



Indiana Department of Environmental Management

We Protect Hoosiers and Our Environment.

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Michael R. Pence
Governor

Carol S. Comer
Commissioner

To: Interested Parties

Date: August 17, 2016

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

Source Name: Hoosier Energy REC, Inc. – Merom Generating Station

Permit Level: Title V – Administrative Amendment

Permit Number: 153-37177-00005

Source Location: 5500 W. Old 54
Sullivan, Indiana 47882

Type of Action Taken: Changes that are administrative in nature

Notice of Decision: Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the matter referenced above. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

The final decision is available on the IDEM website at: <http://www.in.gov/apps/idem/caats/>
To view the document, select Search option 3, then enter permit 37177.

If you would like to request a paper copy of the permit document, please contact IDEM's central file room:

Indiana Government Center North, Room 1201
100 North Senate Avenue, MC 50-07
Indianapolis, IN 46204
Phone: 1-800-451-6027 (ext. 4-0965)
Fax (317) 232-8659

(continues on next page)

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

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

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

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

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



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Angie Lee
Hoosier Energy REC, INC. – Merom Generating Station August 17, 2016
5500 W Old 54
Sullivan, Indiana 47882

Re: 153-37177-00005
Administrative Amendment to
Part 70 Renewal 153-35203-00005

Dear Ms. Lee:

Hoosier Energy REC, INC. – Merom Generating Station was issued a Part 70 Permit Renewal No. 153-35203-00005 on June 15, 2015 for a stationary electric power generating plant located at 5500 W Old 54, Sullivan, Indiana 4788. On May 10, 2016, the Office of Air Quality (OAQ) received an application from the source requesting to add an emergency diesel-fired fire pump, modify the coal storage pile to increase the storage capacity from 1,500,000 tons to 2,100,000 tons, and to remove non-applicable portion of the condition No. D.6.2(b) from the degreaser from the permit.

Pursuant to the provisions of 326 IAC 2-7-11(a), the permit is hereby administratively amended as described in the attached Technical Support Document. Pursuant to 326 IAC 2-7-11(a)(8)(A), this change to the permit is considered an administrative amendment because the permit is amended to incorporate an exempt modification as described in 326 IAC 2-1.1-3 that does not otherwise constitute a modification for purposes of 326 IAC 2-7-10.5 (Source Modifications) or 326 IAC 2-7-12 (Permit Modifications).

Please find attached the entire Part 70 Operating Permit as amended. The permit references the below listed attachments. Since these attachments have been provided in previously issued approvals for this source, IDEM OAQ has not included a copy of these attachments with this amendment:

Attachment A: 40 CFR 60, Subpart D

Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced After August 17, 1971

Attachment B: 40 CFR 60, Subpart Y

Standards of Performance for Coal Preparation Plants

Attachment C: 40 CFR 60, Subpart IIII

Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

Attachment D: 40 CFR 60, Subpart JJJJ

Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

Attachment E: 40 CFR 63, Subpart ZZZZ

National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Attachment F: 40 CFR 60, Subpart OOO

Standards of Performance for Nonmetallic Mineral Processing Plants

Attachment G: 40 CFR Part 63, Subpart DDDDD

National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters

Attachment H: Acid Rain Permit

Attachment I: 40 CFR 63, Subpart UUUUU

National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units

Previously issued approvals for this source containing these attachments are available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>.

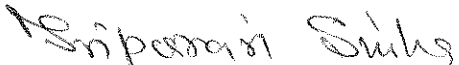
Federal rules under Title 40 of United States Code of Federal Regulations may also be found on the U.S. Government Printing Office's Electronic Code of Federal Regulations (eCFR) website, located on the Internet at: http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40tab_02.tpl.

A copy of the permit is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5.

If you have any questions on this matter, please contact Sommer Cochran of my staff, at 317-234-5376 or 1-800-451-6027, and ask for extension 4-5376.

Sincerely,


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

Attachment(s): Updated Permit, Technical Support Document and Appendix A

TS/SC

cc: File - Sullivan County
Sullivan County Health Department
U.S. EPA, Region 5



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Part 70 Operating Permit Renewal OFFICE OF AIR QUALITY

**Hoosier Energy REC, Inc. - Merom Generating Station
5500 W Old 54
Sullivan, Indiana 47882**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Part 70 Operating Permit No.: 153-35203-00005	
Issued by: Original Signed by: Tripurari Sinha, Ph. D., Section Chief Permits Branch Office of Air Quality	Issuance Date: June 15, 2015 Expiration Date: June 15, 2020

Significant Source Modification No. 153-35424-00005, issued on May 20, 2015.
Significant Source Modification No. 153-36364-00005, issued on May 19, 2016.
Significant Permit Modification No. 153-36369-00005, issued on June 7, 2016.


Administrative Amendment No.: 153-37177-00005	
Issued by:  Tripurari P. Sinha, Ph. D., Section Chief Permits Branch Office of Air Quality	Issuance Date: August 17, 2016 Expiration Date: June 15, 2020



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NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS: COAL- AND OIL-FIRED ELECTRIC UTILITY STEAM GENERATING UNITS

SECTION A SOURCE SUMMARY

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

A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(14)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary electric generating station.

Source Address:	5500 W Old 54, Sullivan, Indiana 47882
General Source Phone Number:	812-935-4715
SIC Code:	4911 (Electric Services)
County Location:	Sullivan
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Major Source, under PSD 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(14)]

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

- (a) One (1) pulverized coal-fired dry bottom boiler, identified as Unit 1 or 1SG1, constructed in 1976, rated at 5,088 million Btu per hour (MMBtu/hr) energy input, used to generate up to 490 megawatts (gross) of electricity. Unit 1 uses No. 2 fuel oil for start ups and flame stabilization. Unit 1 cannot operate at load solely using No. 2 fuel oil.

Unit 1 utilizes the following control equipment:
Activated Carbon Injection System (ACI), to be installed in 2015,
SO₃ Mitigation System (SBS Injection),
Electrostatic precipitator (ESP),
Flue Gas Desulfurization (FGD) Wet Scrubber System (identified as CE1B), and
Selective Catalytic Reduction (SCR).

Controlled emissions from Unit 1 are exhausted to the atmosphere through a 19-foot diameter flue liner (SV1) which is housed in a 700-foot stack that is shared by both Unit 1 and Unit 2. Opacity is measured with a continuous opacity monitor (COM). Sulfur dioxide (SO₂) and nitrogen oxides (NO_x) emissions are measured with a SO₂ continuous emission monitor system (CEMS) and a NO_x CEMS, respectively.

[Under 40 CFR Part 60, Subpart D, this is considered an affected unit.]

- (b) One (1) pulverized coal-fired dry bottom boiler, identified as Unit 2 or 2SG1, constructed in 1976, rated at 5,088 million Btu per hour (MMBtu/hr) energy input, used to generate up to 490 megawatts (gross) of electricity. Unit 2 uses No. 2 fuel oil for start ups and flame stabilization. Unit 2 cannot operate at load solely using No. 2 fuel oil.

Unit 2 utilizes the following control equipment:
Activated Carbon Injection System (ACI), to be installed in 2015,

SO3 Mitigation System (SBS Injection),
Electrostatic precipitator (ESP),
Flue Gas Desulfurization (FGD) Wet Scrubber System (identified as CE2B), and
Selective Catalytic Reduction (SCR).

Controlled emissions from Unit 2 are exhausted to the atmosphere through a 19-foot diameter flue liner (SV2) which is housed in a 700-foot stack that is shared by both Unit 1 and Unit 2. Opacity is measured with a continuous opacity monitor (COM). Sulfur dioxide (SO2) and nitrogen oxides (NOx) emissions are measured with a SO2 continuous emission monitor system (CEMS) and a NOx CEMS, respectively.

[Under 40 CFR Part 60, Subpart D, this is considered an affected unit.]

- (c) Two (2) No. 2 distillate oil-fired auxiliary boilers, constructed in 1980, each with a heat input rate of 93.0 MMBtu/hour, and exhausting to stack SV3.
- (d) A coal storage and handling system, commencing construction in 1977 and modified in 2016, with a nominal throughput of 4,351,419 tons per year, consisting of the following equipment:
 - (1) One (1) outdoor storage area, identified as F01, constructed in 1977 and modified in 2016 from a nominal storage capacity of 1,500,000 tons to 2,100,000 tons, with particulate matter emissions controlled by layering and compaction and exhausting directly to the atmosphere.
 - (2) One (1) rail unloading (rotary car dumper) building, with a nominal throughput of 2000 tons per hour, identified as F02, controlled by being partially enclosed and exhausting directly to the atmosphere. Including the following equipment:
 - (i) Rotary Car Dumper
 - (ii) Vibrating Feeder(s)
 - (iii) Underground coal conveyor transfer point
 - (3) Two (2) receiving systems, where truck shipments of coal are discharged into one of the following stations:
 - (i) One (1) truck unloading station, which feeds a truck hopper, identified as F03, with a nominal throughput of 500 tons per hour with particulate matter emissions controlled by partial enclosure and exhausting directly to the atmosphere. Including the following equipment:
 - (A) Truck Hopper
 - (B) Vibrating Feeder
 - (C) Underground coal conveyor transfer point
 - (ii) One (1) truck unloading area, directly to coal storage pile(s), identified as F04, with a nominal unloading capacity of 1,000 tons per hour, which is utilized on an as needed basis, with particulate matter emissions exhausting directly to the atmosphere.
 - (4) One (1) breaker house with enclosed chutes, identified as F05, with a nominal throughput of 2,000 tons per hour, with particulate matter emissions controlled by partial enclosure and exhausting directly to the atmosphere.
 - (i) Conveyor transfer point(s)

- (5) One (1) stockout system, identified as F06, with a nominal throughput of 2,000 tons per hour, which includes the following equipment:
 - (i) Enclosed conveyors CH-CV-1, CH-CV-2, and CH-CV-3,
 - (ii) Retractable plow, which is used for emergency purposes only, and
 - (iii) Lowering wells (enclosed concrete cylinder with openings at various elevations) used to control particulate matter emissions.

- (6) One (1) reclaim system, identified as F07, with a combined nominal throughput of 1600 tons per hour, with particulate matter emissions controlled by partial enclosures and wet spray suppression and exhausting directly to atmosphere. Including the following equipment:
 - (i) Reclaim Drawdown Hoppers, 4A-1, 4A-2, 4B-1, and 4B-2
 - (ii) Four (4) vibrating feeders
 - (iii) Underground coal conveyor transfer point(s)

- (7) One (1) reclaim conveying system, which consists of two conveyor systems (CH-CV-A and CH-CV-B as identified below), each with a nominal throughput of 800 tons per hour, with particulate matter emissions controlled by enclosures. Including the following equipment:
 - (i) Conveyors CH-CV-4A, CH-CV-4B, CH-CV-5A, CH-CV-5B, CH-CV-6A, and CH-CV-6B

- (8) One (1) emergency reclaim area, which feeds an emergency reclaim hopper, identified as F08, with a nominal throughput of 600 tons per hour, with particulate matter emissions controlled by partial enclosure and exhausting directly to the atmosphere. Including the following equipment:
 - (i) Emergency reclaim hopper
 - (ii) Vibrating Feeder
 - (iii) Two (2) underground coal conveyor transfer point(s)

- (9) One (1) crusher house, identified as F09, with a combined nominal throughput of 1600 tons per hour, with particulate matter emissions controlled by a wet spray suppression and exhausting directly to atmosphere. Including the following equipment:
 - (i) Surge bin(s)
 - (ii) Vibrating feeder(s)
 - (iii) Two (2) enclosed crushers with bypass, with a nominal throughput of 800 tons per hour, each.
 - (iv) Enclosed conveyor transfer point(s)

- (10) One (1) boiler building bunker area, identified as F10, with a combined nominal throughput of 1600 tons, with particulate matter emissions controlled by enclosure and dust suppression system and exhausting directly to the atmosphere. Including the following equipment:
 - (i) Enclosed transfer tower(s)
 - (ii) Enclosed conveyor transfer point(s)
 - (ii) Two (2) traveling tripper(s)

- (11) Bulk material movement with dozer, front end loaders, other heavy mobile equipment.

(12) Truck hauling, on paved and unpaved roads.

[Under 40 CFR Part 60, Subpart Y, this is considered an affected unit.]

- (e) Two (2) lime kiln dust silos, identified as LKD Silo 1 and LKD Silo 2, constructed in 2008, each with a nominal throughput of 3.75 tons per hour, with emissions controlled by LKD Silo Baghouse 1 and LKD Silo Baghouse 2, respectively, and exhausting to LKD Silo Vent 1 and LKD Silo Vent 2, respectively.
- (f) One (1) limestone storage and handling system, constructed between 1978 and 1980, with a nominal throughput of 400,000 tons per year consisting of the following equipment:
- (1) One (1) railcar unloading station, identified as LDU1, which feeds two (2) hoppers located in limestone truck hopper (partially) enclosed structure, with a combined nominal throughput of 3,000 tons per hour.
 - (2) One (1) truck unloading to limestone pile, identified as LTU1 with a nominal throughput of 2,000 tons per hour.
 - (3) One (1) unloading belt conveyor identified as LU1, which is fed by two (2) hoppers via vibrating feeders, with a nominal throughput of 600 tons per hour, with a dust suppression system used to control particulate matter emissions.
 - (4) One (1) limestone storage pile, identified as LP1, which is fed by unloading belt conveyor via telescoping discharge spout, identified as LDP1, with a nominal throughput of 600 tons per hour, with a storage capacity of up to 90,000 tons of limestone.
 - (5) Two (2) Limestone reclaim belt conveyors identified as LRC1 and LRC2, which are fed via underground hoppers from the limestone pile, each with a nominal throughput of 180 tons per hour.
 - (6) Two (2) Limestone reclaim belt conveyor transfers, identified as LRCT1 and LRCT2, which transfers materials to limestone reclaim conveyor discharge chutes, each with a nominal throughput of 180 tons per hour.
 - (7) Located in the limestone preparation building are the following units:
 - (A) Two (2) Limestone receiving bins, identified as LRCB1 and LRCB2, which are fed by limestone reclaim conveyor, each with a nominal throughput of 175 tons per hour, with baghouses identified as LRCB Baghouse 1 and 2 to control emissions from LRCB1 and 2, and exhausting to stacks LRCB Vent 1 and 2, respectively.
 - (B) One (1) enclosed crusher fed by a vibratory feeder, identified as LPC1, constructed in 2008, with a maximum capacity of 45 tons per hour, using the baghouse identified as LPC Baghouse 1 as control, and exhausting to stack LPC Vent 1.

[Under 40 CFR Part 60, Subpart OOO, this is considered an affected unit.]
 - (C) One (1) enclosed crusher fed by a vibratory feeder, identified as LPC2, constructed in 2010, with a maximum capacity of 45 tons per hour, using the baghouse identified as LPC Baghouse 2 as control, and exhausting

to stack LPC Vent 2.

[Under 40 CFR Part 60, Subpart OOO, this is considered an affected unit.]

- (D) Two (2) Limestone surge bins, identified as LSB1 and LSB2, which are fed by limestone bucket elevators, each with a nominal throughput of 45 tons per hour, using the baghouses identified as LSB Baghouse 1 and 2 to control emissions, and exhausting to stacks LSB Vent 1 and 2, respectively.
- (E) Two (2) enclosed limestone ball mill transfer conveyor systems, constructed in 2011, identified as LBMC1 and LBMC2, each with a nominal throughput of 80 tons per hour, emissions are controlled by a total enclosure.

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

- (8) Four (4) enclosed weigh belt feeders (conveyors), identified as LWB1, LWB2, LWB3, and LWB4, each with a maximum capacity of 22.5 tons per hour, which transfer limestone to four (4) enclosed wet tower mills, identified as LTM1, LTM2, LTM3, and LTM4, each with a maximum capacity of 22.5 tons per hour.
- (9) Two (2) enclosed limestone weigh belt feeders, constructed in 2011, identified as LWB1.1 and LWB2.1, each with a nominal throughput of 80 tons per hour, emissions are controlled by a total enclosure.

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

- (10) One (1) enclosed limestone emergency reclaim conveyor, constructed in 2011, identified as LERC, with a nominal throughput of 250 tons per hour, emissions are controlled by a total enclosure.

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

- (A) One (1) Limestone Emergency Reclaim Feeder, identified as LERF, constructed in 2013, with a nominal maximum capacity of 200 tons per hour.

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

- (B) One (1) Limestone Emergency Reclaim Breaker, identified as LERB, constructed in 2013, with a nominal maximum capacity of 200 tons per hour.

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

- (11) Two (2) enclosed/underground limestone railcar unloading belt feeders, identified as LRUBF1 and LRUBF2, each with a nominal throughput of 300 tons per hour, emissions are controlled by a total enclosure.

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

- (12) Two (2) enclosed/underground limestone storage pile belt feeders, identified as LSPBF1 and LSPBF2, each with a nominal throughput of 250 tons per hour, emissions are controlled by a total enclosure.

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

- (13) Two (2) enclosed limestone wet ball mills, constructed in 2011, identified as LWBM1 and LWBM2, each with a nominal throughput of 70 tons per hour, emissions are controlled by a total enclosure.

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

- (g) Bulk material movement with dozer, front end loaders, and other heavy equipment.
- (h) Truck hauling on paved and unpaved roads.
- (i) A pneumatic fly ash storage and handling system, constructed in 1977, with a nominal throughput of 1,752,000 tons of fly ash per year consisting of the following equipment:
- (1) Four (4) fly ash silos, identified as Fly Ash Silos 1A, 1B, 2A, and 2B, with a nominal throughput of 100 tons per hour, each, particulate matter emissions controlled with eight (8) baghouses (two baghouses per silo), identified as Fly Ash Baghouse 1A1, 1A2, 1B1, 1B2, 2A1, 2A2, 2B1, and 2B2, and exhausted to stacks Fly Ash Silo Vent 1A1, 1A2 1B1, 1B2, 2A1, 2A2, 2B1, and 2B2, respectively.
- (2) One (1) fly ash silo at IUCS, identified as Fly Ash Silo IUCS, with a nominal throughput of 100 tons per hour, particulate matter emissions controlled with a baghouse identified as Fly Ash IUCS Baghouse, and exhausting to stack Fly Ash IUCS Vent.
- (3) Fugitive emissions from emergency fly ash loading into a vacuum truck at Fly Ash Silos 1A, 1B, 2A, 2B and fly ash silo IUCS and hauling to an on-site landfill.
- (j) A lime kiln dust storage and handling system at IUCS, constructed in 1979, with a nominal throughput of 26,280 tons of lime kiln dust per year consisting of the following equipment;
- (1) One (1) lime kiln dust silo at IUCS, identified as Lime Silo at IUCS, with a nominal throughput of 5 tons per hour, particulate matter emissions controlled with a baghouse, identified as Lime Silo IUCS Baghouse, and exhausting to stack Lime Silo IUCS Vent.
- (k) A lime storage and handling system at WWT, constructed in 1977, with a nominal throughput of 109.5 tons of lime per year consisting of the following equipment.
- (1) One (1) lime silo at WWT, identified as Lime Silo at WWT, with a nominal throughput of 0.0125 tons per hour, particulate matter emissions controlled with a baghouse, identified as Lime Silo WWT Baghouse, and exhausting to stack Lime Silo WWT Vent.
- (l) FGD slurry handling system, constructed in 1979, with a nominal throughput of 2,628,000 tons of FGD slurry per year consisting of the following equipment:
- (1) Two (2) pug mills (mixers) located at IUCS, identified as Pug Mill 1 and Pug Mill 2, with a nominal throughput of 300 tons per hour, each, particulate matter emissions controlled with a common de-dusting equipment, identified as Whirl-jet, and exhausting to stack Pug Mill Vent.

- (2) One (1) Pozz-o-tec stockout conveyor system, identified as Pozz-o-tec Drop Point, with a nominal throughput of 300 tons per hour, with particulate matter uncontrolled, and exhausting directly to atmosphere.
 - (3) Bulk material movement with dozer, front end loaders, other heavy mobile equipment.
 - (4) Truck hauling on paved and unpaved roads.
- (m) A wet bottom ash storage and handling system, constructed in 1977, with a nominal throughput of 30,160 tons of bottom ash per year consisting of the following equipment:
- (1) One (1) partial enclosed bottom ash truck loadout system with four (4) Decant Bins, identified as Bottom Ash Decant Bin 1A, 1B, 2A and 2B with their own truck loadout, with a nominal throughput of 125 tons per hour, with particulate emission control by partial enclosure and exhausting directly to atmosphere.
 - (2) Bulk material movement with dozer, front end loaders, other heavy mobile equipment.
 - (3) Truck hauling on paved and unpaved roads.
- (n) A Pozz-o-tec landfill, identified as Landfill with emissions controlled with wet and/or dry (agent) suppression and annual coverage.
- (1) Bulk material movement with dozer, front end loader, other heavy mobile equipment.
 - (2) Truck hauling to and from the landfill on paved and unpaved roads.
- (o) Four (4) 4-Stroke Lean Burn Coal Bed Methane (CBM)-fired Reciprocating Internal Combustion Engines (RICE), constructed in 2011, identified as CBM1 to CBM4, each rated at 4,601 bHP (25.46 MMBtu/hr). CBM1 to CBM4 use Catalytic Oxidation and Selective Catalytic Reduction (SCR) to control VOC, NOx and CO. CBM1 to CBM4 exhaust to stacks SV-CBM1 to SV-CBM4 or to the greenhouses, respectively.
- [Under 40 CFR 63, Subpart ZZZZ, this is considered an affected unit.]
- [Under 40 CFR 60, Subpart JJJJ, this is considered an affected unit.]
- (p) One (1) Coal Bed Methane (CBM)-fired Standby Flare with a propane-fired pilot, constructed in 2011, identified as CBM FL, rated at 25 MMBtu/hr with a 0.8 MMBtu/hr pilot, emissions are uncontrolled, no stack.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]

- (a) This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):
 - (1) Degreasing operations that do not exceed 145 gallons per 12 months. [326 IAC 8-3-2][326 IAC 8-3-8]
 - (2) Equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. [326 IAC 6-3-2]

- (3) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations. [326 IAC 6-3-2]
 - (4) One (1) emergency diesel generator, identified as EMDG-1, constructed in 2007, rated at less than 1600 horsepower, engine displacement volume less than 10 liters per cylinder and exhausting to the atmosphere.

[Under 40 CFR Part 60, Subpart IIII, this is considered an affected unit.]

[Under 40 CFR Part 63, Subpart ZZZZ, this is considered an affected unit.]
 - (5) One (1) emergency fire pump, identified as FGD FP, constructed in 2016, rated at less than 1600 horsepower, engine displacement volume less than 10 liters per cylinder and exhausting to the atmosphere.

[Under 40 CFR Part 60, Subpart IIII, this is considered an affected unit.]

[Under 40 CFR Part 63, Subpart ZZZZ, this is considered an affected unit.]
 - (6) Conveyors as follows: Underground coal conveyors including the following equipment:
 - (i) Conveyor identified as CH-TC-1[326 IAC 6-3-2]

[Under 40 CFR 60, Subpart Y, this is considered an affected unit.]
 - (7) Covered conveyors for limestone conveying of less than or equal to 7200 tons per day for sources other than mineral processing plants constructed after August 31, 1983. [326 IAC 6-3-2]
- (b) This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):
- (1) Propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) Btu per hour.
 - (2) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 Btu/hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 Btu/hour.
 - (3) Combustion source flame safety purging on startup.
 - (4) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles having a storage capacity less than or equal to 10,500 gallons.
 - (5) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
 - (6) The following VOC and HAP storage containers:

- (A) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.
- (B) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (C) Eight (8) storage tanks:
 - (i) Tank 1, identified as ST1, was constructed in 1982, stores fuel oil and has a maximum capacity of 500,000 gallons.
 - (ii) Tank 2, identified as ST2, was constructed in 1982, stores fuel oil, and has a maximum capacity of 15,000 gallons.
 - (iii) Tank 3, identified as ST3, was constructed in 1982, stores diesel, has a maximum capacity of 15,000 gallons.
 - (iv) Tank 4, identified as ST4, was constructed in 2000, stores sodium formate, has a maximum capacity of 31,548 gallons
 - (v) Tank 5, identified as ST5, was constructed in 2000, stores sodium formate, has a maximum capacity of 13,512 gallons
 - (vi) Tank 6, identified as ST6, was constructed in 1990, stores emulsified sulfur, has a maximum capacity of 6,000 gallons.
 - (vii) Tank 7, identified as ST7, was constructed before 2003, stores anhydrous ammonia, has a maximum capacity of 45,000 gallons.
 - (viii) Tank 8, identified as ST8, was constructed before 2003, stores anhydrous ammonia, has a maximum capacity of 45,000 gallons.
- (7) Equipment used exclusively for filling drums, pails or other packaging containers with lubrication oils, waxes, and greases.
- (8) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.
- (9) Machining where an aqueous cutting coolant continuously floods the machining interface.
- (10) Closed loop heating and cooling systems.
- (11) Solvent recycling systems with batch capacity less than or equal to 100 gallons.
- (12) Noncontact cooling tower systems with forced and induced draft cooling tower system not regulated under a NESHAP.
- (13) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (14) Heat exchanger cleaning and repair.
- (15) Process vessel degassing and cleaning to prepare for internal repairs.

