PART 70 SIGNIFICANT SOURCE MODIFICATION
OFFICE OF AIR QUALITY

Eli Lilly and Company
Tippecanoe Laboratories
1650 Lilly Road
Lafayette, IN 47909

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval 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.

Source Modification No.: 157-13834-00006	
Issued by: Original Signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: August 22, 2002

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SECTION A SOURCE SUMMARY

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the emission units contained in conditions A.1 through A.2 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 approval 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)]

The Permittee owns and operates a chemical manufacturing operation that produces pharmaceutical preparation and agricultural chemicals.

Responsible Official:	Lawrence J. McShane, Sr.
Source Address:	1650 Lilly Road, Lafayette, IN 47909
Mailing Address:	1650 Lilly Road, Lafayette, IN 47909
General Source Phone Number:	(765) 477-4173
SIC Code:	2834 and 2879
County Location:	Tippecanoe
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD or Emission Offset Rules; 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 is approved to construct and operate the following emission units and pollution control devices:

(a) One (1) rotary kiln incinerator with an overall rated heat input capacity of 50 MMBtu/hr and design throughput rates of 8120 pounds of liquid waste per hour and 2700 pounds of containerized/bulk solid waste per hour, consisting of:

(1) one (1) primary combustion chamber with a heat input rate up to 33 MMBtu/hr during waste burning operations,
(2) one (1) No. 2 fuel oil-fired lance with a heat input rate up to 20 MMBtu/hr during deslagging operations, and
(3) one (1) vertical up-flow secondary combustion chamber with a heat input rate up to 35 MMBtu/hr during waste burning operations.

(b) A series of emission control equipment that exhausts through Stack 01 at a maximum design flow rate of 14,340 dry standard cubic feet per minute (dscfm):

(1) one (1) selective non-catalytic reduction (SNCR) system, identified as CE-01, for control of nitrogen oxide (NOx) emissions, and

(2) one (1) rapid water quench column, identified as CE-02, one (1) condenser/absorber, identified as CE-03, and one (1) Hydro-Sonic™ scrubber, identified as CE-04, designed in series for control of acid gases, particulate matter (PM), and particulate matter less than 10 microns (PM_{10}).

(c) One (1) gasoline-fired backup internal combustion engine rated up to 15 horsepower, with emissions exhausted to Stack 02.

(d) One (1) containerized and bulk solid waste storage warehouse, identified as T148, receiving, storing and delivering to the kiln, fiber packs, plastic drums, cardboard boxes, and plastic bags containing waste.

(e) One (1) liquid waste transfer system, consisting of new transfer lines connected to existing transfer pumps, delivering liquid wastes from the existing source storage tanks to the kiln.

(f) One (1) wet ash handling system.

A.3 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); and

(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 CONSTRUCTION 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 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

B.3 Revocation of Permits [326 IAC 2-1.1-9(5)][326 IAC 2-7-10.5(i)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.4 Significant Source Modification [326 IAC 2-7-10.5(h)]

This document shall also become the approval to operate pursuant to 326 IAC 2-7-10.5(h) when, prior to start of operation, the following requirements are met:

(a) The attached affidavit of construction shall be submitted to the Office of Air Quality (OAQ), Permit Administration & Development Section, verifying that the emission units were constructed as proposed in the application. The emissions units covered in the Significant Source Modification approval may begin operating on the date the affidavit of construction is postmarked or hand delivered to IDEM if constructed as proposed.

(b) If actual construction of the emissions units differs from the construction proposed in the application, the source may not begin operation until the source modification has been revised pursuant to 326 IAC 2-7-11 or 326 IAC 2-7-12 and an Operation Permit Validation Letter is issued.

(c) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.

(d) The Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.

(e) This Significant Source Modification Approval shall be incorporated into the Permittee's Part 70 Operating Permit application.

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

(a) Deviations from any permit requirements (for emergencies see Section C - 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 Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

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 the "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.

(c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

SECTION C GENERAL OPERATION CONDITIONS

C.1 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.

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

C.2 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 prepare and maintain Preventive Maintenance Plans (PMPs) when operation begins, and such plans shall include 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 the inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained when operation begins, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015

The PMP and the PMP extension notification do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation 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 contributes to any violation. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(d) Records of preventive maintenance shall be retained for the periods specified in the General Record Keeping Requirements of Condition C.16.

C.3 Permit Amendment or Modification [326 IAC 2-7-10.5]

(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-10.5 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 Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

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

C.4 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.5 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).

C.6 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule, or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.7 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 by using good engineering practices (GEP) pursuant to 326 IAC 1-7-3. 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.

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

C.8 Performance Testing [326 IAC 3-6][326 IAC 2-1.1-11]

(a) Compliance testing on new emission units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, except as specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this approval, 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 approval, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

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

(c) 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 source 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 [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. 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)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements shall be implemented when operation begins. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

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

In the event that a breakdown of the emission monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit, or as required by 40 CFR 60 or 40 CFR 63, until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented as required by 40 CFR 60 or 40 CFR 63 or if not specified in 40 CFR 60 or 40 CFR 63, at intervals no less often than once an hour, until such time as the continuous monitor is back in operation.

C.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, as applicable, or other approved methods as specified in this permit.

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

C.13 Compliance Response Plan - Preparation, Implementation, Records, and Reports[326 IAC 2-7-5] [326 IAC 2-7-6] [40 CFR 63, Subpart EEE]

The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A Startup, Shutdown, or Malfunction (SSM) Plan required by 40 CFR 63, Subpart EEE, shall satisfy the terms of a CRP.

C.14 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 Section), or
Telephone Number: 317-233-5674 (ask for Compliance Section)
Facsimile Number: 317-233-5967

(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 Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

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 the "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) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) 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.

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 and 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 description of response actions submitted pursuant to this condition does require the certification by the "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 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

(a) Records of all required data, reports and support information 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 kept 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 the permit, all record keeping requirements not already legally required shall be implemented upon start of operation.

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

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

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(b) 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.

(c) 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 the "responsible official" as defined by 326 IAC 2-7-1(34).

(d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

SECTION D.1 ROTARY KILN INCINERATOR, INCLUDING ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT AND CONTINUOUS MONITORING SYSTEMS

Facility Description [326 IAC 2-7-5(15)]

The information describing the processes contained in the following facility description box is descriptive information and does not constitute enforceable conditions:

Emission Unit Description	Building	Stack/Vent	Nominal Capacity	Control Device
Drum Waste Storage*	T148	Building Vent	N/A	None
Sampling/Repack Station*		Building Vent	10 drums/day	None
Waste Transfer/Feed Systems	T148 - Drums	Building Vent	10,000 lbs/hr	None
	T140 - Primary Waste	T79 Stack		T79 Fume Incinerator
	T48 - Secondary Waste	T79 Stack		T79 Fume Incinerator
Rotary Kiln incinerator with Secondary Combustion Chamber (Natural Gas for Startup, Fuel Oil for Deslagging Operations)	T149	T149 Stack	50 MMBtu/hr	SNCR; Condenser/Absorber; Hydro-Sonic™ Scrubber

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

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

D.1.1 General Applicability Requirements with Emission Standards [40 CFR 63, Subparts DD and EEE]

(a) Pursuant to 40 CFR 63.1206(b)(1)(i) and (ii) (Hazardous Waste Combustor MACT Standards), the emission standards specified in Condition D.1.2 shall apply at all times except:

(1) During startup, shutdown, and malfunction; and

(2) When hazardous waste is not in the combustion chamber (i.e., the hazardous waste feed to the combustor has been cutoff for a period of time not less than the hazardous waste residence time).

(b) Pursuant to 40 CFR 63.684(b)(5)(i) (Off-Site Waste and Recovery Operations MACT Standard), the rotary kiln incinerator shall have a permit issued under 40 CFR 270 whenever off-site waste material is treated and destroyed in the rotary kiln incinerator. The incinerator shall operate in accordance with 40 CFR 63, Subpart EEE (Hazardous Waste Combustor MACT Standards).

(c) If the Permittee intends to make a change in the design, operation, or maintenance practices documented in the comprehensive performance test plan, Notification of Compliance, or startup, shutdown, and malfunction plan, the Permittee shall comply 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 the performance test plan, Documentation of Compliance, Notification of Compliance, and startup, shutdown, and malfunction plan, to reflect the change(s).

D.1.2 Specific Emission Standards [326 IAC 2-2, 4, and 7, 40 CFR 52.21, 40 CFR 63, Subpart EEE]

The Permittee shall comply with all of the following emission standards:

(a) Particulate Matter Emission Limitations:

(1) Pursuant to 40 CFR 63.1203(b)(7) (Hazardous Waste Combustor MACT Standards), the particulate matter (PM) emissions from the rotary kiln incinerator stack exhaust shall not exceed 34 milligrams per dry standard cubic meter (mg/dscm) (0.015 grains per dry standard cubic feet (gr/dscf)), corrected to 7 percent oxygen, which is equivalent to 1.8 lb PM/hr at a flow rate of 14,340 dscfm. The emissions averaging time will be established by the Administrator prior to operation of the rotary kiln incinerator in accordance with the alternative monitoring requirements of 40 CFR 63.1209(a)(5) and 40 CFR 63.8(f).

(2) Pursuant to 326 IAC 4-2 (Burning Regulations for Incinerators), The rotary kiln incinerator shall:

(A) Consist of primary and secondary chambers or the equivalent,

(B) Be equipped with a primary burner unless burning wood products,

(C) Comply with 326 IAC 5-1 and 326 IAC 2,

(D) Be maintained properly as specified by the manufacturer and approved by the commissioner,

(E) Be operated according to the manufacturer's recommendations and only burn waste approved by the commissioner,

(F) Comply with other state and/or local rules or ordinances regarding installation and operation of incinerators,

(G) Be operated so that emissions of hazardous material including, but not limited to viable pathogenic bacteria, dangerous chemicals or gases, or noxious odors are prevented,

(H) Not emit particulate matter in excess of three-tenths (0.3) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas at standard conditions corrected to fifty percent (50%) excess air, and

(I) Not create a nuisance or a fire hazard.

If any of the above result, the burning shall be terminated immediately.

If 326 IAC 4-2 is amended such that incinerators subject to 40 CFR 63 (e.g., the Hazardous Waste Combustor MACT) are exempt from provisions in 326 IAC 4-2-2, the corresponding terms in Condition D.1.2(a)(2) will expire upon the effective date of the amendments to 326 IAC 4-2-2.

(b) Carbon Monoxide (CO) Emission Limitations:

Pursuant to 40 CFR 63.1203(b)(5)(i) (Hazardous Waste Combustor MACT Standards), the carbon monoxide (CO) emissions from the rotary kiln incinerator stack exhaust, as monitored continuously by a continuous emissions monitor, shall not exceed an hourly rolling average of 100 parts per million by volume, dry basis, corrected to 7 percent oxygen (ppmvdc).

(c) Hydrocarbon (HC) Limitations:

Pursuant to 40 CFR 63.1203(b)(5)(i) (Hazardous Waste Combustor MACT Standards), the highest hourly rolling average hydrocarbon emissions achieved, as monitored continuously with a continuous emissions monitor during an acceptable DRE test, shall not exceed 10 ppmvdc, reported as propane.

During the DRE test for hydrocarbons, the CO emissions shall not exceed an hourly rolling average of 100 ppmvdc (monitored continuously with a continuous emissions monitoring system).

For the purposes of this condition, an acceptable DRE test is any test for which the data and results are determined to meet quality assurance objectives such that the results adequately demonstrate compliance with the DRE standard.

(d) Sulfur Dioxide (SO_2) Emission Limitations:

(1) The SO_2 emissions from the rotary kiln incinerator stack exhaust shall not exceed 39.4 tons per 12 consecutive month period, rolled on a monthly basis to avoid the requirements of 40 CFR 52.21 and 326 IAC 2-2-1 (Prevention of Significant Deterioration).

(2) Pursuant to 326 IAC 7-1.1-2 (SO_2 Rules), the SO_2 emissions from the combustion of fuel oil during the deslagging process in the rotary kiln incinerator shall not exceed 0.5 pounds per million British thermal units (lbs/MMBtu).

(e) Oxides of Nitrogen (NO_x) Emission Limitation**:**

The oxides of nitrogen (NO_x) emissions from the rotary kiln incinerator stack exhaust shall not exceed 38.8 tons per consecutive 12 month period, rolled on a monthly basis**,** to avoid the requirements of 40 CFR 52.21 and 326 IAC 2-2-1 (Prevention of Significant Deterioration).

(f) Fluorides Emission Limitation:

The fluorides emissions from the rotary kiln incinerator stack exhaust shall not exceed 2.9 tons per consecutive 12 month period, rolled on a monthly basis, to avoid the requirements of 40 CFR 52.21 and 326 IAC 2-2-1 (Prevention of Significant Deterioration).

(g) Hazardous Air Pollutant (HAP) Emission Limitations:

(1) Inorganic HAP Emission Limitations:

(A) Mercury:

Pursuant to 40 CFR 63.1203(b)(2) (Hazardous Waste Combustor MACT Standards), the mercury emissions from the rotary kiln incinerator stack exhaust shall not exceed 45 ug/dscm, corrected to 7% oxygen. The emissions averaging time will be established by the Administrator prior to operation of the rotary kiln incinerator in accordance with the alternative monitoring requirements of 40 CFR 63.1209(a)(5) and 40 CFR 63.8(f).

(B) Lead and Cadmium:

Pursuant to 40 CFR 63.1203(b)(3) (Hazardous Waste Combustor MACT Standards), the total semi-volatile metals (lead and cadmium) emissions from the rotary kiln incinerator stack exhaust shall not exceed 120 micrograms per dry standard cubic meter (ug/dscm), corrected to 7% oxygen. The emissions averaging time will be established by the Administrator prior to operation of the rotary kiln incinerator in accordance with the alternative monitoring requirements of 40 CFR 63.1209(a)(5) and 40 CFR 63.8(f).

(C) Arsenic, Beryllium, and Chromium:

Pursuant to 40 CFR 63.1203(b)(4) (Hazardous Waste Combustor MACT Standards), the total low volatile metals (arsenic, beryllium, and chromium) emissions from the rotary kiln incinerator stack exhaust shall not exceed 97 ug/dscm, corrected to 7 percent oxygen. The emissions averaging time will be established by the Administrator prior to operation of the rotary kiln incinerator in accordance with the alternative monitoring requirements of 40 CFR 63.1209(a)(5) and 40 CFR 63.8(f).

(D) Hydrochloric Acid and Chlorine Gas:

Pursuant to 40 CFR 63.1203(b)(6) (Hazardous Waste Combustor MACT Standards), the combined hydrochloric acid and chlorine gas (HCl/CL_2) emissions from the rotary kiln incinerator stack exhaust shall not exceed 21 ppmvdc, expressed as hydrochloric acid equivalent. The emissions averaging time will be established by the Administrator prior to operation of the rotary kiln incinerator in accordance with the alternative monitoring requirements of 40 CFR 63.1209(a)(5) and 40 CFR 63.8(f).

(2) Organic HAP Emission Limitations and Standards:

(A) Dioxin/Furans:

Pursuant to 40 CFR 63.1203(b)(1) (Hazardous Waste Combustor MACT Standards), the dioxin/furan emissions from the rotary kiln incinerator stack exhaust, averaged over a three-run performance test, shall not exceed 0.20 ng TEQ/dscm, corrected to 7 percent oxygen.

(B) Destruction and Removal Efficiency (DRE) Requirements:

Pursuant to 40 CFR 63.1203(c)(1) (Hazardous Waste Combustor MACT Standards), the destruction and removal efficiency (DRE) for each principle organic hazardous constituent (POHC), averaged over a three-run DRE test, shall be at least 99.99 percent.

D.1.3 Operation and Maintenance Plan [40 CFR 63, Subpart EEE, 326 IAC 2-7-5(13)]

Pursuant to 40 CFR 63.1206(c)(1) and (7) (Hazardous Waste Combustor MACT Standards), the Permittee shall develop and implement as follows, a written Operations and Maintenance (O&M) Plan based on the procedures specified in Conditions D.1.4 through D.1.10, D.1.15, and D.1.16, to define operations during periods of startup, shutdown, malfunction, and normal operation.

(a) The O&M plan shall contain for each period, procedures for proper operation, inspection, maintenance, and corrective measures for the following:

(1) The rotary kiln incinerator, including the primary and secondary chambers, deslagging lance, and backup motor;

(2) Each associated air pollution control device,

(3) Each continuous monitoring system;

(4) The AWFCO system;

(5) The ESV(s);

(6) The containerized and bulk solid waste handling, transfer, and feed system;

(7) The liquid waste handling, transfer, and feed system; and

(8) The wet ash handling system.

Said procedures shall be detailed and drafted in a manner consistent with good pollution control practices for minimizing emissions at least to the levels required by all relevant standards.

(b) The O&M plan shall be developed such that compliance with the requirements of 63.6(e) are achieved, and emissions of pollutants, automatic waste feed cutoffs, and malfunctions are minimized. The O&M plan shall satisfy the requirements of 326 IAC 2-7-5(13), as required by Condition C.13.

(c) The rotary kiln incinerator, including associated control equipment, and continuous monitoring systems shall be operated according to the procedures specified in the O&M Plan at all times, except:

(1) During performance tests;

(2) During startup, shutdown, and malfunction; and

(3) When hazardous waste is not in the combustion chamber and documentation has been included in the operating record demonstrating that compliance with all other requirements and standards is achieved.

