal	RTO
T29- REAC 4202	Process Tank	RTO	500 gal	RTO
T29- REAC 4203	Process Tank	RTO	2000 gal	RTO
T29-TK7920	Process Tank	RTO	200 gal	RTO
T29-TK7921	Process Tank	RTO	80 gal	RTO
T29-TK7922	Process Tank	RTO	200 gal	RTO
T29-TK8123	Process Tank	RTO	200 gal	RTO
T29-TK8211	Process Tank	RTO	100 gal	RTO
T29-TK8212	Process Tank	RTO	100 gal	RTO
T29-TK8213	Process Tank	RTO	100 gal	RTO
T29-TK8214	Process Tank	RTO	100 gal	RTO
T29-TK8216	Accumulator Tank	RTO	50 gal	RTO
T29-TK8217	Accumulator Tank	RTO	50 gal	RTO
T29-TK8218	Accumulator Tank	RTO	50 gal	RTO
T29-TK8220	Accumulator Tank	RTO	50 gal	RTO
T29-TK8256	Process Tank	RTO	150 gal	RTO
T29-TK8219	Accumulator Tank	RTO	50 gal	RTO
T29-TK2502M	Accumulator Tank	RTO	100 gal	RTO
T29-TK1401	Accumulator Tank	RTO	50 gal	RTO
T29-TK2401	Accumulator Tank	RTO	50 gal	RTO
T29-TK3401	Accumulator Tank	RTO	50 gal	RTO
Building T31:				
T31-CENT	Centrifuge	RTO	98 gal	RTO
T31-FD803	Filter Dryer	RTO	50 gal	RTO
T31-TK601	Process Tank	RTO	500 gal	RTO
T31-TK602	Process Tank	RTO	500 gal	RTO
T31-TK603	Process Tank	RTO	500 gal	RTO
T31-TK604	Process Tank	RTO	500 gal	RTO
T31-TK611	Process Tank	RTO	500 gal	RTO
T31-TK611DT01	Process Tank	RTO	50 gal	RTO
T31-TK612	Process Tank	RTO	500 gal	RTO
T31-TK613	Process Tank	RTO	500 gal	RTO
T31-TK614	Process Tank	RTO	500 gal	RTO
T31-TK631	Process Tank	RTO	300 gal	RTO
T31-TK641	Process Tank	RTO	100 gal	RTO
T31-TK643	Process Tank	**	100 gal	T79 or RTO**
Building T31A:				
T31A-CENT985	Centrifuge	RTO	N/A	RTO
T31A-FD861	Filter Dryer	RTO	50 gal	RTO
T31A-FD874	Filter Dryer	RTO	50 gal	RTO
T31A-TK61	Process Tank	RTO	50 gal	RTO