- (16) Stockpiled soils from soil remediation activities that are covered and waiting transport for disposal.
- (17) Paved and unpaved roads and parking lots with public access.
- (18) Covered conveyors for limestone conveying of less than or equal to 7200 tons per day for sources other than mineral processing plants constructed after August 31, 1983;
- (19) Coal bunker and coal scale exhausts and associated dust collector vents.
- (20) Asbestos abatement projects regulated by 326 IAC 14-10.
- (21) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process. This also includes routine purging of ammonia tank lines, which are flared with a propane igniter.
- (22) Flue gas conditioning systems and associated chemicals such as the following: sodium sulfate; ammonia; sulfur trioxide, sodium formate, DBA and emulsified sulfur.
- (23) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks and fluid handling equipment.
- (24) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (25) On-site fire and emergency response training approved by the department.
- (26) Emergency generators as follows:
 - (A) Gasoline generators not exceeding 110 horsepower.
 - (B) Diesel generators not exceeding 1600 horsepower.
- (27) Stationary fire pumps.
- (28) Purge double block and bleed valves.
- (29) Filter and coalescer media changeout.
- (30) Vents from ash transport systems not operated at positive pressure.
- (31) A laboratory as defined in 326 IAC 2-7-1(21)(D).
- (32) Farm operations.
- (33) Activities with emissions equal to or less than thresholds:
 - Lead (Pb) = 0.6 ton/year or 3.29 lbs/day
 - Carbon Monoxide (CO) = 25 lbs/day
 - Sulfur Dioxide (SO₂) = 5 lbs/hour or 25 lbs/day
 - Particulate matter (PM) = 5 lbs/hour or 25 lbs/day
 - Nitrogen Oxides (NO_x) = 5 lbs/hour or 25 lbs/day

Volatile Organic Compounds (VOC) = 3 lbs/hour or 15 lbs/day

(34) Other categories with emission below insignificant thresholds as follows:

- (A) Two (2) coal feed systems, with nominal rate of 77 tons per hour each, consisting of three coal mills, six classifiers, six coal feeders, each, identified as coal feed system(s) unit 1 and unit 2, with particulate matter controlled by total enclosure.
- (B) One (1) limestone classifier tank.
- (C) One (1) limestone slurry tank.
- (D) Two (2) FGD slurry thickener tanks.
- (E) One (1) FGD slurry intermediate surge tank vented at ambient pressure to atmosphere.
- (F) One (1) FGD slurry primary surge tank vented at ambient pressure to atmosphere.
- (G) Four (4) FGD filter cake presses with partial enclosed at IUCS and venting directly to atmosphere.
- (H) Bottom ash handling facility and transport system, processed wet bottom ash sluiced and conveyed to four (4) decant bins, two (2) settling bins, and two (2) recirculating tanks.
- (I) One (1) intermediate Pozz-o-tec storage pile, identified as Pozz-o-tec Stackout Pile, with particulate matter uncontrolled and exhausting directly to atmosphere.
- (J) One (1) WWT filter press processing iron sludge.

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

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

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).
- (c) It is an affected source under Title IV (Acid Deposition Control) of the Clean Air Act, as defined in 326 IAC 2-7-1(3);

SECTION B

GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1][Case No. 1:10-CV-0935-LJM-TAB]

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. The following definitions shall apply in this permit:

- (a) A "30-Day Rolling Average NO_x Emission Rate" for a Unit shall be expressed in lb/MMBtu and calculated in accordance with the following procedure: first, sum the total pounds of NO_x emitted from the Unit during the current Unit Operating Day and the previous twenty-nine (29) Unit Operating Days; second, sum the total heat input to the Unit in MMBtu during the current Unit Operating Day and the previous twenty-nine (29) Unit Operating Days; and third, divide the total number of pounds of NO_x emitted during the thirty (30) Unit Operating Days by the total heat input during the thirty (30) Unit Operating Days. A new 30-Day Rolling Average NO_x Emission Rate shall be calculated for each new Unit Operating Day. Each 30-Day Rolling Average NO_x Emission Rate shall include all emissions that occur during all periods within any Unit Operating Day, including emissions from startup, shutdown, and malfunction.
- (b) A "30-Day Rolling Average SO₂ Emission Rate" for a Unit shall be expressed in lb/MMBtu and calculated in accordance with the following procedure: first, sum the total pounds of SO₂ emitted from the Unit during the current Unit Operating Day and the previous twenty-nine (29) Unit Operating Days; second, sum the total heat input to the Unit in MMBtu during the current Unit Operating Day and the previous twenty-nine (29) Unit Operating Days; and third, divide the total number of pounds of SO₂ emitted during the thirty (30) Unit Operating Days by the total heat input during the thirty (30) Unit Operating Days. A new 30-Day Rolling Average SO₂ Emission Rate shall be calculated for each new Unit Operating Day. Each 30-Day Rolling Average SO₂ Emission Rate shall include all emissions that occur during all periods within any Unit Operating Day, including emissions from startup, shutdown, and malfunction.
- (c) A "30-Day Rolling Average SO₂ Removal Efficiency" means the percent reduction in the mass of SO₂ achieved by a Unit's FGD system over a thirty (30) Unit Operating Day period and shall be calculated as follows: step one, sum the total pounds of SO₂ emitted as measured at the outlet of the FGD system for the Unit during the current Unit Operating Day and the previous twenty-nine (29) Unit Operating Days as measured at the outlet of the FGD system for that Unit; step two, sum the total pounds of SO₂ delivered to the inlet of the FGD system for the Unit during the current Unit Operating Day and the previous twenty-nine (29) Unit Operating Days as measured at the inlet to the FGD system for that Unit (this shall be calculated by measuring the ratio of the lb/MMBtu SO₂ inlet to the lb/MMBtu SO₂ outlet and multiplying the outlet pounds of SO₂ by that ratio); step three, subtract the outlet SO₂ emissions calculated in step one from the inlet SO₂ emissions calculated in step two; step four, divide the difference calculated in step three by the inlet SO₂ emissions calculated in step two; and step five, multiply the quotient calculated in step four by 100 to express the emission limit as a removal efficiency percentage. A new 30-Day Rolling Average SO₂ Removal Efficiency shall be calculated for each new Unit Operating Day. Each 30-Day Rolling Average SO₂ Removal Efficiency shall include all emissions that occur during all periods within any Unit Operating Day, including emissions from startup, shutdown, and malfunction.
- (d) "Day" means calendar day unless otherwise specified in this Title V Permit .
- (e) "H₂SO₄" means sulfuric acid, measured in accordance with the provisions of this permit.

- (f) "H₂SO₄ Emission Rate" means the number of pounds of H₂SO₄ emitted per million Btu of heat input (lb/MMBtu), as measured in annual stack tests in accordance with this permit.
- (g) "Hoosier System" means the Merom and Ratts facilities.
- (h) "Merom" means the Permittee's Merom Generating Station consisting of two dry-bottom turbo-fired boilers designated as Unit 1 (547 Gross MW) and Unit 2 (547 Gross MW) and related equipment, which is located in Sullivan County, Indiana.
- (i) "NO_x Allowance" means an authorization to emit a specified amount of NO_x that is allocated or issued under an emissions trading or marketable permit program of any kind that has been established under the Clean Air Act or a state implementation plan.
- (j) "PM" means total filterable particulate matter with respect to Condition D.1.4 of this Permit.
- (k) "PM Emission Rate" means the number of pounds of PM emitted per million Btu of heat input (lb/MMBtu), as measured in annual stack tests in accordance with Conditions D.1.9 (d) and (e).
- (l) "Ratts" means the Permittee's Ratts Generating Station consisting of two dry-bottom wall-fired boilers designated as Unit 1 (132 MW) and Unit 2 (132 MW) and related equipment, which is located in Pike County, Indiana.
- (m) "Reagent Injection" or "RI" means an H₂SO₄ control system consisting of the injection of a reagent in the flue gas stream to react with the acid gases and reduce the outlet H₂SO₄ emissions Rate.
- (n) "Removal Efficiency" for a given pollutant means the percentage of that pollutant removed by the applicable emission control device, measured in accordance with the provisions of this permit.
- (o) "Retire" means that the Permittee shall permanently shutdown and cease to operate the Unit such that the Unit cannot legally burn any fuel nor produce any steam for electricity production and that the Permittee shall comply with applicable state and federal requirements for permanently retiring a coal-fired electric generating unit, including removing the Unit from Indiana's air emissions inventory, and amending all applicable permits so as to reflect the permanent shutdown status of such Unit.
- (p) "SO₂ Allowance" means an authorization or credit to emit a specified amount of SO₂ that is allocated or issued under an emissions trading or marketable permit program of any kind that has been established under the Clean Air Act or the Indiana SIP.
- (q) "Super-Compliant NO_x Allowance" means a NO_x Allowance attributable to reductions beyond the requirements of the Consent Decree in Civil Action No. 1:10-CV-LJM-TAB, entered on November 4, 2010.
- (r) "Surrender" or "Surrender of Allowances" means, for purposes of SO₂ or NO_x Allowances, permanently surrendering allowances from the accounts administered by EPA and Indiana for all Units in the Hoosier System, so that such allowances can never be used thereafter to meet any compliance requirements under the Clean Air Act, a state implementation plan, or this permit.
- (s) "System-Wide Annual NO_x Tonnage Limitation" means the limitations, as specified in Condition D.1.20, on the number of tons of NO_x that may be emitted from Merom Unit 1

and Unit 2 and Ratts Unit 1 and Unit 2, collectively, during the relevant calendar year (i.e., January 1 through December 31), and shall include all emissions of NO_x during all periods of operations, including startup, shutdown, and malfunction.

- (t) "System-Wide Annual SO₂ Tonnage Limitation" means the limitations, as specified in Condition D.1.20, on the number of tons of SO₂ that may be emitted from Merom Unit 1 and Unit 2 and Ratts Unit 1 and Unit 2, collectively, during the relevant calendar year (i.e., January 1 through December 31), and shall include all emissions of SO₂ during all periods of operations, including startup, shutdown, and malfunction.
- (u) "Unit" means collectively, the coal pulverizer, stationary equipment that feeds coal to the boiler, the boiler that produces steam for the steam turbine, the steam turbine, the generator, the equipment necessary to operate the generator, steam turbine, and boiler, and all ancillary equipment, including pollution control equipment and systems necessary for production of electricity. An electric steam generating station may comprise one or more Units.
- (v) "Unit Operating Day" means, for Merom Unit 1, any Day on which Merom Unit 1 fires Fossil Fuel, and, for Merom Unit 2, any Day on which Merom Unit 2 fires Fossil Fuel, and for Ratts Unit 1, any Day on which Ratts Unit 1 fires Fossil Fuel, and, for Ratts Unit 2, any Day on which Ratts Unit 2 fires Fossil Fuel.

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

- (a) This permit, T153-35203-00005, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit or of permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control).
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

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

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability [326 IAC 2-7-7][IC 13-17-12]

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

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

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

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

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

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

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

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

- (a) A certification required by this permit meets the requirements of 326 IAC 2-7-6(1) if:
 - (1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(35), and
 - (2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) A "responsible official" is defined at 326 IAC 2-7-1(35).

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

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

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

and

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

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

is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

- (c) The annual compliance certification report shall include the following:
- (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(12)][326 IAC 1-6-3]

- (a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The Permittee shall implement the PMPs.

- (b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

The Permittee shall implement the PMPs.

- (c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

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

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
 - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

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

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

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

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

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

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(8) 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.

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

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this

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

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

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
 - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
 - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
 - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
 - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

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

- (a) All terms and conditions of permits established prior to T153-35203-00005 and issued pursuant to permitting programs approved into the state implementation plan have been either:
 - (1) incorporated as originally stated,
 - (2) revised under 326 IAC 2-7-10.5, or

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

- (b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit, except for permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control)

B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]

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

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

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
- (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

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

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(42). The renewal application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

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

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Pursuant to 326 IAC 2-7-11(b) and 326 IAC 2-7-12(a), administrative Part 70 operating permit amendments and permit modifications for purposes of the acid rain portion of a Part 70 permit shall be governed by regulations promulgated under Title IV of the Clean Air Act. [40 CFR 72]
- (c) Any application requesting an amendment or modification of this permit shall be submitted to:
- Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (d) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

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

- (a) No Part 70 permit revision or notice shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

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

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

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
- (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

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

and

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

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

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b)(1) and (c)(1). The Permittee shall make such records available, upon reasonable request, for public review.

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

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(37)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:
- (1) A brief description of the change within the source;
 - (2) The date on which the change will occur;
 - (3) Any change in emissions; and
 - (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.
- (f) This condition does not apply to emission trades of SO₂ or NO_x under 326 IAC 21 or 326 IAC 10-4.

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

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

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

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

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;

- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

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

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

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

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314][326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

C.2 Opacity [326 IAC 5-1]

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

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

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

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

C.4 Incineration [326 IAC 4-2][326 IAC 9-1-2]

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

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). 326 IAC 6-4-2(4) is not federally enforceable.

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

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

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

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of

326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

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

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

- (a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (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 Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

C.10 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)][40 CFR 64][326 IAC 3-8]

- (a) For new units:
Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented on and after the date of initial start-up.
- (b) For existing units:
Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance to begin such monitoring. If, due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue

MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (c) For monitoring required by CAM, at all times, the Permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
- (d) For monitoring required by CAM, except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

C.11 Instrument Specifications [326 IAC 2-1.1-11][326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]

- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale. The analog instrument shall be capable of measuring values outside of the normal range.
- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

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

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

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

- (a) The Permittee shall maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

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

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

C.14 Response to Excursions or Exceedances [40 CFR 64][326 IAC 3-8][326 IAC 2-7-5][326 IAC 2-7-6]

- (I) Upon detecting an excursion where a response step is required by the D Section, or an exceedance of a limitation, not subject to CAM, in this permit:
 - (a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.
 - (b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or
 - (3) any necessary follow-up actions to return operation to normal or usual manner of operation.
 - (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
 - (1) monitoring results;
 - (2) review of operation and maintenance procedures and records; and/or
 - (3) inspection of the control device, associated capture system, and the process.
 - (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
 - (e) The Permittee shall record the reasonable response steps taken.
- (II)
 - (a) *CAM Response to excursions or exceedances.*
 - (1) Upon detecting an excursion or exceedance, subject to CAM, the Permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of

the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

- (2) Determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
- (b) If the Permittee identifies a failure to achieve compliance with an emission limitation, subject to CAM, or standard, subject to CAM, for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the Permittee shall promptly notify the IDEM, OAQ and, if necessary, submit a proposed significant permit modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
 - (c) Based on the results of a determination made under paragraph (II)(a)(2) of this condition, the EPA or IDEM, OAQ may require the Permittee to develop and implement a QIP. The Permittee shall develop and implement a QIP if notified to in writing by the EPA or IDEM, OAQ.
 - (d) Elements of a QIP:

The Permittee shall maintain a written QIP, if required, and have it available for inspection. The plan shall conform to 40 CFR 64.8 b (2).
 - (e) If a QIP is required, the Permittee shall develop and implement a QIP as expeditiously as practicable and shall notify the IDEM, OAQ if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.
 - (f) Following implementation of a QIP, upon any subsequent determination pursuant to paragraph (II)(a)(2) of this condition the EPA or the IDEM, OAQ may require that the Permittee make reasonable changes to the QIP if the QIP is found to have:
 - (1) Failed to address the cause of the control device performance problems;or
 - (2) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

- (g) Implementation of a QIP shall not excuse the Permittee from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.
- (h) *CAM recordkeeping requirements.*
 - (1) The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to paragraph (II)(a)(2) of this condition and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this condition (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.
 - (2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements

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 submit a description of its response actions to IDEM, OAQ no later than seventy-five (75) days after the date of the test.
- (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

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

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

- (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
- (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(33) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

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

The emission statement does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. Support information includes the following, where applicable:

- (AA) All calibration and maintenance records.
- (BB) All original strip chart recordings for continuous monitoring instrumentation.
- (CC) Copies of all reports required by the Part 70 permit.

Records of required monitoring information include the following, where applicable:

- (AA) The date, place, as defined in this permit, and time of sampling or measurements.
- (BB) The dates analyses were performed.
- (CC) The company or entity that performed the analyses.
- (DD) The analytical techniques or methods used.
- (EE) The results of such analyses.
- (FF) The operating conditions as existing at the time of sampling or measurement.

These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

- (b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.
- (c) If there is a reasonable possibility (as defined in 326 IAC 2-2-8 (b)(6)(A), 326 IAC 2-2-8 (b)(6)(B), 326 IAC 2-3-2 (l)(6)(A), and/or 326 IAC 2-3-2 (l)(6)(B)) that a "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:

- (1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, document and maintain the following records:
 - (A) A description of the project.
 - (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
 - (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
 - (i) Baseline actual emissions;
 - (ii) Projected actual emissions;
 - (iii) Amount of emissions excluded under section 326 IAC 2-2-1(pp)(2)(A)(iii) and/or 326 IAC 2-3-1 (kk)(2)(A)(iii); and
 - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
- (d) If there is a reasonable possibility (as defined in 326 IAC 2-2-8 (b)(6)(A) and/or 326 IAC 2-3-2 (l)(6)(A)) that a "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:
 - (1) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
 - (2) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)][326 IAC 2-1.1-11][326 IAC 2-2][326 IAC 2-3][40 CFR 64][326 IAC 3-8]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B -Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that 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. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

On and after the date by which the Permittee must use monitoring that meets the requirements of 40 CFR Part 64 and 326 IAC 3-8, the Permittee shall submit CAM reports to the IDEM, OAQ.

A report for monitoring under 40 CFR Part 64 and 326 IAC 3-8 shall include, at a minimum, the information required under paragraph (a) of this condition and the following information, as applicable:

- (1) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
- (2) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
- (3) A description of the actions taken to implement a QIP during the reporting period as specified in Section C-Response to Excursions or Exceedances. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

The Permittee may combine the Quarterly Deviation and Compliance Monitoring Report and a report pursuant to 40 CFR 64 and 326 IAC 3-8.

- (b) The address for report submittal is:

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

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.
- (e) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C - General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (oo) and/or 326 IAC 2-3-1 (jj)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:
- (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (ww) and/or 326 IAC 2-3-1 (pp), for that regulated NSR pollutant, and

- (2) The emissions differ from the preconstruction projection as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(ii).
- (f) The report for project at an existing emissions unit shall be submitted no later than sixty (60) days after the end of the year and contain the following:
 - (1) The name, address, and telephone number of the major stationary source.
 - (2) The annual emissions calculated in accordance with (d)(1) and (2) in Section C - General Record Keeping Requirements.
 - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).
 - (4) Any other information that the Permittee wishes to include in this report such as an explanation as to why the emissions differ from the preconstruction projection.

Reports required in this part shall be submitted to:

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

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

Stratospheric Ozone Protection

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

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with applicable standards for recycling and emissions reduction.

C.20 SO₂ Allowance Surrender Requirements: [Case No. 1:10-CV-0935-LJM-TAB]

The Permittee shall Surrender SO₂ Allowances as follows:

- (a) For the purpose of this condition, the definitions in Condition B.1 shall apply.
- (b) Beginning in calendar year 2011, and continuing each calendar year thereafter, the Permittee shall Surrender all SO₂ Allowances allocated to Merom Unit 1 and Unit 2 for that calendar year that the Permittee does not need in order to meet its own federal and/or state Clean Air Act regulatory requirements for the Units. However, SO₂ Allowances allocated to Merom Unit 1 and Unit 2 may be used by the Permittee to meet its own federal and/or state Clean Air Act regulatory requirements for such Units.
- (c) The Permittee shall Surrender or transfer to a non-profit third party selected by the Permittee for Surrender, all SO₂ Allowances required to be Surrendered pursuant to paragraph (b) of this condition within forty-five (45) Days from the Permittee's receipt of the annual deduction report for Merom or Ratts, whichever is later.

C.21 NOx Allowance Surrender Requirements: [Case No. 1:10-CV-0935-LJM-TAB]

The Permittee shall Surrender NOx Allowances as follows:

- (a) For the purpose of this condition, the definitions in Condition B.1 shall apply.
- (b) Beginning in calendar year 2011, and continuing each calendar year thereafter, the Permittee shall Surrender all NOx Allowances allocated to the Hoosier System for that calendar year that the Permittee does not need in order to meet its own federal and/or state Clean Air Act regulatory requirements for the Hoosier System Units. However, NOx Allowances allocated to Hoosier System may be used by the Permittee to meet its own federal and/or state Clean Air Act regulatory requirements for such Units.
- (c) The Permittee shall Surrender or transfer to a non-profit third party selected by the Permittee for Surrender, all NOx Allowances required to be Surrendered pursuant to paragraph (b) of this condition by March 1 of the immediately following calendar year.

C.22 Super-Compliant NOx Allowance [Case No. 1:10-CV-0935-LJM-TAB]

Provided that Hoosier is in compliance with the applicable System-Wide Annual NO_x Tonnage Limitation specified for that year, nothing shall preclude Permittee from selling, banking, or transferring NO_x Allowances allocated to Merom Unit 1 and Unit 2 and Ratts Unit 1 and Unit 2 that become available for sale or trade solely as a result of: (a) the installation and operation of any NO_x pollution control that is not otherwise required by, or necessary to maintain compliance with, any provision of the Consent Decree entered into in Case No. 1:10-CV-0935-LJM-TAB, this Permit, and is not otherwise required by law; (b) the use of SNCR prior to December 31, 2011; or (c) achievement and maintenance below the applicable 30-Day Rolling Average NO_x Emission Rate.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) pulverized coal-fired dry bottom boiler, identified as Unit 1 or 1SG1, constructed in 1976, rated at 5,088 million Btu per hour (MMBtu/hr) energy input, used to generate up to 490 megawatts (gross) of electricity. Unit 1 uses No. 2 fuel oil for start ups and flame stabilization. Unit 1 cannot operate at load solely using No. 2 fuel oil.

Unit 1 utilizes the following control equipment:
Activated Carbon Injection System (ACI), to be installed in 2015,
SO₃ Mitigation System (SBS Injection),
Electrostatic precipitator (ESP),
Flue Gas Desulfurization (FGD) Wet Scrubber System (identified as CE1B), and
Selective Catalytic Reduction (SCR).

Controlled emissions from Unit 1 are exhausted to the atmosphere through a 19-foot diameter flue liner (SV1) which is housed in a 700-foot stack that is shared by both Unit 1 and Unit 2. Opacity is measured with a continuous opacity monitor (COM). Sulfur dioxide (SO₂) and nitrogen oxides (NO_x) emissions are measured with a SO₂ continuous emission monitor system (CEMS) and a NO_x CEMS, respectively.

[Under 40 CFR Part 60, Subpart D, this is considered an affected unit.]