D.1.4 Startup, Shutdown, and Malfunction Requirements [40 CFR 63, Subpart EEE]

Pursuant to 40 CFR 63.1206(c)(2), (Hazardous Waste Combustor MACT Standards), 40 CFR 63.6(e)(3) (General Provisions - Startup, Shutdown, and Malfunction Plan), and 40 CFR 63.8(c) (General Provisions - Operation and Maintenance of Continuous Monitoring Systems), the Permittee shall comply with the following startup, shutdown, and malfunction (SSM) requirements:

(a) The Permittee shall develop and implement during all periods of startup, shutdown, and malfunction, a SSM plan containing the following information:

(1) Detailed procedures for operating and maintaining the rotary kiln incinerator, including associated air pollution control equipment and continuous monitoring systems (CMSs), during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process and air pollution control equipment;

(2) Identification of all routine or otherwise predictable CMS malfunctions; and

(3) A projected oxygen correction factor based on normal operations to use during periods of startup and shutdown;

(b) The SSM plan shall be developed such that, during all periods of startup, shutdown, and malfunction, the rotary kiln incinerator, including associated air pollution control equipment and continuous monitoring systems, is operated and maintained in a manner consistent with good air pollution control practices for minimizing emissions during these periods at least to the levels required by all relevant standards, and all malfunctions are corrected as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants.

(c) For all actions taken during a SSM that are consistent with the procedures specified in the SSM plan, the Permittee shall comply with the procedures specified in 63.6(e)(3)(iii).

(d) For all actions taken during a SSM that are not consistent with the procedures specified in the SSM plan, the Permittee shall operate and maintain the rotary kiln incinerator, including associated air pollution control equipment and continuous monitoring systems in accordance with the procedures specified in 63.6(e)(3)(iv).

(e) The SSM plan shall be maintained pursuant to the requirements of 63.6(e)(3)(v) and revised pursuant to the requirements of 63.6(e)(3)(viii) and 63.1206.

D.1.5 Automatic Waste Feed Cutoff System Requirements [40 CFR 63, Subpart EEE]

Pursuant to 40 CFR 63.1206(c)(3)(i) (Hazardous Waste Combustor MACT Standards), the Permittee shall operate the rotary kiln incinerator with a functioning Automatic Waste Feed Cutoff (AWFCO) system that meets the following requirements:

(a) 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 a CEMS is exceeded;

(3) The allowable combustion chamber pressure is exceeded;

(4) A span value of any CMS detector, except a CEMs, is met or exceeded; or

(5) Upon malfunction of a CMS monitoring an operating parameter or emission level;

except as provided for in Part (c) of this Condition.

(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

(5) Monitor the applicable combustor operating parameters and emission levels.

(c) The Permittee may ramp down the hazardous waste feedrate during an AWFCO event in accordance with the procedures in the O&M plan, as long as an emission standard or operating limit is not exceeded and 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 feedrate, or

(3) Any hazardous waste combustor firing system operating limits.

The duration of the feedrate ramp down shall not exceed one (1) minute.

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, except AWFCO events due to malfunctions of process equipment or associated air pollution control equipment, 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.1.6 Emergency Safety Vent System Operating Requirements [40 CFR 63, Subpart EEE]

Pursuant to 40 CFR 63.1206(c)(4) (Hazardous Waste Combustor MACT Standards), the Permittee shall install and maintain a functioning Emergency Safety Vent system. The Permitee shall, for said ESV system, comply with the following requirements:

(a) The Permittee shall develop, maintain, and comply with, an Emergency Safety Vent (ESV) Operating Plan. The plan shall contain the following information:

(1) Detailed procedures for rapidly stopping the waste feed, shutting down the rotary kiln incinerator, and maintaining temperature and negative pressure in the combustion chamber during the hazardous waste residence time, if feasible; and

(2) Calculations and information and data documenting the effectiveness of the plan's procedures for ensuring that the combustion chamber temperature and negative pressure are maintained as is reasonably feasible.

(b) If an emergency safety vent (ESV) opens when hazardous waste remains in the combustion chamber during an event other than a malfunction as defined in the SSM plan such that combustion gases are not treated as during the most recent comprehensive performance test, the Permittee shall document in the operating record whether compliance with the emission standards were maintained or not.

(c) After any ESV opening that results in a failure to meet the emission standards specified in Part (b) of this condition, the Permittee shall:

(1) Investigate the cause of the ESV opening,

(2) Take appropriate corrective measures to minimize such future ESV openings,

(3) Record the findings in the operating record, and

(4) Submit to the Administrator within five (5) days of the ESV opening, a written report documenting the result of the investigation and corrective measures taken.

D.1.7 Leak Detection and Repair (LDAR) Program [40 CFR 63, Subpart DD, 40 CFR 61, Subpart V, 40 CFR 63, Subpart EEE]

(a) Pursuant to 40 CFR 63.689(c)(2) (Off-Site Waste and Recovery operations MACT Standard), the liquid waste from the new piping associated with the rotary kiln incinerator project shall be transferred to the rotary kiln incinerator for treatment via continuous hard-piping. All joints or seams between the pipe sections shall be permanently or semi-permanently sealed. Equipment leaks shall be controlled in accordance with 40 CFR 61.240-61.247 (National Emission Standards for Equipment Leaks).

(b) Pursuant to 40 CFR 61.240-61.247 (National Emission Standards for Equipment Leaks), the Permittee shall implement the Leak Detection and Repair (LDAR) Program on the liquid transfer/feed systems for the rotary kiln incinerator to minimize fugitive VOHAP emissions from the transfer lines.

(c) Pursuant to 40 CFR 63.1206(c)(5) (Hazardous Waste Combustor MACT Standards), the Permittee shall keep the combustion zone sealed to prevent combustion leaks.

All methods used to control the combustion system leaks associated with the rotary kiln incinerator shall be documented in the operating record.

D.1.8 Container Storage Standards [40 CFR 63, Subparts DD and PP]

(a) Pursuant to 40 CFR 63.688(b) (Off-Site Waste and Recovery Operations MACT Standard), off-site waste containers in the T148 storage area are subject to the Container Level 1 control standards of 40 CFR 63, Subpart PP (National Emission Standards for Containers) when containers have:

(1) An average VOHAP concentration equal to or greater than 500 ppmw; and

(2) A design capacity greater than 0.1 cubic meters (26.4 gallons) and less than or equal to 0.46 cubic meters (121.5 gallons).

(b) The Container 2 level control standards of 40 CFR 63, Subpart PP do not apply to the T148 storage are because the building is not designed to store off-site containers with a design capacity greater than 0.46 cubic meters (121.5 gallons).

(c) Pursuant to 40 CFR 63, Subpart PP (National Emission Standards for Containers), the following Container Level 1 control standards shall apply to subject containers of off-site waste as defined in Condition D.1.13(a) above:

(1) Pursuant to 40 CFR 63.922(b)(2), each container shall be equipped with a cover and closure device that form a continuous barrier over the container openings such that when the cover and closure device are secured in the closed position there are no visible holes, gaps, or other spaces into the interior of the container;

(2) Pursuant to 40 CFR 63.922(d), each cover and closure device shall be secured and maintained in the closed position, 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; and

(3) Pursuant to 40 CFR 63.922(c), each container shall be composed of suitable materials to minimize exposure of the regulated material to the atmosphere to maintain the integrity for as long as it is in service.

(d) The Permittee shall inspect and monitor all Level 1 and Level 2 Containers as follows, in accordance with 40 CFR 63.926(a) (Containerized Off-Site Waste Storage Monitoring Requirements) to demonstrate compliance with the applicable requirements of this condition:

(1) Visual inspections for defects if the container is not emptied within 24 hours;

(2) Annual inspection for defects if the container is on-site for more than one (1) year; and

(3) Attempt to repair any defect within 24 hours after detection of the defective container, and complete the repair within 5 days after detection of the defective container.

D.1.9 Training and Certification Requirements [40 CFR 63, Subpart EEE]

(a) Pursuant to 40 CFR 63.1206(c)(6) (Hazardous Waste Combustor MACT Standard), 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 rotary kiln incinerator. Said programs shall be of a technical level commensurate with the person's duties specified in the training manual. Said training and certification programs shall be established as follows:

(1) A Control Room Operator Training Program Consisting of:

(A) Training on the following subjects by a qualified instructor including:

(i) Environmental concerns, including the type of emissions generated,

(ii) Basic combustion principles, including the productions of combustion,

(iii) Proper operation and maintenance of the rotary kiln incinerator, including proper startup, waste firing, and shutdown procedures,

(iv) Basic combustion control and continuous emissions monitoring system principles,

(v) Proper operation of the rotary kiln incinerator control devices and continuous monitoring systems, and the factors that affect it's performance,

(vi) Appropriate inspection and maintenance procedures for the combustor, it's continuous monitoring systems and control devices,

(vii) Appropriate actions to be taken in the event of a malfunction or conditions that may lead to a malfunction,

(viii) Basic residue characteristics and handling procedures, and

(ix) Applicable federal, state, and local regulations, including Occupational Safety and Health Administration (OSHA) workplace standards.

(B) An examination designed and administered by the instructor at the end of the training program, and

(C) Written material covering the training course topics that may serve as reference material following completion of the course.

To maintain control room operator qualification, all certified control room operators must complete an annual review or refresher course covering at a minimum, the following topics:

(A) Updated regulations,

(B) Combustion operation, including startup and shutdown procedures, waste firing, and residue handling,

(C) Inspection and maintenance procedures,

(D) Responses to malfunctions or conditions that may lead to malfunction, and

(E) Operating problems encountered by the operator.

(2) Training program for all other affected employees consisting of:

(A) Training commensurate to each program as administered by a qualified instructor, and

(B) An examination designed and administered by the instructor at the end of the training program.

Successful completion of the exams required in Parts (a)(1) and (a)(2) of this Condition shall be deemed the certification for the purposes of this permit.

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 source is in operation and the rotary kiln 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.1.10 Feedstream Analysis Plan [40 CFR 63, Subpart EEE, 326 IAC 2-2]

(a) Pursuant to 40 CFR 63.1209(c) (Hazardous Waste Combustor MACT Standards), the Permittee shall develop and implement a written Feedstream Analysis Plan. The Feedstream Analysis Plan shall include the following to demonstrate compliance with the organic and inorganic HAP emission limits, and the DRE standard required in Condition D.1.2:

(1) List of the parameters that will be analyzed;

(2) Test methods used to obtain the analyses;

(3) Sampling method used to obtain a representative sample;

(4) Frequency of sampling and analysis; and

(b) Pursuant to 40 CFR 52.21 and 326 IAC 2-2 (Prevention of Significant Deterioration), the Permittee shall develop and implement a plan to quantify fluoride compounds to demonstrate compliance with the fluorides emission limit required by Operation Condition D.1.2.

The Permittee shall submit the Feedstream Analysis Plan to the Administrator for review, upon request.

D.1.11 Operating Record [40 CFR 63, Subparts A and EEE]

Pursuant to 40 CFR 63.1200, 63.10(b), and (c), the Permittee shall maintain an operating record that adequately documents on a more or less continuous basis, that the Permittee is operating and maintaining the rotary kiln incinerator, including associated air pollution control equipment and continuous monitoring systems, in compliance with the requirements specified in this permit.

Said operating record shall:

(a) Include at a minimum, all required data recorded by applicable continuous monitoring systems (CMS), and copies of all notifications, reports, plans, and communications with regulatory agencies required by 40 CFR 63.1200, 40 CFR 63.10(b), and 63.10(c); and

(b) Be made available to the Administrator upon request.

Compliance Determination Requirements

D.1.12 Comprehensive Performance Tests

Pursuant to 40 CFR 63.1207 (Hazardous Waste Combustor MACT Standards), the Permittee shall conduct comprehensive performance testing as follows:

(a) Initial Comprehensive Performance Test Requirements:

(1) During the period between the initial introduction of hazardous waste in the rotary kiln incinerator and 6 months of operation, the Permittee shall perform initial comprehensive performance tests to:

(A) With the exception of Fluorides, SO_2, and NO_x, demonstrate compliance with the emission standards of Condition D.1.2,

(B) Establish limits for applicable operating parameters required by 40 CFR 63.1209, and

(C) Demonstrate compliance with the performance specifications for continuous monitoring systems.

(2) The initial comprehensive tests shall be conducted under operating conditions representative of the extreme range of normal conditions as specified in 40 CFR 63.6(f)(2)(iii)(B) and 63.7(e)(1) for the worst case mode associated with each applicable pollutant limit or emission standard, and in accordance with the requirements specified in 326 IAC 3-6-3, 40 CFR 63.7, 40 CFR 63.1206(b)(6), (7), (8), and (12), 63.1207(g), 63.1209, and Section C - Performance Testing, utilizing the methods specified in 40 CFR 63.1208.

(3) All required comprehensive performance testing shall be completed within 60 days after the date of commencement of the tests.

(4) The Permittee may use previous emissions test data in lieu of the initial comprehensive performance tests as allowed under 40 CFR 63.1207(a)(2).

(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 judgement, 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 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.

(b) Subsequent Comprehensive Performance Tests

Pursuant to 40 CFR 63.1207(d)(4)(i), no subsequent comprehensive performance tests (including DRE tests) shall be required until the U.S. EPA promulgates permanent replacement standards pursuant to the Settlement Agreement noticed in the Federal Register on November 16, 2001, unless the Permittee modifies or otherwise alters operations such that compliance with the emission standards of Condition D.1.2 cannot be achieved.

Upon promulgation of the permanent replacement standards, the Permittee shall comply with the subsequent comprehensive testing requirements established.

D.1.13 Confirmatory Performance Tests

Pursuant to 40 CFR 63.1207(d)(4)(ii), no confirmatory performance tests shall be required until the U.S. EPA promulgates permanent replacement standards pursuant to the Settlement Agreement noticed in the Federal Register on November 16, 2001.

Upon promulgation of the permanent replacement standards, the Permittee shall comply with the subsequent comprehensive testing requirements established.

D.1.14 Performance Testing Requirements, Fluorides

Pursuant to Section C - Performance testing, the Permittee shall conduct a fluorides performance test on the rotary kiln incinerator within 60 days of operation, but no later than 180 days after initial introduction of hazardous waste in the rotary kiln incinerator to demonstrate compliance with the emission limit in Condition D.1.2. The operating parameters defined in Condition D.1.20(d) shall be monitored during the performance test to establish limits for the continuous monitoring systems. Alternate methods approved by the Office of Air Quality may be used in lieu of performance testing.

D.1.15 Continuous Emissions Monitoring Systems (CEMS) Operating Requirements

(a) Pursuant to 40 CFR 63.1209(a), (d), (e), (f), and (h) (Hazardous Waste Combustor MACT Standards), the Permittee shall install, calibrate, maintain, and operate CO and O_2 continuous emissions monitoring systems (CEMS) on the rotary kiln incinerator stack to demonstrate compliance with the CO and HC limits specified in Condition D.1.2. The CEMS shall be installed and operational prior to conducting the initial comprehensive performance tests.

(b) Pursuant to 326 IAC 3-5 and 40 CFR 60, Appendix B, the Permittee shall install, calibrate, maintain, and operate at all times hazardous waste is being combustion chamber, SO_2 and NO_x CEMS on the rotary kiln incinerator stack to demonstrate compliance with the SO_2 and NO_x emission limits specified in condition D.1.2. The CEMS shall be installed and operational prior to conducting the initial comprehensive performance tests.

(c) The CO and O_2 CEMS shall comply with the quality assurance requirements of Appendix A of 40 CFR 63, Subpart EEE (Hazardous Waste Combustor MACT Standards), the applicable quality control and performance evaluation requirements of 40 CFR 63.1209(d), and the applicable performance specifications of Appendix B of 40 CFR 60.

(d) The SO_2, and NO_x CEMS shall comply with the quality assurance requirements of Appendix F of 40 CFR 60 (New Source Performance Standards) and the applicable performance specifications of Appendix B of 40 CFR 60.

D.1.16 Continuous Monitoring Systems (CMS) Other Than CEMS

40 CFR 63.1209(b), (d), (e), (f), and (h) (Hazardous Waste Combustor MACT Standards), the Permittee shall:

(a) Install, maintain, calibrate, and operate continuous monitoring systems (CMS) to measure all applicable operating parameters required pursuant to 40 CFR 63.1209; and

(b) Comply with the CMS quality assurance requirements specified in 40 CFR 63.1209(d).

D.1.17 326 IAC 3-7-4 Fuel Oil Requirements

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 to demonstrate compliance with the SO_2 emission limit required by Condition D.1.2.

Compliance Monitoring Requirements

D.1.18 Compliance Monitoring, Dioxin/Furan Limit

Pursuant to 40 CFR 63.1209(k), the Permittee shall demonstrate compliance with the dioxin/furan limit of Condition D.1.2 by continuously monitoring and recording the:

(a) Minimum rolling hourly average combustion chamber temperature established from the average temperature measured during the three DRE test runs;

(b) Maximum hourly rolling average flue gas flow rate established from the average of the maximum hourly rolling average for each performance test run; and

(c) Maximum hourly rolling average pumpable and total (pumpable and nonpumpable) waste feedrates as established from the average of the maximum hourly rolling average for each performance test run.