T31A-TK63	Process Tank	RTO	100 gal	RTO
T31A-TK64	Process Tank	RTO	50 gal	RTO
T31A-TK621	Process Tank	RTO	300 gal	RTO
T31A-TK622	Process Tank	RTO	800 gal	RTO
T31A-TK651	Process Tank	RTO	450 gal	RTO
T31A-TK661	Process Tank	RTO	300 gal	RTO
T31A-TK681	Process Tank	RTO	500 gal	RTO
T31A-TK682	Process Tank	RTO	500 gal	RTO
T31A-TK683	Process Tank	RTO	500 gal	RTO
T31A-TK684	Process Tank	RTO	500 gal	RTO
T31A-TK691	Process Tank	RTO	500 gal	RTO
T31A-TK692	Process Tank	RTO	500 gal	RTO
T31A-TK693	Process Tank	RTO	500 gal	RTO
T31A-TK694	Process Tank	RTO	500 gal	RTO
Building T99:				
T99-ED42	Heinkel Centrifuge	RTO	NA	RTO
T99-PD43	Pan Dryer	RTO	793 gal	RTO
T99-PD44	Pan Dryer	RTO	793 gal	RTO
T99-RVD1	Rotary Vacuum Dryer	RTO	1200 gal	RTO
T99-RVD2	Rotary Vacuum Dryer	RTO	1200 gal	RTO
T99-RVD3	Rotary Vacuum Dryer	RTO	1200 gal	RTO
T99-RVD5	Rotary Vacuum Dryer	RTO	1200 gal	RTO
T99-RVD6	Rotary Vacuum Dryer	RTO	1200 gal	RTO
T99-RVD7	Rotary Vacuum Dryer	RTO	1200 gal	RTO
T99-RVD8	Rotary Vacuum Dryer	RTO	1200 gal	RTO
T99-TK-D9	Process Tank	RTO	449 gal	RTO
T99-FD-D9*	Filter Dryer	RTO	NA	RTO
T99-TK-D-9D*	Portable Tank	RTO	155 gal	RTO
T99-TK-D41	Process Tank	RTO	300 gal	RTO
T99-TK-D42	Process Tank	RTO	150 gal	RTO
Building T100:				
T100-CENT60	Centrifuge	RTO	N/A	RTO
T100-CENT61	Centrifuge	RTO	N/A	RTO
T100-CENT62	Centrifuge	RTO	N/A	RTO
T100-CENT63	Centrifuge	RTO	N/A	RTO
T100-CENT64	Centrifuge	RTO	N/A	RTO
T100-CENT65	Centrifuge	RTO	N/A	RTO
T100-CENT66	Centrifuge	RTO	N/A	RTO
T100-CENT67	Centrifuge	RTO	N/A	RTO
T100-CENT68	Centrifuge	RTO	N/A	RTO
T100-CENT69	Centrifuge	RTO	N/A	RTO
T100-CENT70	Centrifuge	RTO	N/A	RTO
T100-TK1	Process Tank	RTO	2000 gal	RTO
T100-TK2	Process Tank	RTO	4000 gal	RTO
T100-TK3	Process Tank	RTO	2000 gal	RTO
T100-TK4	Process Tank	RTO	2000 gal	RTO
T100-TK5	Process Tank	RTO	2000 gal	RTO
T100-TK5A*	Accumulator Tank	RTO	50 gal	RTO
T100-TK6	Process Tank	RTO	2000 gal	RTO

	T100-TK7	Process Tank	RTO	4000 gal	RTO
	T100-TK8	Process Tank	RTO	4000 gal	RTO
	T100-TK8C	Process Tank	RTO	30 gal	RTO
	T100-TK9	Process Tank	RTO	4000 gal	RTO
	T100-TK10	Process Tank	RTO	4000 gal	RTO
	T100-TK11	Process Tank	RTO	4000 gal	RTO
	T100-TK12	Process Tank	RTO	4000 gal	RTO
	T100-TK13	Process Tank	RTO	3300 Gal	RTO
	T100-TK14	Process Tank	RTO	4000 gal	RTO
	T100-TK15	Process Tank	RTO	2000 gal	RTO
	T100-TK16	Process Tank	RTO	2000 gal	RTO
	T100-TK17	Process Tank	RTO	2000 gal	RTO
	T100-TK18	Process Tank	RTO	2000 gal	RTO
	T100-TK18A*	Distillate Tank	RTO	200 gal	RTO
	T100-TK18B*	Charge Tank	RTO	60 gal	RTO
	T100-TK20	Process Tank	RTO	4000 gal	RTO
	T100-TK21	Process Tank	RTO	4000 gal	RTO
	T100-TK22	Process Tank	RTO	2000 gal	RTO
	T100-TK24	Process Tank	RTO	4000 gal	RTO
	T100-TK24D*	Distillate Tank	RTO	50 gal	RTO
	T100-TK25	Process Tank	RTO	4000 gal	RTO
	T100-TK26	Process Tank	RTO	4000 gal	RTO
	T100-TK27	Process Tank	RTO	4000 gal	RTO
	T100-TK28	Process Tank	RTO	4000 gal	RTO
	T100-TK29	Process Tank	RTO	4000 gal	RTO
	T100-TK30	Process Tank	RTO	4000 gal	RTO
	T100-TK-30A	Process Tank	RTO	70 gal	RTO
	T100-TK31	Process Tank	RTO	4000 gal	RTO
	T100-TK31B	Process Tank	RTO	50 gal	RTO
	T100-TK32	Process Tank	RTO	4000 gal	RTO
	T100-TK33	Process Tank	RTO	1000 gal	RTO
	T100-TK34	Process Tank	RTO	1000 gal	RTO
	T100-TK35	Process Tank	RTO	1000 gal	RTO
	T100-TK36	Process Tank	RTO	1000 gal	RTO
	T100-TK37	Process Tank	RTO	1000 gal	RTO
	T100-TK38	Process Tank	RTO	1000 gal	RTO
	T100-TK40	Portable Process Tank	RTO	100 gal	RTO
	T100	Portable Process Tank	RTO	N/A	RTO
	T100-PTK1	Portable Cleaning Tank	RTO	150 gal	RTO
	T100-TK14A	Accumulator Tank	RTO	50 gal	RTO
	T100-TK21A	Accumulator Tank	RTO	50 gal	RTO
	T100-TK39	CIP Tank	RTO	500 gal	RTO
	Spare Equipment (not associated with a single building)				
	T27-CENT 16	Centrifuge	***	NA	***
	T27-CENT 19	Centrifuge	***	NA	***
	T27-CENT 37	Centrifuge	***	NA	***
	T27-CENT 40	Centrifuge	***	NA	***
	T28-CENT15	Centrifuge	***	NA	***
	T31-CENT504	Centrifuge	***	13 gal	***
	T31-RVD T47733	Rotary Vacuum Dryer	**	37 gal	***