- (b) One (1) pulverized coal-fired dry bottom boiler, identified as Unit 2 or 2SG1, constructed in 1976, rated at 5,088 million Btu per hour (MMBtu/hr) energy input, used to generate up to 490 megawatts (gross) of electricity. Unit 2 uses No. 2 fuel oil for start ups and flame stabilization. Unit 2 cannot operate at load solely using No. 2 fuel oil.

Unit 2 utilizes the following control equipment:
Activated Carbon Injection System (ACI), to be installed in 2015,
SO₃ Mitigation System (SBS Injection),
Electrostatic precipitator (ESP),
Flue Gas Desulfurization (FGD) Wet Scrubber System (identified as CE2B), and
Selective Catalytic Reduction (SCR).

Controlled emissions from Unit 2 are exhausted to the atmosphere through a 19-foot diameter flue liner (SV2) which is housed in a 700-foot stack that is shared by both Unit 1 and Unit 2. Opacity is measured with a continuous opacity monitor (COM). Sulfur dioxide (SO₂) and nitrogen oxides (NO_x) emissions are measured with a SO₂ continuous emission monitor system (CEMS) and a NO_x CEMS, respectively.

[Under 40 CFR Part 60, Subpart D, this is considered an affected unit.]

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

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

D.1.1 Merom Unit 1 and Unit 2 NOx Emission Reduction and Control Requirements: [Civil Action No. 1:10-CV-0935-LJM-TAB]

- (a) The Permittee shall achieve and maintain a 30-Day Rolling Average NOx Emission Rate of no greater than 0.080 lb/MMBtu at Unit 1.
- (b) The Permittee shall achieve and maintain a 30-Day Rolling Average NOx Emission Rate of no greater than 0.080 lb/MMBtu at Unit 2..
- (c) If the dispatch of either Unit requires operation of such Unit(s) at a load level that results in flue gas temperature so low that it becomes technically infeasible to Continuously Operate the SCR despite the Permittee's best efforts to do so (including, but not limited to, maintaining minimum load operation which provides for achieving sufficient inlet temperatures for injection of ammonia to the SCR), the Permittee's emissions shall not exceed a 30-Day Rolling Average NOx Emission Rate of 0.090 lb/MMBtu provided the Permittee provides IDEM with data and calculations to demonstrate that but for such low load operation, the Permittee would have achieved and maintained a 30-Day Rolling Average NOx Emission Rate of no greater than 0.080 lb/MMBtu at such Unit(s).

D.1.2 Merom Unit 1 and Unit 2 SO2 Emission Reduction and Control Requirements: [Civil Action No. 1:10-CV-0935-LJM-TAB]

- (a) The Permittee shall achieve and maintain a 30-Day Rolling Average SO₂ Emission Rate of no greater than 0.150 lb/MMBtu or a 30-Day Rolling Average SO₂ Removal Efficiency of at least 96.0% at Unit 2.
- (b) The Permittee shall achieve and maintain a 30-Day Rolling Average SO₂ Emission Rate of no greater than 0.150 lb/MMBtu or a 30-Day Rolling Average SO₂ Removal Efficiency of at least 96.0% at Unit 1.

D.1.3 Merom Unit 1 and Unit 2 H₂SO₄ Emission Reduction and Control Requirements: [Civil Action No. 1:10-CV-0935-LJM-TAB]

- (a) The Permittee shall achieve and maintain an H₂SO₄ Emission Rate of no greater than 0.007 lb/MMBtu at Unit 1.
- (b) The Permittee shall achieve and maintain an H₂SO₄ Emission Rate of no greater than 0.007 lb/MMBtu at Unit 2.

D.1.4 Merom Unit 1 and Unit 2 PM Emission Reduction and Control Requirements: [Civil Action No. 1:10-CV-0935-LJM-TAB]

- (a) The Permittee shall achieve and maintain a PM Emission Rate of no greater than 0.030 lb/MMBtu at Unit 1; provided that, if the Permittee installs a Baghouse at Unit 1 the Permittee shall operate such baghouse so that such Unit achieves and maintains a PM Emission Rate of no greater than 0.015 lb/MMBtu.
- (b) The Permittee shall achieve and maintain a PM Emission Rate at Unit 2 of no greater than 0.030 lb/MMBtu; provided that, if the Permittee installs a Baghouse at Unit 2, the Permittee shall operate such baghouse so that such Unit achieves and maintains a PM Emission Rate of no greater than 0.015 lb/MMBtu.

D.1.5 New Source Performance Standard (NSPS) [326 IAC 12][40 CFR 60, Subpart D][40 CFR Part 60, Subpart A]

- (a) General Provision
The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the facilities described in this section except when otherwise specified in 40 CFR Part 60, Subpart D.

- (b) **Particulate Matter (PM) Emissions**
Pursuant to 40 CFR 60.42(a)(1), the particulate emissions from Unit 1 and Unit 2 shall not exceed 0.10 pounds of PM per MMBtu.
- (c) **Opacity**
Pursuant to 40 CFR 60.42(a)(2), the opacity from Unit 1 and Unit 2 shall not exceed 20% opacity, except for one six-minute period per hour of not more than twenty-seven percent (27%) opacity, and except for emissions related to startup, shutdown, or malfunction, as allowed under 40 CFR 60, subpart A.
- (d) **Sulfur Dioxide (SO₂) Emissions**
Pursuant to 40 CFR 60.43(a)(2), the SO₂ emissions from Unit 1 and Unit 2 shall not exceed 1.2 pounds of SO₂ per MMBtu.
- (e) **Nitrogen Oxides (NO_x) Emissions**
Pursuant to 40 CFR 60.44(a)(3), the NO_x emissions from Unit 1 and Unit 2 shall not exceed 0.70 pounds of NO_x per MMBtu.

D.1.6 Temporary Alternative Opacity Limitations (TAOLs) - - Unit 1 and Unit 2 [326 IAC 5-1-3]

- (a) Pursuant to 326 IAC 5-1-3(d) and (e), the Permittee shall comply with the following:
 - (i) During startup periods of Unit 1 or Unit 2, the plume opacity may exceed 20%, for a period of up to 4 hours or until the flue gas temperature entering the electrostatic precipitator reaches 250 °F, whichever occurs first.
 - (ii) During shutdown periods of Unit 1 or Unit 2, the plume opacity may exceed 20% for a period of up to 4 hours.
- (b) Operation of the electrostatic precipitator is not required during these times unless necessary to comply with these limits.
- (c) The need for revised temporary alternative opacity limits (TAOLs) during periods of startup and shutdown will be assessed upon renewal of this permit.

D.1.7 Temporary Alternative Opacity Limitations (TAOLs) - - Ash Removal [326 IAC 5-1-3]

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

D.1.8 Sulfur Dioxide (SO₂) Limitation [326 IAC 7-4-7]

Pursuant to 326 IAC 7-4-7 (Sullivan County Sulfur Dioxide (SO₂) Emissions Limitations), SO₂ emissions from Unit 1 and Unit 2 shall not exceed 1.2 pounds per MMBtu for each unit, based on a 30-day rolling average.

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

D.1.9 Testing Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-6(6)][326 IAC 2-1.1-11][40 CFR 60][Civil Action No. 1:10-CV-0935-LJM-TAB]

PM Testing - NSPS:

- (a) Within the two (2) calendar years following the most recent valid stack test, compliance with the PM limitation in Condition D.1.5(b) shall be determined by a performance stack test using methods as approved by the commissioner.
- (b) This test shall be repeated at least once every two (2) calendar years following the date of the most recent valid compliance demonstration.
- (c) Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

PM Testing - Consent Decree:

- (d) To determine compliance with the PM limits set forth in Condition D.1.4, the Permittee shall conduct an annual stack test for PM within the year following the most recent valid stack test pursuant to paragraph (e) of this condition at each Merom Unit.
- (e) The Permittee must determine compliance with the PM Emission Rate established in paragraphs (a) and (b) of Condition D.1.4 using the applicable reference methods and procedures (filterable portion only) specified in its Clean Air Act permits and in the Indiana SIP. Each test shall consist of three separate runs performed under representative operating conditions not including periods of startup, shutdown, or malfunction. The sampling time for each run shall be at least 120 minutes and the volume of each run shall be 1.70 dry standard cubic meters (60 dry standard cubic feet). The Permittee shall calculate the PM Emission Rate from the stack test results in accordance with 40 C.F.R. 60.8(f).

D.1.10 Continuous Emissions Monitoring [326 IAC 3-5][326 IAC 2-7-5(3)(A)(iii)][40 CFR 75][326 IAC 7-4]

- (a) Pursuant to 326 IAC 3-5, the Permittee shall install, calibrate, maintain, and operate all of the following necessary continuous emissions monitoring systems (CEMS) and related equipment for Unit 1 and Unit 2:
 - (i) Nitrogen Oxides Continuous Emission Monitoring System (NO_x CEMS) [40 CFR 75]
 - (ii) Sulfur Dioxide Continuous Emission Monitoring System (SO₂ CEMS) [40 CFR 75], [326 IAC 7-4]
- (b) In the event that a breakdown of a continuous emission monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.
- (c) The CEMS shall meet the performance specifications of 326 IAC 3-5-2 and monitor system certification requirements pursuant to 326 IAC 3-5-3.
- (d) Whenever a NO_x and SO₂ CEM is down for more than twenty-four (24) hours, the Permittee shall monitor the parameters of the control devices.
- (e) Nothing in this permit shall excuse the Permittee from complying with the requirements to

operate a continuous emission monitoring system pursuant to 326 IAC 3-5, 326 IAC 7-4, 40 CFR 60, or 40 CFR 75.

D.1.11 Operation of Electrostatic Precipitator [326 IAC 2-7-6(6)][326 IAC 2-7-5][Civil Action No. 1:10-CV-0935-LJM-TAB]

Except as otherwise provided by statute or rule or in this permit, the electrostatic precipitators (ESPs) shall be continuously operated to maintain compliance with applicable PM emission limits in conditions D.1.4(a) and (b) and D.1.5(b). "Continuously operated" means that the ESP shall be operated at all times such Unit is in operation, consistent with the technological limitations, manufacturers' specifications, and good engineering and maintenance practices for such equipment and the Unit so as to minimize emissions to the greatest extent practicable.

D.1.12 Operation of Scrubber [326 IAC 2-7-6(6)][326 IAC 2-7-5][326 IAC 2-7-5][Civil Action No. 1:10-CV-0935-LJM-TAB]

Except as otherwise provided by statute or rule or in this permit, the scrubber at Unit 1 and Unit 2 shall be continuously operated to maintain compliance with applicable sulfur dioxide (SO₂) emission limits in conditions D.1.2 and D.1.5(d). "Continuously operated" means that the scrubber shall be operated at all times such Unit is in operation, consistent with the technological limitations, manufacturers' specifications, and good engineering and maintenance practices for such equipment and the Unit so as to minimize emissions to the greatest extent practicable.

D.1.13 Operation of Selective Catalytic Reduction (SCR) [326 IAC 2-7-6(6)][326 IAC 2-7-5][40 CFR 75][Civil Action No. 1:10-CV-0935-LJM-TAB]

Except as otherwise provided by statute or rule or in this permit, the Selective Catalytic Reduction (SCR), shall be continuously operated to maintain compliance with applicable emission limits in Condition D.1.1. "Continuously operated" means that the SCR shall be operated at all times such Unit is in operation, consistent with the technological limitations, manufacturers' specifications, and good engineering and maintenance practices for such equipment and the Unit so as to minimize emissions to the greatest extent practicable.

D.1.14 Operation of Reagent Injection System [326 IAC 2-7-6(6)][326 IAC 2-7-5][Civil Action No. 1:10-CV-0935-LJM-TAB]

Except as otherwise provided by statute or rule or in this permit, the Reagent Injection System (RI) for Unit 1 and Unit 2 shall be continuously operated at or above the injection rate established during the most recent valid compliant stack test in order to maintain compliance with the limits set forth in Conditions D.1.3(a) and (b). "Continuously operated" means that the RI shall be operated at all times such Unit is in operation, consistent with the technological limitations, manufacturers' specifications, and good engineering and maintenance practices for such equipment and the Unit so as to minimize emissions to the greatest extent practicable.

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

D.1.15 Maintenance of Continuous Opacity Monitoring (COM) Equipment [326 IAC 2-7-5(3)(A)(iii)][326 IAC 2-1.1-11][326 IAC 3-5][40 CFR 60.13][40 CFR 64]

- (a) The Permittee shall calibrate, maintain, and operate all necessary continuous opacity monitoring systems (COMS) and related equipment. For a boiler, the COMS shall be in operation in accordance with 326 IAC 3-5 and 40 CFR Part 60 when the boiler forced draft fans are in operation, except as otherwise allowed by 326 IAC 3-5 and 40 CFR 60.13.
- (b) All COMS shall meet the performance specifications of 40 CFR 60, Appendix B, Performance Specification No. 1, and are subject to monitor system certification requirements pursuant to 326 IAC 3-5.
- (c) In the event that a breakdown of a COMS occurs, a record shall be made of the time and

reason of the breakdown and efforts made to correct the problem.

- (d) Whenever a COMS is malfunctioning or is down for maintenance, or repairs for a period of twenty-four (24) hours or more and a backup COMS is not online within twenty-four (24) hours of shutdown or malfunction of the primary COMS, the Permittee shall provide a certified opacity reader, who may be an employee of the Permittee or an independent contractor, to self-monitor the emissions from the boiler stack.
- (1) Visible emission readings shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, for a minimum of five (5) consecutive six (6) minute averaging periods beginning not more than twenty-four (24) hours after the start of the malfunction or down time; provided, however, that if such 24-hour period ends during the period beginning two (2) hours before sunset and ending two (2) hours after sunrise, then such visible emissions readings shall begin within four (4) hours of sunrise on the day following the expiration of such 24-hour period.
 - (2) Method 9 opacity readings shall be repeated for a minimum of five (5) consecutive six (6) minute averaging periods at least twice per day during daylight operations, with at least four (4) hours between each set of readings, until a COMS is online.
 - (3) Method 9 readings may be discontinued once a COMS is online.
 - (4) Any opacity exceedances determined by Method 9 readings shall be reported with the Quarterly Opacity Exceedances Reports.
- (e) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous opacity monitoring system pursuant to 326 IAC 3-5.

D.1.16 Sulfur Dioxide (SO₂) Monitoring System Downtime [326 IAC 2-7-6][326 IAC 2-7-5(3)][40 CFR 64]

Whenever the SO₂ continuous emission monitoring system (CEMS) is malfunctioning or down for repairs or adjustments for twenty-four (24) hours or more, the Permittee shall monitor and record boiler load, recirculation pH, slurry feed rate, and number of recirculation pumps in service, to demonstrate that the operation of the scrubber continues in a manner typical for the boiler load and sulfur content of the coal fired. Scrubber parametric monitoring readings shall be recorded at least twice per day until the primary CEM or a backup CEM is brought online.

D.1.17 Downtime of Continuous Emission Monitoring Equipment [40 CFR 75 Subpart D]

Whenever a NO_x or SO₂ continuous emission monitor is down for maintenance or repairs for more than 24 hours, the following shall be used as an alternative to continuous data collection:

- (1) When the CEM is required for monitoring NO_x or SO₂ emissions pursuant to 40 CFR 75 (Title IV Acid Rain program), the Permittee shall comply with the relevant requirements of 40 CFR 75 Subpart D - Missing Data Substitution Procedures.

D.1.18 Transformer-Rectifier (T-R) Sets [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)][40 CFR 64]

- (a) The ability of the ESP to control particulate emissions shall be monitored once per day, when the unit is in operation, by measuring and recording the number of T-R sets in service and the primary voltage and primary and secondary currents of the transformer-rectifier (T-R) sets.
- (b) Reasonable response steps shall be taken whenever the percentage of T-R sets in service falls below 80 percent. T-R set failure resulting in less than 80 percent availability is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit. Section C - Response to Excursions or Exceedances contains

the Permittee's obligations with regard to responding to the reasonable response steps required by this condition.

D.1.19 System-Wide Annual NOx Tonnage Limitation: [Civil Action No. 1:10-CV-0935-LJM-TAB]

The Hoosier System, collectively, shall not exceed a System-Wide Annual NOx Tonnage Limitation of 4,800 tons.

D.1.20 System-Wide Annual SO₂ Tonnage Limitation: [Civil Action No. 1:10-CV-0935-LJM-TAB]

- (a) Pursuant to Paragraph 97 of the Consent Decree in United States v. Hoosier Energy Rural Electric Cooperative, Inc., Case No. 1:10-CV-0935-LJM-TAB, entered on November 4, 2010, in calendar year 2015, and continuing through 2016 if the Permittee elects to Retire or Repower one of the Ratts Units, the Hoosier System, collectively, shall not exceed a System-Wide Annual SO₂ Tonnage Limitation of 19,889 tons.
- (b) Beginning in calendar year 2017, and continuing each year thereafter, the Hoosier System and the Repowered Ratts Unit, collectively, shall not exceed a System-Wide Annual SO₂ Tonnage Limitation of 15,500 tons.

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

D.1.21 Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19]

- (a) To document the compliance status with Conditions D.1.9, D.1.10 and D.1.18, the Permittee shall maintain records in accordance with the following and records shall be complete and sufficient to establish compliance with the limits:
 - (i) Data and results from the most recent stack test.
 - (ii) All continuous emissions monitoring data.
 - (iii) All parametric monitoring readings.
 - (iv) All response steps taken and the outcome for each.
- (b) Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
- (c) Section C - General Record Keeping Requirement contains the Permittee's obligation with regard to the record keeping required by this condition.

D.1.22 Reporting Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19]

- (a) The Permittee shall submit a quarterly summary of the excess emission readings of the:
 - (i) SO₂ CEMS,
 - (ii) NO_x CEMS; and
 - (iii) COMS.

These reports shall be submitted not later than thirty (30) calendar days following the end of each calendar quarter. Section C - General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition.

Submissions of these reports to IDEM, OAQ satisfy the federal reporting requirements of 40 CFR Part 60, Subpart D.

- (b) The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(c) Two (2) No. 2 distillate oil-fired auxiliary boilers, constructed in 1980, each with a heat input rate of 93.0 MMBtu/hour, and exhausting to stack SV3.

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

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

D.2.1 Prevention of Significant Deterioration (PSD) Minor Limit and Limited Use Boiler [326 IAC 2-2][40 CFR Part 63.7500(c) and 63.7575, Subpart DDDDD]

In order to render 326 IAC 2-2 not applicable, the Permittee shall comply with the following:

- (a) The two (2) auxiliary boilers each shall use less than 563,380 gallons of No. 2 fuel oil per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (b) The sulfur content in the fuel oil shall not exceed 0.5% by weight.
- (c) The NO_x emissions shall not exceed twenty (20) pounds per kilogallon.

Compliance with these limits shall limit the SO₂ emissions to less than forty (40) tons per year and NO_x emissions to less than forty (40) tons per year, and shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) rules) not applicable to the auxiliary boilers.

In addition, compliance with this throughput limit will make the two (2) No.2 distillate oil-fired auxiliary boilers limited use boilers pursuant to 40 CFR 63.7500(c).

D.2.2 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3 (Particulate Emissions Limitations for Sources of Indirect Heating), the particulate matter emissions from each auxiliary boiler shall not exceed 0.27 pounds per MMBtu.

$$Pt = \frac{(C)(a)(h)}{76.5(Q^{0.75})(3^{0.25})}$$

Where:

- C = 50 micrograms/m³
- Q = total source capacity (MMBtu/hr)
- N = number of stacks
- a = 0.8 plume rise factor
- h = average stack height (feet)
- Pt = pounds of particulate matter emitted per million Btu heat input (lb/MMBtu)

$$h = \frac{(700 \times 0.06 \times 5,088) + (700 \times 0.06 \times 5,088) + (254 \times 0.04 \times 93) + (254 \times 0.04 \times 93)}{(0.06)(5,088) + (0.06)(5,088) + (0.04)(93) + (0.04)(93)}$$

$$h = 694 \text{ ft}$$

$$Q = 5,088 + 5,088 + 93 + 93 = 10,362 \text{ MMBtu/hr}$$

$$Pt = \frac{(50)(0.8)(694)}{(76.5)(10,362)^{0.75}(3)^{0.25}}$$

$$Pt = 0.27 \text{ lbs/MMBtu}$$

D.2.3 Temporary Alternative Opacity Limitations (TAOLs) - Auxiliary Boilers [326 IAC 5-1-3]

Pursuant to 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), when building a new fire in one of the auxiliary boilers, or shutting down one of the auxiliary boilers, opacity may exceed the applicable limit of 40%. However, opacity levels shall not exceed 60% for any six (6)-minute averaging period.

Opacity in excess of the applicable limit established in 326 IAC 5-1-2 shall not continue for more than two (2) six (6)-minute averaging periods in any twenty-four (24) hour period.

D.2.4 Sulfur Dioxide (SO₂) Emissions Limitations [326 IAC 7-1.1-2(a)(3)]

Pursuant to 326 IAC 7-1.1-2 (Sulfur Dioxide (SO₂) Emissions Limitations), the SO₂ emissions from each auxiliary boiler shall not exceed 0.5 pounds per MMBtu, based on a calendar month average.

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

D.2.5 Sulfur Dioxide (SO₂) Emissions and Sulfur Content [326 IAC 3-7-4][326 IAC 2-7-6(1)]

A determination of noncompliance pursuant to either of the methods specified in (a) or (b) below shall not be refuted by evidence of compliance pursuant to the other method.

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall comply with the applicable SO₂ limit in Conditions D.2.1 and D.2.4 by:
 - (i) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or
 - (ii) Providing analysis of fuel oil samples collected and analyzed in accordance with 326 IAC 3-7-4(a).
 - (A) Oil samples shall be collected from the tanker truck load prior to transferring fuel to the storage tank; or
 - (B) Oil samples shall be collected from the storage tank immediately after each addition of fuel to the tank.
- (b) Pursuant to 326 IAC 7-2-1(d), compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the two (2) distillate oil #2-fired auxiliary boilers in accordance with 326 IAC 3-6, utilizing the procedures in 40 CFR 60, Appendix A, Methods 6, 6A, 6C, or 8.
- (c) Pursuant to 326 IAC 7-2-1(g), upon written notification to IDEM, OAQ, continuous emission monitoring data collected and reported pursuant to 326 IAC 3-5 may be used as the means for determining compliance with the emission limitations in 326 IAC 7. Upon such notification, the other requirements of 326 IAC 7 shall not apply.

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

D.2.6 Visible Emissions Notations [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

- (a) Visible emission (VE) notations of the auxiliary boiler stack exhaust shall be performed once per day during normal daylight operations when the boilers are in operation. A

trained employee shall record whether emissions are normal or abnormal. If VE notations have already been performed during a startup in the same day, then no additional VE notations are required for that day.

- (b) If abnormal emissions are observed at any boiler exhaust, the Permittee shall take reasonable response steps. Observation of abnormal emissions that do not violate an applicable opacity limit is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit. Section C - Response to Excursions or Exceedances contains the Permittee's obligations with regard to responding to the reasonable response steps required by this condition.
- (c) "Normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

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

D.2.7 Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19]

- (a) In order to document the compliance status with Condition D.2.1, the Permittee shall maintain monthly records of fuel oil usage.
- (b) The Permittee shall maintain records of the following:
 - (i) Vendor analysis of fuel delivered, or
 - (ii) Analysis of fuel oil samples collected.
- (c) In order to document the compliance status with Visible Emission Notation - Condition D.2.6, the Permittee shall maintain the daily visible emission notations of the auxiliary boiler stack exhaust when the auxiliary boilers are in operation.
- (d) Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
- (e) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the record keeping required by this condition.