D.1.19 Compliance Monitoring, DRE Standard

Pursuant to 40 CFR 63.1209(j), the Permittee shall demonstrate continuous compliance with the POHC DRE standard of Condition D.1.2 by continuously monitoring and recording the:

(a) Minimum rolling hourly average combustion chamber temperature established from the average temperature measured during the three DRE test runs;

(b) Maximum hourly rolling average flue gas flow rate established from the average of the maximum hourly rolling average for each performance test run;

(c) Maximum hourly rolling average pumpable and total (pumpable and nonpumpable) waste feedrates as established from the average of the maximum hourly rolling average for each performance test run; and

(d) Operating parameters and limits to ensure that good operation of the hazardous waste firing system is maintained.

D.1.20 Compliance Monitoring, PM, HCl, Cl_2, Hg, F^-, Pb, Cd, As, Be, and Cr Emission Limits

(a) The Permittee shall, pursuant to 40 CFR 63.1209(l), (m), (n), and (o), demonstrate compliance with the Hg, PM, HCl/Cl_2, semi-volatile metal, and low volatile metal emission limits of Condition D.1.2 by continuously monitoring and recording the:

(1) Maximum 12-hour rolling average feedrates for total Hg, total chlorine, semi-volatile metals (cadmium and lead) and low volatile metals (arsenic, beryllium, and chromium) in all waste feedstreams established from the average of the hourly rolling averages for each performance test run and approved extrapolation techniques;

(2) Minimum hourly rolling average pressure drop across the Hydro-Sonic™ scrubber established from the average of the performance test run averages. This operating parameter applies to Hg, PM, HCl/Cl2, and semi-volatile and low volatile metals;

(3) Minimum hourly rolling average pH established from the average of the performance test run averages. This operating parameter applies to HCl/Cl_2;

(4) Minimum hourly rolling average liquid to gas ratio or the minimum hourly rolling average scrubber water flowrate and maximum hourly rolling average flue gas flowrate established from the average of the performance test run averages. This operating - parameter applies to Hg, PM, HCl/Cl_2, and semi-volatile and low volatile metals;

(5) Maximum 12-hour rolling average solids content of the scrubber liquid using a continuous monitoring system established from the average of the performance test run averages. This operating parameter applies to PM and semi-volatile and low volatile metals;

(6) Maximum hourly rolling average flue gas flow rate, the maximum production rate, or another surrogate parameter for gas residence time established from the average of the maximum hourly rolling averages for each test run. This operating parameter applies to PM, HCl/Cl_2, and semi-volatile and low volatile metals; and

(7) Maximum hourly rolling average ash feedrate established from the average of the highest hourly rolling averages for each test run. This operating parameter only applies to PM.

(b) Pursuant to 40 CFR 1209(a)(5), the Permittee may use CEMS for compliance monitoring in lieu of compliance with the operating parameter limits established in Part (a) of this condition.

(c) If applicable, the Permittee may document compliance with the requirements of 40 CFR 1207(m) in lieu of compliance with the operating parameter limits or CEMS data established in Parts (a) and (b) of this condition.

(d) Pursuant to 326 IAC 3-5, the Permittee shall demonstrate compliance with the fluorides emission limit required by Condition D.1.2 by continuously monitoring and recording the:

(1) Maximum 12 hour rolling average feedrates for total fluorides in all hazardous waste feedstreams established from the average of the hourly rolling averages for each performance test run and approved extrapolation techniques;

(2) Minimum hourly rolling average pressure drop across the Hydro-Sonic™ scrubber established from the average of the performance test run averages.

(3) Minimum hourly rolling average pH established from the average of the performance test run averages;

(4) Minimum hourly rolling average liquid to gas ratio or the minimum hourly rolling average scrubber water flowrate and maximum hourly rolling average flue gas flowrate established from the average of the performance test run averages; and

(5) Maximum hourly rolling average flue gas flowrate, the maximum production rate, or another surrogate parameter for gas residence time established from the average of the maximum hourly rolling averages for each test run;

(e) The Permittee may use alternate continuous compliance methods as approved by the Office of Air Quality in lieu of the continuous monitoring requirements established in Part (d) of this Condition.

D.1.21 LDAR Program Monitoring Requirements

The Permittee shall conduct inspections of the new piping associated with the rotary kiln incinerator according to the schedule(s) specified in the LDAR Program to demonstrate compliance with the requirements of Condition D.1.7(a) and (b) and conduct daily visual inspections of the rotary kiln incinerator to demonstrate compliance with the Condition D.1.7(c).

D.1.22 AWFCO Monitoring Requirements

Pursuant to 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. At a minimum, the Permittee shall conduct operability testing monthly.

Recordkeeping and Reporting Requirements

D.1.23 Recordkeeping Requirements

(a) To document compliance with the emission limits of Condition D.1.2, the Permittee shall maintain the following records:

(1) All information contained in the operating record as required in Condition D.1.11;

(2) 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);

(3) Records of the estimated hazardous waste residence time as required by 40 CFR 63.1206(b)(11);

(4) A copy of the startup, shutdown, and malfunction plan, as required in Condition D.1.4;

(5) Documentation of investigation and evaluation of excessive exceedances during malfunctions as required by 40 CFR 63.1206(c)(2)(v)(A);

(6) Corrective Measures for any AWFCO that results in an exceedance of an emission standard or operating parameter limit as required by 40 CFR 63.1206(c)(3)(v);

(7) Documentation and results of the AWFCO operability testing as required by 40 CFR 63.1209(c)(3)(vii);

(8) A copy of the ESV Operating Plan as required in Condition D.1.6;

(9) Corrective measures for any ESV opening as required by 40 CFR 63.1206(c)(4)(iii);

(10) The method used for control of combustion system leaks as required by 40 CFR 63.1206(c)(5)(ii);

(11) A copy of the Operator Certification and Training Program required in Condition D.1.9;

(12) A copy of the Operation and Maintenance Plan required in Condition D.1.3;

(13) A copy of the feedstream analysis plan required in Condition D.1.10;

(14) Documentation of the changes in modes of operation as required by 40 CFR 63.1209(q); and

(15) Documentation of compliance as required by 40 CFR 63.1211(c).

(b) To document that the requirements of 40 CFR 52.21 and 326 IAC 2-2 (Prevention of Significant Deterioration) do not apply to fluorides, the Permittee shall maintain the following records for the periods specified in Condition C.16:

(1) Continuous monitoring parameters required by Condition D.1.20(d); and

(2) The monthly fluorides emissions to demonstrate compliance with the emission limit required in Condition D.1.2(f).

(c) To document that the requirements of 40 CFR 52.21 and 326 IAC 2-2 (Prevention of Significant Deterioration) do not apply to SO2 and NOx, the Permittee shall maintain the following records for the periods specified in Condition C.16:

(1) SO_2 and NO_x CEMS data; and

(2) The monthly SO_2 and NO_x emissions to demonstrate compliance with the emission limits required in Condition D.1.2.

(d) To document compliance with the requirements of Condition D.1.7 and 40 CFR 61.242-61.247 (National Emission Standards for Equipment Leaks), the Permittee shall maintain appropriate records.

(e) To document compliance with the requirements of 326 IAC 7-1.1-2(a)(3), the Permittee shall maintain quarterly records of all fuel oil used in the rotary kiln 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; and

(f) The Permittee shall maintain records associated with the QA/QC activities for the CEMS as required by 326 IAC 3-5-5 and 40 CFR 60, Appendix F, and the Appendix to 40 CFR 63.1200, as applicable.

All records shall be maintained in accordance with Section C - General Record Keeping Requirements of this permit.

D.1.24 Reporting Requirements

(a) The Permittee shall report the information required by 40 CFR 63.1211 including, but not limited to the following, to document compliance with 40 CFR 63, Subpart EEE (Hazardous Waste Combustor MACT Standards):

(1) Compliance progress reports as required by 40 CFR 63.1210(d)(4);

(2) Periodic startup, shutdown, and malfunction reports as required by 40 CFR 63.10(d)(5)(i);

(3) Immediate startup, shutdown, and malfunction reports as required by 40 CFR 60.10(d)(5)(ii);

(4) Startup, shutdown, and malfunction plan as required by 40 CFR 63.1206(c)(2)(ii)(B);

(5) Excessive exceedance reports as required by 40 CFR 63.1206(c)(3)(vi);

(6) Emergency safety vent opening reports as require by 40 CFR 63.1206(c)(4)(iv);

(7) Excessive emissions and continuous monitoring system performance report and summary report as required by 40 CFR 63.10(e)(3).

(b) The Permittee shall submit all reports subject to 40 CFR 60 Subpart A or 40 CFR 63 Subpart A to the address listed in Section C – General Reporting Requirement.

(c) The Permittee shall include the certification by the “responsible official” for those reports required to be submitted pursuant to 40 CFR 63.10(d)(5)(i) and (ii).

(d) The Permittee shall submit quarterly summary reports of:

(1) Excess emissions data as required by 326 IAC 3-5-7 and performance audit results required by 326 IAC 3-5-5 for the SO_2 and NO_x CEMS; and

(2) The monthly fluorides, SO_2, and NO_x emissions required in Condition D.1.24(b) and (c).

SECTION D.2 EMERGENCY BACKUP MOTOR OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

The information describing the processes contained in the following description box is descriptive information and does not constitute enforceable conditions:

Emission Unit ID	Building	Stack/Vent	Maximum Capacity	Control Device
Emergency Backup Engine	None	Vent	15 HP	None

There are no conditions associated with the emergency backup engine.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

PART 70 SOURCE MODIFICATION CERTIFICATION

Source Name: Eli Lilly and Company
Source Address: 1650 Lilly Road, Lafayette, Indiana 47909
Mailing Address: 1650 Lilly Road, Lafayette, Indiana 47909
Source Modification No.: 157-13834-00006

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this approval.

Please check what document is being certified:

9 Test Result (specify) _____

9 Report (specify) _____

9 Notification (specify) _____

9 Affidavit (specify) _____

9 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:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Source Modification Quarterly Report

Source Name: Eli Lilly and Company
Source Address: 1650 Lilly Road, Lafayette, Indiana 47909
Mailing Address: 1650 Lilly Road, Lafayette, Indiana 47909
Source Modification No.: 157-13834-00006
Facility: Rotary Kiln Incinerator and Associated Emission Units
Parameter: SO_2 Emissions
Limit: 39.4 tons SO_2/yr, based on a 12 month rolling total

Quarter: _____ Year: _____

Month	(1) Tons SO_2 This Month	(2) Tons SO_2 Past 11 Months	(1) + (2) Rolling Total SO_2 Emissions

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.
Deviation has been reported on: _____

Submitted by: _____
Title/Position: _____
Signature: _____
Date: _____
Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Source Modification Quarterly Report

Source Name: Eli Lilly and Company
Source Address: 1650 Lilly Road, Lafayette, Indiana 47909
Mailing Address: 1650 Lilly Road, Lafayette, Indiana 47909
Source Modification No.: 157-13834-00006
Facility: Rotary Kiln Incinerator and Associated Emission Units
Parameter: NO_x Emissions
Limit: 38.8 tons NO_x/yr, based on a 12 month rolling total

Quarter: _____ Year: _____

Month	(1) Tons NO_x This Month	(2) Tons NO_x Past 11 Months	(1) + (2) Rolling Total NO_x Emissions

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.
Deviation has been reported on: _____

Submitted by: _____
Title/Position: _____
Signature: _____
Date: _____
Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Source Modification Quarterly Report

Source Name: Eli Lilly and Company
Source Address: 1650 Lilly Road, Lafayette, Indiana 47909
Mailing Address: 1650 Lilly Road, Lafayette, Indiana 47909
Source Modification No.: 157-13834-00006
Facility: Rotary Kiln Incinerator and Associated Emission Units
Parameter: Fluorides Emissions
Limit: 2.9 tons Fluorides/yr, based on a 12 month rolling total

Quarter: _____ Year: _____

Month	(1) Tons Fluorides This Month	(2) Tons Fluorides Past 11 Months	(1) + (2) Rolling Total Fluorides Emissions

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.
Deviation has been reported on: _____

Submitted by: _____
Title/Position: _____
Signature: _____
Date: _____
Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Eli Lilly and Company
Source Address: 1650 Lilly Road, Lafayette, Indiana 47909
Mailing Address: 1650 Lilly Road, Lafayette, Indiana 47909
Source Modification No.: 157-13834-00006

Months: _____ to _____ Year: _____

This report is an affirmation that the source has met all the requirements stated in this permit. 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. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do 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".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 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

COMPLIANCE BRANCH
100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Eli Lilly and Company
Source Address: 1650 Lilly Road, Lafayette, Indiana 47909
Mailing Address: 1650 Lilly Road, Lafayette, Indiana 47909
Source Modification No.: 157-13834-00006

This form consists of 2 pages **Page 1 of 2**

9 This is an emergency as defined in 326 IAC 2-7-1(12)
- C The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
- C The Permittee must submit notice in writing or by facsimile within two (**2**) days (Facsimile Number: 317-233-5967), 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 Describe:
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

Addendum to the Technical Support Document for Amendments to Existing Construction Permits

Source Name:	Eli Lilly and Company, Tippecanoe Laboratories
Source Location:	1650 Lilly Road, Lafayette, Indiana 47909
County:	Tippecanoe
Significant Source Modification No.:	157-13834-00006
Permit Reviewer:	SDF

On June 19, 2002, the Office of Air Quality (OAQ) had a notice published in the Journal and Courier in Lafayette, Indiana, stating that Eli Lilly and Company had applied for a significant source modification. The notice also stated that the OAQ proposed to issue a permit for their proposed modification 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.

On June 19, 2002, Eli Lilly and Company also requested that a public hearing be held regarding the proposed modification. The public hearing was held on July 10, 2002, 7:00 PM at the Tippecanoe County Office Building located at 20 North 3rd Street in Lafayette, Indiana.

On July 12, 2002, Eli Lilly and Company submitted comments regarding the proposed modification. The following is a summary of the comments and corresponding responses. Added language is listed in bold type and all deleted language is struck-out.

Comment 1:

Affidavit, Item 4: Eli Lilly and Company has requested the following additional language.

I hereby certify that Eli Lilly and Company, 1650 Lilly Road in Lafayette, Indiana 47909, has constructed the rotary kiln incinerator **and ancillary equipment** in conformity with the requirements and intent of the construction permit application received by the Office of Air Quality on January 25, 2001 **including supplemental information** and as permitted pursuant to Source Modification No. 157-13834-00006 issued on _____ .

Response 1:

The proposed changes better describe the proposed modification and information provided, adding more detail than originally proposed.

Therefore, the affidavit shall be changed as requested.

Comment 2:

Section A.1: The responsible official is Mr. Lawrence J. McShane, Sr.

Response 2:

The responsible official shall be changed as follows from Kenny McCleary to Lawrence J. McShane, Sr.

.....

Responsible Official: ~~Kenny McCleary~~ **Lawrence J. McShane, Sr.**

Comment 3:

Section A.2: Eli Lilly and Company requests the following changes to the unit description to better describe the proposed equipment.

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 is approved to construct and operate the following emission units and pollution control devices:

(a) One (1) rotary kiln incinerator with ~~a maximum~~ **an overall rated** heat input capacity of 50 MMBtu/hr **and design throughput rates of 8120 pounds of liquid waste per hour and 2700 pounds of containerized/bulk solid waste per hour**, consisting of:

(1) one (1) primary combustion chamber ~~equipped with a 20 MMBtu/hr natural gas fired burner, and one (1) 20 MMBtu/hr No. 2 fuel oil fired deslagging lance, and~~ **with a heat input rate up to 33 MMBtu/hr during waste burning operations,**

(2) **one (1) No. 2 fuel oil-fired lance with a heat input rate up to 20 MMBtu/hr during deslagging operations, and**

(3) one (1) vertical ~~up-fired~~ **up-flow** secondary combustion chamber ~~equipped with a 20 MMBtu/hr natural gas fired burner~~ **with a heat input rate up to 35 MMBtu/hr during waste burning operations.**

~~combusting liquid wastes from the existing liquid waste storage tanks, and containerized and bulk solid wastes from the containerized waste warehouse (T-148), with maximum design throughputs of 918 gallons per hour and 720 pounds per hour, respectively, with:~~

(b) A series of emission control equipment that exhausts through Stack 01 at a maximum design flow rate of 14,340 dry standard cubic feet per minute (dscfm):

~~(3)~~**1)** ~~the nitrogen oxide (NO_x) emissions controlled by~~ one (1) selective non-catalytic reduction (SNCR) ~~abatement~~ system, identified as CE-01, **for control of nitrogen oxide (NOx) emissions, and** ~~with emissions exhausted to the rapid water quenching system (CE-02),~~

~~(4) the acid gas (HCl), particulate matter (PM), and PM_{10} emissions controlled by one (1) rapid water quench abatement system, identified as CE-02, with emissions exhausted to the condenser/absorber system (CE-03),~~

~~(5) the acid gas (HCl), particulate matter (PM), and PM_{10} emissions controlled by one (1) condenser/absorber abatement system, identified as CE-03, with emissions exhausted to the Hydro-Sonic™ scrubber (CE-04), and~~

~~(6) particulate matter (PM) and PM_{10} emissions controlled by one (1) Hydro-Sonic™ scrubber, identified as CE-04, with a design air flow rate of 19,450 dscfm, with emissions exhausted to Stack 01.~~

(2) one (1) rapid water quench column, identified as CE-02, one (1) condenser/absorber, identified as CE-03, and one (1) Hydro-Sonic™ scrubbber, identified as CE-04, designed in series for control of acid gases, particulate matter (PM), and particulate matter less than 10 microns (PM_{10}).