T31A-TK65	**Portable Process Tank**	******	**100 gal**	*******
T31A-TK8252	**Portable Process Tank**	******	**150 gal**	*******

*** Emission units marked with an asterisk are insignificant activities as defined by 326 IAC 2-7-1(21).**
**** This equipment is currently not in service; however, this equipment shall be tied into either the RTO control system or the T79 control system upon startup.**
***** Spare equipment may be used anywhere on the plant site. If the equipment is used in T27, T28, T31, T31A, T99, or T100, it will be vented to the RTO as required by Section D.6 of the permit. If the equipment is used in the T171 area, it will be vented to the atmosphere as allowed by Section D.16 of the permit.**

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Applicability of National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry (SOCMI Rule) [40 CFR part 63 subpart F]

H.1.1 Compliance Demonstration Requirements [40 CFR 63.103(e)]

The Permittee shall meet one of the following requirements:

(a) Retain information, data, and analysis used to determine that the chemical manufacturing process unit does not use as a reactant or manufacture as a product or co-product any organic hazardous air pollutant. 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.

(b) When requested by the Administrator, demonstrate that the chemical manufacturing process unit does not use as a reactant or manufacture as a product or co-product any organic hazardous air pollutant.

H.1.2 Modifications and Construction: Advance Approval of Permit Conditions

The emission units described in this H section are not subject to the advance approval permit conditions.

Conclusion and Recommendation

The proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Permit Modification No. 157-32172-00006. The staff recommends to the Commissioner that this Part 70 Significant Permit Modification be approved.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Josiah Balogun at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5257 or toll free at 1-800-451-6027 extension 4-5257.

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Appendix A: Emissions Calculations
Emission Summary

Source Name: Evonik Degussa Corp. - Tippecanoe
Source Location: 1650 Lilly Road, Lafayette, IN 47909
Permit Number: 157-32172-00006
Permit Reviewer: Josiah Balogun
Date: 22-Aug-2012

Uncontrolled Potential to Emit

	PM (tons/yr)	PM_{10} (tons/yr)	$PM_{2.5}$ (tons/yr)	SO_2 (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NOx (tons/yr)	GHGs as CO2e (tons/yr)
Emission Unit								
Compounder	0	0	0	0	0.11	0	0	0
Injection Molder	0	0	0	0	0.07	0	0	0
T62 Emergency Diesel Air Compressor	0.17	0.17	0.17	0.15	0.19	0.5	2.33	86.5
T6 Emergency Natural Gas Generator	0	0	0	0.000023	0.0044	0.02	0.03	61.7
T148 Emergency Natural Gas Generator	0	0	0	0.00005	0.01	0.05	0.07	13.9
Total Emissions	0.17	0.17	0.17	0.15	0.38	0.57	2.43	162.10

Appendix A: Emissions Calculations
Emission Summary

Source Name: Evonik Degussa Corp. - Tippecanoe
Source Location: 1650 Lilly Road, Lafayette, IN 47909
Permit Number: 157-32172-00006
Permit Reviewer: Josiah Balogun
Date: 22-Aug-2012