D.2.8 Reporting Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19]

- (a) To document the compliance status with Condition D.2.1, the Permittee shall submit a quarterly summary of the monthly fuel oil usage, using the reporting form currently being used or the reporting form located at the end of this permit.
- (b) These reports shall be submitted not later than thirty (30) calendar days following the end of each calendar quarter. Section C - General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition.
- (c) The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (d) A coal storage and handling system, commencing construction in 1977 and modified in 2016, with a nominal throughput of 4,351,419 tons per year, consisting of the following equipment:
 - (1) One (1) outdoor storage area, identified as F01, constructed in 1977 and modified in 2016 from a nominal storage capacity of 1,500,000 tons to 2,100,000 tons, with particulate matter emissions controlled by layering and compaction and exhausting directly to the atmosphere.
 - (2) One (1) rail unloading (rotary car dumper) building, with a nominal throughput of 2000 tons per hour, identified as F02, controlled by being partially enclosed and exhausting directly to the atmosphere. Including the following equipment:
 - (i) Rotary Car Dumper
 - (ii) Vibrating Feeder(s)
 - (iii) Underground coal conveyor transfer point
 - (3) Two (2) receiving systems, where truck shipments of coal are discharged into one of the following stations:
 - (i) One (1) truck unloading station, which feeds a truck hopper, identified as F03, with a nominal throughput of 500 tons per hour with particulate matter emissions controlled by partial enclosure and exhausting directly to the atmosphere. Including the following equipment:
 - (A) Truck Hopper
 - (B) Vibrating Feeder
 - (C) Underground coal conveyor transfer point
 - (ii) One (1) truck unloading area, directly to coal storage pile(s), identified as F04, with a nominal unloading capacity of 1,000 tons per hour, which is utilized on an as needed basis, with particulate matter emissions exhausting directly to the atmosphere.
 - (4) One (1) breaker house with enclosed chutes, identified as F05, with a nominal throughput of 2,000 tons per hour, with particulate matter emissions controlled by partial enclosure and exhausting directly to the atmosphere.
 - (i) Conveyor transfer point(s)
 - (5) One (1) stockout system, identified as F06, with a nominal throughput of 2,000 tons per hour, which includes the following equipment:
 - (i) Enclosed conveyors CH-CV-1, CH-CV-2, and CH-CV-3,
 - (ii) Retractable plow, which is used for emergency purposes only, and
 - (iii) Lowering wells (enclosed concrete cylinder with openings at various elevations) used to control particulate matter emissions.
 - (6) One (1) reclaim system, identified as F07, with a combined nominal throughput of 1600 tons per hour, with particulate matter emissions controlled

by partial enclosures and wet spray suppression and exhausting directly to atmosphere. Including the following equipment:

- (i) Reclaim Drawdown Hoppers, 4A-1, 4A-2, 4B-1, and 4B-2
 - (ii) Four (4) vibrating feeders
 - (iii) Underground coal conveyor transfer point(s)
- (7) One (1) reclaim conveying system, which consists of two conveyor systems (CH-CV-A and CH-CV-B as identified below), each with a nominal throughput of 800 tons per hour, with particulate matter emissions controlled by enclosures. Including the following equipment:
- (i) Conveyors CH-CV-4A, CH-CV-4B, CH-CV-5A, CH-CV-5B, CH-CV-6A, and CH-CV-6B
- (8) One (1) emergency reclaim area, which feeds an emergency reclaim hopper, identified as F08, with a nominal throughput of 600 tons per hour, with particulate matter emissions controlled by partial enclosure and exhausting directly to the atmosphere. Including the following equipment:
- (i) Emergency reclaim hopper
 - (ii) Vibrating Feeder
 - (iii) Two (2) underground coal conveyor transfer point(s)
- (9) One (1) crusher house, identified as F09, with a combined nominal throughput of 1600 tons per hour, with particulate matter emissions controlled by a wet spray suppression and exhausting directly to atmosphere. Including the following equipment:
- (i) Surge bin(s)
 - (ii) Vibrating feeder(s)
 - (iii) Two (2) enclosed crushers with bypass, with a nominal throughput of 800 tons per hour, each.
 - (iv) Enclosed conveyor transfer point(s)
- (10) One (1) boiler building bunker area, identified as F10, with a combined nominal throughput of 1600 tons, with particulate matter emissions controlled by enclosure and dust suppression system and exhausting directly to the atmosphere. Including the following equipment:
- (i) Enclosed transfer tower(s)
 - (ii) Enclosed conveyor transfer point(s)
 - (ii) Two (2) traveling tripper(s)
- (11) Bulk material movement with dozer, front end loaders, other heavy mobile equipment.
- (12) Truck hauling, on paved and unpaved roads.
- [Under 40 CFR Part 60, Subpart Y, this is considered an affected unit.]
- (e) Two (2) lime kiln dust silos, identified as LKD Silo 1 and LKD Silo 2, constructed in 2008, each with a nominal throughput of 3.75 tons per hour, with emissions controlled by LKD Silo Baghouse 1 and LKD Silo Baghouse 2, respectively, and exhausting to LKD Silo Vent 1 and LKD Silo Vent 2, respectively.

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

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

D.3.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rates shall not exceed the given values as follows:

Emission Unit	Process Weight Rate, P: (tons/hr)	Emission Rate, E: (lbs/hr)
Rotary Railcar Dumper, F02	2000	86.9
Truck Unloading station, F03	500	69.0
Truck Unloading area, F04	1000	77.6
Breaker House, F05	2000	86.9
Conveyors of the Stockout system CH-CV- 1, 2, & 3	2000	86.9
Stockout system, F06	2000	86.9
Reclaim system , F07	1600	83.8
Reclaim conveyors CH-CV-4/5/6-A/B	800	74.7
Emergency Reclaim system , F08	600	71.2
Crusher House, F09	1600	83.8
Boiler building bunker area, F10	1600	83.8
LKD Silos 1	3.75	9.94
LKD Silos 2	3.75	9.94

The emission rates based on the interpolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour}$$

$$P = \text{process weight rate in tons per hour}$$

The emission rates based on the interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour}$$

$$P = \text{process weight rate in tons per hour}$$

Pursuant to 326 IAC 6-3-2(e)(3) (Particulate Emission Limitations for Manufacturing Processes) when the process weight rate exceeds 200 tons per hour, the allowable emission may exceed the calculated (E) pounds per hour rate, provided the concentration of particulate in discharge gases to the atmosphere shall be less than 0.10 pounds per one thousand (1000) pounds of gases.

D.3.2 New Source Performance Standard [326 IAC12-1][40 CFR 60, Subpart A][40 CFR 60, Subpart Y]

- (a) The provisions of 40 CFR 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in 40 CFR 60, Subpart Y.
- (b) Pursuant to 326 IAC 12 and 40 CFR 60.254(a), the exhaust from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system shall not exhibit twenty percent (20%) opacity or greater.

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

D.3.3 Visible Emissions Notations -- Coal Unloading [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

- (a) Visible emission notations (VEN) of the unloading station, the crusher station or the transfer points shall be performed once per week during normal daylight operations. A trained employee shall record whether the emissions are normal or abnormal.
- (b) If abnormal visible emissions of the dust are observed from the unloading station, the crusher station or the transfer points, the Permittee shall take reasonable response steps. Observation of abnormal visible emissions that do not violate 326 IAC 6-4 (Fugitive Dust Emissions) or an applicable opacity limit is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit. Section C - Response to Excursions or Exceedances contains the Permittee's obligations with regard to responding to the reasonable response steps required by this condition.
- (c) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation.
- (d) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (e) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

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

D.3.4 Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19]

- (a) The Permittee shall maintain records of the once per week visible emission notations of the exhausts from the coal unloading station, the crusher station, and the transfer points. The Permittee shall include in its weekly record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that week).
- (b) Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
- (c) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the record keeping required by this condition.

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (f) One (1) limestone storage and handling system, constructed between 1978 and 1980, with a nominal throughput of 400,000 tons per year consisting of the following equipment:
- (1) One (1) railcar unloading station, identified as LDU1, which feeds two (2) hoppers located in limestone truck hopper (partially) enclosed structure, with a combined nominal throughput of 3,000 tons per hour.
 - (2) One (1) truck unloading to limestone pile, identified as LTU1 with a nominal throughput of 2,000 tons per hour.
 - (3) One (1) unloading belt conveyor identified as LU1, which is fed by two (2) hoppers via vibrating feeders, with a nominal throughput of 600 tons per hour, with a dust suppression system used to control particulate matter emissions.
 - (4) One (1) limestone storage pile, identified as LP1, which is fed by unloading belt conveyor via telescoping discharge spout, identified as LDP1, with a nominal throughput of 600 tons per hour, with a storage capacity of up to 90,000 tons of limestone.
 - (5) Two (2) Limestone reclaim belt conveyors identified as LRC1 and LRC2, which are fed via underground hoppers from the limestone pile, each with a nominal throughput of 180 tons per hour.
 - (6) Two (2) Limestone reclaim belt conveyor transfers, identified as LRCT1 and LRCT2, which transfers materials to limestone reclaim conveyor discharge chutes, each with a nominal throughput of 180 tons per hour.
 - (7) Located in the limestone preparation building are the following units:
 - (A) Two (2) Limestone receiving bins, identified as LRCB1 and LRCB2, which are fed by limestone reclaim conveyor, each with a nominal throughput of 175 tons per hour, with baghouses identified as LRCB Baghouse 1 and 2 to control emissions from LRCB1 and 2, and exhausting to stacks LRCB Vent 1 and 2, respectively.
 - (B) One (1) enclosed crusher fed by a vibratory feeder, identified as LPC1 constructed in 2008 with a maximum capacity of 45 tons per hour, using the baghouse identified as LPC Baghouse 1 as control, and exhausting to stack LPC Vent 1.

[Under 40 CFR Part 60, Subpart OOO, this is considered an affected unit.]
 - (C) One (1) enclosed crusher fed by a vibratory feeder, identified as LPC2, constructed in 2010, with a maximum capacity of 45 tons per hour, using the baghouse identified as LPC Baghouse 2 as control, and exhausting to stack LPC Vent 2.

[Under 40 CFR Part 60, Subpart OOO, this is considered an affected unit].

(D) Two (2) Limestone surge bins, identified as LSB1 and LSB2, which are fed by limestone bucket elevators, each with a nominal throughput of 45 tons per hour, using the baghouses identified as LSB Baghouse 1 and 2 to control emissions, and exhausting to stacks LSB Vent 1 and 2, respectively.

(E) Two (2) enclosed limestone ball mill transfer conveyor systems, constructed in 2011, identified as LBMC1 and LBMC2, each with a nominal throughput of 80 tons per hour, emissions are controlled by a total enclosure.

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

(8) Four (4) enclosed weigh belt feeders (conveyors), identified as LWB1, LWB2, LWB3, and LWB4, each with a maximum capacity of 22.5 tons per hour, which transfer limestone to four (4) enclosed wet tower mills, identified as LTM1, LTM2, LTM3, and LTM4, each with a maximum capacity of 22.5 tons per hour.

(9) Two (2) enclosed limestone weigh belt feeders, constructed in 2011, identified as LWB1.1 and LWB2.1, each with a nominal throughput of 80 tons per hour, emissions are controlled by a total enclosure.

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

(10) One (1) enclosed limestone emergency reclaim conveyor, constructed in 2011, identified as LERC, with a nominal throughput of 250 tons per hour, emissions are controlled by a total enclosure.

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

(A) One (1) Limestone Emergency Reclaim Feeder, identified as LERF, constructed in 2013, with a nominal maximum capacity of 200 tons per hour.

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

(B) One (1) Limestone Emergency Reclaim Breaker, identified as LERB, constructed in 2013, with a nominal maximum capacity of 200 tons per hour.

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

(11) Two (2) enclosed/underground limestone railcar unloading belt feeders, identified as LRUBF1 and LRUBF2, each with a nominal throughput of 300 tons per hour, emissions are controlled by a total enclosure.

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

(12) Two (2) enclosed/underground limestone storage pile belt feeders, identified as LSPBF1 and LSPBF2, each with a nominal throughput of 250 tons per hour, emissions are controlled by a total enclosure.

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

(13) Two (2) enclosed limestone wet ball mills, constructed in 2011, identified as LWBM1 and LWBM2, each with a nominal throughput of 70 tons per hour, emissions are controlled by a total enclosure.

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

(g) Bulk material movement with dozer, front end loaders, and other heavy equipment.

(h) Truck hauling on paved and unpaved roads.

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

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

D.4.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rates shall not exceed the given values as follows:

Emission Unit	Process Weight Rate, P (tons/hr)	Emission Rate, E: (lbs/hr)
Railcar Unloading station, LDU1	3,000	92.7
Truck Unloading to limestone pile, LTU1	2,000	86.9
Unloading belt Conveyor, LU1	600	71.2
Unloading belt Conveyor discharge to 90kT Pile, LDP1	600	71.2
Reclaim belt Conveyors; LRC1, LRC2; each	150	55.4
Reclaim belt Conveyor transfers; LRCT1, LRCT2; each	150	55.4
Limestone receiving bins, LRCB1 and LRCB2, each	175	
Surge Bins; LSB1, LSB2; each	45	43.6
Weigh Belt Feeder Conveyors; LTM1, LTM2, LTM3, LTM4; each	22.5	33.0

The emission rates based on the interpolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour}$$

$$P = \text{process weight rate in tons per hour}$$

The emission rates based on the interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour}$$

$$P = \text{process weight rate in tons per hour}$$

Pursuant to 326 IAC 6-3-2(e)(3) (Particulate Emission Limitations for Manufacturing Processes) when the process weight rate exceeds 200 tons per hour, the allowable emission may exceed the calculated (E) pounds per hour rate, provided the concentration of particulate in discharge gases to the atmosphere shall be less than 0.10 pounds per one thousand (1000) pounds of gases.

SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (i) A pneumatic fly ash storage and handling system, constructed in 1977, with a nominal throughput of 1,752,000 tons of fly ash per year consisting of the following equipment:
 - (1) Four (4) fly ash silos, identified as Fly Ash Silos 1A, 1B, 2A, and 2B, with a nominal throughput of 100 tons per hour, each, particulate matter emissions controlled with eight (8) baghouses (two baghouses per silo), identified as Fly Ash Baghouse 1A1, 1A2, 1B1, 1B2, 2A1, 2A2, 2B1, and 2B2, and exhausted to stacks Fly Ash Silo Vent 1A1, 1A2 1B1, 1B2, 2A1, 2A2, 2B1, and 2B2, respectively.
 - (2) One (1) fly ash silo at IUCS, identified as Fly Ash Silo IUCS, with a nominal throughput of 100 tons per hour, particulate matter emissions controlled with a baghouse identified as Fly Ash IUCS Baghouse, and exhausting to stack Fly Ash IUCS Vent.
 - (3) Fugitive emissions from emergency fly ash loading into a vacuum truck at Fly Ash Silos 1A, 1B, 2A, 2B and fly ash silo IUCS and hauling to an on-site landfill.
- (j) A lime kiln dust storage and handling system at IUCS, constructed in 1979, with a nominal throughput of 26,280 tons of lime kiln dust per year consisting of the following equipment;
 - (1) One (1) lime kiln dust silo at IUCS, identified as Lime Silo at IUCS, with a nominal throughput of 5 tons per hour, particulate matter emissions controlled with a baghouse, identified as Lime Silo IUCS Baghouse, and exhausting to stack Lime Silo IUCS Vent.
- (k) A lime storage and handling system at WWT, constructed in 1977, with a nominal throughput of 109.5 tons of lime per year consisting of the following equipment.
 - (1) One (1) lime silo at WWT, identified as Lime Silo at WWT, with a nominal throughput of 0.0125 tons per hour, particulate matter emissions controlled with a baghouse, identified as Lime Silo WWT Baghouse, and exhausting to stack Lime Silo WWT Vent.
- (l) FGD slurry handling system, constructed in 1979, with a nominal throughput of 2,628,000 tons of FGD slurry per year consisting of the following equipment:
 - (1) Two (2) pug mills (mixers) located at IUCS, identified as Pug Mill 1 and Pug Mill 2, with a nominal throughput of 300 tons per hour, each, particulate matter emissions controlled with a common de-dusting equipment, identified as Whirl-jet, and exhausting to stack Pug Mill Vent.
 - (2) One (1) Pozz-o-tec stockout conveyor system, identified as Pozz-o-tec Drop Point, with a nominal throughput of 300 tons per hour, with particulate matter uncontrolled, and exhausting directly to atmosphere.
 - (3) Bulk material movement with dozer, front end loaders, other heavy mobile equipment.

(4)	Truck hauling on paved and unpaved roads.
(m)	A wet bottom ash storage and handling system, constructed in 1977, with a nominal throughput of 30,160 tons of bottom ash per year consisting of the following equipment: <ul style="list-style-type: none"> (1) One (1) partial enclosed bottom ash truck loadout system with four (4) Decant Bins, identified as Bottom Ash Decant Bin 1A, 1B, 2A and 2B with their own truck loadout, with a nominal throughput of 125 tons per hour, with particulate emission control by partial enclosure and exhausting directly to atmosphere. (2) Bulk material movement with dozer, front end loaders, other heavy mobile equipment. (3) Truck hauling on paved and unpaved roads.
(n)	A Pozz-o-tec landfill, identified as Landfill with emissions controlled with wet and/or dry (agent) suppression and annual coverage. <ul style="list-style-type: none"> (1) Bulk material movement with dozer, front end loader, other heavy mobile equipment. (2) Truck hauling to and from the landfill on paved and unpaved roads.

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

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

D.5.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rates shall not exceed the given values as follows:

Emission Unit	Process Weight Rate, P: (tons/hr)	Emission Rate, E: (lbs/hr)
Fly Ash Silos; 1A, 1B, 2A, 2B; each	100	51.3
Fly Ash Silo, IUCS	100	51.3
Lime Kiln dust Silo at IUCS	5	12.05
Lime Silo at WWT	0.0125	0.551
Pug Mills 1 and Pug Mill 2; each	300	63.0
Pozz-O-Tec Drop Point	300	63.0
Decant Bins: Bottom Ash Decant Bin 1A, 1B, 2A and 2B	125	53.5

The emission rates based on the interpolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour}$$

$$P = \text{process weight rate in tons per hour}$$

The emission rates based on the interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour
P = process weight rate in tons per hour

Pursuant to 326 IAC 6-3-2(e)(3) (Particulate Emission Limitations for Manufacturing Processes) when the process weight rate exceeds 200 tons per hour, the allowable emission may exceed the calculated (E) pounds per hour rate, provided the concentration of particulate in discharge gases to the atmosphere shall be less than 0.10 pounds per one thousand (1000) pounds of gases.

SECTION D.6 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Specifically Regulated Insignificant Activities:

- (p) This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):
- (1) Degreasing operations that do not exceed 145 gallons per 12 months.
 - (2) Equipment related to manufacturing activities not resulting in the emission of HAPs brazing equipment, cutting torches, soldering equipment, welding equipment.
 - (3) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: debarring, buffing, polishing, abrasive blasting, pneumatic conveying, and wood working operations.
 - (4) One (1) emergency diesel generator, identified as EMDG-1, constructed in 2007, rated at less than 1600 horsepower, engine displacement volume less than 10 liters per cylinder and exhausting to the atmosphere.

The emergency generator, identified as EMDG-1, is subject to the requirements of New Source Performance Standards (NSPS) for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE), 40 CFR Part 60, Subpart IIII, and National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE), 40 CFR Part 63, Subpart ZZZZ.
 - (5) One (1) emergency fire pump, identified as FGD FP, constructed in 2016, rated at less than 1600 horsepower, engine displacement volume less than 10 liters per cylinder and exhausting to the atmosphere.

[Under 40 CFR Part 60, Subpart IIII, this is considered an affected unit.]

[Under 40 CFR Part 63, Subpart ZZZZ, this is considered an affected unit.]
 - (6) Conveyors as follows: Underground coal conveyors including the following equipment:
 - (i) Conveyor identified as CH-TC-1[326 IAC 6-3-2]

[Under 40 CFR 60, Subpart Y, this is considered an affected unit.]

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

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

D.6.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the brazing equipment, cutting torches, soldering equipment, welding equipment and structural steel and bridge fabrication or the grinding and machining operations activities, shall not exceed the allowable PM emission rate calculated using the following equations:

Interpolation of the data for process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10P^{0.67}$$

Where:

E = rate of emission in pounds per hour: and
P = process rate in tons per hour

D.6.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Degreaser Control Equipment and Operating Requirements), the Permittee shall:

- (a) Ensure the following control equipment and operating requirements are met:
- (1) Equip the degreaser with a cover.
 - (2) Equip the degreaser with a device for draining cleaned parts.
 - (3) Close the degreaser cover whenever parts are not being handled in the degreaser.
 - (4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases.
 - (5) Provide a permanent, conspicuous label that lists the operating requirements in (a)(3), (a)(4), (a)(6), and (a)(7) of this condition.
 - (6) Store waste solvent only in closed containers.
 - (7) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.

D.6.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-8]

Pursuant to 326 IAC 8-3-8 (Material Requirements for Cold Cleaner Degreasers), before January 1, 2015, the Permittee shall not operate a cold cleaner degreaser with a solvent that has a VOC composite partial vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

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

D.6.4 Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19]

- (a) Pursuant to 326 IAC 8-3-8(c)(2), before January 1, 2015, the following records shall be maintained for each purchase of cold cleaner degreaser solvent:
- (1) The name and address of the solvent supplier.
 - (2) The date of purchase (or invoice/bill dates of contract servicer indicating service

- date).
 - (3) The type of solvent purchased.
 - (4) The total volume of the solvent purchased.
 - (5) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).
- (b) Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition

SECTION D.7 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (o) Four (4) 4-Stroke Lean Burn Coal Bed Methane (CBM)-fired Reciprocating Internal Combustion Engines (RICE), constructed in 2011, identified as CBM1 to CBM4, each rated at 4,601 bHP (25.46 MMBtu/hr). CBM1 to CBM4 use Catalytic Oxidation and Selective Catalytic Reduction (SCR) to control VOC, NOx and CO. CBM1 to CBM4 exhaust to stacks SV-CBM1 to SV-CBM4 or to the greenhouses, respectively.

[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected unit.]

[Under 40 CFR 60, Subpart JJJJ, this is considered an affected unit.]

- (p) One (1) Coal Bed Methane (CBM)-fired Standby Flare with a propane-fired pilot, constructed in 2011, identified as CBM FL, rated at 25 MMBtu/hr with a 0.8 MMBtu/hr pilot, emissions are uncontrolled, no stack.

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

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

D.7.1 Prevention of Significant Deterioration (PSD) Minor Limits [326 IAC 2-2]

- (a) The coal bed methane usage in the CBM-fired flare, identified as CBM FL, shall not exceed 73.50 MMCF per twelve consecutive month period with compliance determined at the end of each month.
- (b) CO emissions from the CBM-fired flare, identified as CBM FL, shall not exceed 204.0 lb/MMCF, while combusting coal bed methane.
- (c) VOC emissions from the CBM-fired flare, identified as CBM FL, shall not exceed 153.0 lb/MMCF while combusting coal bed methane.
- (d) NOx emissions from the CBM-fired flare, identified as CBM FL, shall not exceed 61.20 lb/MMCF while combusting coal bed methane.
- (e) The combined CO emissions from the CBM-fired engine generator set, identified as CBM1 to CBM4, shall be limited to less than 91.8 tons per twelve (12) consecutive month period with compliance determined at the end of the month.
- (f) The combined VOC emissions from the CBM-fired engine generator set, identified as CBM1 to CBM4, shall be limited to less than 34.2 tons per twelve (12) consecutive month period with compliance determined at the end of the month.
- (g) The combined NOx emissions from the CBM-fired engine generator set, identified as CBM1 to CBM4, shall be limited to less than 36.7 tons per twelve (12) consecutive month period with compliance determined at the end of the month.

Compliance with these emission limits and the emissions of other emission units will ensure the potential to emit CO is less than 100 tons, VOC is less than 40 tons and NOx is less than 40 tons per year and render the requirements of 326 IAC 2-2 (PSD), not applicable to Significant Source Modification 153-29394-00005, issued on November 10, 2011.

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

D.7.2 VOC and CO Control [326 IAC 2-2][326 IAC 2-7-6(1)]

In order to ensure compliance with Condition D.7.1(e) and (f), VOC and CO emissions from each coal bed methane engine, identified as CBM1 to CBM4, shall be controlled with oxidation catalyst at all times the units are in operation, except during periods of startup.

D.7.3 NOx Control [326 IAC 2-2][326 IAC 2-7-6(1)]

In order to ensure compliance with Condition D.7.1(g), NOx emissions from each coal bed methane engine, identified as CBM1 to CBM4, shall be controlled with selective catalytic reduction at all times the units are in operation except during periods of startup.