(c) One (1) ~~50 horsepower (0.42 MMBtu/hr) natural gas,~~ gasoline**-fired**, ~~or No. 2 distillate oil (0.35% sulfur) fired backup internal combustion motor~~ **backup internal combustion engine rated up to 15 horsepower,** with emissions exhausted to Stack 02.

(d) One (1) containerized ~~waste~~ and bulk solid waste storage warehouse, identified as T148, receiving, storing and delivering to the kiln, fiber packs, plastic drums, cardboard boxes, and plastic bags containing waste ~~with a maximum design throughput rate of 720 lb/hr~~.

(e) One **(1)** liquid waste transfer system, consisting of new transfer lines connected to existing transfer pumps, delivering liquid wastes from the existing source storage tanks to the kiln. ~~with a maximum design throughput of 918 gallons per hour,~~ **and**

(**f**) One (1) wet ash handling system**.**~~, and~~

~~(f) One (1) induced draft fan.~~

Response 3:

The unit description proposed by Eli Lilly and Company is determined to include the same level of detail as the original draft. The only difference is that the description is in a form that better suits the source.

Section A.2 shall therefore be changed as proposed.

Comment 4:

Condition B.4(e): Eli Lilly and Company comments that it is not processing the Part 70 application at the same time as this application, so the information contained in this section is irrelevant. Lilly requests that this section be replaced as follows to reflect the source situation:

(e) This Significant Source Modification Approval shall be incorporated into the Permittee's Part 70 Operating Permit application. ~~In the event that the Part 70 application is being processed at the same time as this application, the following additional procedures shall be followed for obtaining the right to operate:~~

~~(1) If the Part 70 draft has not gone to public notice, then the change/addition covered in the Significant Source Modification will be included in the Part 70 draft.~~

~~(2) If the Part 70 permit has gone through final EPA proposal and would be issued ahead of the Significant Source Modification, the Significant Source Modification will go through a concurrent 45 day EPA review. Then the Significant Source Modification will be incorporated into the final Part 70 permit at the time of issuance.~~

~~(3) If the Part 70 permit has gone through public notice, but has not gone through final EPA review and would be issued after the significant Source Modification is issued, then the Modification would be added to the proposed Part 70 permit, and the Title V permit will be issued after EPA review.~~

Response 4:

While the requirements of Condition B.4(e) are model conditions that are required to be in all approvals, the Office of Air Quality (OAQ) has determined that in other Eli Lilly approvals, the requirements of Condition B.4(e) are not necessary.

Therefore Condition B.4(e) shall be amended as requested.

Comment 5:

Condition C.2(a): Condition C.2(a) should be changed as follows for clarification purposes.

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) when operation begins, ~~including~~ **and such plans shall include** 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 the inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained **when operation begins** ~~within the above time frame~~, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015

The PMP and the PMP extension notification do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Response 5:

Eli Lilly and Company has first requested that C.2(a) be changed to read "If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) when operation begins, ~~including~~ **and such plans shall include** the following information on each facility:"

Replacing the statement as proposed by Lilly does not change the requirement. Thus, the first paragraph of C.2(a) shall be changed as requested.

Eli Lilly's second change involves specifying a time frame from which a 90 day extension for a PMP may be granted. The model language states "If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained "within the above time frame", the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015"

"Within the above time frame" is "when operation begins". Thus, it is determined that the proposed change is appropriate. The second paragraph of C.2(a) shall therefore be changed as requested.

Comment 6:

Condition C.2(c): Lilly requests the following changes to Condition C.2(c):

(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 a primary contributor** ~~contributes~~ to any violation. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Response 6:

Upon review of the proposed language, it is determined that the proposed language changes the requirements of the model condition. Pursuant to the requirements of Condition C.2(c), a revision to the Preventive Maintenance Plan may be required if lack of proper maintenance causes a violation or contributes, "in any way", to a violation. By changing the statement to "primary" contributor, the requirements become limited, reducing the instances where lack of proper maintenance may trigger a revision to the PMP to only events where lack of proper maintenance is the "primary" contributor to the violation.

Therefore, since the proposed language limits the requirements of model Condition C.2(c), no changes shall be made.

Comment 7:

Condition C.2(d): Lilly requests that this section be removed because it is already stated in Condition C.16.

~~(d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept 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.~~

Response 7:

Condition C.16 requires records of all required data, reports, and support information.

Condition C.2(d) requires records of preventive maintenance.

The Office of Air Quality has determined that the record keeping requirement of Condition C.16 is necessary to ensure that records of preventive maintenance are kept, but that the five year time frame specified is redundant. Therefore, Condition C.2(d) shall be changed as follows to eliminate the redundant time frames.

(d) Records of preventive maintenance shall be retained for ~~a~~ **the** period**s specified in the General Record Keeping Requirements of Condition C.16**. ~~of at least five (5) years. These records shall be kept 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.~~

No changes to Condition C.16(a) are necessary because records of preventive maintenance as required in Condition C.2(d) are considered support information as specified in C.16(a).

Comment 8:

Condition C.3: Lilly is a Part 70 source but has not yet received a Title V permit. Accordingly, to amend or modify this approval (due to a modification of the emission unit covered by this SSM), Lilly must comply with 326 IAC 2-7-10.5, not 326 IAC 2-7-11 and 326 IAC 2-7-12. Therefore, Lilly requests the following changes:

C.3 Permit Amendment or Modification ~~[326 IAC 2-7-11] [326 IAC 2-7-12]~~ **[326 IAC 2-7-10.5]**

(a) Permit amendments and modifications are governed by the requirements of **326 IAC 2-7-10.5** ~~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 Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application shall be certified by the 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)]~~

Response 8:

Both 326 IAC 2-7-11 and 326 IAC 2-7-12 only apply to revisions to an “existing” Part 70 permit.

326 IAC 2-7-10.5, however, provides for source modifications to Part 70 sources, whether the source has an existing Part 70 permit or not.

Based on this rule review, it is determined that Eli Lilly and Company’s request to remove the references to 326 IAC 2-7-11 and 12, and replace these references with the requirements of 326 IAC 2-7-10.5, is correct. Thus, Condition C.3 shall be changed as requested.

Comment 9:

Condition C.7: Please add the following clarifying statement to this condition.

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 by using good engineering practices (GEP) pursuant to 326 IAC 1-7-3. **The provisions of 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d), (e), and (f), and 326 IAC 1-7-5(d) are not federally enforceable.**

Response 9:

Upon review of 326 IAC 1-7, it is determined that the following portions of the rule are federally enforceable:

(a) Parts (1) and (2) of 326 IAC 1-7-1;
(b) Parts (a) and (b) of 326 IAC 1-7-3; and
(c) Part (c) of 326 IAC 1-7-5.

Part (3) of 326 IAC 1-7-1, 326 IAC 1-7-2, Parts (c) and (d) of 326 IAC 1-7-3, 326 IAC 1-7-4, and Parts (a), (b), and (d) of 326 IAC 1-7-5 are not federally enforceable.

Based on this analysis, the additional statement submitted by Eli Lilly and Company shall be added, but amended to include the other Parts of 326 IAC 1-7 that are not federally enforceable.

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~~(d), (e), and (f)~~, and 326 IAC 1-7-5**(a), (b), and** (d) are not federally enforceable.

Comment 10:

Condition C.8(a): Please add the following clarifying statement to this condition.

Compliance testing on new emission units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, ~~if~~ **except as** specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this approval, 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.

Response 10:

Section D contains testing periods different than the time frames specified in Condition C.8(a) due to several different rules that apply.

Adding the phrase “except as” specified in Section D is determined to be more appropriate than the current draft language because the testing period specified in Condition C.8(a) still applies when applicable, but also allows for different time frames when specified in Section D. Thus, the requested changes shall be made.

Comment 11:

Condition C.10: Please make the following clarifications to this condition:

~~If required by Section D~~ **Unless otherwise specified in this permit,** all monitoring and record keeping requirements shall be implemented when operation begins. **If required by Section D,** the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

Response 11:

Adding the phrase “unless otherwise specified in this permit” is determined to be more appropriate than the current draft language of “If required by Section D” because the proposed language provides more flexibility when specifying when the applicable monitoring and record keeping requirements should begin.

Under the current draft language, all monitoring and record keeping shall commence only when operation begins. There is no allowance for any other time frame.

Lilly’s proposed language, however, provides more appropriate language by allowing monitoring and record keeping to commence when operation begins or any allowable alternative commencement time specified elsewhere in the permit.

Thus, the proposed changes shall be made.

Comment 12:

Condition C.11(a): Please add the following clarifying statement to this condition.

(a) In the event that a breakdown of the emission monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit**, or as required by 40 CFR 60 or 40 CFR 63,** until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less often than once an hour until such time as the continuous monitor is back in operation.

Response 12:

Condition C.11(a) lists the requirements during periods of monitoring equipment breakdowns. This Condition as drafted states that to the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than in Section D of this permit.

However, 40 CFR 63, Subpart EEE does have specific requirements for monitoring which reference 40 CFR 60 as well. While supposedly all monitoring requirements are specified in “Section D”, there is the possibility that there may be monitoring requirements in 40 CFR 60 or 40 CFR 63 that are not referenced in Section D. Thus, since the proposed changes do not relax the requirements of Condition C.11(a) and there is the possibility that there may be a monitoring reference that was not included in Section D, the proposed change shall be made.

Comment 13:

Condition C.11(b): Please remove this section of the condition as it is duplicative of language contained in Condition D.1.15, which spells out more clearly the operation and maintenance requirements of the emissions monitors.

Response 13:

Upon review of the monitoring requirements of Conditions C.11(b), D.1.15, and D.1.16, it is determined that the monitoring language of Condition C.11(b) is duplicative to the language of Conditions D.1.15 and D.1.16 because the applicable requirements are identical.

Typically, the monitoring requirements of Condition C.11(b) would be applicable to all affected units of the entire source. However, since this proposed modification is being permitted under a significant source modification which consists only of the hazardous waste combustor (HWC), it is determined that the monitoring requirements of Condition C.11(b) apply only to the monitoring units of the HWC. Conditions D.1.15 and D.1.16 already include the C.11(b) monitoring requirements for the monitoring units of the HWC.

Therefore, it is determined that the Conditions D.1.15 and D.1.16 satisfy the monitoring requirements of Condition C.11(b) and that the requirements of Condition C.11(b) are not necessary. Thus, Part (b) of Condition C.11 shall be removed as requested.

Comment 14:

Condition C.12: Please add the following language to Condition C.12.

C.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, **as applicable,** or other approved methods as specified in this permit.

Response 14:

Adding the phrase “as applicable” is determined to be acceptable because there are several sources of provisions that are referenced and adding “as applicable” ensures that only the “applicable” requirements of each referenced rule apply. Thus, Condition C.12 shall be changed as requested.

Comment 15:

Condition C.13(a), and C.13(b): The compliance response plan (CRP) is duplicative of the Startup, Shutdown, and Malfunction (SSM) Plan required by 40 CFR 63. Thus, the requirements of the SSM plan should satisfy the requirements of the CRP. Further, Eli Lilly and Company believes the requirements of Parts (a)(1), (a)(2), and (b) are already taken into account under the SSM requirements of Condition D.1.4.

Thus, the following statement should be added to Part (a), and Part (b) should be deleted.

~~(a)~~ The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. **A Startup, Shutdown, or Malfunction (SSM) Plan required by 40 CFR 63, Subpart EEE, shall satisfy the terms of a CRP.** ~~A CRP shall be by the submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:~~

~~(1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.~~

~~(2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.~~

~~(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:~~

~~(1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or~~

~~(2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.~~

~~(3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.~~

~~(4) Failure to take reasonable response steps shall constitute a violation of the permit.~~

Response 15:

In order for the SSM plan to satisfy the requirements of the CRP plan, the SSM plan has to meet the requirements of 40 CFR 63, Subpart EEE as well as the minimum requirements of the CRP.

Upon review of Part (a) of Condition C.13 and Condition D.1.4, it is determined that the requirements of Parts (a)(1) and (a)(2) are included in the 40 CFR 63 SSM plan requirements of Condition D.1.4 and are not needed in Condition C.13.

Therefore, Part (a) shall be changed as requested.

Upon review of Part (b) of Condition C.13 and Condition D.1.4, it is determined that the requirements of Parts (b)(1), (b)(2), (b)(3), and (b)(4) are included in the 40 CFR 63 SSM plan requirements of Condition D.1.4 and are not necessary in Condition C.13.

Therefore, Part (b) shall be removed as requested.

Upon review of Part (c) of Condition C.13 and Condition D.1.4, it is determined that the state response exemptions under Part (c) of Condition C.13 are not specifically allowed under the SSM plan requirements of 40 CFR 63, Subpart EEE.

Since the SSM plan requirements are being used to satisfy the state CRP requirements, it is determined that any exemptions to responses that are allowed, should be the exemptions specified in 40 CFR 63, Subpart EEE.

Therefore, Part (c) of Condition C.13 shall be removed.

~~(c) The Permittee is not required to take any further response steps for any of the following reasons:~~

~~(1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment;~~

~~(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied;~~

~~(3) An automatic measurement was taken when the process was not operating;~~

~~(4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.~~

In addition, since the SSM plan is replacing the CRP, the header shall be amended to include the reference to 40 CFR 63, Subpart EEE.

C.13 Compliance Response Plan - Preparation, Implementation, Records, and Reports[326 IAC 2-7-5] [326 IAC 2-7-6] **[40 CFR 63, Subpart EEE]**

Comment 16:

Condition C.13(b)(2): Please add the following clarifying statement to this condition:

(b)(2) If none of the reasonable response steps listed in the SSM Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from**, or deviation of,** this permit so long as the Permittee documents such response steps in accordance with this condition.

Response 16:

Part (b) of Condition C.13 has been removed as result of discussion of the comments made after review of the TSD addendum.

Therefore, since Part (b) of Condition C.13 has been removed, there is no need to make the changes proposed under this comment.

Thus, no changes shall be made.

Comment 17:

Condition C.13(d) and (e): Please delete these entire sections from the permit condition. Item (d) of this condition is not relevant as there is no "deviation" condition in Section B of the permit. Item (e) is not relevant because the emergency provisions do not apply to Lilly since it does not have its Title V permit.

Response 17:

Upon review of Part (d) of Condition C.13, it is determined that the 40 CFR 63, Subpart EEE SSM plan requirements do contain exceedance reporting requirements, but that they are different than the requirements of the CRP because the CRP requirements require the owner or operator to include the reports on a quarterly basis in the quarterly deviation report, pursuant to Section B-Deviations from Permit Requirements and Conditions (Condition B.5). The SSM plan requirements under 40 CFR 63, Subpart EEE do not.

However, pursuant to Part (a) of Condition B.5, deviations 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.

While the deviation reporting requirements of 40 CFR 63, Subpart EEE are included in the permit, it is determined that the requirements apply independently of the requirements in the permit because the 40 CFR 63 requirements are federal requirements that apply whether the permit exists or not.

Therefore, since the 40 CFR 63, Subpart EEE requirements are determined to be independent, it is determined that the SSM plan requirements do satisfy the CRP requirements specified in Part (d) of Condition C.13.

Thus, Part (d) of Condition C.13 shall be removed as requested.

~~(d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.~~

However, while reviewing the comments of Condition C.13, it was discovered that the new model for significant source modifications to Part 70 sources with pending operating permits had applicable conditions and reports that were missing. The following lists the missing conditions and reports and describes the changes necessary to incorporate these conditions and reports into the permit.

Permit Condition: Section B-Deviations from Permit Requirements and Conditions: This condition was added as a result of the specific reference in Part (d) of Condition C.13. While Part (d) of Condition C.13 has been removed, it is determined that this condition is still necessary because the condition requires the owner or operator to report deviations from “any” permit requirement, not just the deviations associated with the responses associated with the SSM plan.

Thus, Condition B.5 shall be added to the permit, and its associated form, the Quarterly Deviation and Compliance Monitoring Report form, shall also be added as a permit attachment.

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

(a) Deviations from any permit requirements (for emergencies see Section C - 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 Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

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 the "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.

(c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

Emergency Occurrence Report Form: Condition C.14 lists the emergency provisions applicable to the source including a requirement to submit an Emergency Occurrence Report form for each emergency lasting one (1) hour or more. However, since this form was not included in the model permit, the form did not get included in the draft permit.

Therefore, the Emergency Occurrence Report form shall be added as an attachment to the draft permit.

The Table of Contents shall also be amended to reflect the new applicable Section B requirement (Condition B.5) and the additional report forms.

Upon review of Part (e) of Condition C.13, it is determined that 326 IAC 2-7-16 requirements to devise and implement additional response steps as expeditiously as practical for deviations that are not accounted for in the SSM plan is already included in the SSM plan requirements under 40 CFR 63, Subpart EEE.

Therefore, Part (e) shall be removed as requested.

~~(e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.~~

Upon review of Part (f) of Condition C.13, it is determined that 40 CFR 63, Subpart EEE has specific monitoring requirements. Thus, the requirements of Part (f) are determined to be unnecessary.