Limited Potential to Emit

	PM (tons/yr)	PM_{10} (tons/yr)	$PM_{2.5}$ (tons/yr)	SO_2 (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NOx (tons/yr)	GHGs as CO2e (tons/yr)
Emission Unit								
Compounder	0	0	0	0	0.11	0	0	0
Injection Molder	0	0	0	0	0.07	0	0	0
T62 Emergency Diesel Air Compressor	0.17	0.17	0.17	0.15	0.19	0.5	2.33	86.5
T6 Emergency Natural Gas Generator	0	0	0	0.000023	0.0044	0.02	0.03	61.7
T148 Emergency Natural Gas Generator	0	0	0	0.00005	0.01	0.05	0.07	13.9
Total Emissions	0.17	0.17	0.17	0.15	0.38	0.57	2.43	162.10

Appendix A: Emission Calculations
Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (<=600 HP)
Maximum Input Rate (<=4.2 MMBtu/hr)

Company Name: Evonik Degussa Corp. - Tippecanoe
Address City IN Zip: 1650 Lilly Road, Lafayette, IN 47909
Permit Number: 157-32172-00006
Reviewer: Josiah Balogun
Date: 22-Aug-2012

B. Emissions calculated based on output rating (hp)

Output Horsepower Rating (hp)	300.0
Maximum Hours Operated per Year	500
Potential Throughput (hp-hr/yr)	150,000

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	0.0022	0.0022	0.0022	0.0021	0.0310	0.0025	0.0067
Potential Emission in tons/yr	0.17	0.17	0.17	0.15	2.33	0.19	0.50

*PM and PM2.5 emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

Hazardous Air Pollutants (HAPs)

	Pollutant							
	Benzene	Toluene	Xylene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/hp-hr****	6.53E-06	2.86E-06	2.00E-06	2.74E-07	8.26E-06	5.37E-06	6.48E-07	1.18E-06
Potential Emission in tons/yr	4.90E-04	2.15E-04	1.50E-04	2.05E-05	6.20E-04	4.03E-04	4.86E-05	8.82E-05

***PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)
****Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

Potential Emission of Total HAPs (tons/yr)	**2.03E-03**

Green House Gas Emissions (GHG)

	Pollutant		
	CO2	CH4	N2O
Emission Factor in lb/hp-hr	1.15E+00	4.63E-05	9.26E-06
Potential Emission in tons/yr	8.63E+01	3.47E-03	6.94E-04

Summed Potential Emissions in tons/yr	**8.63E+01**
CO2e Total in tons/yr	**8.65E+01**

Methodology
Emission Factors are from AP42 (Supplement B 10/96), Tables 3.3-1 and 3.3-2
CH4 and N2O Emission Factor from 40 CFR 98 Subpart C Table C-2.
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Option B Methodology
Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Maximum Hours Operated per Year]
Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] * [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Appendix A: Emission Calculations
Reciprocating Internal Combustion Engines - Natural Gas T6
Maximum Input Rate (<=4.2 MMBtu/hr)

Company Name: Evonik Degussa Corp. - Tippecanoe
Address City IN Zip: 1650 Lilly Road, Lafayette, IN 47909
Permit Number: 157-32172-00006
Reviewer: Josiah Balogun
Date: 22-Aug-2012

A. Emissions calculated based on heat input capacity (MMBtu/hr)

Heat Input Capacity (MMBtu/hr)	0.15
Maximum Hours Operated per Year	500
Potential Throughput (MMBtu/yr)	75

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMBtu	0.00991	0.0000771	0.0000771	0.00	0.85	0.12	0.56
Potential Emission in tons/yr	0.00	0.00	0.00	0.00	0.03	0.0044	0.02

*PM and PM2.5 emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

Hazardous Air Pollutants (HAPs)

	Pollutant							
	Benzene	Toluene	Xylene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/MMBtu	4.40E-04	4.09E-04	1.84E-04	2.67E-04	5.28E-02	8.36E-03	5.14E-03	1.68E-04
Potential Emission in tons/yr	1.65E-05	1.53E-05	6.90E-06	1.00E-05	1.98E-03	3.14E-04	1.93E-04	6.30E-06

Potential Emission of Total HAPs (tons/yr)	**2.54E-03**

Green House Gas Emissions (GHG)