D.7.4 CO, VOC and NOx Emissions Calculations [326 IAC 2-7-6(1)]

To determine the compliance status with Condition D.7.1(e), (f) and (g) - Prevention of Significant Deterioration (PSD) Minor Limits, the following equation shall be used to determine the CO, VOC and NOx emissions from the 4-Stroke Lean Burn Coal Bed Methane (CBM)-fired Reciprocating Internal Combustion Engines (RICE), identified as CBM1 to CBM4:

- (a) The CO emissions shall be determined by the following equations:

$$\text{CO emissions (tons/month)} = (Y_1 \times \text{Ef1}) + (Y_2 \times \text{Ef2})$$

Where:

Ef1 = Steady State Emission limit of Engines (0.2450 g/bhp-hr) or emissions determined from the most recent compliance stack test

Ef2 = Cold Startup Emission limit of Engines (2.50 g/bhp-hr) or emissions determined from the most recent compliance stack test

Y_1 = Number of hours of operation at steady state startup

Y_2 = Number of hours of operation at cold startup

- (b) The VOC emissions shall be determined by the following equations:

$$\text{VOC emissions (tons/month)} = (Y_1 \times \text{Ef3}) + (Y_2 \times \text{Ef4})$$

Where:

Ef3 = Steady State Emission limit of Engines (0.0952 g/bhp-hr) or emissions determined from the most recent compliance stack test

Ef4 = Cold Startup Emission limit of Engines (0.3 g/bhp-hr) or emissions determined from the most recent compliance stack test

Y_1 = Number of hours of operation at steady state startup

Y_2 = Number of hours of operation at cold startup

- (c) The NOx emissions shall be determined by the following equations:

$$\text{NOx emissions (tons/month)} = (Y_1 \times \text{Ef5}) + (Y_2 \times \text{Ef6})$$

Where:

Ef5 = Steady State Emission limit of Engines (0.099 g/bhp-hr) or emissions determined from the most recent compliance stack test

Ef6 = Cold Startup Emission limit of Engines (1.10 g/bhp-hr) or emissions determined from the most recent compliance stack test

Y_1 = Number of hours of operation at steady state startup

Y_2 = Number of hours of operation at cold startup

D.7.5 Testing Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-6(6)]

- (a) In order to determine compliance with Condition D.7.1(e), the Permittee shall perform CO testing of any one (1) of the four (4) coal bed methane engines, identified as CBM1 to CBM4 exhausting to stacks SV-CBM1 to SV-CBM4 during the steady state and the cold startup, utilizing methods approved by the commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration. An average emission rate from the initial test results shall be used as a surrogate value for the remaining untested engines. Repeat testing shall be conducted in a manner to ensure the time period between tests on a single unit is the same for every unit. Specifically, remaining untested engines shall be tested one (1) at a time for each successive five (5) year period until all engines have been tested. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.
- (b) In order to determine compliance with Condition D.7.1(f), the Permittee shall perform VOC testing of any one (1) of the four (4) coal bed methane engines, identified as CBM1 to CBM4, exhausting to stacks SV-CBM1 to SV-CBM4 during the steady state and the cold startup, utilizing methods approved by the commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration. An average emission rate from the initial test results shall be used as a surrogate value for the remaining untested engines. Repeat testing shall be conducted in a manner to ensure the time period between tests on a single unit is the same for every unit. Specifically, remaining untested engines shall be tested one (1) at a time for each successive five (5) year period until all engines have been tested. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.
- (c) In order to determine compliance with Condition D.7.1(g), the Permittee shall perform NOx testing of any one (1) of the four (4) coal bed methane engines, identified as CBM1 to CBM4, exhausting to stacks SV-CBM1 to SV-CBM4 during the steady state and the cold startup, utilizing methods approved by the commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration. An average emission rate from the initial test results shall be used as a surrogate value for the remaining untested engines. Repeat testing shall be conducted in a manner to ensure the time period between tests on a single unit is the same for every unit. Specifically,

remaining untested engines shall be tested one (1) at a time for each successive five (5) year period until all engines have been tested. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

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

D.7.6 Parametric Monitoring Requirements [40 CFR 64][326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]

- (a) In order to demonstrate the compliance status with Condition D.7.1(a), the Permittee shall monitor the amount of coal bed methane combusted in the flare.
- (b) In order to demonstrate the compliance status with Condition D.7.1(b), (c) and (d), the Permittee shall monitor the presence of a burner flame using a thermocouple to measure burner temperature at all times the flare is in use.
- (c) In order to demonstrate the compliance status with Conditions D.7.1(d) and D.7.3, the Permittee shall monitor the urea flow rate used in conjunction with coal bed methane engines CBM1 to CBM4 at least once per day. When for any one reading, the urea flow rate is outside the normal range of 0.5 liters/MW-hr to 6.0 liters/MW-hr, or a range established during the latest compliant stack test, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A urea flow rate that is outside the above mentioned range is not a deviation from this permit. Failure to take reasonable response steps shall be considered a deviation from this permit.
- (d) In order to demonstrate the compliance status with Conditions D.7.1(e) and (f) and D.7.2, the Permittee shall monitor the reduction catalyst bed temperature used in conjunction with coal bed methane engines CBM1 to CBM4 with a continuous temperature monitoring system. The Permittee shall comply with the following:
 - (i) A continuous monitoring system shall be installed, calibrated, maintained, and operated on each Coal Bed Methane (CBM)-fired engine, identified as CBM1 to CBM4, for measuring the inlet operating temperature of the reduction catalyst bed temperature. For the purposes of this condition, continuous monitoring shall mean no less often than once per fifteen (15) minutes. The output from this monitoring system and the three hour average temperatures shall be recorded whenever the coal bed methane engines are in operation.
 - (ii) If the primary continuous monitoring system is not in operation, the reduction catalyst bed temperature will be recorded using a secondary system consisting of a backup temperature probe. Temperature measurements shall be made no less than once per fifteen (15) minutes. In the event of a monitoring system malfunction, failure to measure the operating temperature of the reduction catalyst bed is not a deviation of the permit. Failure to take response steps shall be considered a deviation from the permit.
 - (iii) The Coal Bed Methane (CBM)-fired engines exhaust temperature shall be maintained so that the catalyst inlet temperature is greater than or equal to 450 degrees Fahrenheit and less than or equal to 1350 degrees Fahrenheit. A reading that is outside the required temperature is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered as a deviation from the permit.

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

D.7.7 Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19]

- (a) In order to document the compliance status with Condition D.7.1(a), the Permittee shall maintain records of the amount of coal bed methane burned in the CBM-fired flare, identified as CBM FL, each month.
- (b) To document the compliance status with Condition D.7.1(e), (f) and (g), the Permittee shall maintain monthly records of the CO, VOC and NOx emissions, from the CBM-fired engine generator sets.
- (c) In order to document the compliance status with Condition D.7.2 and D.7.6(d), the Permittee shall maintain records of the reduction catalyst bed temperature used in conjunction with coal bed methane engines, CBM1 to CBM4. The Permittee shall include in its record when a temperature reading is not taken and the reason for the lack of a temperature reading (e.g. the process did not operate that day).
- (d) In order to document the compliance status with Condition D.7.3 and D.7.6(b), the Permittee shall maintain records of the urea injection rate used in conjunction with coal bed methane engines, CBM1 to CBM4. The Permittee shall include in its record when a urea injection rate reading is not taken and the reason for the lack of a urea injection rate reading (e.g. the process did not operate that day).
- (e) In order to document the compliance status with Condition D.7.5, the Permittee shall maintain records of the data and results of the stack and/or performance test for each engine generator set.
- (f) In order to document the compliance status with Condition D.7.6(c), the Permittee shall maintain records of the burner temperature used in conjunction with the Coal Bed Methane (CBM)-fired flare, identified as CBM FL. The Permittee shall include in its daily record when a temperature reading is not taken and the reason for the lack of a temperature reading (e.g. the process did not operate that day).
- (g) Records necessary to demonstrate compliance shall be available within thirty (30) days of the end of each compliance period.
- (h) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

D.7.8 Reporting Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19]

A quarterly summary of the information to document the compliance status with Condition D.7.1(a), (e), (f) and (g) shall be submitted to the address listed in Section C- General Reporting Requirements, of this permit, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1 (35).

SECTION E.1

NSPS

Emissions Unit Description:

- (a) One (1) pulverized coal-fired dry bottom boiler, identified as Unit 1 or 1SG1, constructed in 1976, rated at 5,088 million Btu per hour (MMBtu/hr) energy input, used to generate up to 490 megawatts (gross) of electricity. Unit 1 uses No. 2 fuel oil for startups and flame stabilization. Unit 1 cannot operate at load solely using No. 2 fuel oil.

Unit 1 utilizes the following control equipment:

Activated Carbon Injection System (ACI), to be installed in 2015,
SO₃ Mitigation System (SBS Injection),
Electrostatic precipitator (ESP),
Flue Gas Desulfurization (FGD) Wet Scrubber System (identified as CE1B), and
Selective Catalytic Reduction (SCR).

Controlled emissions from Unit 1 are exhausted to the atmosphere through a 19-foot diameter flue liner (SV1) which is housed in a 700-foot stack that is shared by both Unit 1 and Unit 2. Opacity is measured with a continuous opacity monitor (COM). Sulfur dioxide (SO₂) and nitrogen oxides (NO_x) emissions are measured with a SO₂ continuous emission monitor system (CEMS) and a NO_x CEMS, respectively.

[Under 40 CFR Part 60, Subpart D, this is considered an affected unit.]

- (b) One (1) pulverized coal-fired dry bottom boiler, identified as Unit 2 or 2SG1, constructed in 1976, rated at 5,088 million Btu per hour (MMBtu/hr) energy input, used to generate up to 490 megawatts (gross) of electricity. Unit 2 uses No. 2 fuel oil for startups and flame stabilization. Unit 2 cannot operate at load solely using No. 2 fuel oil.

Unit 2 utilizes the following control equipment:

Activated Carbon Injection System (ACI), to be installed in 2015,
SO₃ Mitigation System (SBS Injection),
Electrostatic precipitator (ESP),
Flue Gas Desulfurization (FGD) Wet Scrubber System (identified as CE2B), and
Selective Catalytic Reduction (SCR).

Controlled emissions from Unit 2 are exhausted to the atmosphere through a 19-foot diameter flue liner (SV2) which is housed in a 700-foot stack that is shared by both Unit 1 and Unit 2. Opacity is measured with a continuous opacity monitor (COM). Sulfur dioxide (SO₂) and nitrogen oxides (NO_x) emissions are measured with a SO₂ continuous emission monitor system (CEMS) and a NO_x CEMS, respectively.

[Under 40 CFR Part 60, Subpart D, this is considered an affected unit.]

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

New Source Performance Standards [326 IAC 2-7-5(1)]

E.1.1 General Provisions Relating to New Source Performance Standards [326 IAC 12][40 CFR Part 60, Subpart A]

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emission units listed above, except as otherwise specified in 40 CFR Part 60, Subpart D.

- (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

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

E.1.2 Fossil-Fuel-Fired Steam Generators NSPS [40 CFR Part 60, Subpart D][326 IAC 12]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart D (included as Attachment A to the operating permit), which are incorporated by reference as 326 IAC 12:

- (1) 40 CFR 60.40
- (2) 40 CFR 60.41
- (3) 40 CFR 60.42; (a), (a)(1)
- (4) 40 CFR 60.43 (a)(2)
- (5) 40 CFR 60.44 (a)(3)
- (6) 40 CFR 60.45; (a), (b), (c), (g), (g)(1), (g)(2), (g)(2)(i), (g)(3), (g)(3)(i), (g)(4)
- (7) 40 CFR 60.46; (a), (b)

SECTION E.2

NSPS

Emissions Unit Description:

- (d) A coal storage and handling system, commencing construction in 1977 and modified in 2016, with a nominal throughput of 4,351,419 tons per year, consisting of the following equipment:
 - (1) One (1) outdoor storage area, identified as F01, constructed in 1977 and modified in 2016 from a nominal storage capacity of 1,500,000 tons to 2,100,000 tons, with particulate matter emissions controlled by layering and compaction and exhausting directly to the atmosphere.
 - (2) One (1) rail unloading (rotary car dumper) building, with a nominal throughput of 2000 tons per hour, identified as F02, controlled by being partially enclosed and exhausting directly to the atmosphere. Including the following equipment:
 - (i) Rotary Car Dumper
 - (ii) Vibrating Feeder(s)
 - (iii) Underground coal conveyor transfer point
 - (3) Two (2) receiving systems, where truck shipments of coal are discharged into one of the following stations:
 - (i) One (1) truck unloading station, which feeds a truck hopper, identified as F03, with a nominal throughput of 500 tons per hour with particulate matter emissions controlled by partial enclosure and exhausting directly to the atmosphere. Including the following equipment:
 - (A) Truck Hopper
 - (B) Vibrating Feeder
 - (C) Underground coal conveyor transfer point
 - (ii) One (1) truck unloading area, directly to coal storage pile(s), identified as F04, with a nominal unloading capacity of 1,000 tons per hour, which is utilized on an as needed basis, with particulate matter emissions exhausting directly to the atmosphere.
 - (4) One (1) breaker house with enclosed chutes, identified as F05, with a nominal throughput of 2,000 tons per hour, with particulate matter emissions controlled by partial enclosure and exhausting directly to the atmosphere.
 - (i) Conveyor transfer point(s)
 - (5) One (1) stockout system, identified as F06, with a nominal throughput of 2,000 tons per hour, which includes the following equipment:
 - (i) Enclosed conveyors CH-CV-1, CH-CV-2, and CH-CV-3,
 - (ii) Retractable plow, which is used for emergency purposes only, and
 - (iii) Lowering wells (enclosed concrete cylinder with openings at various elevations) used to control particulate matter emissions.
 - (6) One (1) reclaim system, identified as F07, with a combined nominal throughput of 1600 tons per hour, with particulate matter emissions controlled

by partial enclosures and wet spray suppression and exhausting directly to atmosphere. Including the following equipment:

- (i) Reclaim Drawdown Hoppers, 4A-1, 4A-2, 4B-1, and 4B-2
 - (ii) Four (4) vibrating feeders
 - (iii) Underground coal conveyor transfer point(s)
- (7) One (1) reclaim conveying system, which consists of two conveyor systems (CH-CV-A and CH-CV-B as identified below), each with a nominal throughput of 800 tons per hour, with particulate matter emissions controlled by enclosures. Including the following equipment:
- (i) Conveyors CH-CV-4A, CH-CV-4B, CH-CV-5A, CH-CV-5B, CH-CV-6A, and CH-CV-6B
- (8) One (1) emergency reclaim area, which feeds an emergency reclaim hopper, identified as F08, with a nominal throughput of 600 tons per hour, with particulate matter emissions controlled by partial enclosure and exhausting directly to the atmosphere. Including the following equipment:
- (i) Emergency reclaim hopper
 - (ii) Vibrating Feeder
 - (iii) Two (2) underground coal conveyor transfer point(s)
- (9) One (1) crusher house, identified as F09, with a combined nominal throughput of 1600 tons per hour, with particulate matter emissions controlled by a wet spray suppression and exhausting directly to atmosphere. Including the following equipment:
- (i) Surge bin(s)
 - (ii) Vibrating feeder(s)
 - (iii) Two (2) enclosed crushers with bypass, with a nominal throughput of 800 tons per hour, each.
 - (iv) Enclosed conveyor transfer point(s)
- (10) One (1) boiler building bunker area, identified as F10, with a combined nominal throughput of 1600 tons, with particulate matter emissions controlled by enclosure and dust suppression system and exhausting directly to the atmosphere. Including the following equipment:
- (i) Enclosed transfer tower(s)
 - (ii) Enclosed conveyor transfer point(s)
 - (ii) Two (2) traveling tripper(s)
- (11) Bulk material movement with dozer, front end loaders, other heavy mobile equipment.
- (12) Truck hauling, on paved and unpaved roads.

[Under 40 CFR Part 60, Subpart Y, this is considered an affected unit.]

Specifically Regulated Insignificant Activities

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

(6) Conveyors as follows: Underground coal conveyors including the following equipment:

(i) Conveyor identified as CH-TC-1[326 IAC 6-3-2]

[Under 40 CFR 60, Subpart Y, this is considered an affected unit.]

]

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

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

E.2.1 General Provisions Relating to New Source Performance Standards [326 IAC 12][40 CFR Part 60, Subpart A]

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emission units listed above, except as otherwise specified in 40 CFR Part 60, Subpart Y.
- (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

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

E.2.2 Coal Preparation Plants NSPS [40 CFR Part 60, Subpart Y][326 IAC 12]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart Y (included as Attachment B to the operating permit), which are incorporated by reference as 326 IAC 12 for the emission units listed above:

- (1) 40 CFR 60.250
- (2) 40 CFR 60.251
- (3) 40 CFR 60.254(a)
- (4) 40 CFR 60.255(a)
- (5) 40 CFR 60.256(a)
- (6) 40 CFR 60.257(a)

SECTION E.3

NSPS

Emissions Unit Description:

Insignificant Activities:

- (4) One (1) emergency diesel generator, identified as EMDG-1, constructed in 2007, rated at less than 1600 horsepower, engine displacement volume less than 10 liters per cylinder and exhausting to the atmosphere.

[Under 40 CFR Part 60, Subpart IIII, this is considered an affected unit.]

[Under 40 CFR Part 63, Subpart ZZZZ, this is considered an affected unit.]

- (5) One (1) emergency fire pump, identified as FGD FP, constructed in 2016, rated at less than 1600 horsepower, engine displacement volume less than 10 liters per cylinder and exhausting to the atmosphere.

[Under 40 CFR Part 60, Subpart IIII, this is considered an affected unit.]

[Under 40 CFR Part 63, Subpart ZZZZ, this is considered an affected unit.]

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

New Source Performance Standards [326 IAC 2-7-5(1)]

E.3.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1][40 CFR Part 60, Subpart A]

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emission unit listed above, except as otherwise specified in 40 CFR Part 60, Subpart IIII.
- (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

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

E.3.2 Stationary Compression Ignition Internal Combustion Engines NSPS [40 CFR Part 60, Subpart IIII][326 IAC 12]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart IIII (included as Attachment C to the operating permit), which are incorporated by reference as 326 IAC 12 for the emission units listed above:

- (a) The emergency generator, identified as EMDG-1, is subject to the following requirements:
- (1) 40 CFR 60.4200(a); (2)(i), (2)(ii)
 - (2) 40 CFR 60.4202(a)(2)
 - (3) 40 CFR 60.4205(b)

- (4) 40 CFR 60.4206
- (5) 40 CFR 60.4207; (a), (b), (c)
- (6) 40 CFR 60.4208(a)
- (7) 40 CFR 60.4209(a)
- (8) 40 CFR 60.4211; (a), (c), (e)
- (9) 40 CFR 60.4214(b)
- (10) 40 CFR 60.4218
- (11) 40 CFR 60.4219
- (12) Table 8

(b) The emergency fire pump, identified as FGD FP, is subject to the following requirements:

- (1) 40 CFR 60.4200(a)(2)(ii)
- (2) 40 CFR 60.4205(c)
- (3) 40 CFR 60.4206
- (4) 40 CFR 60.4207(b)
- (5) 40 CFR 60.4209
- (6) 40 CFR 60.4211(a), (c), (f), and (g)
- (7) 40 CFR 60.4212
- (8) 40 CFR 60.4214 (b) and (c)
- (9) 40 CFR 60.4218
- (10) 40 CFR 60.4219
- (11) Table 3 of Subpart IIII
- (12) Table 4 of Subpart IIII
- (13) Table 5 of Subpart IIII
- (14) Table 8 of Subpart IIII

SECTION E.4

NSPS

Emissions Unit Description:

- (o) Four (4) 4-Stroke Lean Burn Coal Bed Methane (CBM)-fired Reciprocating Internal Combustion Engines (RICE), approved for construction in 2011, identified as CBM1 to CBM4, each rated at 4,601 bHP (25.46 MMBtu/hr). CBM1 to CBM4 use Catalytic Oxidation and Selective Catalytic Reduction (SCR) to control VOC, NOx and CO. CBM1 to CBM4 exhaust to stacks SV-CBM1 to SV-CBM4 or to the greenhouses, respectively.

[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected unit.]

[Under 40 CFR 60, Subpart JJJJ, this is considered an affected unit.]

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

New Source Performance Standards [326 IAC 2-7-5(1)]

E.4.1 General Provisions Relating to New Source Performance Standards [326 IAC 12][40 CFR Part 60, Subpart A]

- (a) The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated as 326 IAC 12, apply to the affected source, as designated by Table 3 to Subpart JJJJ of Part 60, except when otherwise specified in 40 CFR Part 60, Subpart JJJJ.
- (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

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

E.4.2 Stationary Spark Ignition Internal Combustion Engines NSPS [40 CFR Part 60, Subpart JJJJ][326 IAC 12]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart JJJJ (included as Attachment D to the operating permit), which are incorporated by reference as 326 IAC 12, for the emission units listed above:

- (1) 40 CFR 60.4230(a)(4)(i)
- (2) 40 CFR 60.4233(e)
- (3) 40 CFR 60.4234
- (4) 40 CFR 60.4236(b)
- (5) 40 CFR 60.4243(b)(2)(ii)
- (6) 40 CFR 60.4244
- (7) 40 CFR 60.4245(a), (c) and (d)
- (8) 40 CFR 60.4246
- (9) 40 CFR 60.4248

SECTION E.5

NESHAP

Emissions Unit Description:

- (o) Four (4) 4-Stroke Lean Burn Coal Bed Methane (CBM)-fired Reciprocating Internal Combustion Engines (RICE), constructed in 2011, identified as CBM1 to CBM4, each rated at 4,601 bHP (25.46 MMBtu/hr). CBM1 to CBM4 use Catalytic Oxidation and Selective Catalytic Reduction (SCR) to control VOC, NOx and CO. CBM1 to CBM4 exhaust to stacks SV-CBM1 to SV-CBM4 or to the greenhouses, respectively.

[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected unit.]

[Under 40 CFR 60, Subpart JJJJ, this is considered an affected unit.]

Insignificant Activities:

- (4) One (1) emergency diesel generator, identified as EMDG-1, constructed in 2007, rated at less than 1600 horsepower, engine displacement volume less than 10 liters per cylinder and exhausting to the atmosphere.

[Under 40 CFR Part 60, Subpart IIII, this is considered an affected unit.]

[Under 40 CFR Part 63, Subpart ZZZZ, this is considered an affected unit.]

- (5) One (1) emergency fire pump, identified as FGD FP, constructed in 2016, rated at less than 1600 horsepower, engine displacement volume less than 10 liters per cylinder and exhausting to the atmosphere.

[Under 40 CFR Part 60, Subpart IIII, this is considered an affected unit.]

[Under 40 CFR Part 63, Subpart ZZZZ, this is considered an affected unit.]

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

National Emissions Standard for Hazardous Air Pollutants [326 IAC 2-7-5(1)]

E.5.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1][40 CFR Part 63, Subpart A]

- (a) Pursuant to 40 CFR 63.1 the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1, for the emission units listed above, except as otherwise specified in 40 CFR Part 63, Subpart ZZZZ.