Therefore, Part (f) of Condition C.13 shall be removed.

~~(f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.~~

Comment 18:

Condition C.14: The emergency provisions required under 326 IAC 2-7-16 are not applicable to Lilly until it receives its Title V permit. The following malfunctions report condition should be used instead and should be located in the Record Keeping and Reporting Requirements Section.

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

(a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.

(b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report (2 pages), or equivalent. Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.

(c) For malfunctions lasting more than one (1) hour, failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).

(d) A malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

Response 18:

Upon review of 326 IAC 2-7-16, it is determined that this condition applies to a Title V source even if the source does not have an existing Part 70 permit. If Lilly receives any modifications to their source, then 326 IAC 2-7-16 would apply.

Comment 19:

Condition C.15: Eli Lilly and Company requests that the last sentence of Condition C.15 be amended as follows to require certification by the responsible official only when a description of response actions pursuant to Part (a) of Condition C.15, is necessary.

Part (b) of Condition C.15 requires the owner or operator to perform another test which must meet the testing requirements of Condition C.8. Since Condition C.8 requires submittal of a test protocol and testing report, neither of which require certification by the responsible official, it is determined that the last sentence of Condition C.15 is inaccurate when it requires “all” documents under this condition be certified by the responsible official.

The ~~documents submitted pursuant to this~~ **description of response actions submitted pursuant to this** condition do**es** require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

Response 19:

Part (a) of Condition C.15 requires the owner or operator to take appropriate actions and submit a description of the response steps taken when the results of a stack test exceed an emission standard or requirement. The description of the response steps requires certification by the responsible official pursuant to the requirements of Condition C.15.

Part (b) of Condition C.15 requires the owner or operator to conduct another test to demonstrate compliance with the standard or requirement that is exceeded. In order for the owner or operator to comply with the C.15 requirement to perform a retest, the owner or operator has to comply with the performance testing requirements of Condition C.8.

Part (a) of Condition C.8 requires the owner or operator to submit a test protocol and Part (c) of Condition C.8 requires the owner or operator to submit test reports. Part (b) of Condition C.8 states that the test protocol and reports do not need to be certified by a responsible official.

Therefore, since the documents required under Part (b) of Condition C.15 do not require certification by the responsible official, the last sentence of Condition C.15 shall be amended from requiring all documents be certified by the responsible official to only require certification by the responsible official when a description of response actions under Part (a) of Condition C.15 is necessary.

Comment 20:

Condition C.16(b): This section should be changed as follows:

(b) Unless otherwise specified in the permit, all record keeping requirements not already legally required shall be implemented ~~within ninety (90) days of permit issuance~~ **upon start of operation**.

Response 20:

Condition C.16(b) as drafted, requires the owner or operator to implement the record keeping requirements within 90 days of permit issuance.

This time frame does not make sense due to the fact that the equipment may not even be installed and operational within 90 days of issuance of the permit.

To correct this problem, Lilly has proposed that the record keeping requirements be implemented upon start of operation. This solution is determined to be appropriate because implementation upon start of operation specifies the exact time when record keeping should commence.

Thus, Condition C.16(b) shall be changed as requested.

Comment 21:

Condition D.1.2(a)(1): The flow rate should be in units of dry standard cubic feet per minute (dscfm) for proper conversion. The mass emissions rate, in pounds per hour, also needs to be modified as a result of the flow rate change.

(a)(1) Pursuant to 40 CFR 63.1203(b)(7) (Hazardous Waste Combustor MACT Standards), the particulate matter (PM) emissions from the rotary kiln incinerator stack exhaust shall not exceed 34 milligrams per dry standard cubic meter (mg/dscm) (0.015 grains per dry standard cubic feet (gr/dscf)), corrected to 7 percent oxygen, which is equivalent to ~~2.1~~ **1.8** lb PM/hr at a flow rate of ~~16,400 scfm~~ **14,340 dscfm**. The emissions averaging time will be established by the Administrator prior to operation of the rotary kiln incinerator in accordance with the alternative monitoring requirements of 40 CFR 63.1209(a)(5) and 40 CFR 63.8(f).

Response 21:

Eli Lilly is only submitting updated information. Thus, the changes to Condition D.1.2(a)(1) shall be made as requested.

Comment 22:

Condition D.1.2(g)(2)(B): The following qualifier should be added to this condition for clarity:

(g)(2)(B) Destruction and Removal Efficiency (DRE) Requirements:

Pursuant to 40 CFR 63.1203(c)(1) (Hazardous Waste Combustor MACT Standards), the destruction and removal efficiency (DRE) for each principle organic hazardous constituent (POHC), averaged over a three-run DRE test, shall be **at least** 99.99 percent.

Response 22:

Adding “at least” 99.99 percent provides for increased efficiency over 99.99% if desired while maintaining the original draft threshold of 99.99%.

Thus, Condition D.1.2(g)(2)(B) shall be made as requested.

Comment 23:

Condition D.1.3, first paragraph: Please remove the following condition references. These belong in the operating record.

Pursuant to 40 CFR 63.1206(c)(1) and (7) (Hazardous Waste Combustor MACT Standards), the Permittee shall develop and implement as follows, a written Operations and Maintenance (O&M) Plan ~~based on the operating requirements of Conditions D.1.4 through D.1.10, D.1.15, and D.1.16~~, to define operations during periods of normal operation.

Response 23:

Upon review of operation and maintenance plan and operating record requirements under 40 CFR 63, Subpart EEE, it is determined that there is a difference between the two.

The purpose of the operation and maintenance plan is to list the operating “procedures” for all components of the rotary kiln incinerator that may affect emissions of hazardous air pollutants.

The purpose of the operating record is to provide all data and information, reports, notifications, and communications with regulatory officials necessary to document and maintain compliance with the emission limits and standards.

The intent of the first paragraph of Condition D.1.3 was to only require that the relative “procedures” be included in the operation and maintenance plan “based” on the requirements specified in Conditions D.1.4 through D.1.10, D.1.15, and D.1.16.

If there is any other information required in Conditions D.1.4 through D.1.10, D.1.15, and D.1.16 pertaining to documenting and maintaining compliance with the emission limits and standards, the owner or operator shall include that information in the operating record, separately.

Thus, it is determined that the references to Conditions D.1.4, through D.1.10, D.1.15, and D.1.16 are appropriate in Condition D.1.3 and therefore shall not be removed.

However, to ensure that the condition requires the "procedures" of Conditions D.1.4 through D.1.10, D.1.15, and D.1.16, the first paragraph of Condition D.1.3 shall be changed as follows:

Pursuant to 40 CFR 63.1206(c)(1) and (7) (Hazardous Waste Combustor MACT Standards), the Permittee shall develop and implement as follows, a written Operations and Maintenance (O&M) Plan based on the ~~operating requirements~~ **procedures specified in** ~~of~~ Conditions D.1.4 through D.1.10, D.1.15, and D.1.16, to define operations during periods of normal operation.

Comment 24:

Condition D.1.3(a): Please make the following changes to be consistent with 40 CFR 63.1206(c)(7). The additional requirements stated in this condition are duplicative of language contained in Conditions D.1.5, D.1.6, D.1.7, D.1.8, and D.1.10, which spells out more clearly the operating requirements. The requirements of these conditions must be specified in the operating record, not the operation and maintenance plan.

(a) The O&M plan shall contain the following information:

(1) Procedures for proper operation, inspection, maintenance, and corrective measures for all components of the rotary kiln incinerator, including associated air pollution control equipment and continuous monitoring systems, during normal operations; **and**

~~(2) AWFCO procedures and requirements;~~

~~(3) ESV opening procedures and requirements specified in the ESV plan;~~

~~(4) Procedures and requirements of the LDAR program;~~

~~(5) Container storage procedures and requirements;~~

~~(6) Procedures and requirements of the waste feedstream plan, and~~

(~~7~~**2**) ~~All other procedures and requirements~~ **Procedures** for operating and maintaining the rotary kiln incinerator in a manner consistent with good pollution control practices for minimizing emissions at least to the levels required by all relevant standards.~~; and~~

Response 24:

As previously stated, the operation and maintenance plan is a list of the operating procedures and the operating record includes all information necessary to document and maintain compliance with the emission limits and standards.

Pursuant to 40 CFR 63.1206(c)(7)(A), the owner or operator must prepare and at all times operate according to an operation and maintenance plan that describes in detail procedures for operation, inspection, maintenance, and corrective measures for all components of the combustor, including associated pollution control equipment, that could affect emissions of regulated hazardous air pollutants.

"An operation and maintenance plan that describes in detail procedures for operation, inspection, maintenance, and corrective measures" means that the operation and maintenance plan shall include the procedures for operation, inspection, maintenance, and corrective measures for all affected units and processes during all periods of operation including startup, shutdown, and malfunction.

"All components of the combustor including associated pollution control equipment, that could affect emissions of regulated hazardous air pollutants" means all units and processes associated with the rotary kiln incinerator whose operation could affect the emissions of hazardous air pollutants. The applicable units and processes are determined to be the combustor itself, including the primary and secondary chambers, deslagging lance, and backup motor, the containerized and bulk solid waste handling, transfer, and feed system, the liquid waste handling, transfer, and feed system, the wet ash handling system, the continuous monitoring systems, automatic waste feed cutoff systems, and emergency safety valves.

To better clarify that the operation and maintenance plan is to include the "procedures" for proper operation, inspection, maintenance, and corrective measures, not the "information necessary to document an maintain compliance" (the information required for the operating record), the first paragraph of Condition D.1.3 and Part (a) of Condition D.1.3 shall be rewritten as follows:

Pursuant to 40 CFR 63.1206(c)(1) and (7) (Hazardous Waste Combustor MACT Standards), the Permittee shall develop and implement as follows, a written Operations and Maintenance (O&M) Plan based on the operating requirements of Conditions D.1.4 through D.1.10, D.1.15, and D.1.16, to define operations during periods of **startup, shutdown, malfunction, and** normal operation.

(a) The O&M plan shall contain **for each period, procedures for proper operation, inspection, maintenance, and corrective measures for** the following ~~information~~:

(1) ~~Procedures for proper operation, inspection, maintenance, and corrective measures for all components of~~ **The rotary kiln incinerator, including the primary and secondary chambers, deslagging lance, and backup motor**;

(2) **Each** associated air pollution control device,

(3) **Each** continuous monitoring system~~, during normal operations~~;

(4) **The** AWFCO **system** ~~procedures and requirements~~;

(5) **The** ESV**(s)** ~~opening procedures and requirements specified in the ESV plan~~;

(6) ~~The LDAR programContainer storage procedures and requirements~~ **The containerized and bulk solid waste handling, transfer, and feed system**;

(7) ~~Procedures and requirements of the waste feedstream plan~~ **The liquid waste handling, transfer, and feed system**; and

(8) **The wet ash handling system.**

Said procedures shall be detailed and drafted in a manner consistent with good pollution control practices for minimizing emissions at least to the levels required by all relevant standards.~~; and~~

Comment 25:

Condition D.1.3(b): Please make the following clarifications and grammatical correction.

(b) The O&M plan shall be developed such that compliance with the requirements of 63.6(e) ~~and 326 IAC 2-7-5(13)~~ are achieved, and emissions of pollutants, automatic waste feed cutoffs, and malfunctions **are** ~~is~~ minimized. **The O&M plan shall satisfy the requirements of 326 IAC 2-7-5(13), as required by Condition C.13.**

Response 25:

Condition D.1.3(b) shall be changed as requested because the requested changes will not change the status of the original requirement.

Comment 26:

Condition D.1.10(a)(5): This Section is not relevant to the feedstream analysis plan and should be removed from the permit condition. Compliance with the DRE is covered in the comprehensive performance test (CPT) plan and CPT report as required by Condition D.1.12(a)(1)(A).

~~(a)(5) Pursuant to 40 CFR 63.1203(c) and (d), a list of each principle organic hazardous constituent (POHC) for each waste burned, the DRE for each POHC recorded, and the associated DRE calculations.~~

Response 26:

Through a phone conversation with Eli Lilly and Company, it was explained that Part (g)(2)(B) of Condition D.1.2 satisfies the requirement of 63.1203(c)(3)(ii).

Part (a)(1)(A) of the testing requirements of Condition D.1.12 requires the owner or operator to perform the initial comprehensive performance tests to, with the exception of fluorides, SO_2, and NO_x, demonstrate compliance with the standards of Condition D.1.12.

Part (g)(2)(B) of Condition D.1.2 requires the owner or operator to achieve a destruction and removal efficiency (DRE) of 99.99% for each principle organic hazardous constituent (POHC).

Eli Lilly and Company has stated that the requirement to specify the POHCs will be satisfied by including the required information in the comprehensive test plan required to be submitted prior to the initial comprehensive performance tests (specified in Condition D.1.12).

Based on this information, it is determined that the POHC specification requirement of 63.1203(c)(3)(ii) is satisfied via the requirements of Condition D.1.2(g)(2)(B). Therefore, the 63.1203(c)(3)(ii) requirements are determined to not be required in Condition D.1.10 and thus will be removed as requested.

Comment 27:

Condition D.1.17: Please remove the word monitoring from the heading of this condition. This heading incorrectly reflects that this is a monitoring requirement. Because this condition directly determines compliance with an emission standard, it is considered a compliance determination condition, not a compliance monitoring condition.

Response 27:

While the header is a standard header used for this requirement, it is determined that removing the word "monitoring" will not change the requirements.

Therefore, the header shall be changed from "Fuel Oil Monitoring Requirements" to "326 IAC 3-7-4 Fuel Oil Requirements" as requested.

D.1.17 **326 IAC 3-7-4** Fuel Oil ~~Monitoring~~ Requirements

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 to demonstrate compliance with the SO_2 emission limit required by Condition D.1.2.

In addition, Condition D.1.17 of the Table of Contents of the permit shall be amended to include the new header.

Comment 28:

Conditions D.1.18, D.1.19, D.1.20, D.1.22, and D.1.23: These conditions belong under a heading labeled Compliance Monitoring Requirements, not Compliance Determination Requirements. These conditions are parametric monitoring that does not directly determine compliance with emission limitations. Therefore these should be included in a separate heading.

Response 28:

The referenced conditions shall be changed as requested.

Comment 29:

Condition D.1.21: This condition should remain under the Emission Limitations and Standards section because this is a work practice standard that documents direct compliance. In addition the heading of this condition should be modified as shown below to reflect that it is a determination requirement, not a monitoring requirement.

D.1.21 ~~Compliance Monitoring,~~ Container Storage Requirements

Response 29:

Upon review of the requirements of Condition D.1.21, the Office of Air Quality has determined that although Condition D.1.21 requires monitoring and inspections, ultimately, the owner or operator must respond to any deviations of the requirements of Condition D.1.8 found, by attempting to repair any defect within 24 hours after detection of the defective container and complete the repair within 5 days after detection of the defective container. The two response actions are determined to be work practice standards which should be included in the Emission Limitations and Standards Section as submitted by Eli Lilly and Company.

Therefore, the requirements of Condition D.1.21 shall be added to the Emission Limitations and Standards section in Condition D.1.8 as requested.

D.1.8 Container Storage Standards [40 CFR 63, Subparts DD and PP]

(a) Pursuant to 40 CFR 63.688(b) (Off-Site Waste and Recovery Operations MACT Standard), off-site waste containers in the T148 storage area are subject to the Container Level 1 control standards of 40 CFR 63, Subpart PP (National Emission Standards for Containers) when containers have:

(1) An average VOHAP concentration equal to or greater than 500 ppmw; and

(2) A design capacity greater than 0.1 cubic meters (26.4 gallons) and less than or equal to 0.46 cubic meters (121.5 gallons).

(b) The Container 2 level control standards of 40 CFR 63, Subpart PP do not apply to the T148 storage are because the building is not designed to store off-site containers with a design capacity greater than 0.46 cubic meters (121.5 gallons).

(c) Pursuant to 40 CFR 63, Subpart PP (National Emission Standards for Containers), the following Container Level 1 control standards shall apply to subject containers of off-site waste as defined in Condition D.1.13(a) above:

(1) Pursuant to 40 CFR 63.922(b)(2), each container shall be equipped with a cover and closure device that form a continuous barrier over the container openings such that when the cover and closure device are secured in the closed position there are no visible holes, gaps, or other spaces into the interior of the container;

(2) Pursuant to 40 CFR 63.922(d), each cover and closure device shall be secured and maintained in the closed position, 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; and

(3) Pursuant to 40 CFR 63.922(c), each container shall be composed of suitable materials to minimize exposure of the regulated material to the atmosphere to maintain the integrity for as long as it is in service.

(d) The Permittee shall inspect and monitor all Level 1 and Level 2 Containers as follows, in accordance with 40 CFR 63.926(a) (Containerized Off-Site Waste Storage Monitoring Requirements) to demonstrate compliance with the applicable requirements of this condition.

(1) Visual inspections for defects if the container is not emptied within 24 hours;

(2) Annual inspection for defects if the container is on-site for more than one (1) year; and

(3) Attempt to repair any defect within 24 hours after detection of the defective container, and complete the repair within 5 days after detection of the defective container.