	Pollutant		
	CO2	CH4	N2O
Emission Factor in lb/MMBtu	1.64E+02	6.61E-03	1.32E-03
Potential Emission in tons/yr	6.15E+00	2.48E-04	4.96E-05

Summed Potential Emissions in tons/yr	**6.15E+00**
CO2e Total in tons/yr	**6.17E+00**

Methodology
Emission Factors are from AP42 (Supplement B 10/96), Tables 3.3-1 and 3.3-2
CH4 and N2O Emission Factor from 40 CFR 98 Subpart C Table C-2.
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Option A Methodology
Potential Throughput (MMBtu/yr) = [Heat Input Capacity (MMBtu/hr)] * [Maximum Hours Operated per Year]
Potential Emission (tons/yr) = [Potential Throughput (MMBtu/yr)] * [Emission Factor (lb/MMBtu)] / [2,000 lb/ton]
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Appendix A: Emission Calculations
Reciprocating Internal Combustion Engines - Natural Gas T148
Maximum Input Rate (<=4.2 MMBtu/hr)

Company Name: Evonik Degussa Corp. - Tippecanoe
Address City IN Zip: 1650 Lilly Road, Lafayette, IN 47909
Permit Number: 157-32172-00006
Reviewer: Josiah Balogun
Date: 22-Aug-2012

A. Emissions calculated based on heat input capacity (MMBtu/hr)

Heat Input Capacity (MMBtu/hr)	0.34
Maximum Hours Operated per Year	500
Potential Throughput (MMBtu/yr)	170

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMBtu	0.00991	0.0000771	0.0000771	0.00	0.85	0.12	0.56
Potential Emission in tons/yr	0.00	0.00	0.00	0.00	0.07	0.0100	0.05

*PM and PM2.5 emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

Hazardous Air Pollutants (HAPs)

	Pollutant							
	Benzene	Toluene	Xylene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/MMBtu	4.40E-04	4.09E-04	1.84E-04	2.67E-04	5.28E-02	8.36E-03	5.14E-03	1.68E-04
Potential Emission in tons/yr	3.74E-05	3.48E-05	1.56E-05	2.27E-05	4.49E-03	7.11E-04	4.37E-04	1.43E-05

Potential Emission of Total HAPs (tons/yr)	**5.76E-03**

Green House Gas Emissions (GHG)

	Pollutant		
	CO2	CH4	N2O
Emission Factor in lb/MMBtu	1.64E+02	6.61E-03	1.32E-03
Potential Emission in tons/yr	1.39E+01	5.62E-04	1.12E-04

Summed Potential Emissions in tons/yr	**1.39E+01**
CO2e Total in tons/yr	**1.40E+01**

Methodology
Emission Factors are from AP42 (Supplement B 10/96), Tables 3.3-1 and 3.3-2
CH4 and N2O Emission Factor from 40 CFR 98 Subpart C Table C-2.
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Option A Methodology
Potential Throughput (MMBtu/yr) = [Heat Input Capacity (MMBtu/hr)] * [Maximum Hours Operated per Year]
Potential Emission (tons/yr) = [Potential Throughput (MMBtu/yr)] * [Emission Factor (lb/MMBtu)] / [2,000 lb/ton]
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Appendix B to TSD
Documentation of Emission Rates
for the Compounder and the Injection Molder

Evonik Degussa Corp. - Tippecanoe Laboratories
1650 Lilly Road
Lafayette, Indiana 47909

Significant Permit Modification No.: T 157-32172-00006

Compounder VOC PTE

Inputs:

- Compounder maximum throughput (as determined through manufacturer's specifications) = 75 kg product/hr
- Emission factor = 0.3 lbs VOC/ton product

Conversion:

$$\frac{75\text{ kg product}}{\text{hr}} * \frac{2.2\text{ lbs product}}{\text{kg product}} * \frac{8760\text{ hr}}{\text{yr}} * \frac{1\text{ ton product}}{2000\text{ lb product}} = 722.7\text{ tons product/yr}$$

VOC Emissions Calculation:

$$\frac{722.7\text{ tons product}}{\text{yr ton}} * \frac{0.3\text{ lbs VOC}}{\text{product}} * \frac{1\text{ ton VOC}}{2000\text{ lb VOC}} = \mathbf{\frac{0.11\text{ tons VOC}}{\text{yr}}}$$