- (b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

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

E.5.2 Stationary Reciprocating Internal Combustion Engines NESHAP[40 CFR Part 63, Subpart ZZZZ][326 IAC 20-82]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZ (included as Attachment E to the operating permit), which are incorporated by reference as 326 IAC 20-82, for the emission units listed above:

- (a) The emergency generator, identified as EMDG-1, is subject to the following requirements:
- (1) 40 CFR 63.6585
 - (2) 40 CFR 63.6590(a),(b)(1)(i)
 - (3) 40 CFR 63.6600(c)
 - (4) 40 CFR 63.6645(f)
 - (5) 40 CFR 63.6675
- (b) The emergency fire pump, identified as FGD FP, is subject to the following requirements:
- (1) 40 CFR 63.6585
 - (2) 40 CFR 63.6590(a)(2)(i) and (c)(6)
 - (3) 40 CFR 63.6595 (a)(5)
 - (4) 40 CFR 63.6665
 - (5) 40 CFR 63.6670 (a) and (b)
 - (6) 40 CFR 63.6675
 - (7) Table 8 to Subpart ZZZZ
- (c) Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZ (included as Attachment E to the operating permit), which are incorporated by reference as 326 IAC 20-82, for the four (4) CBM engine generator sets, identified as CBM1 to CBM4 listed above:
- (1) 40 CFR 63.6600(b)
 - (2) 40 CFR 63.6605
 - (3) 40 CFR 63.6610(a)
 - (4) 40 CFR 63.6635(a), (b), (c)
 - (5) 40 CFR 63.6645(a)(4),(c),(g),(h)
 - (6) 40 CFR 63.6650(a)-(f)
 - (7) 40 CFR 63.6655(a),(b),(d)
 - (8) 40 CFR 63.6585
 - (9) 40 CFR 63.6590(a)(2)(i)
 - (10) 40 CFR 63.6595(a)(3),(c)
 - (11) 40 CFR 63.6615
 - (12) 40 CFR 63.6620(a),(b),(d),(e),(i)
 - (13) 40 CFR 63.6625(b),(h)
 - (14) 40 CFR 63.6630(a)-(c)
 - (15) 40 CFR 63.6640(a),(b),(d)
 - (16) 40 CFR 63.6660
 - (17) 40 CFR 63.6665
 - (18) 40 CFR 63.6675

SECTION E.6

NSPS

Emissions Unit Description:

- (f) A limestone storage and handling system, constructed between 1978 and 1980, with a nominal throughput of 400,000 tons per year consisting of the following equipment:
- (7) Located in the limestone preparation building are the following units:
- (B) One (1) enclosed crusher fed by a vibratory feeder, identified as LPC1, constructed in 2008, with a maximum capacity of 45 tons per hour, using the baghouse identified as LPC Baghouse 1 as control, and exhausting to stack LPC Vent 1.
- [Under 40 CFR Part 60, Subpart OOO, this is considered an affected unit.]
- (C) One (1) enclosed crusher fed by a vibratory feeder, identified as LPC2, constructed in 2010, with a maximum capacity of 45 tons per hour, using the baghouse identified as LPC Baghouse 2 as control, and exhausting to stack LPC Vent 2.
- [Under 40 CFR Part 60, Subpart OOO, this is considered an affected unit.]
- (E) Two (2) enclosed limestone ball mill transfer conveyor systems, constructed in 2011, identified as LBMC1 and LBMC2, each with a nominal throughput of 80 tons per hour, emissions are controlled by a total enclosure.
- [Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]
- (9) Two (2) enclosed limestone weigh belt feeders, constructed in 2011, identified as LWB1.1 and LWB2.1, each with a nominal throughput of 80 tons per hour, emissions are controlled by a total enclosure.
- [Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]
- (10) One (1) enclosed limestone emergency reclaim conveyor, constructed in 2011, identified as LERC, with a nominal throughput of 250 tons per hour, emissions are controlled by a total enclosure.
- [Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]
- (A) One (1) Limestone Emergency Reclaim Feeder, identified as LERF, constructed in 2013, with a nominal maximum capacity of 200 tons per hour.
- [Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]
- (B) One (1) Limestone Emergency Reclaim Breaker, identified as LERB, constructed in 2013, with a nominal maximum capacity of 200 tons per hour.
- [Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

- (11) Two (2) enclosed/underground limestone railcar unloading belt feeders, identified as LRUBF1 and LRUBF2, each with a nominal throughput of 300 tons per hour, emissions are controlled by a total enclosure.

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

- (12) Two (2) enclosed/underground limestone storage pile belt feeders, identified as LSPBF1 and LSPBF2, each with a nominal throughput of 250 tons per hour, emissions are controlled by a total enclosure.

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

- (13) Two (2) enclosed limestone wet ball mills, constructed in 2011, identified as LWBM1 and LWBM2, each with a nominal throughput of 70 tons per hour, emissions are controlled by a total enclosure.

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

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

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

E.6.1 General Provisions Relating to New Source Performance Standards [326 IAC 12][40 CFR Part 60, Subpart A]

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emission unit listed above, except as otherwise specified in 40 CFR Part 60, Subpart OOO.

- (b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

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

E.6.2 Nonmetallic Mineral Processing Plants NSPS [40 CFR Part 60, Subpart OOO][326 IAC 12]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart OOO (included as Attachment F to the operating permit), which are incorporated by reference as 326 IAC 12, for the emission units listed above:

- (1) 40 CFR 60.670 (a)(1), (d)(3),(e),(f)
(2) 40 CFR 60.671
(3) 40 CFR 60.672
(4) 40 CFR 60.675 (a), (c)(1)(i)-(ii),(c)(3),(d)(1),(g),(i)
(5) 40 CFR 60.676 (a)(1)(i)-(ii),(h)(i)(1), (j)

SECTION E.7

NESHAP

Emissions Unit Description:

- (c) Two (2) No. 2 distillate oil-fired auxiliary boilers, constructed in 1980, each with a heat input rate of 93.0 MMBtu/hour, and exhausting to stack SV3.

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

National Emissions Standard for Hazardous Air Pollutants [326 IAC 2-7-5(1)]

E.7.1 General Provisions Relating to National Emissions Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1][40 CFR Part 63, Subpart A]

- (a) Pursuant to 40 CFR 63.1 the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1, for the emission units listed above, except as otherwise specified in 40 CFR Part 63, Subpart DDDDD.
- (b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

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

E.7.2 Industrial, Commercial, and Institutional Boilers and Process Heaters NESHAP [326 IAC 20-95][40 CFR Part 63, Subpart DDDDD]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart DDDDD (included as Attachment G to the operating permit), which are incorporated by reference as 326 IAC 20-95, for the emission units listed above:

- (1) 40 CFR 63.7480
- (2) 40 CFR 63.7485
- (3) 40 CFR 63.7490
- (4) 40 CFR 63.7495(b), (d)
- (5) 40 CFR 63.7499(o)
- (6) 40 CFR 63.7500(a)(3), (e)
- (7) 40 CFR 63.7501
- (8) 40 CFR 63.7505(a)
- (9) 40 CFR 63.7510
- (10) 40 CFR 63.7515(d)
- (11) 40 CFR 63.7540
- (12) 40 CFR 63.7545(a), (b), (h)
- (13) 40 CFR 63.7550(a), (b), (c), (h)(3)
- (14) 40 CFR 63.7555(a)
- (15) 40 CFR 63.7560
- (16) 40 CFR 63.7565
- (17) 40 CFR 63.7570
- (18) 40 CFR 63.7575
- (19) Table 3 to Subpart DDDDD of Part 63
- (20) Table 9 to Subpart DDDDD of Part 63
- (21) Table 10 to Subpart DDDDD of Part 63

SECTION E.8

NESHAP

Emissions Unit Description:

- (a) One (1) pulverized coal-fired dry bottom boiler, identified as Unit 1 or 1SG1, constructed in 1976, rated at 5,088 million Btu per hour (MMBtu/hr) energy input, used to generate up to 490 megawatts (gross) of electricity. Unit 1 uses No. 2 fuel oil for start ups and flame stabilization. Unit 1 cannot operate at load solely using No. 2 fuel oil.

Unit 1 utilizes the following control equipment:
Activated Carbon Injection System (ACI), to be installed in 2015,
SO3 Mitigation System (SBS Injection),
Electrostatic precipitator (ESP),
Flue Gas Desulfurization (FGD) Wet Scrubber System (identified as CE1B), and
Selective Catalytic Reduction (SCR).

Controlled emissions from Unit 1 are exhausted to the atmosphere through a 19-foot diameter flue liner (SV1) which is housed in a 700-foot stack that is shared by both Unit 1 and Unit 2. Opacity is measured with a continuous opacity monitor (COM). Sulfur dioxide (SO2) and nitrogen oxides (NOx) emissions are measured with a SO2 continuous emission monitor system (CEMS) and a NOx CEMS, respectively.

[Under 40 CFR Part 60, Subpart D, this is considered an affected unit.]

- (b) One (1) pulverized coal-fired dry bottom boiler, identified as Unit 2 or 2SG1, constructed in 1976, rated at 5,088 million Btu per hour (MMBtu/hr) energy input, used to generate up to 490 megawatts (gross) of electricity. Unit 2 uses No. 2 fuel oil for start ups and flame stabilization. Unit 2 cannot operate at load solely using No. 2 fuel oil.

Unit 2 utilizes the following control equipment:
Activated Carbon Injection System (ACI), to be installed in 2015,
SO3 Mitigation System (SBS Injection),
Electrostatic precipitator (ESP),
Flue Gas Desulfurization (FGD) Wet Scrubber System (identified as CE2B), and
Selective Catalytic Reduction (SCR).

Controlled emissions from Unit 2 are exhausted to the atmosphere through a 19-foot diameter flue liner (SV2) which is housed in a 700-foot stack that is shared by both Unit 1 and Unit 2. Opacity is measured with a continuous opacity monitor (COM). Sulfur dioxide (SO2) and nitrogen oxides (NOx) emissions are measured with a SO2 continuous emission monitor system (CEMS) and a NOx CEMS, respectively.

[Under 40 CFR Part 60, Subpart D, this is considered an affected unit.]

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

National Emissions Standard for Hazardous Air Pollutants [326 IAC 2-7-5(1)]

E.8.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1][40 CFR Part 63, Subpart A]

- (a) Pursuant to 40 CFR 63.1 the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-

1, for the emission units listed above, except as otherwise specified in 40 CFR Part 63, Subpart UUUUU.

- (b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

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

E.8.2 Coal- and Oil-Fired Electric Utility Steam Generating Units NESHAP [40 CFR Part 63, Subpart UUUUU]

The Permittee shall comply with the provisions of 40 CFR Part 63, Subpart UUUUU (included as Attachment I to the operating permit), for the two (2) boilers (Boiler 1 and Boiler 2). listed above:

E.8.3 Compliance Schedule for National Emission Standard for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units [40 CFR 63, Subpart UUUUU]

Pursuant to Indiana Code § 13-14-2-6 and in order to secure compliance with 40 CFR Part 63, Subpart UUUUU, Hoosier Energy Rural Electric Cooperative, Merom Generating Station is subject to the following ORDER:

- (1) Hoosier Energy Rural Electric Cooperative shall submit a status report within fifteen (15) days of completion of the following milestones indicating the actual dates of completion:
- (a) The dates on-site construction for the installation of emission control equipment identified in Attachment A for Merom Generating Station Units 1 and 2 are initiated, and
 - (b) The dates on-site construction for the installation of emission control equipment identified in Attachment A for Merom Generating Station Units 1 and 2 are completed.
 - (e) The dates by which final compliance with 40 CFR Part 63, Subpart UUUUU for Merom Generating Station Units 1 and 2 are achieved.
- (2) Hoosier Energy Rural Electric Cooperative, Merom Generating Station Units 1 and 2 shall comply with the mercury standards set forth in 40 CFR Part 63, Subpart UUUUU no later than April 16, 2016.

SECTION F ACID RAIN PROGRAM CONDITIONS

ORIS Code - 6213

Emissions Unit Description:

- (a) One (1) pulverized coal-fired dry bottom boiler, identified as Unit 1 or 1SG1, constructed in 1976, rated at 5,088 million Btu per hour (MMBtu/hr) energy input, used to generate up to 490 megawatts (gross) of electricity. Unit 1 uses No. 2 fuel oil for start ups and flame stabilization. Unit 1 cannot operate at load solely using No. 2 fuel oil.

Unit 1 utilizes the following control equipment:
Activated Carbon Injection System (ACI), to be installed in 2015,
SO₃ Mitigation System (SBS Injection),
Electrostatic precipitator (ESP),
Flue Gas Desulfurization (FGD) Wet Scrubber System (identified as CE1B), and
Selective Catalytic Reduction (SCR).

Controlled emissions from Unit 1 are exhausted to the atmosphere through a 19-foot diameter flue liner (SV1) which is housed in a 700-foot stack that is shared by both Unit 1 and Unit 2. Opacity is measured with a continuous opacity monitor (COM). Sulfur dioxide (SO₂) and nitrogen oxides (NO_x) emissions are measured with a SO₂ continuous emission monitor system (CEMS) and a NO_x CEMS, respectively.

[Under 40 CFR Part 60, Subpart D, this is considered an affected unit.]

- (b) One (1) pulverized coal-fired dry bottom boiler, identified as Unit 2 or 2SG1, constructed in 1976, rated at 5,088 million Btu per hour (MMBtu/hr) energy input, used to generate up to 490 megawatts (gross) of electricity. Unit 2 uses No. 2 fuel oil for start ups and flame stabilization. Unit 2 cannot operate at load solely using No. 2 fuel oil.

Unit 2 utilizes the following control equipment:
Activated Carbon Injection System (ACI), to be installed in 2015,
SO₃ Mitigation System (SBS Injection),
Electrostatic precipitator (ESP),
Flue Gas Desulfurization (FGD) Wet Scrubber System (identified as CE2B), and
Selective Catalytic Reduction (SCR).

Controlled emissions from Unit 2 are exhausted to the atmosphere through a 19-foot diameter flue liner (SV2) which is housed in a 700-foot stack that is shared by both Unit 1 and Unit 2. Opacity is measured with a continuous opacity monitor (COM). Sulfur dioxide (SO₂) and nitrogen oxides (NO_x) emissions are measured with a SO₂ continuous emission monitor system (CEMS) and a NO_x CEMS, respectively.

[Under 40 CFR Part 60, Subpart D, this is considered an affected unit.]

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

F.1 Acid Rain Permit [326 IAC 2-7-5(1)(C)][326 IAC 21][40 CFR 78]

- (a) The Acid Rain permit for this source, is incorporated by reference into this Part 70 Permit as Attachment H of this permit.

- (b) Pursuant to 326 IAC 21 (Acid Deposition Control), the Permittee shall comply with all provisions of the Acid Rain Permit and Amendments issued for this source, and any other applicable requirements contained in 40 CFR 72 through 40 CFR 78.
- (c) Where an applicable requirement of the Clean Air Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions shall apply.

F.2 Title IV Emissions Allowances [326 IAC 2-7-5(4)]

Emissions exceeding any allowances that the Permittee lawfully holds under the Title IV Acid Rain Program of the Clean Air Act are prohibited, subject to the following limitations:

- (a) No revision of this permit shall be required for increases in emissions that are authorized by allowances acquired under Title IV Acid Rain Program, provided that such increases do not require a permit revision under any other applicable requirement.
- (b) No limit shall be placed on the number of allowances held by the Permittee. The Permittee may not use allowances as a defense to noncompliance with any other applicable requirement.
- (c) Any such allowance shall be accounted for according to the procedures established in regulations promulgated under Title IV of the Clean Air Act.

SECTION G Clean Air Interstate Rule (CAIR) Nitrogen Oxides Annual, Sulfur Dioxide, and Nitrogen Oxides Ozone Season Trading Programs - CAIR Permit for CAIR Units Under 326 IAC 24-1-1(a), 326 IAC 24-2-1(a), and 326 IAC 24-3-1(a)

ORIS Code: 6213

Emissions Unit Description:

- (a) One (1) pulverized coal-fired dry bottom boiler, identified as Unit 1 or 1SG1, constructed in 1976, rated at 5,088 million Btu per hour (MMBtu/hr) energy input, used to generate up to 490 megawatts (gross) of electricity. Unit 1 uses No. 2 fuel oil for start ups and flame stabilization. Unit 1 cannot operate at load solely using No. 2 fuel oil.

Unit 1 utilizes the following control equipment:

Activated Carbon Injection System (ACI), to be installed in 2015,
SO₃ Mitigation System (SBS Injection),
Electrostatic precipitator (ESP),
Flue Gas Desulfurization (FGD) Wet Scrubber System (identified as CE1B), and
Selective Catalytic Reduction (SCR).

Controlled emissions from Unit 1 are exhausted to the atmosphere through a 19-foot diameter flue liner (SV1) which is housed in a 700-foot stack that is shared by both Unit 1 and Unit 2. Opacity is measured with a continuous opacity monitor (COM). Sulfur dioxide (SO₂) and nitrogen oxides (NO_x) emissions are measured with a SO₂ continuous emission monitor system (CEMS) and a NO_x CEMS, respectively.

[Under 40 CFR Part 60, Subpart D, this is considered an affected unit.]

- (b) One (1) pulverized coal-fired dry bottom boiler, identified as Unit 2 or 2SG1, constructed in 1976, rated at 5,088 million Btu per hour (MMBtu/hr) energy input, used to generate up to 490 megawatts (gross) of electricity. Unit 2 uses No. 2 fuel oil for start ups and flame stabilization. Unit 2 cannot operate at load solely using No. 2 fuel oil.

Unit 2 utilizes the following control equipment:

Activated Carbon Injection System (ACI), to be installed in 2015,
SO₃ Mitigation System (SBS Injection),
Electrostatic precipitator (ESP),
Flue Gas Desulfurization (FGD) Wet Scrubber System (identified as CE2B), and
Selective Catalytic Reduction (SCR).

Controlled emissions from Unit 2 are exhausted to the atmosphere through a 19-foot diameter flue liner (SV2) which is housed in a 700-foot stack that is shared by both Unit 1 and Unit 2. Opacity is measured with a continuous opacity monitor (COM). Sulfur dioxide (SO₂) and nitrogen oxides (NO_x) emissions are measured with a SO₂ continuous emission monitor system (CEMS) and a NO_x CEMS, respectively.

[Under 40 CFR Part 60, Subpart D, this is considered an affected unit.]

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

G.1 Automatic Incorporation of Definitions [326 IAC 24-1-7(e)][326 IAC 24-2-7(e)][326 IAC 24-3-7(e)][40 CFR 97.123(b)][40 CFR 97.223(b)][40 CFR 97.323(b)]

This CAIR permit is deemed to incorporate automatically the definitions of terms under 326 IAC 24-1-2, 326 IAC 24-2-2, and 326 IAC 24-3-2.

G.2 Standard Permit Requirements [326 IAC 24-1-4(a)][326 IAC 24-2-4(a)][326 IAC 24-3-4(a)][40 CFR 97.106(a)][40 CFR 97.206(a)][40 CFR 97.306(a)]

- (a) The owners and operators of each CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source and CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit shall operate each source and unit in compliance with this CAIR permit.
- (b) The CAIR NO_x unit(s), CAIR SO₂ unit(s), and CAIR NO_x ozone season unit(s) subject to this CAIR permit are Unit 1 and Unit 2.

G.3 Monitoring, Reporting, and Record Keeping Requirements [326 IAC 24-1-4(b)][326 IAC 24-2-4(b)][326 IAC 24-3-4(b)][40 CFR 97.106(b)][40 CFR 97.206(b)][40 CFR 97.306(b)]

- (a) The owners and operators, and the CAIR designated representative, of each CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source and CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit at the source shall comply with the applicable monitoring, reporting, and record keeping requirements of 326 IAC 24-1-11, 326 IAC 24-2-10, and 326 IAC 24-3-11.
- (b) The emissions measurements recorded and reported in accordance with 326 IAC 24-1-11, 326 IAC 24-2-10, and 326 IAC 24-3-11 shall be used to determine compliance by each CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source with the CAIR NO_x emissions limitation under 326 IAC 24-1-4(c), CAIR SO₂ emissions limitation under 326 IAC 24-2-4(c), and CAIR NO_x ozone season emissions limitation under 326 IAC 24-3-4(c) and Condition G.4, Nitrogen Oxides Emission Requirements, Condition G.5, Sulfur Dioxide Emission Requirements, and Condition G.6, Nitrogen Oxides Ozone Season Emission Requirements.

G.4 Nitrogen Oxides Emission Requirements [326 IAC 24-1-4(c)][40 CFR 97.106(c)]

- (a) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO_x source and each CAIR NO_x unit at the source shall hold, in the source's compliance account, CAIR NO_x allowances available for compliance deductions for the control period under 326 IAC 24-1-9(i) in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NO_x units at the source, as determined in accordance with 326 IAC 24-1-11.
- (b) A CAIR NO_x unit shall be subject to the requirements under 326 IAC 24-1-4(c)(1) for the control period starting on the applicable date, as determined under 326 IAC 24-1-4(c)(2), and for each control period thereafter.
- (c) A CAIR NO_x allowance shall not be deducted for compliance with the requirements under 326 IAC 24-1-4(c)(1), for a control period in a calendar year before the year for which the CAIR NO_x allowance was allocated.
- (d) CAIR NO_x allowances shall be held in, deducted from, or transferred into or among CAIR NO_x allowance tracking system accounts in accordance with 326 IAC 24-1-9, 326 IAC 24-1-10, and 326 IAC 24-1-12.

- (e) A CAIR NO_x allowance is a limited authorization to emit one (1) ton of nitrogen oxides in accordance with the CAIR NO_x annual trading program. No provision of the CAIR NO_x annual trading program, the CAIR permit application, the CAIR permit, or an exemption under 326 IAC 24-1-3 and no provision of law shall be construed to limit the authority of the State of Indiana or the United States to terminate or limit the authorization.
- (f) A CAIR NO_x allowance does not constitute a property right.
- (g) Upon recordation by the U.S. EPA under 326 IAC 24-1-8, 326 IAC 24-1-9, 326 IAC 24-1-10, or 326 IAC 24-1-12, every allocation, transfer, or deduction of a CAIR NO_x allowance to or from a CAIR NO_x source's compliance account is incorporated automatically in this CAIR permit.

G.5 Sulfur Dioxide Emission Requirements [326 IAC 24-2-4(c)][40 CFR 97.206(c)]

- (a) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR SO₂ source and each CAIR SO₂ unit at the source shall hold, in the source's compliance account, a tonnage equivalent of CAIR SO₂ allowances available for compliance deductions for the control period under 326 IAC 24-2-8(j) and 326 IAC 24-2-8(k) not less than the tons of total sulfur dioxide emissions for the control period from all CAIR SO₂ units at the source, as determined in accordance with 326 IAC 24-2-10.
- (b) A CAIR SO₂ unit shall be subject to the requirements under 326 IAC 24-2-4(c)(1) for the control period starting on the applicable date, as determined under 326 IAC 24-2-4(c)(2), and for each control period thereafter.
- (c) A CAIR SO₂ allowance shall not be deducted for compliance with the requirements under 326 IAC 24-2-4(c)(1), for a control period in a calendar year before the year for which the CAIR SO₂ allowance was allocated.
- (d) CAIR SO₂ allowances shall be held in, deducted from, or transferred into or among CAIR SO₂ allowance tracking system accounts in accordance with 326 IAC 24-2-8, 326 IAC 24-2-9, and 326 IAC 24-2-11.
- (e) A CAIR SO₂ allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO₂ trading program. No provision of the CAIR SO₂ trading program, the CAIR permit application, the CAIR permit, or an exemption under 326 IAC 24-2-3 and no provision of law shall be construed to limit the authority of the State of Indiana or the United States to terminate or limit the authorization.
- (f) A CAIR SO₂ allowance does not constitute a property right.
- (g) Upon recordation by the U.S. EPA under 326 IAC 24-2-8, 326 IAC 24-2-9, or 326 IAC 24-2-11, every allocation, transfer, or deduction of a CAIR SO₂ allowance to or from a CAIR SO₂ source's compliance account is incorporated automatically in this CAIR permit.

G.6 Nitrogen Oxides Ozone Season Emission Requirements [326 IAC 24-3-4(c)][40 CFR 97.306(c)]

- (a) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO_x ozone season source and each CAIR NO_x ozone season unit at the source shall hold, in the source's compliance account, CAIR NO_x ozone season allowances available for compliance deductions for the control period under 326 IAC 24-3-9(i) in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NO_x ozone season units at the source, as determined in accordance with 326 IAC 24-3-11.