Comment 30:

Condition D.1.20(a)(1): Please correct the typographical error as described in bold:

(a)(1) Maximum 12-hour rolling average feedrates for total Hg, **total chlorine** ~~HCl/Cl2~~, semi-volatile metals (cadmium and lead) and low volatile metals (arsenic, beryllium, and chromium) in all waste feedstreams established from the average of the hourly rolling averages for each performance test run and approved extrapolation techniques;

Response 30:

Condition D.1.20(a)(1) shall be changed as requested.

Comment 31:

Condition D.1.20(a)(2): Please provide the following clarification to this condition:

(a)(2) Minimum hourly rolling average pressure drop across the **Hydro-Sonic™** ~~wet~~ scrubber established from the average of the performance test run averages. This operating parameter applies to Hg, PM, HCl/Cl2, and semi-volatile and low volatile metals;

Response 31:

Condition D.1.20(a)(2) shall be changed as requested.

Comment 32:

Condition D.1.20(d)(2): Please provide the following clarification to this condition:

(d)(2) Minimum hourly rolling average pressure drop across the **Hydro-Sonic™** ~~wet~~ scrubber established from the average of the performance test run averages.

Response 32:

Condition D.1.20(d)(2) shall be changed as requested.

Comment 33:

Condition D.1.20(c): Please correct the typographical error as described below in bold:

(c) If applicable, the Permittee may document compliance with the requirements of 40 CFR 1207(m) in lieu of compliance wit**h** the operating parameter limits or CEMS data established in Parts (a) and (b) of this condition.

Response 33:

Condition D.1.20(c) shall be changed as requested.

Comment 34:

Condition D.1.22: The reference to Condition D.1.7 should be more specific as described below:

Pursuant to 40 CFR 63.1206(c)(5) (Hazardous Waste Combustor MACT Standards), the Permittee shall conduct daily visual inspections of the rotary kiln incinerator to demonstrate compliance with Condition D.1.7**(c)**.

Response 34:

The language of the leak detection and repair program requirements of Condition D.1.7 is written verbatim as requested by Eli Lilly and Company. Upon review of the condition, including the header, it is determined that Parts (a) and (b) were referenced in the header, but not Part (c), which are the 40 CFR 63, Subpart EEE leak prevention requirements.

Therefore, the header shall be changed to include the Subpart EEE reference.

D.1.7 Leak Detection and Repair (LDAR) Program [40 CFR 63, Subpart DD, 40 CFR 61, Subpart V, **40 CFR 63, Subpart EEE**]

In addition, Condition D.1.22 should be the LDAR program monitoring requirements. Condition D.1.7 requires the owner or operator to control any new piping leaks in accordance with the required leak detection and repair program and keep the combustion zone of the proposed rotary kiln incinerator sealed to prevent combustion leaks.

However, Condition D.1.22 only has monitoring for the combustion zone, not the new piping. Therefore, Condition D.1.22 shall be rewritten as follows to include the new piping as well as the combustion zone.

D.1.22 LDAR Program Monitoring Requirements

~~Pursuant to 40 CFR 63.1206(c)(5) (Hazardous Waste Combustor MACT Standards),~~ The Permittee shall conduct **inspections of the new piping associated with the rotary kiln incinerator according to the schedule(s) specified in the LDAR Program to demonstrate compliance with the requirements of Condition D.1.7(a) and (b) and conduct** daily visual inspections of the rotary kiln incinerator to demonstrate compliance with the Condition D.1.7**(c)**.

No changes to the record keeping requirements are necessary as a result of the changes to Condition D.1.22 because the applicable record keeping requirement, Condition D.1.24(d), as currently drafted, already requires the owner operator to keep appropriate records to document compliance with all leak detection and repair requirements.

Comment 35:

Condition D.1.24(b) and (c): The timeframe for which these records must be kept should be removed from these conditions as it is already defined in Section C:

(b) To document that the requirements of 40 CFR 52.21 and 326 IAC 2-2 (Prevention of Significant Deterioration) do not apply to fluorides, the Permittee shall maintain the following records ~~for a minimum period of 5 years~~:

(c) To document that the requirements of 40 CFR 52.21 and 326 IAC 2-2 (Prevention of Significant Deterioration) do not apply to SO2 and NOx, the Permittee shall maintain the following records ~~for a minimum period of 5 years~~:

Response 35:

The timeframe references shall be removed as requested and replaced as follows, with references to Section C.

(b) To document that the requirements of 40 CFR 52.21 and 326 IAC 2-2 (Prevention of Significant Deterioration) do not apply to fluorides, the Permittee shall maintain the following records ~~for a minimum period of 5 years~~ **for the periods specified in Condition C.16**:

(c) To document that the requirements of 40 CFR 52.21 and 326 IAC 2-2 (Prevention of Significant Deterioration) do not apply to SO2 and NOx, the Permittee shall maintain the following records ~~for a minimum period of 5 years~~ **for the periods specified in Condition C.16**:

Comment 36:

Description D.2: Please update the description as follows:

Emission Unit ID	Building	Stack/Vent	Maximum Capacity	Control Device
Emergency Backup **Engine** ~~Motor~~	None	Vent	~~50~~ **15** HP	None

There are no conditions associated with the emergency backup ~~motor~~ **engine**.

Response 36:

The changes shall be made as requested.

Comment 37:

Eli Lilly submitted comments requesting changes to the original TSD.

Response 37:

The OAQ prefers to retain the original TSD as is for historical purposes and notes all changes in the TSD addendum. Therefore, none of the requested changes to the original TSD shall be made.

On June 19, 2002, Eli Lilly and Company also requested that a public hearing be held regarding the proposed modification. The public hearing was held on July 10, 2002, 7:00 PM at the Tippecanoe County Office Building located at 20 North 3rd Street in Lafayette, Indiana.

No comments requiring a written response were received.

On July 24, 2002, Eli Lilly and Company submitted a final comment regarding an additional change to Condition C.11. The following is a summary of the comments and corresponding responses. Added language is listed in bold type and all deleted language is struck-out.

Comment 38:

Condition C.11: Please add the following clarifying statement to Condition C.11.

(a) In the event that a breakdown of the emission monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit, or as required by 40 CFR 60 or 40 CFR 63, until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented **as required by 40 CFR 60 or 40 CFR 63 or** at intervals no less often than once an hour until such time as the continuous monitor is back in operation.

Response 38:

The original draft language required the owner or operator to implement continuous, supplemental, or intermittent monitoring at intervals no less than once an hour. The changes proposed by Eli Lilly and Company give the owner or operator three options; as required by 40 CFR 60, as required by 40 CFR 63, or no less than once an hour.

To ensure that the original option of once an hour is the primary option and that the 40 CFR 60 and 63 options are triggered if specified by those rules, Condition C.11 shall be amended as follows.

(a) In the event that a breakdown of the emission monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit, or as required by 40 CFR 60 or 40 CFR 63, until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented as required by 40 CFR 60 or 40 CFR 63 or **if not specified in 40 CFR 60 or 40 CFR 63,** at intervals no less often than once an hour**,** until such time as the continuous monitor is back in operation.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a
Part 70 Significant Source Modification

Source Background and Description

Source Name:	Eli Lilly and Company, Tippecanoe Laboratories
Source Location:	1650 Lilly Road, Lafayette, Indiana 47909
County:	Tippecanoe
SIC Code:	2834 and 2879
Operation Permit No.:	T 157-6879-00006
Operation Permit Issuance Date:	Pending
Significant Source Modification No.:	157-13834-00006
Permit Reviewer:	S. Fulton

The Office of Air Quality (OAQ) has reviewed an application from Eli Lilly and Company, Tippecanoe Laboratories, relating to the construction and operation of a rotary kiln incinerator designed to treat containerized waste (hazardous and non-hazardous), high Btu liquids (primary waste), and low Btu liquids (secondary waste). The proposed kiln shall consist of the following emission units and pollution control devices:

(a) One (1) rotary kiln incinerator with a maximum heat input capacity of 50 MMBtu/hr, consisting of:

(1) one (1) primary combustion chamber equipped with a 20 MMBtu/hr natural gas fired burner, and one (1) 20 MMBtu/hr No. 2 fuel oil fired deslagging lance, and
(2) one (1) vertical up-fired secondary combustion chamber equipped with a 20 MMBtu/hr natural gas fired burner,

combusting liquid wastes from the existing liquid waste storage tanks, and containerized and bulk solid wastes from the containerized waste warehouse (T-148), with maximum design throughputs of 918 gallons per hour and 720 pounds per hour, respectively, with:

(3) the nitrogen oxide (NO_x) emissions controlled by one (1) selective non-catalytic reduction (SNCR) abatement system, identified as CE-01, with emissions exhausted to the rapid water quenching system (CE-02),
(4) the acid gas (HCl), particulate matter (PM), and PM_{10} emissions controlled by one (1) rapid water quench abatement system, identified as CE-02, with emissions exhausted to the condenser/absorber system (CE-03),
(5) the acid gas (HCl), particulate matter (PM), and PM_{10} emissions controlled by one (1) condenser/absorber abatement system, identified as CE-03, with emissions exhausted to the hydro-sonic^{tm} scrubber (CE-04), and
(6) particulate matter (PM) and PM_{10} emissions controlled by one (1) hydro-sonic^{tm} scrubber, identified as CE-04, with a design air flow rate of 19,450 dscfm, with emissions exhausted to Stack 01.

(b) One (1) 50 horsepower (0.42 MMBtu/hr) natural gas, gasoline, or No. 2 distillate oil (0.35% sulfur) fired backup internal combustion motor, with emissions exhausted to Stack 02.

(c) One (1) containerized waste and bulk solid waste storage warehouse, identified as T-148, receiving, storing, and delivering to the kiln, fiber packs, plastic drums, cardboard boxes, and plastic bags containing waste with a maximum design throughput rate of 720 lb/hr.

(d) One liquid waste transfer system, consisting of new transfer lines connected to existing transfer pumps, delivering liquid wastes from the existing source storage tanks to the kiln with a maximum design throughput of 918 gallons per hour,

(e) One (1) wet ash handling system, and

(f) One (1) induced draft fan.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
01	Incinerator	100	2.5	19450	170
02	Back-up motor	15	0.25	N/D*	N/D*

* N/D= Not Determined

Recommendation

The staff recommends to the Commissioner that the Significant Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on January 25, 2001, with additional information received on March 11, 2002.

Emission Calculations

The following calculations determine the regulated pollutant emissions from the proposed modification.

A. Unrestricted Potential to Emit (UPTE) Due to the Proposed Modification:

The emissions that will be generated by the proposed modification are:

1. waste combustion emissions from the rotary kiln incinerator,
2. combustion emissions from the backup motor,
3. fugitive volatile organic compound (VOC) and hazardous air pollutant (HAP) emissions from the proposed equipment and piping, and
4. fugitive VOCs and HAPs from the drum sampling station.

The following is a summary of the UPTE due to the proposed modification. The detailed calculations follow the table.

Criteria Pollutants:

Pollutant	Rotary Kiln (tons/yr)	Backup Motor (tons/yr)	Modification Fugitives (tons/yr)	Sampling Station Fugitives (tons/yr)	Total (tons/yr)
PM	180.89	0.03	-	-	**180.92**
PM_{10}	180.89	0.03	-	-	**180.92**
SO_2	51.99	0.03	-	-	**52.02**
NO_x	184.84	0.39	-	-	**185.23**
VOC	1.28	0.27	11.16	0.012	**12.72**
CO	22.32	5.49	-	-	**27.81**

HAP Emissions:

Pollutant	Rotary Kiln (tons/yr)	Backup Motor (tons/yr)	Modification Fugitives (tons/yr)	Sampling Station Fugitives (tons/yr)	Total (tons/yr)
Organic HAPs	1.28	neg.	14.08	0.015	**15.38**
Pb	0.08	N/A	-	-	**0.08**
Cd	0.04	-	-	-	**0.04**
Cr	0.09	-	-	-	**0.09**
Mn	0.00007	-	-	-	**0.00007**
Ni	0.0004	-	-	-	**0.0004**
Hg	0.02	N/A	-	-	**0.02**
Dioxin/Furan	4.00E-8	-	-	-	**4.00E-8**
As	0.01	-	-	-	**0.01**
Be	0.0002	-	-	-	**0.0002**
Cl_2 + HCl	762.12	-	-	-	**762.12**
Fluorides	131.84	-	-	-	**131.84**
PM HAPs	180.89	-	-	-	**180.89**
				Combined HAP Total	**1090.47**

1. Rotary Kiln Incinerator:

The proposed rotary kiln can operate in three different modes;

a. start-up,
b. waste burning only, and
c. waste burning with deslagging.

Each operating mode generates different levels of emissions. The calculations under this section are performed to estimate the worst case pollutant UPTE from the three modes. The following table is a summary of these emission calculations. The detailed calculations follow the table.

Criteria Pollutants:

Pollutant	Startup Mode (tons/yr)	Waste Only Mode (tons/yr)	Waste + Deslag Mode (tons/yr)	Worst Case Scenario (tons/yr)
PM	0.33	180.89	109.78	180.89
PM_{10}	1.33	180.89	109.78	180.89
SO_2	0.11	12.61	51.99	51.99
NO_x	17.52	184.84	123.41	184.84
VOC	0.96	1.28	0.98	1.28
CO	14.72	22.32	16.52	22.32

Hazardous Air Pollutants (HAP):

Organic HAPs	0.33	1.28	0.98	1.28
Pb	0.0001	0.08	0.05	0.08
Cd	0.0002	0.04	0.02	0.04
Cr	0.0002	0.09	0.05	0.09
Mn	0.00007	-	-	0.00007
Ni	0.0004	-	-	0.0004
Hg	-	0.02	0.01	0.02
Dioxin/Furan	-	4.00E-8	2.40E-8	4.00E-8
As	-	0.01	0.01	0.01
Be	-	0.0002	0.0001	0.0002
Cl_2 + HCl	-	762.12	457.27	762.12
Fluoride	-	131.84	79.10	131.84
PM HAPs	-	180.89	109.78	180.89

a. System Start-Up Emissions:

The emissions generated during start-up are natural gas combustion emissions.

The following calculations determine the start-up UPTE based on natural gas combustion, a maximum capacity of 40 MMBtu/hr, emission factors from AP-42, emissions before controls, and 8,760 hours of operation.

40.00 MMBtu/hr * 1 E6 Btu/MMBtu * 1/1000 cf/Btu * 1/1E6 MMcf/cf * Ef lb poll/MMcf = lb poll./hr
lb poll/hr * 8760 hour/yr * 1/2000 ton poll/lb poll = ton poll/yr

Criteria Pollutants:

	PM 1.9 lb/MMcf	PM_{10} 7.6 lb/MMcf	SO_2 0.6 lb/MMcf	NO_x 100 lb/MMcf	VOC 5.5 lb/MMcf	CO 84 lb/MMcf
ton/yr	0.33	1.33	0.11	17.52	0.96	14.72

Hazardous Air Pollutants (HAP):

Pollutant	EF lb/MMcf	Ton/yr
Benzene	2.1E-3	0.0004
Dichlorobenzene	1.2E-3	0.00021
Formaldehyde	7.5E-2	0.01
Hexane	1.80	0.32
Toluene	3.4E-3	0.0006
Lead	5.0E-4	0.0001
Cadmium	1.1E-3	0.0002
Chromium	1.4E-3	0.0002
Manganese	3.8E-4	0.00007
Nickel	2.1E-3	0.0004

b. Waste Burning Alone:

The waste that is incinerated will serve as the fuel for the kiln. The emissions generated under this mode are waste combustion emissions.

The rotary kiln incinerator maximum capacity under this mode is 30 MMBtu/hr.

The following calculations determine the waste combustion UPTE based on waste burning alone, the maximum feed contents, the maximum solids partitioning of the waste feed in the combustion chamber when applicable, a maximum effluent flow rate of 11,684 dscfm at 7% oxygen (331 dscm/min at 7% oxygen or 1820 lbmol/hr dry), the respective maximum allowable concentrations, emissions before controls, and 8,760 hours of operation.

lb/hr = X parts/1E6 parts * 21/21 (O_2/7%O_2) * 1820 lbmol/hr * lb/lbmol
lb/hr = ng/dscm * 21/21 (O_2/7%O_2) * 331 dscm/min * 1/454E9 lb/ng * 60 min/hr
lb/hr = mg/dscm * 21/21 (O_2/7%O_2) * 331 dscm/min * 1/454E3 lb/mg * 60 min/hr
ton/yr = lb/hr * 8760 hr/yr * 1/2000 ton/lb

Criteria Pollutants:

Pollutant	Value	Units	Emission Basis	ton/yr
PM	41.3	lb/hr	waste feed/solids partitioning	180.89
PM_{10}	41.3	lb/hr	waste feed/solids partitioning	180.89
SO_2	2.88	lb/hr	max S content in feed	12.61
NO_x	42.2	lb/hr	max N2 content in feed	184.84
VOC	10	ppmv	equal cont rate (16 lb/lbmol)	1.28
CO	100	ppmv	equal cont rate (28 lb/lbmol)	22.32

Hazardous Air Pollutants (HAP):

Pollutant	Value	Units	Emission Basis	ton/yr
Mercury	3.94E-3	lb/hr	waste feed	0.02
Dioxins/Furans	2.00E-1	ng/dscm	equal cont rate	4.00E-8
Lead	1.75E-2	lb/hr	waste feed/solids partitioning	0.08
Cadmium	9.54E-3	lb/hr	waste feed/solids partitioning	0.04
Arsenic	2.51E-3	lb/hr	waste feed/solids partitioning	0.01
Beryllium	5.18E-5	lb/hr	waste feed/solids partitioning	0.0002
Chromium	1.97E-2	lb/hr	waste feed/solids partitioning	0.09
HCl & Cl_2	174.00	lb/hr	waste feed	762.12
Fluorides	30.10	lb/hr	hydrogen fluoride emissions	131.84
Organic HAPs	10.00	ppmv	VOC emissions	1.28
Particulate HAPs	41.3	lb/hr	PM emissions	180.89

c. Waste Burning With Deslagging:

The waste that is incinerated will serve as the fuel for the kiln. The emissions generated under this mode are waste combustion emissions and deslagging combustion emissions.