Injection Molder VOC PTE

Inputs:

- Injection molder maximum capacity (as determined through manufacturer's specifications) = 3.7 oz product/shot
- Maximum density of product (as determined through Evonik product properties brochure) = 1.77 g/cm^3, or 0.00177 kg/ cm^3
- # shots/time (based on industry practice)* = 1 shot/15 sec

**Note that 1 shot/15 sec is an atypically short time duration that is used to add conservatism to the emissions calculation; the typical time is 1 shot/30 sec)*

- Emission factor = 0.3 lbs VOC/ton product

Conversions:

$$\frac{3.7\text{ oz product}}{\text{shot}} * \frac{29.57353\text{ cm}^3\text{ product}}{\text{oz product}} * \frac{0.00177\text{ kg product}}{\text{cm}^3\text{ product}} = \frac{0.1937\text{ kg product}}{\text{shot}}$$

$$\frac{0.1937\text{ kg product}}{\text{shot}} * \frac{1\text{ shot}}{15\text{ sec}} * \frac{60\text{ sec}}{1\text{ min}} * \frac{60\text{ min}}{1\text{ hr}} * \frac{8760\text{ hr}}{\text{yr}} * \frac{2.2\text{ lb product}}{\text{kg product}} * \frac{\text{ton product}}{2000\text{ lb product}}$$

$$= \frac{447.91\text{ tons product}}{\text{yr}}$$

VOC Emissions Calculation:

$$\frac{447.91\text{ tons product}}{\text{yr}} * \frac{0.3\text{ lbs VOC}}{\text{ton product}} * \frac{1\text{ ton VOC}}{2000\text{ lb VOC}} = \mathbf{\frac{0.07\text{ tons VOC}}{\text{yr}}}$$

The combined potential VOC emissions from the compounder and injection molder is 0.18 tons VOC/yr, which is below the threshold of 40 tons per year that would trigger PSD permitting of 326 IAC 2-2.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

TO: Tippecanoe County Public Library

From: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: Evonik Degussa Corporation
Permit Number: 157-32172-00006

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 11/30/07

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Teresa Reksel
Evonik Degussa Corporation- Tippecanoe Labs
1560 Lilly Rd TL72
Lafayette, IN 47909-9201

DATE: November 16, 2012

FROM: Matt Stuckey, Branch Chief
Permits Branch
Office of Air Quality

SUBJECT: Final Decision
Part 70
157-32172-00006

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
Emmanuel Auer, Responsible Official
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 11/30/07

Mail Code 61-53

IDEM Staff	DPABST 11/16/2012 Evonik Degussa Corporation- Tippecanoe Labs 157-32172-00006 (Final)			AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
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2		Emmanuel Auer Head of Production & Technology Evonik Degussa Corporation- Tippecanoe Labs 1560 Lilly Rd TL05 Lafayette IN 47909-9201 *(RO CAATS)*									
3		Tippecanoe County Commissioners 20 N 3rd St, County Office Building Lafayette IN 47901 *(Local Official)*									
4		Tippecanoe County Health Department 20 N. 3rd St Lafayette IN 47901-1211 *(Health Department)*									
5		Lafayette City Council and Mayors Office 20 North 6th Street Lafayette IN 47901-1411 *(Local Official)*									
6		Tippecanoe County Public Library 627 South Street Lafayette IN 47901-1470 *(Library)*									
7		Ms. Dorothy Whicker 2700 Bonny Lane Lafayette IN 47904 *(Affected Party)*									
8		Ms. Geneva Werner 3212 Longlois Drive Lafayette IN 47904-1718 *(Affected Party)*									
9		Mrs. Phyllis Owens 3600 Cypress Lane Lafayette IN 47905 *(Affected Party)*									
10		Mr. Jerry White 1901 King Eider Ct West Lafayette IN 47906 *(Affected Party)*									
11		Ms. Rose Filley 5839 Lookout Drive West Lafayette IN 47906 *(Affected Party)*									
12		Mr. William Cramer 128 Seminole Drive West Lafayette IN 47906 *(Affected Party)*									
13		Mr. Robert Kelley 2555 S 30th Street Lafayette IN 44909 (Affected Party)									
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