- (b) A CAIR NO_x ozone season unit shall be subject to the requirements under 326 IAC 24-3-4(c)(1) for the control period starting on the applicable date, as determined under 326 IAC 24-3-4(c)(2), and for each control period thereafter.
- (c) A CAIR NO_x ozone season allowance shall not be deducted for compliance with the requirements under 326 IAC 24-3-4(c)(1), for a control period in a calendar year before the year for which the CAIR NO_x ozone season allowance was allocated.
- (d) CAIR NO_x ozone season allowances shall be held in, deducted from, or transferred into or among CAIR NO_x ozone season allowance tracking system accounts in accordance with 326 IAC 24-3-9, 326 IAC 24-3-10, and 326 IAC 24-3-12.
- (e) A CAIR NO_x ozone season allowance is a limited authorization to emit one (1) ton of nitrogen oxides in accordance with the CAIR NO_x ozone season trading program. No provision of the CAIR NO_x ozone season trading program, the CAIR permit application, the CAIR permit, or an exemption under 326 IAC 24-3-3 and no provision of law shall be construed to limit the authority of the State of Indiana or the United States to terminate or limit the authorization.
- (f) A CAIR NO_x ozone season allowance does not constitute a property right.
- (g) Upon recordation by the U.S. EPA under 326 IAC 24-3-8, 326 IAC 24-3-9, 326 IAC 24-3-10, or 326 IAC 24-3-12, every allocation, transfer, or deduction of a CAIR NO_x ozone season allowance to or from a CAIR NO_x ozone season source's compliance account is incorporated automatically in this CAIR permit.

G.7 Excess Emissions Requirements [326 IAC 24-1-4(d)][326 IAC 24-2-4(d)][326 IAC 24-3-4(d)][40 CFR 97.106(d)][40 CFR 97.206(d)][40 CFR 97.306(d)]

- (a) The owners and operators of a CAIR NO_x source and each CAIR NO_x unit that emits nitrogen oxides during any control period in excess of the CAIR NO_x emissions limitation shall do the following:
 - (1) Surrender the CAIR NO_x allowances required for deduction under 326 IAC 24-1-9(j)(4).
 - (2) Pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, the Clean Air Act (CAA) or applicable state law.

Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 326 IAC 24-1-4, the Clean Air Act (CAA), and applicable state law.

- (b) The owners and operators of a CAIR SO₂ source and each CAIR SO₂ unit that emits sulfur dioxide during any control period in excess of the CAIR SO₂ emissions limitation shall do the following:
 - (1) Surrender the CAIR SO₂ allowances required for deduction under 326 IAC 24-2-8(k)(4).
 - (2) Pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, the Clean Air Act (CAA) or applicable state law.

Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 326 IAC 24-2-4, the Clean Air Act (CAA), and applicable state law.

- (c) The owners and operators of a CAIR NO_x ozone season source and each CAIR NO_x ozone season unit that emits nitrogen oxides during any control period in excess of the CAIR NO_x ozone season emissions limitation shall do the following:
- (1) Surrender the CAIR NO_x ozone season allowances required for deduction under 326 IAC 24-3-9(j)(4).
 - (2) Pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, the Clean Air Act (CAA) or applicable state law.

Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 326 IAC 24-3-4, the Clean Air Act (CAA), and applicable state law.

G.8 Record Keeping Requirements [326 IAC 24-1-4(e)][326 IAC 24-2-4(e)][326 IAC 24-3-4(e)][326 IAC 2-7-5(3)][40 CFR 97.106(e)][40 CFR 97.206(e)][40 CFR 97.306(e)]

Unless otherwise provided, the owners and operators of the CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source and each CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit at the source shall keep on site at the source or at a central location within Indiana for those owners or operators with unattended sources, each of the following documents for a period of five (5) years from the date the document was created:

- (a) The certificate of representation under 326 IAC 24-1-6(h), 326 IAC 24-2-6(h), and 326 IAC 24-3-6(h) for the CAIR designated representative for the source and each CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation. The certificate and documents shall be retained on site at the source or at a central location within Indiana for those owners or operators with unattended sources beyond such five (5) year period until such documents are superseded because of the submission of a new account certificate of representation under 326 IAC 24-1-6(h), 326 IAC 24-2-6(h), and 326 IAC 24-3-6(h) changing the CAIR designated representative.
- (b) All emissions monitoring information, in accordance with 326 IAC 24-1-11, 326 IAC 24-2-10, and 326 IAC 24-3-11, provided that to the extent that 326 IAC 24-1-11, 326 IAC 24-2-10, and 326 IAC 24-3-11 provides for a three (3) year period for record keeping, the three (3) year period shall apply.
- (c) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO_x annual trading program, CAIR SO₂ trading program, and CAIR NO_x ozone season trading program.
- (d) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR NO_x annual trading program, CAIR SO₂ trading program, and CAIR NO_x ozone season trading program or to demonstrate compliance with the requirements of the CAIR NO_x annual trading program, CAIR SO₂ trading program, and CAIR NO_x ozone season trading program.

This period may be extended for cause, at any time before the end of five (5) years, in writing by IDEM, OAQ or the U.S. EPA. Unless otherwise provided, all records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

G.9 Reporting Requirements [326 IAC 24-1-4(e)][326 IAC 24-2-4(e)][326 IAC 24-3-4(e)][40 CFR 97.106(e)][40 CFR 97.206(e)][40 CFR 97.306(e)]

- (a) The CAIR designated representative of the CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source and each CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit at the source shall submit the reports required under the CAIR NO_x annual trading program, CAIR SO₂ trading program, and CAIR NO_x ozone season trading program, including those under 326 IAC 24-1-11, 326 IAC 24-2-10, and 326 IAC 24-3-11.
- (b) Pursuant to 326 IAC 24-1-4(e), 326 IAC 24-2-4(e), and 326 IAC 24-3-4(e) and 326 IAC 24-1-6(e)(1), 326 IAC 24-2-6(e)(1), and 326 IAC 24-3-6(e)(1), each submission under the CAIR NO_x annual trading program, CAIR SO₂ trading program, and CAIR NO_x ozone season trading program shall include the following certification statement by the CAIR designated representative: "I am authorized to make this submission on behalf of the owners and operators of the source or units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

- (c) Where 326 IAC 24-1, 326 IAC 24-2, and 326 IAC 24-3 requires a submission to IDEM, OAQ, the information shall be submitted to:

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

- (d) Where 326 IAC 24-1, 326 IAC 24-2, and 326 IAC 24-3 requires a submission to U.S. EPA, the information shall be submitted to:

U.S. Environmental Protection Agency
Clean Air Markets Division
1200 Pennsylvania Avenue, NW
Mail Code 6204N
Washington, DC 20460

G.10 Liability [326 IAC 24-1-4(f)][326 IAC 24-2-4(f)][326 IAC 24-3-4(f)][40 CFR 97.106(f)][40 CFR 97.206(f)][40 CFR 97.306(f)]

The owners and operators of each CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source and each CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit shall be liable as follows:

- (a) Each CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source and each CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit shall meet the requirements of the CAIR NO_x annual trading program, CAIR SO₂ trading program, and CAIR NO_x ozone season trading program, respectively.

- (b) Any provision of the CAIR NO_x annual trading program, CAIR SO₂ trading program, and CAIR NO_x ozone season trading program that applies to a CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source or the CAIR designated representative of a CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source shall also apply to the owners and operators of such source and of the CAIR NO_x units, CAIR SO₂ units, and CAIR NO_x ozone season units at the source.
- (c) Any provision of the CAIR NO_x annual trading program, CAIR SO₂ trading program, and CAIR NO_x ozone season trading program that applies to a CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit or the CAIR designated representative of a CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit shall also apply to the owners and operators of such unit.

G.11 Effect on Other Authorities [326 IAC 24-1-4(g)][326 IAC 24-2-4(g)][326 IAC 24-3-4(g)][40 CFR 97.106(g)][40 CFR 97.206(g)][40 CFR 97.306(g)]

No provision of the CAIR NO_x annual trading program, CAIR SO₂ trading program, and CAIR NO_x ozone season trading program, a CAIR permit application, a CAIR permit, or an exemption under 326 IAC 24-1-3, 326 IAC 24-2-3, and 326 IAC 24-3-3 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source or CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act (CAA).

G.12 CAIR Designated Representative and Alternate CAIR Designated Representative [326 IAC 24-1-6][326 IAC 24-2-6][326 IAC 24-3-6][40 CFR 97, Subpart BB][40 CFR 97, Subpart BBB][40 CFR 97, Subpart BBBB]

Pursuant to 326 IAC 24-1-6, 326 IAC 24-2-6, and 326 IAC 24-3-6:

- (a) Except as specified in 326 IAC 24-1-6(f)(3), 326 IAC 24-2-6(f)(3), and 326 IAC 24-3-6(f)(3), each CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source, including all CAIR NO_x units, CAIR SO₂ units, and CAIR NO_x ozone season units at the source, shall have one (1) and only one (1) CAIR designated representative, with regard to all matters under the CAIR NO_x annual trading program, CAIR SO₂ trading program, and CAIR NO_x ozone season trading program concerning the source or any CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit at the source.
- (b) The provisions of 326 IAC 24-1-6(f), 326 IAC 24-2-6(f), and 326 IAC 24-3-6(f) shall apply where the owners or operators of a CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source choose to designate an alternate CAIR designated representative.

Except as specified in 326 IAC 24-1-6(f)(3), 326 IAC 24-2-6(f)(3), and 326 IAC 24-3-6(f)(3), whenever the term "CAIR designated representative" is used, the term shall be construed to include the CAIR designated representative or any alternate CAIR designated representative.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
CERTIFICATION**

Source Name: Hoosier Energy REC, Inc - Merom Generating Station
Part 70 Permit No.: T153-35203-00005

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

Please check what document is being certified:

- Annual Compliance Certification Letter
- Test Result (specify)
- Report (specify)
- Notification (specify)
- Affidavit (specify)
- Other (specify)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: (317) 233-0178
Fax: (317) 233-6865

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Hoosier Energy REC, Inc - Merom Generating Station
Part 70 Permit No.: T153-35203-00005

This form consists of 2 pages

Page 1 of 2

- This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (4) daytime business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
 - The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Hoosier Energy REC, Inc - Merom Generating Station
Part 70 Permit No.: T153-35203-00005
Facility: CBM-fired Flare
Parameter: Coal Bed Methane Usage
Limit: Less than 73.50 MMCF per twelve (12) consecutive month period.

QUARTER :

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on:

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH**

Part 70 Quarterly Report

Source Name: Hoosier Energy REC, Inc - Merom Generating Station
Part 70 Permit No.: T153-35203-00005
Facility: CBM1-CMB4
Parameter: CO Emissions
Limit: Less than 91.8 tons per twelve (12) consecutive month period.

QUARTER :

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on:

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH**

Part 70 Quarterly Report

Source Name: Hoosier Energy REC, Inc - Merom Generating Station
Part 70 Permit No.: T153-35203-00005
Facility: CBM1-CMB4
Parameter: VOC
Limit: Less than 34.2 tons per twelve (12) consecutive month period.

QUARTER :

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.
Deviation has been reported on:

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Hoosier Energy REC, Inc - Merom Generating Station
Part 70 Permit No.: T153-35203-00005
Facility: CBM1-CMB4
Parameter: NOx
Limit: Less than 36.7 tons per twelve (12) consecutive month period.

QUARTER :

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on:

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH**

Part 70 Quarterly Report

Source Name: Hoosier Energy REC, Inc - Merom Generating Station
Part 70 Permit No.: T153-35203-00005
Facility: One (1) distillate oil #2-fired auxiliary boiler
Parameter: Fuel Usage
Limit: less than 563,380 gallons of No. 2 fuel oil per twelve (12) consecutive month period, beginning January 31, 2016.

QUARTER :

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.
Deviation has been reported on:

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

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH**

Part 70 Quarterly Report

Source Name: Hoosier Energy REC, Inc - Merom Generating Station
Part 70 Permit No.: T153-35203-00005
Facility: One (1) distillate oil #2-fired auxiliary boiler
Parameter: Fuel Usage
Limit: less than 563,380 gallons of No. 2 fuel oil per twelve (12) consecutive month period, beginning January 31, 2016.

QUARTER :

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on:

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE AND ENFORCEMENT BRANCH
 PART 70 OPERATING PERMIT
 QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Hoosier Energy REC, Inc - Merom Generating Station
 Part 70 Permit No.: T153-35203-00005

Months: _____ **to** _____ **Year:** _____

This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B -Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C- General Reporting. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> 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: _____

**Indiana Department of Environmental Management
Office of Air Quality**

Technical Support Document (TSD) for a Part 70 Administrative
Amendment

Source Description and Location	
Source Name:	Hoosier Energy REC, Inc. - Merom Generating Station
Source Location:	5500 W Old 54, Sullivan, Indiana, 47882
County:	Sullivan
SIC Code:	4911 (Electric Services)
Operation Permit No.:	T 153-36369-00005
Operation Permit Issuance Date:	June 7, 2016
Administrative Amendment No.:	T 153-37177-00005
Permit Reviewer:	Sommer Cochran

Existing Approvals

The source was issued Part 70 Operating Permit No. T 153-35203-00005 on June 15, 2015. The source has since received the following approvals:

- (a) Significant Source Modification No. 153-35424-00005, issued on May 20, 2015;
- (b) Significant Source Modification No. 153-36364-00005, issued on May 19, 2016; and
- (c) Significant Permit Modification No. 153-36369-00005, issued on June 7, 2016.

County Attainment Status

The source is located in Sullivan County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard. ¹
PM _{2.5}	Unclassifiable or attainment effective April 5, 2005, for the annual PM _{2.5} standard.
PM _{2.5}	Unclassifiable or attainment effective December 13, 2009, for the 24-hour PM _{2.5} standard.
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Unclassifiable or attainment effective December 31, 2011.

¹Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.

- (a) **Ozone Standards**
Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Sullivan County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) **PM_{2.5}**
Sullivan County has been classified as attainment for PM_{2.5}. Therefore, direct PM_{2.5}, SO₂, and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

- (c) Other Criteria Pollutants
 Sullivan County has been classified as attainment or unclassifiable in Indiana for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

Since this source is classified as a Fossil fuel boilers (or combinations thereof) totaling more than 250 million Btu/hr heat input it is considered one (1) of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7. Therefore, fugitive emissions are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Greenhouse Gas (GHG) Emissions

On June 23, 2014, in the case of Utility Air Regulatory Group v. EPA, cause no. 12-1146, (available at http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf) the United States Supreme Court ruled that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014, the U.S. EPA issued a memorandum to the Regional Administrators outlining next steps in permitting decisions in light of the Supreme Court's decision. U.S. EPA's guidance states that U.S. EPA will no longer require PSD or Title V permits for sources "previously classified as 'Major' based solely on greenhouse gas emissions."

The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC 2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking). A rule, or part of a rule, adopted under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHG emissions to determine operating permit applicability or PSD applicability to a source or modification.

Source Status - Existing Source

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

Process / Emission Unit	Source-Wide Emissions Before Administrative Amendment (ton/year)								
	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	VOC	CO	Single HAP*	Combined HAPs
One (1) Coal-Fired Boiler Unit 1	334.28	11.42	2.98	8231.4	1782.8	60.1	6017.1	1203.4	1362.90
One (1) Coal-Fired Boiler Unit 2	334.28	11.42	2.98	8231.4	1782.8	60.1	6017.1	1203.4	1362.90
One (1) No. 2 Distillate Oil-fired Aux Boilers	9.74	6.79	4.58	2.00	5.63	1.00	14.76	0.10	0.14
One (1) No. 2 Distillate Oil-fired Aux Boilers	9.74	6.79	4.58	2.00	5.63	1.00	14.76	0.10	0.14
Four (4) 4-Stroke Lean Burn CBM-Fired	3.55	3.55	3.55	0.26	36.70	34.20	91.80	7.11	13.47

Process / Emission Unit	Source-Wide Emissions Before Administrative Amendment (ton/year)								
	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	VOC	CO	Single HAP*	Combined HAPs
Engines									
One (1) CBM Flare	0.64	0.64	0.64	0.06	2.25	5.63	7.50	0.07	0.07
Flare Pilot-Propane	0.03	0.03	0.03	0.06	0.50	0.04	0.29	0.00	0.00
Coal Storage and Handling System									
Coal Pile F01	6.13	5.21	0.80	0	0	0	0	0	0
Rotary Railcar Dumper, FO2	24.96	11.81	1.79	0	0	0	0	0	0
Truck Unload, Hopper (A, B, & C), FO3	6.55	3.10	0.47	0	0	0	0	0	0
Truck Unload, pile, FO4	6.24	2.95	0.45	0	0	0	0	0	0
Breaker House (Conveying) FO5	12.48	5.90	0.89	0	0	0	0	0	0
Stockout Conveyors CH-CV- 1, 2, & 3, FO6	43.68	20.66	3.13	0	0	0	0	0	0
Reclaim (I, ii, & iii), FO7	11.98	5.67	0.86	0	0	0	0	0	0
Reclaim Conveyors CH-CV- 4/5/6-A/B	9.98	4.72	0.72	0	0	0	0	0	0
Emergency Reclaim FO8	10.48	4.96	0.75	0	0	0	0	0	0
Crusher (I, ii, iii, iv, & v), FO9	3.99	1.89	0.29	0	0	0	0	0	0
Boiler Building Bunker F10	3.00	1.42	0.21	0	0	0	0	0	0
Truck hauling on unpaved roads	75.05	23.34	2.33	0	0	0	0	0	0
Lime Kiln Dust Silos									
LKD Silo 1	0.000023	0.000011	0.000002	0	0	0	0	0	0
LKD Silo 2	0.000023	0.000011	0.000002	0	0	0	0	0	0
Lime Storage and Handling System									
Railcar Unloading Station LDU	1.64	0.77	0.12	0	0	0	0	0	0

Process / Emission Unit	Source-Wide Emissions Before Administrative Amendment (ton/year)								
	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	VOC	CO	Single HAP*	Combined HAPs
1									
Truck Unloading LTU1	2.18	1.03	0.16	0	0	0	0	0	0
Unloading Conveyor LU 1	0.33	0.15	0.02	0	0	0	0	0	0
Limestone Storage Pile LP 1	0.80	0.68	0.10	0	0	0	0	0	0
Limestone Drop Point LDP 1	0.33	0.15	0.02	0	0	0	0	0	0
Limestone Reclaim Conveyor LRC 1	0.20	0.09	0.01	0	0	0	0	0	0
Limestone Reclaim Conveyor LRC 2	0.20	0.09	0.01	0	0	0	0	0	0
Reclaim Conveyor Transfer LRCT 1	0.20	0.09	0.01	0	0	0	0	0	0
Reclaim Conveyor Transfer LRCT 2	0.20	0.09	0.01	0	0	0	0	0	0
Limestone Receiving Bin LRCB 1	0.000191	0.000090	0.000014	0	0	0	0	0	0
Limestone Receiving Bin LRCB 2	0.000191	0.000090	0.000014	0	0	0	0	0	0
Limestone Pre-Crushing LPC 1	0.000049	0.000023	0.000004	0	0	0	0	0	0
Limestone Pre-Crushing LPC 2	0.000049	0.000023	0.000004	0	0	0	0	0	0
Limestone Surge Bin LSB 1	0.000049	0.000023	0.000004	0	0	0	0	0	0
Limestone Surge Bin LSB 2	0.000049	0.000023	0.000004	0	0	0	0	0	0
Limestone Ball Mill Conveyor LBMC1	0.09	0.04	0.01	0	0	0	0	0	0
Limestone	0.09	0.04	0.01	0	0	0	0	0	0

Process / Emission Unit	Source-Wide Emissions Before Administrative Amendment (ton/year)								
	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	VOC	CO	Single HAP*	Combined HAPs
Ball Mill Conveyor LBMC2									
Weigh Belt Feeder, LWB1	0.0123	0.0058	0.0009	0	0	0	0	0	0
Weigh Belt Feeder, LWB2	0.0123	0.0058	0.0009	0	0	0	0	0	0
Weigh Belt Feeder, LWB3	0.0123	0.0058	0.0009	0	0	0	0	0	0
Weigh Belt Feeder, LWB4	0.0123	0.0058	0.0009	0	0	0	0	0	0
Limestone weigh belt feeder, LWB1.1	0.09	0.04	0.01	0	0	0	0	0	0
Limestone weigh belt feeder, LWB2.1	0.09	0.04	0.01	0	0	0	0	0	0
Limestone Emergency Reclaim Conveyor, LERC	0.00	0.00	0.00	0	0	0	0	0	0
Limestone Emergency Reclaim Feeder, LERF	0.00	0.00	0.00	0	0	0	0	0	0
Limestone Emergency Reclaim Breaker, LERB	0.00	0.00	0.00	0	0	0	0	0	0
Underground Limestone Railcar Belt Feeder, LRUBF1	0.00	0.00	0.00	0	0	0	0	0	0
Underground Limestone Railcar Belt Feeder, LRUBF2	0.00	0.00	0.00	0	0	0	0	0	0
Underground Limestone Storage Pile Belt Feeder, LSPBF1	0.00	0.00	0.00	0	0	0	0	0	0

Process / Emission Unit	Source-Wide Emissions Before Administrative Amendment (ton/year)								
	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	VOC	CO	Single HAP*	Combined HAPs
Underground Limestone Storage Pile Belt Feeder, LSPBF2	0.00	0.00	0.00	0	0	0	0	0	0
Underground Limestone Wet Ball Mill, LWBM1	0.08	0.04	0.01	0	0	0	0	0	0
Underground Limestone Wet Ball Mill, LWBM2	0.08	0.04	0.01	0	0	0	0	0	0
Truck hauling on unpaved roads	1.01	0.31	0.03	0	0	0	0	0	0
Pneumatic Fly Ash System									
Fly Ash Silo 1A, 1B, 2A, 2B and Fly Silo UCS	0.00298	0.00018	0.00018	0	0	0	0	0	0
Emergency Fly Ash Loading (fugitive)	0.26	0.09	0.09	0	0	0	0	0	0
Lime kiln Dust Storage and Handling at IUCS									
Lime Kiln Dust Silo at IUCS	0.00394	0.00394	0.00394	0	0	0	0	0	0
Lime Storage and Handling System at WWT									
Lime Silo at WWT	0.000016	0.000016	0.000016	0	0	0	0	0	0
FGD Slurry Handling System									
Pug Mill 1 & Pug Mill 2	0.18	0.08	0.01	0	0	0	0	0	0
Pozz-O-tec drop point	0.18	0.08	0.01	0	0	0	0	0	0
Wet Bottom Ash Storage and Handling System									
Bottom Ash Decant Bin 1A, 1B, 2A & 2B	0.05	0.02	0.01	0	0	0	0	0	0
Truck hauling on unpaved roads	5.20	1.62	0.16	0	0	0	0	0	0
Pozz-O-tec landfill									
Movement of material (dozers)	0.09	0.04	0.01	0	0	0	0	0	0
One (1)	0.28	0.16044	0.16044	1.618	9.6	0.282	2.2	negl	0.0044

Process / Emission Unit	Source-Wide Emissions Before Administrative Amendment (ton/year)								
	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	VOC	CO	Single HAP*	Combined HAPs
Emergency Diesel Gen EMDG-1									
Unit 1 and 2 - ACI System	0.014	0.014	0.014	0	0	0	0	0	0
Fly ash transfer	0	0	0	0	0	0	0	0	0
Fugitive Dust from Truck Traffic due to fly ash	0.38	0.11	0.01	0	0	0	0	0	0
Fugitive Dust from Truck Traffic	0.15	0.03	0.01	0	0	0	0	0	0
Total for Source	921	138	33	16469	3626	163	12166	2414	2740
PSD Major Source Thresholds	100	100	100	100	100	100	100	--	--

*Single highest source-wide HAP.

- (a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because each PSD regulated pollutant, PM, PM₁₀, SO₂, NO_x, VOC, and CO, is emitted at a rate of 100 tons per year or more, and it is one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).
- (b) This existing source is a major source of HAPs, as defined in 40 CFR 63.2, because HAP emissions are equal to or greater than ten (10) tons per year for a single HAP and equal to or greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).
- (c) These emissions are based on the Technical Support Document for T153-36369-00004.