The rotary kiln incinerator maximum capacity under this mode is 30 MMBtu/hr. The deslagging operation lance maximum capacity is 20 MMBtu/hr.

Deslagging Combustion Emissions:

The following calculations determine the deslagging lance UPTE based on No. 2 fuel oil combustion, a maximum capacity of 20 MMBtu/hr, AP-42 emission factors, a maximum sulfur content of 0.5%, a higher heating value of 140,000 Btu/gal, 8760 hours of operation, and emissions before controls:

20 MMBtu/hr * 8760 hr/yr * 1E6 BTU/MMBtu * 1/140000 gal/Btu * 1/1000 Tgal/gal * Ef lb Poll/Tgal * 1/2000 ton Poll/lb Poll = ton Poll/yr

Criteria Pollutants:

	PM 2.0 lb/Tgal	PM_{10} 2.0 lb/Tgal	SO_2 71 lb/Tgal	NO_x 20 lb/Tgal	VOC 0.34 lb/Tgal	CO 5.00 lb/Tgal
ton/yr	1.25	1.25	44.42	12.51	0.21	3.13

Hazardous Air Pollutants (HAP):

Pollutant	EF lb/Tgal	Ton/yr
Mercury	1.13E-4	7.07E-5
Lead	1.51E-3	9.44E-4
Cadmium	3.98E-4	2.49E-4
Arsenic	1.32E-3	8.26E-4
Beryllium	2.78E-5	1.74E-5
Chromium	8.45E-4	5.29E-4
Organic HAPs	0.34	0.21
Particulate HAPs	2.00	1.25
Semivolatile Metals	1.91E-3	1.20E-3
Low Volatile Metals	2.19E-3	1.37E-3

Waste Burning Emissions:

The following calculations determine the waste burning UPTE based on a maximum waste burning capacity of 30 MMBtu/hr, 8,760 hours of operation, and emissions before controls.

The capacity of the proposed kiln while deslagging is 60% of the capacity of the kiln operating alone.

30 MMBtu/hr / 50 MMBtu/hr = 0.60

Waste Burning Emissions While Deslagging (ton/yr) = 0.6 * Waste Burning Alone Emissions (ton/yr)

The following table lists the waste burning UPTE at the reduced 30 MMBtu/hr capacity.

Criteria Pollutants:

Pollutant	Waste Alone tons/yr	Waste While Deslagging tons/yr
PM	180.89	108.53
PM_{10}	180.89	108.53
SO_2	12.61	7.57
NO_x	184.84	110.90

VOC	1.28	0.77
CO	22.32	13.39

Hazardous Air Pollutants (HAP):

Pollutant	Waste Alone tons/yr	Waste While Deslagging tons/yr
Mercury	0.02	0.01
Dioxins/Furans	4.00E-8	2.40E-8
Lead	0.08	0.05
Cadmium	0.04	0.02
Arsenic	0.01	0.01
Beryllium	0.0002	0.0001
Chromium	0.09	0.05
HCl & Cl_2	762.12	457.27
Fluorides	131.84	79.10
Organic HAPs	1.28	0.77
Particulate HAPs	180.89	108.53

2. Back-up Motor:

The proposed back-up motor will combust either #2 fuel oil, gasoline, or natural gas.

The following calculations determine the back-up motor UPTE based on the respective fuel combustion, a maximum capacity of 50 horsepower, AP-42 emission factors for No. 2 fuel and gasoline combustion, source data for natural gas combustion, a heating value of 140,000 Btu/gal for No. 2 fuel oil, a heating value of 130,000 Btu/gal for gasoline, a heating value of 1020 Btu/scf for natural gas, emissions before controls, and 500 hours of operation.

The following is a summary of the worst case pollutant emissions from the three combustion scenarios. The detailed calculations follow the table.

	No. 2 Fuel Oil (tons/yr)	Gasoline (tons/yr)	Natural Gas (tons/yr)	Worst Case (tons/yr)
PM	0.03	0.01	1.00E-5	0.03
PM_{10}	0.03	0.01	1.00E-5	0.03
SO_2	0.03	0.01	6.03E-5	0.03
NO_x	0.39	0.14	0.28	0.39
VOC	0.03	0.27	0.01	0.27
CO	0.08	5.49	0.04	5.49

No. 2 fuel oil:

Ef lb/hp-hr * 50 hp * 500 hr/yr * 1/2000 tons/lb = tons/yr

	PM 2.20 E-3 lb/hp-hr	PM_{10} 2.20E-3 lb/hp-hr	SO_2 2.05E-3 lb/hp-hr	NO_x 0.031 lb/hp-hr	VOC 0.00251 lb/hp-hr	CO 6.68E-3 lb/hp-hr
ton/yr	0.03	0.03	0.03	0.39	0.03	0.08

Gasoline:

Ef lb/hp-hr * 50 hp * 500 hr/yr * 1/2000 tons/lb = tons/yr

	PM 7.21E-4 lb/hp-hr	PM_{10} 7.21E-4 lb/hp-hr	SO_2 5.91E-4 lb/hp-hr	NO_x 0.011 lb/hp-hr	VOC 0.0216 lb/hp-hr	CO 0.439 lb/hp-hr
ton/yr	0.01	0.01	0.01	0.14	0.27	5.49

Natural Gas:

Ef lb/1 E6 cf * 1/1020 cf/Btu * 1 E6 Btu/MMBtu * 0.41 MMBtu/hr * 500 hr/yr * 1/2000 ton/lb = tons/yr

	PM 0.10 lb/MMcf	PM_{10} 0.10 lb/MMcf	SO_2 0.60 lb/MMcf	NO_x 2840 lb/MMcf	VOC 116 lb/MMcf	CO 399 lb/MMcf
ton/yr	1.00E-5	1.00E-5	6.03E-5	0.28	0.01	0.04

3. Fugitive Losses, Equipment Leaks:

The Environmental Protection Agency (EPA) requires that all “potential” sources of emissions be accounted for when determining the emissions that will be generated. Included are equipment leak emissions. While proper maintenance will for all intents and purposes eliminate any leaks that may occur, the potential for such emissions must be accounted for.

Therefore, the following calculations determine the UPTE (VOCs and HAPs) associated with equipment leaks based on the number of components, EPA emissions factors (EPA-453/R-95-017, November 1995, “Protocols for Equipment Leaks Emissions Estimates”), a VOC vapor phase VOC fraction of 0.46, a vapor phase HAP fraction of 0.58, emission before controls, and 8760 hours of operation.

Ef lbVOC/hr-unit * units * 8760 hr/yr * 1/2000 tons VOC/lb = tons VOC/yr
tons VOC/yr * 0.58/0.46 fraction HAP/fraction VOC = tons HAP/yr

Equipment	Liquid	Quantity (units/hr)	VOC Ef (lb/hr-unit)	VOC’s (tons/yr)	HAP’s (tons/yr)
Valves	Gas	0	0.013	0.00	0.00
	Light	20	0.009	0.79	1.00
	Heavy	35	0.001	0.15	0.19
Pump Seals	Light	0	0.044	0.00	0.00
	Heavy	2	0.019	0.17	0.21

Compressor Seals	Gas	0	0.502	0.00	0.00
Pressure Relief Valves	Gas	7	0.229	7.02	8.85
Connectors	All	150	0.004	2.63	3.32
Open-Ended Lines	All	6	0.004	0.11	0.14
Sampling Connectors	All	2	0.033	0.29	0.37
			Total	11.16	14.08

4. Drum Sampling Station:

VOCs and HAPs will be generated at the drum sampling station.

The following calculations determine the VOC and HAP UPTE based on a drum vapor volume of 2.73 cubic feet, a vapor density of 0.023, a VOC vapor fraction of 0.0104, a HAP vapor fraction of 0.0133, a maximum drum sampling rate of 10 drums per day, emissions before controls, and 365 days per year.

VOCs: 2.73 ft^3/drum * 0.023 lb vapor/ft^3 * 0.104 lb VOC/lb vapor * 10 drums/day = 0.065 lb VOC/day
0.065 lb VOC/day * 365 day/yr * 1/2000 ton/lb = **0.012 ton VOC/yr**

HAPs: 2.73 ft^3/drum * 0.023 lb vapor/ft^3 * 0.133 lb HAP/lb vapor * 10 drums/day = 0.084 lb HAP/day
0.084 lb VOC/day * 365 day/yr * 1/2000 ton/lb = **0.015 ton HAP/yr**

B. Emissions After Controls:

The kiln PM, PM_{10}, NO_x, acid gas (HCl), lead (Pb), cadmium (Cd), arsenic, (As), beryllium (Be), chromium (Cr), fluorides, HCl/Cl_2, and mercury (Hg) emissions will be controlled.

The following is a summary of the emissions after controls from the proposed modification. The detailed calculations follow the table.

Criteria Pollutants:

Pollutant	Rotary Kiln (tons/yr)	Backup Motor (tons/yr)	Modification Fugitives (tons/yr)	Sampling Station Fugitives (tons/yr)	Total (tons/yr)
PM	6.57	0.03	-	-	**6.60**
PM_{10}	6.57	0.03	-	-	**6.60**
SO_2	51.99	0.03	-	-	**52.02**
NO_x	38.82	0.39	-	-	**39.21**
VOC	1.28	0.27	11.16	0.012	**12.72**
CO	22.32	5.49	-	-	**27.81**

Hazardous Air Pollutants:

Pollutant	Rotary Kiln (tons/yr)	Backup Motor (tons/yr)	Modification Fugitives (tons/yr)	Sampling Station Fugitives (tons/yr)	Total (tons/yr)
Organic HAPs	1.28	neg.	14.08	0.015	**15.38**
Pb	0.003	N/A	-	-	0.003
Cd	0.002	-	-	-	0.002
Cr	0.016	-	-	-	0.016
Mn	0.00007	-	-	-	0.00007
Ni	0.0004	-	-	-	0.0004
Hg	0.01	N/A	-	-	0.01
Dioxin/Furan	4.00E-8	-	-	-	4.00E-8
As	0.002	-	-	-	0.002
Be	0.00004	-	-	-	0.00004
Cl_2 + HCl	6.10	-	-	-	6.10
Fluorides	1.05	-	-	-	1.05
PM HAPs	6.57	-	-	-	6.57
				Combined HAP Total	**29.13**

The following calculations determine the potential emissions after controls from the proposed modification based on the emissions before controls when applicable, the design parameters of the control devices when applicable, and 8,760 hours of operation.

1. PM(PM_{10}) Emissions After Controls:

The waste combustion and deslagging PM/PM_{10} emissions are controlled by the Hydro-Sonic™ scrubber.

The following calculations determine the PM/PM_{10} emissions after controls based on a design air flow rate of 19,450 dscfm and grain loading of 0.009 gr/dscf.

0.009 gr/dscf * 19,450 dscf/min * 60 min/hr * 1/7000 lb/gr = 1.50 lb/hr
1.50 lb/hr * 8760 hr/yr * 1/2000 ton/lb = **6.57 tons PM(PM_{10})/yr**

The PM HAPs after controls equal the PM emissions after controls.

2. NO_x Emissions After Controls:

The worst case incinerator scenario (waste combustion only) NO_x emissions are controlled by the SNCR abatement system.

The following calculations determine the NO_x emissions after controls based on the estimated emissions before controls and an overall control efficiency of 79%.

184.84 tons NO_x/yr * (1 - 0.79) = **38.82 tons NO_x/yr**

3. Acid Gas (HCl) Emissions After Controls:

The waste combustion acid gas (HCl) emissions are controlled by the rapid quench and condenser/absorption control devices.

The following calculations determine the acid gas (HCl) emissions after controls based on the estimated emissions before controls and an overall control efficiency of 99.2%.

762.12 tons acid gas (HCl)/yr * (1 - 0.992) = **6.10 tons acid gas (HCl)/yr**

4. Lead (Pb) and Cadmium (Cd):

The waste combustion lead (Pb) and cadmium (Cd) emissions are controlled by the Hydro-Sonic™ scrubber. The equivalent overall control efficiency of the scrubber for Pb and Cd control is 96.1%.

The following calculations determine the lead (Pb) and cadmium (Cd) emissions after controls based on the estimated emissions before controls and an equivalent overall control efficiency of 96.1%.

0.08 tons Pb/yr * (1 - 0.961) = **0.003 tons Pb/yr**
0.04 tons Cd/yr * (1 - 0.961) = **0.002 tons Cd/yr**

5. Arsenic (As), Beryllium (Be), and Chromium (Cr):

The waste combustion aresenic (As), beryllium (Be), and chromium (Cr) emissions are controlled by the Hydro-Sonic™ scrubber. The overall control efficiency of the scrubber for arsenic, beryllium, and chromium is 81.8%.

The following calculations determine the arsenic (As), beryllium (Be), and chromium (Cr) emissions after controls based on the estimated emissions before controls and equivalent overall control efficiency of 81.8%.

0.01 tons As/yr * (1 - 0.818) = **0.002 tons As/yr**
0.0002 tons Be/yr * (1 - 0.818) = **0.00004 tons Be/yr**
0.09 tons Cr/yr * (1 - 0.818) = **0.016 tons Cr/yr**

6. Fluorides:

The waste combustion fluoride emissions are controlled by the Hydro-Sonic™ scrubber. The equivalent overall control efficiency of the scrubber for fluoride control is 99.2%.

The following calculations determine the fluoride emissions after controls based on the estimated emissions before controls and equivalent overall control efficiency of 99.2%.

131.84 tons fluorides/yr * (1 - 0.992) = **1.05 tons fluorides/yr**

7. Mercury:

The waste combustion mercury emissions are controlled by Hydro-Sonic™ scrubber. The equivalent overall control efficiency of the scrubber for mercury control is 50%.

The following calculations determine the mercury emissions after controls based on the estimated emissions before controls and equivalent overall control efficiency of 50%.

0.02 tons Hg/yr * (1 - 0.50) **= 0.01 tons Hg/yr**

C. Emissions After Controls, After Fuel Use Limit:

The existing source is an existing Prevention of Significant Deterioration (PSD) major source. Thus, the significant SO_2 level for the proposed modification is 40 tons per year. Eli Lilly and Company has opted to limit the deslagger lance fuel use to avoid PSD review. SO_2 emissions are generated via waste, deslagging, and back-up motor combustion.

The source has proposed use of a continuous emissions monitoring system (CEMS) to demonstrate compliance. Monitoring the SO_2 emissions, recording the monthly emissions estimated from the CEMS data, and submitting quarterly reports of the SO_2 emissions, will be sufficient to satisfy all requirements of demonstrating compliance with the limits that prevent the modification from being a PSD major modification.

After the fuel use limitations the SO_2 emissions and other combustion emissions due to the modification are as follows.

	PM 2.0 lb/Tgal	PM_{10} 2.0 lb/Tgal	SO_2 71 lb/Tgal	NO_x 20 lb/Tgal	VOC 0.34 lb/Tgal	CO 5.00 lb/Tgal
Deslag Combustion (tons/yr)	N/A	N/A	31.40	N/A	N/A	N/A
Waste Incineration (tons/yr)	6.57*	6.57*	7.57	38.82**	1.28**	22.32**
Total	**6.57**	**6.57**	**38.97**	**38.82**	**1.28**	**22.32**

* The worst case scenario for PM and PM_{10} emissions is waste combustion with deslagging. The deslag combustion and waste incineration PM and PM_{10} emissions are both controlled by the Hydro-Sonic™ scrubber. The after controls PM and PM_{10} emissions are determined are based on the outlet grain loading and air flow rate of the Hydro-Sonic™ scrubber. Thus, the 6.57 tons PM(PM_{10})/yr represent the combined deslag and waste PM and PM_{10} emissions after controls.

** The worst case incinerator scenario for NOx, VOC, and CO, is waste only combustion. Thus, there are no deslag emissions associated these pollutants.

In addition, worst case incinerator scenario for HAPs is waste combustion only. Thus, there will be no changes in these after controls emissions. After application of the fuel use limit, the criteria pollutant emissions are as follows:

Criteria Pollutants:

Pollutant	Rotary Kiln (tons/yr)	Backup Motor (tons/yr)	Modification Fugitives (tons/yr)	Sampling Station Fugitives (tons/yr)	Total (tons/yr)
PM	6.57	0.03	-	-	**6.60**
PM_{10}	6.57	0.03	-	-	**6.60**
SO_2	38.97	0.03	-	-	**39.00**
NOx	38.82	0.39	-	-	**39.21**
VOC	1.28	0.27	11.16	0.012	**12.72**
CO	22.32	5.49	-	-	**27.81**

Hazardous Air Pollutants:

Pollutant	Rotary Kiln (tons/yr)	Backup Motor (tons/yr)	Modification Fugitives (tons/yr)	Sampling Station Fugitives (tons/yr)	Total (tons/yr)
Organic HAPs	1.28	neg.	14.08	0.015	**15.38**
Pb	0.003	N/A	-	-	**0.003**
Cd	0.002	-	-	-	**0.002**
Cr	0.016	-	-	-	**0.016**
Mn	0.00007	-	-	-	**0.00007**
Ni	0.0004	-	-	-	**0.0004**
Hg	0.01	N/A	-	-	**0.01**
Dioxin/Furan	4.00E-8	-	-	-	**4.00E-8**
As	0.002	-	-	-	**0.002**
Be	0.00004	-	-	-	**0.00004**
Cl_2 + HCl	6.10	-	-	-	**6.10**
Fluorides	1.05	-	-	-	**1.05**
PM HAPs	6.57	-	-	-	**6.57**
				Combined HAP Total	**29.13**

Potential To Emit Due to the Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source 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.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	180.92
PM-10	180.92
SO_2	52.02
VOC	12.72
CO	27.81
NO_x	185.23

HAP's	Potential To Emit (tons/year)
Mercury	0.02
Dioxin/Furan	4.00E-8
Lead	0.08
Cadmium	0.04
Mn	0.00007
Ni	0.0004
Arsenic	0.01
Beryllium	0.0002
Chromium	0.09
HCl/Cl_2	**762.12**
Fluorides	131.84
Organic HAP	15.38
PM HAP	180.89
TOTAL	**1090.47**

The PM, PM_{10}, SO_2, and NO_x emissions exceed their respective applicable levels of 25 tons per year, and the single and combined HAP emissions exceed their applicable levels of 10 and 25 tons per year, respectively. Therefore, the proposed modification shall be permitted via a significant source modification pursuant to 326 IAC 2-7-10.5(f)(4)(A), (B), (C), and 326 IAC 2-7-10.5(6).

County Attainment Status

The source is located in Tippecanoe County.

Pollutant	Status
PM-10	attainment or unclassifiable
SO_2	attainment or unclassifiable
NO_x	attainment or unclassifiable
Ozone	attainment or unclassifiable
CO	attainment or unclassifiable
Lead	attainment or unclassifiable

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, the VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Tippecanoe County has been designated as attainment or unclassifiable for ozone. Therefore, the VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Tippecanoe County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Potential to Emit of the Existing Source

Existing Source PSD Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Unit	PM (tons/yr)	PM_{10} (tons/yr)	SO_2 (tons/yr)	NO_x (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Single HAP (tons/yr)	Comb. HAPs (tons/yr)
Existing Source	**>250**	**>250**	**>250**	**>250**	**>250**	**>250**	**>10**	**>25**

PSD Major Source Levels	250	250	250	250	250	250	-	-
Part 70 Major Source Levels	-	100	100	100	100	100	10	25

(a) The existing source is a major PSD stationary source because all attainment regulated pollutants are emitted at a rate of 250 tons per year or more.

(b) This existing source is a Title V major stationary source because the PM_{10}, SO_2, NO_x, VOC, and CO emissions are greater than the applicable level of 100 tons per year, the worst case single HAP emissions exceed 10 tons per year, and the combined HAP emissions exceed 25 tons per year.

Potential to Emit Due to the Modification

Modification PSD Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Unit	PM (tons/yr)	PM_{10} (tons/yr)	SO_2 (tons/yr)	NO_x (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Single HAP (tons/yr)	Combined HAPs (tons/yr)
Proposed Modification	**6.60**	**6.60**	**39.00**	**39.21**	**12.72**	**27.81**	**15.38**	**29.13**

PSD Significant Levels	25	15	40	40	40	100	-	-

Unit	Lead (tons/yr)	Asbestos (tons/yr)	Beryllium (tons/yr)	Mercury (tons/yr)	Vinyl Chloride (tons/yr)	Fluoride (tons/yr)	Sulfuric Acid Mist (tons/yr)	Hydrogen Sulfide (tons/yr)	Total Reduced Sulfur (tons/yr)	Reduced Sulfur Compounds (tons/yr)
Proposed Modification	**0.003**	**-**	**0.00004**	**0.01**	**-**	**1.05**	**-**	**-**	**-**	**-**

PSD Significant Levels	0.6	0.007	0.0004	0.1	1	3	7	10	10	10

(a) The deslagger lance No. 2 fuel oil use shall be limited to reduce the modification SO_2 emissions to 39 tons SO_2/yr.

(b) The proposed modification is not a major PSD modification because none of the attainment regulated pollutants are emitted at rates greater than their respective significant levels.

Potential to Emit of the Source After the Modification

Unit	PM (tons/yr)	PM_{10} (tons/yr)	SO_2 (tons/yr)	NO_x (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Single HAP (tons/yr)	Comb. HAPs (tons/yr)
Existing Source	>250	>250	>250	>250	>250	>250	>10	>25
Proposed Modification	6.60	6.60	39.00	38.38	12.72	27.81	15.38	30.91
Total	**>250**	**>250**	**>250**	**>250**	**>250**	**>250**	**>10**	**>25**

PSD Significant Levels	25	15	40	40	40	100	-	-
Part 70 Major Source Levels	-	100	100	100	100	100	10	25

(a) The existing source after the modification is still a major PSD stationary source because all attainment regulated pollutants are still emitted at a rate of 250 tons per year or more.

(b) The existing source after the modification is still a Title V major stationary source because the PM_{10}, SO_2, NO_x, VOC, and CO emissions are still greater than the applicable level of 100 tons per year, the worst case single HAP emissions still exceed 10 tons per year, and the combined HAP emissions still exceed 25 tons per year.

Federal Rule Applicability

New Source Performance Standards:

There are no New Source Performance Standards (NSPS) that apply to the proposed incinerator project.

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 rule does not apply because the proposed rotary kiln incinerator will not combust municipal waste and the construction date will be after the applicable date of September 20, 1994.

40 CFR 60, Subpart Ce: Emission Guidelines and Compliance Times for Hospital / Medical / Infectious Waste Incinerators:

This rule does not apply because the proposed rotary kiln incinerator will not combust hospital, medical, or infectious waste.

40 CFR 60, Subpart E: Standards of Performance for Incinerators:

This rule does not apply 40 CFR 60, Subpart E, Standards of Performance for Incinerators does not apply because the proposed incinerator will not combust solid waste as defined in 60.51(b).

40 CFR 60, Subpart Ea: Standards 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 proposed incinerator will not combust municipal waste as defined in 60.51a and construction will commence after the latest applicable date (September 20, 1994).

40 CFR 60, Subpart Eb: Standards of Performance for Large Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994 or for Which Modification or Reconstruction is Commenced After June 19, 1996:

This rule does not apply because the proposed incinerator will not combust municipal waste as defined in 60.51b.

40 CFR 60, Subpart Ec: Standards of Performance for Hospital / Medical / Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996:

This rule does not apply because the proposed incinerator will not combust hospital, medical, or infectious waste as defined in 60.51c.

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

This subpart applies to affected facilities in the synthetic organic chemicals manufacturing industry of which construction commences after January 5, 1981.

Although the proposed rotary kiln incinerator is part of a source that is part of the synthetic organic chemicals manufacturing industry and the proposed incinerator will be constructed after the applicable date of January 5, 1981, Subpart VV does not apply because the rule applies to “process” unit facilities. The proposed incinerator and all associated equipment are waste reduction units, not “process” units.

40 CFR 60, Subpart III: Standards of Performance for Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes:

This subpart applies to affected facilities, constructed, reconstructed, or modified after October 21, 1983, that produces any of the chemicals listed in 60.617.

This rule does not apply because the proposed rotary kiln is not an affected facility as defined in 60.610(b) and the proposed incinerator will be constructed after the applicable date of October 21, 1983.

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

This subpart applies to affected facilities, constructed, reconstructed, or modified after December 30, 1983, that is part of a process unit that produces any of the chemicals listed in 60.667.

This rule does not apply because the proposed rotary kiln is not an affected facility as defined in 60.660(b) and the proposed incinerator will be constructed after the applicable date of December 30, 1983.

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

This subpart applies to affected facilities, constructed, reconstructed, or modified after June 29, 1990, that is part of a process unit that produces any of the chemicals listed in 60.707.

This rule does not apply because the proposed rotary kiln is not an affected facility as defined in 60.700(b) and the proposed incinerator will be constructed after the applicable date of June 29, 1990.

National Emission Standards for Hazardous Air Pollutants (NESHAP):

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

Pursuant to 40 CFR 61.30(a) and (b), Subpart C applies to extraction plants, ceramic plants, foundries, incinerators, and propellant plants which process beryllium ore, beryllium, beryllium oxide, beryllium oxides, beryllium alloys, or beryllium containing waste.

On May 22, 1997, R. Douglas Neeley of U.S. EPA, Region 4, issued a letter stating that “beryllium containing waste includes only those wastes generated by a foundry, extraction plant, ceramic plant, propellant plant, or machine shop which is subject to 40 CFR 61, Subpart C”.

Therefore, since the beryllium-containing wastes that may be combusted in the proposed incinerator do not originate from one of the five sources listed 40 CFR 61, Subpart C, the rule does not apply.

40 CFR 61, Subpart E: National Emission Standard for Mercury:

40 CFR 61, Subpart E, National Emission Standard for Mercury, does not apply because the proposed rotary kiln incinerator will not incinerate wastewater treatment plant sludge.

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

Pursuant to 61.60, Subpart F applies to plants that produce vinyl chloride. The proposed rotary kiln incinerator is a waste reduction process, not production plant. Thus, Subpart F does not apply.

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

40 CFR 61.140, Subpart M applies to “sources specified in 61.142 through 61.151, 61.154, and 61.155”.

The proposed rotary kiln incinerator project is not any of the sources specified in 61.142 through 61.151 , 61.154, and 61.155.

Thus, this rule does not apply.

40 CFR 63, Subpart F: National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry:

40 CFR 63, Subpart F applies to chemical manufacturing process units as specified in 63.100(b).

This rule does not apply because the proposed rotary kiln incinerator and all associated equipment are waste reduction units, not chemical manufacturing process units.

40 CFR 63, Subpart G: National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater:

40 CFR 63, Subpart G applies to the affected “process” units.

This rule does not apply because the proposed rotary kiln incinerator and all associated equipment are waste reduction units, not process units.

40 CFR 63, Subpart H: National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks:

40 CFR 63, Subpart H, does not apply because the proposed rotary kiln incinerator is not any of the applicable processes listed under 40 CFR 63.190(b)(1) through (b)(6).

40 CFR 63, Subpart I: National Emission Standards for Organic Hazardous Air Pollutants for Certain Processes Subject to the Negotiated Regulation for Equipment Leaks:

Although the source is a major source of hazardous air pollutants (HAPs), 40 CFR 63, Subpart I, does not apply because the proposed rotary kiln incinerator is not any of the applicable processes listed under 40 CFR 63.190(b)(1) through (b)(6).

40 CFR 63, Subpart DD: National Emission Standards for Off-Site Waste and Recovery Operations:

40 CFR 63, Subpart DD applies to the proposed modification because the plant site is a major source of HAP emissions, off-site material as specified in 40 CFR 63.680(b) will be received, and the waste management operation is one of the operations specified in 40 CFR 63.680(a)(2)(i) through (a)(2)(vi).

40 CFR 63, Subpart PP: National Emission Standards for Containers:

The Level 1 control requirements of 40 CFR 63, Subpart PP apply to the proposed rotary kiln incinerator project.

Pursuant to 40 CFR 63, Subpart PP (National Emission Standards for Containers), the following Container Level 1 control standards shall apply to subject containers of off-site waste:

(1) Pursuant to 40 CFR 63.922(b)(2), each container shall be equipped with a cover and enclosure device that form a continuous barrier over the container openings such that when the cover and closure device are secured in the closed position, there are no visible holes, gaps, or other spaces into the interior of the container;

(2) Pursuant to 40 CFR 63.922(d), each cover and closure device shall be secured and maintained in the closed position, 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; and

(3) Pursuant to 40 CFR 63.922(c), each container shall be composed of suitable materials to minimize exposure of the regulated material to the atmosphere to maintain the integrity for as long as it is in service.

40 CFR 63, Subpart EEE: National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors:

The proposed rotary kiln incinerator is subject to the requirements of 40 CFR 63, Subpart EEE because the proposed incinerator is a hazardous waste incinerator.

The source shall comply with all applicable requirements under this rule.

State Rule Applicability

Entire State Rule Applicability:

326 IAC 1-6-3 (Preventive Maintenance Plan):

The proposed source is required to have a preventive maintenance plan pursuant to 326 IAC 1-6-3.

326 IAC 2-2 (Prevention of Significant Deterioration):

The SO_2, NO_x, and fluorides emissions exceed their respective significant levels. The NO_x and fluorides emissions shall be reduced to less than the significant levels via emission controls.

Eli Lilly and Company has proposed emission limitations for the SO_2, NOx, and fluorides emissions, and continuous emissions monitors to demonstrate that these pollutant emissions will be less than the significant levels.

Thus, to avoid PSD review:

(1) the SO_2, NO_x, and fluorides emissions shall be limited to 39.4, 38.8, and 2.9 tons per year, respectively,
(2) CEMS shall be used to monitor and record the emissions,
(3) the monthly emissions shall be estimated,
(4) records of the emissions shall be kept, and
(5) quarterly reports of the monthly emission estimates submitted.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because all of the listed pollutants are emitted at a rate greater than the applicable level of 100 tons per year.

326 IAC 5-1-2 (Opacity Limitations)

Opacity shall not exceed an average of 40% in any one 6 minute averaging period. Opacity shall not exceed 60% for more than a cumulative total of fifteen minutes.

Individual State Rule Applicability

326 IAC 4-2:

326 IAC 4-2 applies because the incinerator is not one of the exempted units listed in 326 IAC 4-2.

Pursuant to 326 IAC 4-2 (Burning Regulations for Incinerators), The rotary kiln incinerator shall:

(1) consist of primary and secondary chambers or the equivalent,
(2) be equipped with a primary burner unless burning wood products,
(3) comply with 326 IAC 5-1 and 326 IAC 2,
(4) be maintained properly as specified by the manufacturer and approved by the commissioner,
(5) be operated according to the manufacturer's recommendations and only burn waste approved by the commissioner,
(6) comply with other state and/or local rules or ordinances regarding installation and operation of incinerators,
(7) be operated so that emissions of hazardous material including, but not limited to viable pathogenic bacteria, dangerous chemicals or gases, or noxious odors are prevented,
(8) not emit particulate matter in excess of three-tenths (0.3) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas at standard conditions corrected to fifty percent (50%) excess air, and
(9) not create a nuisance or a fire hazard.

If any of the above result, the burning shall be terminated immediately.

326 IAC 6-3 (Process Operations):

326 IAC 6-3 does not apply because the rotary kiln incinerator is exempted under 326 IAC 6-3-1(a).

326 IAC 7 (Sulfur Dioxide Emission Limitations):

326 IAC 7 applies to the rotary kiln incinerator project because the kiln SO_2 potential to emit exceeds 25 tons per year.

Pursuant to 326 IAC 7-1.1-2 (SO_2 Rules), the SO_2 emissions from the combustion of fuel oil during the deslagging process in the rotary kiln incinerator shall not exceed 0.5 pounds per million British thermal units (lbs/MMBtu).

326 IAC 8-5-3 (Miscellaneous Operations: Synthesized Pharmaceutical Manufacturing Operations):

326 IAC 8-5-3 does not apply to the rotary kiln incinerator project because the incinerator and it's associated emission units are not any of the units listed in 326 IAC 8-5-3(a).

326 IAC 8-1-6 (State BACT Requirements):

Although there are no other Article 8 rules that apply to the proposed rotary kiln incinerator, 326 IAC 8-1-6 does not apply because there are no emission units with potential VOC emissions greater than 25 tons per year.

326 IAC 9 (Carbon Monoxide Rules):

Pursuant to 326 IAC 9-1-2, the carbon monoxide emissions from solid waste incineration and burning equipment shall be limited as required unless specific carbon monoxide emission limits have been established in 326 IAC 11, 326 IAC 20, 40 CFR 60, 40 CFR 62, or 40 CFR 63.

This rule does not apply because carbon monoxide emission limitations have been established in 40 CFR 63, Subpart EEE.

326 IAC 10 (Nitrogen Oxides Rule):

The NO_x rules of 326 IAC 10 do not apply because the rotary kiln incinerator will be located in Lafayette County, not Clark or Floyd counties.

326 IAC 11-6 (Hospital/Medical/Infectious Waste Incinerators):

326 IAC 11-6 does not apply to the proposed rotary kiln incinerator because the proposed rotary kiln incinerator will not combust hospital/medical/infectious waste as defined in 40 CFR 60, Subpart Ec.

326 IAC 11-7 (Municipal Waste Combustors):

326 IAC 11-7 does not apply because the rotary kiln incinerator will not combust municipal waste as defined in 40 CFR 60, Subpart Cb.

326 IAC 15 (Lead Rules):

326 IAC 15 does not apply because Eli Lilly's Lafayette plant is not one of the sources listed in 326 IAC 15-1-2.

Conclusion

The proposed rotary kiln incinerator shall be constructed and operated according to requirements specified in attached proposed **Significant Source Modification 157-13834-00006**.