Description of Amendment

The Office of Air Quality (OAQ) has reviewed an application, submitted by Hoosier Energy REC, Inc., - Merom Generating Station on May 10, 2015, relating to adding a new FGD emergency fire pump, and modifying an outdoor coal storage are identified as F01, and removing an operating condition for a heated degreaser for the degreasing operation which does not include a heated degreaser. The following is a list of the proposed and modified emission units and pollution control devices:

New Emissions units:

- (a) One (1) emergency fire pump, identified as FGD FP, constructed in 2016, rated at 315 horsepower, engine displacement volume less than 10 liters per cylinder and exhausting to the atmosphere.

[Under 40 CFR Part 60, Subpart IIII, this is considered an affected unit].

[Under 40 CFR Part 63, Subpart ZZZZ, this is considered an affected unit.]

Modified Emissions Units:

- (b) A coal storage and handling system, commencing construction in 1977 and modified in 2016, with a nominal throughput of 4,351,419 tons per year, consisting of the following equipment:
- (1) One (1) outdoor storage area, identified as F01, constructed in 1977 and modified in 2016 from a nominal storage capacity of 1,500,000 tons to 2,100,000 tons, with particulate matter emissions controlled by layering and compaction and exhausting directly to the atmosphere;

Enforcement Issues

There are no pending enforcement actions related to this modification.

Emission Calculations

See Appendix A of this Technical Support Document for detailed emission calculations.

Permit Level Determination –Part 70 Administrative Amendment at an Existing Source

Pursuant to 326 IAC 2-1.1-1(12), Potential to Emit is defined as “the maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, IDEM, or the appropriate local air pollution control agency.”

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5 and 326 IAC 2-7-11. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit. If the control equipment has been determined to be integral, the table reflects the PTE after consideration of the integral control device.

Process / Emission Unit	PTE Before Controls of the New Emission Units (ton/year)								
	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	VOC	CO	Single HAP	Combined HAPs
FGD Emergency Fire Pump	0.16	0.16	0.16	0.15	2.32	0.19	0.50	0.0006	0.002
Total:	0.16	0.16	0.16	0.15	2.32	0.19	0.50	0.0006	0.002

Outdoor Coal Storage area	PTE Change of the Modified Emission Unit(s)/Process (ton/year)								
	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	VOC	CO	Single HAP	Combined HAPs
PTE Before Modification	6.13	5.21	0.80	--	--	--	--	--	--
PTE After Modification	8.39	7.13	1.09	--	--	--	--	--	--
PTE Increase From Modification	2.26	1.92	0.29	--	--	--	--	--	--

Appendix A of this TSD reflects the potential emissions of the modification in detail.

	Total PTE Increase Due to the Modification (ton/year)								
	PM	PM₁₀	PM_{2.5}	SO₂	NO_x	VOC	CO	Single HAP	Combined HAPs
PTE of New Emission units	0.16	0.16	0.16	0.15	2.32	0.19	0.50	0.0006	0.002
PTE Increase of Modified Emission Units/Process	2.26	1.92	0.29	--	--	--	--	--	--
Total PTE of the Modification	2.42	2.08	0.45	0.15	2.32	0.19	0.50	0.0006	0.002

Pursuant to 326 IAC 2-7-11(a)(8)(A), this change to the permit is considered an administrative amendment because the permit is amended to incorporate an exempt modification as described in 326 IAC 2-1.1-3 that does not otherwise constitute a modification for purposes of 326 IAC 2-7-10.5 (Source Modifications) or 326 IAC 2-7-12 (Permit Modifications).

Permit Level Determination – PSD Actual to Projected Actual Test

Hoosier Energy's Merom Generating Station will not be burning more coal as a result of the coal pile expansion. There is no reasonable possibility that there will be any increase in emissions from Unit 1 or Unit 2 due to the increase in the capacity of the coal pile.

There is no increase in emissions from any emission unit, therefore, the requirement of 326 IAC 2-2 (PSD) is not applicable.

Federal Rule Applicability Determination

Due to the amendment at this source, federal rule applicability has been reviewed as follows:

New Source Performance Standards (NSPS):

- (a) The new emergency fire pump is subject to the New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines 40 CFR 60, Subpart IIII and 326 IAC 12, because owners and operators of stationary compression ignition (CI) internal combustion engines (ICE) constructed after July 1, 2006 and are certified by the National Fire Protection Association (NFPA) are subject to the provisions of this subpart. The FGD Emergency Fire Pump subject to this rule includes the following:

One (1) emergency fire pump, identified as FGD FP, constructed in 2016, rated at 315 horsepower, engine displacement volume less than 10 liters per cylinder and exhausting to the atmosphere.

The new emergency fire pump is subject to the following portions of Subpart IIII:

- (1) 40 CFR 60.4200(a)(2)(ii)
- (2) 40 CFR 60.4205(c)
- (3) 40 CFR 60.4206
- (4) 40 CFR 60.4207(b)
- (5) 40 CFR 60.4209
- (6) 40 CFR 60.4211(a), (c), (f), and (g)
- (7) 40 CFR 60.4212
- (8) 40 CFR 60.4214 (b) and (c)
- (9) 40 CFR 60.4218
- (10) 40 CFR 60.4219
- (11) Table 3 of Subpart IIII
- (12) Table 4 of Subpart IIII
- (13) Table 5 of Subpart IIII

(14) Table 8 of Subpart IIII

The requirements of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to the emergency fire pump except as otherwise specified in 40 CFR 60, Subpart IIII.

- (b) There are no other New Source Performance Standards (40 CFR Part 60) and 326 IAC 12 included in the permit for this proposed amendment.

National Emission Standards for Hazardous Air Pollutants (NESHAP):

- (c) The new emergency fire pump, identified as FGD FP is subject to the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) 40 CFR 63, Subpart ZZZZ and 326 IAC 20-82, because the engine was constructed after June 12, 2006. The emergency fire pump subject to this rule includes the following:

- (5) One (1) emergency fire pump, identified as FGD FP, constructed in 2016, rated at less than 1600 horsepower, engine displacement volume less than 10 liters per cylinder and exhausting to the atmosphere.

The new emergency fire pump is subject to the following portions of Subpart ZZZZ:

- (1) 40 CFR 63.6580
- (2) 40 CFR 63.6585 (a), (b), (c), and (d)
- (3) 40 CFR 63.6590 (a)(2)(ii) and (c)(6)
- (4) 40 CFR 63.6565
- (5) 40 CFR 63.6570 (a) and (b)
- (6) 40 CFR 63.6575
- (7) Table 8 to Subpart ZZZZ

The requirements of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated as 326 IAC 20-1, apply to the new emergency fire pump except as otherwise specified in 40 CFR 63, Subpart ZZZZ.

- (d) There are no other National Emission Standards for Hazardous Air Pollutants under 40 CFR 63, 326 IAC 14 and 326 IAC 20 included for this proposed amendment.

Compliance Assurance Monitoring (CAM):

- (a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to each existing pollutant-specific emission unit that meets the following criteria:
- (1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;
 - (2) is subject to an emission limitation or standard for that pollutant; and
 - (3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

None of the emission units has air pollution controls; therefore, the requirements of 40 CFR Part 64, CAM, are not applicable to any of the new or modified units as part of this amendment.

State Rule Applicability Determination

Due to the amendment at this source, state rule applicability has been reviewed as follows:

326 IAC 2-2 (PSD) and 2-3 (Emission Offset)

PSD applicability is discussed under the Permit Level Determination - PSD and Emission Offset section.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of one (1) emergency fire pump, identified as FGD FP, will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-6 (Emission Reporting)

Since this source is required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program, this source is subject to 326 IAC 2-6 (Emission Reporting). In accordance with the compliance schedule in 326 IAC 2-6-3, an emission statement must be submitted triennially. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 2-7-6(5) (Annual Compliance Certification)

The U.S. EPA Federal Register 79 FR 54978 notice does not exempt Title V Permittees from the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D), but the submittal of the Title V annual compliance certification to IDEM satisfies the requirement to submit the Title V annual compliance certifications to EPA. IDEM does not intend to revise any permits since the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D) still apply, but Permittees can note on their Title V annual compliance certifications that submission to IDEM has satisfied reporting to EPA per Federal Register 79 FR 54978. This only applies to Title V Permittees and Title V compliance certifications.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to assure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

There are no new compliance requirements included with this modification.

Proposed Changes

The following changes listed below are due to the proposed administrative amendment. Deleted language appears as ~~strike through~~ text and new language appears as **bold** text:

...

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(14)]

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

...

- (d) A coal storage and handling system, commencing construction in 1977 **and modified in 2016**, with a nominal throughput of 4,351,419 tons per year, consisting of the following

equipment:

- (1) One (1) outdoor storage area, identified as F01, ~~with a nominal storage capacity of 1,500,000 tons,~~ **constructed in 1977 and modified in 2016 from a nominal storage capacity of 1,500,000 tons to 2,100,000 tons**, with particulate matter emissions controlled by layering and compaction and exhausting directly to the atmosphere.

...

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]

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

...

- (5) **One (1) emergency fire pump, identified as FGD FP, constructed in 2016, rated at less than 1600 horsepower, engine displacement volume less than 10 liters per cylinder and exhausting to the atmosphere.**

[Under 40 CFR Part 60, Subpart IIII, this is considered an affected unit.]

[Under 40 CFR Part 63, Subpart ZZZZ, this is considered an affected unit.]

- ~~(56)~~ ...

- ~~(67)~~ ...

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (d) A coal storage and handling system, commencing construction in 1977 **and modified in 2016**, with a nominal throughput of 4,351,419 tons per year, consisting of the following equipment:

- (1) One (1) outdoor storage area, identified as F01, ~~with a nominal storage capacity of 1,500,000 tons,~~ **constructed in 1977 and modified in 2016 from a nominal storage capacity of 1,500,000 tons to 2,100,000 tons**, with particulate matter emissions controlled by layering and compaction and exhausting directly to the atmosphere.

...

...

SECTION D.6 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Specifically Regulated Insignificant Activities:

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

...

(5) **One (1) emergency fire pump, identified as FGD FP, constructed in 2016, rated at less than 1600 horsepower, engine displacement volume less than 10 liters per cylinder, firing No. 2 fuel 100% of the time, and exhausting to the atmosphere.**

[Under 40 CFR Part 60, Subpart IIII, this is considered an affected unit.]

[Under 40 CFR Part 63, Subpart ZZZZ, this is considered an affected unit.]

...

...

SECTION E.2

NSPS

Emissions Unit Description:

(d) A coal storage and handling system, commencing construction in 1977 **and modified in 2016**, with a nominal throughput of 4,351,419 tons per year, consisting of the following equipment:

(1) One (1) outdoor storage area, identified as F01, ~~with a nominal storage capacity of 1,500,000 tons,~~ **constructed in 1977 and modified in 2016 from a nominal storage capacity of 1,500,000 tons to 2,100,000 tons**, with particulate matter emissions controlled by layering and compaction and exhausting directly to the atmosphere.

...

...

SECTION E.3

NSPS

Emissions Unit Description:

Insignificant Activities:

...

(5) **One (1) emergency fire pump, identified as FGD FP, constructed in 2016, rated at less than 1600 horsepower, engine displacement volume less than 10 liters per cylinder and exhausting to the atmosphere.**

[Under 40 CFR Part 60, Subpart IIII, this is considered an affected unit.]

[Under 40 CFR Part 63, Subpart ZZZZ, this is considered an affected unit.]

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

...

III][326 IAC 12]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart IIII (included as Attachment C to the operating permit), which are incorporated by reference as 326 IAC 12 for the emission units listed above:

(a) **The emergency generator, identified as EMDG-1, is subject to the following requirements:**

...

(b) **The emergency fire pump, identified as FGD FP, is subject to the following requirements:**

- (1) 40 CFR 60.4200(a)(2)(ii)
- (2) 40 CFR 60.4205(c)
- (3) 40 CFR 60.4206
- (4) 40 CFR 60.4207(b)
- (5) 40 CFR 60.4209
- (6) 40 CFR 60.4211(a), (c), (f), and (g)
- (7) 40 CFR 60.4212
- (8) 40 CFR 60.4214 (b) and (c)
- (9) 40 CFR 60.4218
- (10) 40 CFR 60.4219
- (11) Table 3 of Subpart IIII
- (12) Table 4 of Subpart IIII
- (13) Table 5 of Subpart IIII
- (14) Table 8 of Subpart IIII

...

SECTION E.5

NESHAP

Emissions Unit Description:

- (o) Four (4) 4-Stroke Lean Burn Coal Bed Methane (CBM)-fired Reciprocating Internal Combustion Engines (RICE), constructed in 2011, identified as CBM1 to CBM4, each rated at 4,601 bHP (25.46 MMBtu/hr). CBM1 to CBM4 use Catalytic Oxidation and Selective Catalytic Reduction (SCR) to control VOC, NOx and CO. CBM1 to CBM4 exhaust to stacks SV-CBM1 to SV-CBM4 or to the greenhouses, respectively. ~~{40 CFR 63, Subpart ZZZZ}~~

[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected unit.]

[Under 40 CFR 60, Subpart JJJJ, this is considered an affected unit.]

...

- (5) **One (1) emergency fire pump, identified as FGD FP, constructed in 2016, rated at less than 1600 horsepower, engine displacement volume less than 10 liters per cylinder and exhausting to the atmosphere.**

[Under 40 CFR Part 60, Subpart IIII, this is considered an affected unit.]

[Under 40 CFR Part 63, Subpart ZZZZ, this is considered an affected unit.]

...

...

E.5.2 Stationary Reciprocating Internal Combustion Engines NESHAP [40 CFR Part 63, Subpart ZZZZ][326 IAC 20-82]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZ (included as Attachment E to the operating permit), which are incorporated by reference as 326 IAC 20-82, for the emission units listed above:

(a) **The emergency generator, identified as EMDG-1, is subject to the following requirements:**

...

(b) **The emergency fire pump, identified as FGD FP, is subject to the following requirements:**

- (1) 40 CFR 63.6585
- (2) 40 CFR 63.6590 (a)(2)(i) and (c)(6)
- (3) 40 CFR 63.6595 (a)(5)
- (4) 40 CFR 63.6665
- (5) 40 CFR 63.6670 (a) and (b)
- (6) 40 CFR 63.6675
- (7) Table 8 to Subpart ZZZZ

(b)(c) ...

...

Additional Changes

- (1) The source does not heat the solvents used in the following facility and has requested that condition D.6(b) be removed from this permit:

SECTION D.6 EMISSIONS UNIT OPERATION CONDITIONS

...

D.6.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Degreaser Control Equipment and Operating Requirements), ~~for cold cleaning degreasers without remote solvent reservoirs constructed after July 1, 1990:~~ **the Permittee shall:**

(a) **Ensure the following control equipment and operating requirements are met:**

- (1) Equip the degreaser with a cover.
- (2) Equip the degreaser with a device for draining cleaned parts.
- (3) Close the degreaser cover whenever parts are not being handled in the degreaser.
- (4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases.
- (5) Provide a permanent, conspicuous label that lists the operating requirements in (a)(3), (a)(4), (a)(6), and (a)(7) of this condition.
- (6) Store waste solvent only in closed containers.

- (7) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.

~~(b) The Permittee shall ensure the following additional control equipment and operating requirements are met:~~

- ~~(1) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):~~

~~(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.~~

~~(B) A water cover when solvent used is insoluble in, and heavier than, water.~~

~~(C) A refrigerated chiller.~~

~~(D) Carbon adsorption.~~

~~(E) An alternative system of demonstrated equivalent or better control as those outlined in (b)(1)(A) through (D) of this condition that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.~~

- ~~(2) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.~~

- ~~(3) If used, solvent spray:~~

~~(A) must be a solid, fluid stream; and~~

~~(B) shall be applied at a pressure that does not cause excessive splashing.~~

- (2) The conveyor, identified as CH-TC-1, was listed in section A.3(a)(6)(i) and Section A.3(b)(18); therefore, it was removed from section A.3(b)(18).

- (b) This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

...

- (18) Conveyors as follows:

(A) Covered conveyors for limestone conveying of less than or equal to 7200 tons per day for sources other than mineral processing plants constructed after August 31, 1983;

~~(B) Underground conveyor identified as CH-TC-1,~~

- (3) The following updates were made to the permit:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(14)]

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

- (a) One (1) pulverized coal-fired dry bottom boiler, identified as Unit 1 or 1SG1, constructed in 1976, rated at 5,088 million Btu per hour (MMBtu/hr) energy input, used to generate up to 490 megawatts (gross) of electricity. Unit 1 uses No. 2 fuel oil for start ups and flame stabilization. Unit 1 cannot operate at load solely using No. 2 fuel oil.

...

[Under 40 CFR Part 60, Subpart D, Unit 1 is this is considered an affected facility unit.]

- (b) One (1) pulverized coal-fired dry bottom boiler, identified as Unit 2 or 2SG1, constructed in 1976, rated at 5,088 million Btu per hour (MMBtu/hr) energy input, used to generate up to 490 megawatts (gross) of electricity. Unit 2 uses No. 2 fuel oil for start ups and flame stabilization. Unit 2 cannot operate at load solely using No. 2 fuel oil.

...

[Under 40 CFR Part 60, Subpart D, Unit 2 is this is considered an affected facility unit.]

...

- (12) Truck hauling, on paved and unpaved roads.

[Under 40 CFR Part 60, Subpart Y, the coal storage and handling system is this is considered an affected facility unit.]

...

- (f) One (1) limestone storage and handling system, constructed between 1978 and 1980, with a nominal throughput of 400,000 tons per year consisting of the following equipment:

...

- (7) Located in the limestone preparation building are the following units:

...

- (E) Two (2) enclosed limestone ball mill transfer conveyor systems, constructed in 2011, identified as LBMC1 and LBMC2, each with a nominal throughput of 80 tons per hour, emissions are controlled by a total enclosure. ~~[40 CFR 60, Subpart OOO]~~

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

...

- (9) Two (2) enclosed limestone weigh belt feeders, constructed in 2011, identified as LWB1.1 and LWB2.1, each with a nominal throughput of 80 tons per hour, emissions are controlled by a total enclosure. ~~[40 CFR 60, Subpart OOO]~~

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

- (10) One (1) enclosed limestone emergency reclaim conveyor, constructed in 2011, identified as LERC, with a nominal throughput of 250 tons per hour, emissions are controlled by a total enclosure.

~~{40 CFR 60, Subpart OOO}~~

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

- (A) One (1) Limestone Emergency Reclaim Feeder, identified as LERF, constructed in 2013, with a nominal maximum capacity of 200 tons per hour.

~~{40 CFR 60, Subpart OOO}~~

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

- (B) One (1) Limestone Emergency Reclaim Breaker, identified as LERB, constructed in 2013, with a nominal maximum capacity of 200 tons per hour. ~~{40 CFR 60, Subpart OOO}~~

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

- (11) Two (2) enclosed/underground limestone railcar unloading belt feeders, identified as LRUBF1 and LRUBF2, each with a nominal throughput of 300 tons per hour, emissions are controlled by a total enclosure. ~~{40 CFR 60, Subpart OOO}~~

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

- (12) Two (2) enclosed/underground limestone storage pile belt feeders, identified as LSPBF1 and LSPBF2, each with a nominal throughput of 250 tons per hour, emissions are controlled by a total enclosure.

~~{40 CFR 60, Subpart OOO}~~

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

- (13) Two (2) enclosed limestone wet ball mills, constructed in 2011, identified as LWBM1 and LWBM2, each with a nominal throughput of 70 tons per hour, emissions are controlled by a total enclosure.

~~{40 CFR 60, Subpart OOO}~~

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

...

- (o) Four (4) 4-Stroke Lean Burn Coal Bed Methane (CBM)-fired Reciprocating Internal Combustion Engines (RICE), constructed in 2011, identified as CBM1 to CBM4, each rated at 4,601 bHP (25.46 MMBtu/hr). CBM1 to CBM4 use Catalytic Oxidation and Selective Catalytic Reduction (SCR) to control VOC, NOx and CO. CBM1 to CBM4 exhaust to stacks SV-CBM1 to SV-CBM4 or to the greenhouses, respectively.

[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected unit.]

[Under 40 CFR 60, Subpart JJJJ, this is considered an affected unit.]

...

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]

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

...

- (4) One (1) emergency diesel generator, identified as EMDG-1, constructed in 2007, rated at less than 1600 horsepower, engine displacement volume less than 10 liters per cylinder and exhausting to the atmosphere.

~~The emergency generator, identified as EMDG-1, is subject to the requirements of New Source Performance Standards (NSPS) for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE), 40 CFR Part 60, Subpart IIII, and National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE), 40 CFR Part 63, Subpart ZZZZ.~~

[Under 40 CFR Part 60, Subpart IIII, this is considered an affected unit.]

[Under 40 CFR Part 63, Subpart ZZZZ, this is considered an affected unit.]

...

- (56) Conveyors as follows: Underground coal conveyors including the following equipment:

- (i) Conveyor identified as CH-TC-1[326 IAC 6-3-2][~~40 CFR 60, Subpart Y~~]

[Under 40 CFR 60, Subpart Y, this is considered an affected unit.]

...

- (b) This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

...

- (7) Equipment used exclusively ~~for the following:~~

~~(A) Filling drums, pails or other packaging containers with lubrication oils, waxes, and greases.~~

...

- (18) ~~Conveyors as follows:~~

(A) — Covered conveyors for limestone conveying of less than or equal to 7200 tons per day for sources other than mineral processing plants constructed after August 31, 1983;

...

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) pulverized coal-fired dry bottom boiler, identified as Unit 1 or 1SG1, constructed in 1976, rated at 5,088 million Btu per hour (MMBtu/hr) energy input, used to generate up to 490 megawatts (gross) of electricity. Unit 1 uses No. 2 fuel oil for start ups and flame stabilization. Unit 1 cannot operate at load solely using No. 2 fuel oil.

...

[Under 40 CFR Part 60, Subpart D, Unit 1 is **this is considered** an affected ~~facility~~unit.]

- (b) One (1) pulverized coal-fired dry bottom boiler, identified as Unit 2 or 2SG1, constructed in 1976, rated at 5,088 million Btu per hour (MMBtu/hr) energy input, used to generate up to 490 megawatts (gross) of electricity. Unit 2 uses No. 2 fuel oil for start ups and flame stabilization. Unit 2 cannot operate at load solely using No. 2 fuel oil.

...

[Under 40 CFR Part 60, Subpart D, Unit 2 is **this is considered** an affected ~~facility~~unit.]

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

...

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

...

- (12) Truck hauling, on paved and unpaved roads.

[Under 40 CFR Part 60, Subpart Y, ~~the coal storage and handling system is~~ **this is considered** an affected ~~facility~~unit.]

...

...

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(f) One (1) limestone storage and handling system, constructed between 1978 and 1980, with a nominal throughput of 400,000 tons per year consisting of the following equipment:

...

(7) Located in the limestone preparation building are the following units:

...

(B) One (1) enclosed crusher fed by a vibratory feeder, identified as LPC1 constructed in 2008 with a maximum capacity of 45 tons per hour, using the baghouse identified as LPC Baghouse 1 as control, and exhausting to stack LPC Vent 1.

[Under 40 CFR Part 60, Subpart OOO, crusher LPC1 is this is considered an affected facility unit.]

...

(E) Two (2) enclosed limestone ball mill transfer conveyor systems, constructed in 2011, identified as LBMC1 and LBMC2, each with a nominal throughput of 80 tons per hour, emissions are controlled by a total enclosure. ~~[40 CFR 60, Subpart OOO]~~

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

...

(9) Two (2) enclosed limestone weigh belt feeders, constructed in 2011, identified as LWB1.1 and LWB2.1, each with a nominal throughput of 80 tons per hour, emissions are controlled by a total enclosure. ~~[40 CFR 60, Subpart OOO]~~

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

(10) One (1) enclosed limestone emergency reclaim conveyor, constructed in 2011, identified as LERC, with a nominal throughput of 250 tons per hour, emissions are controlled by a total enclosure.

~~[40 CFR 60, Subpart OOO]~~

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

(A) One (1) Limestone Emergency Reclaim Feeder, identified as LERF, constructed in 2013, with a nominal maximum capacity of 200 tons per hour.

~~[40 CFR 60, Subpart OOO]~~

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

(B) One (1) Limestone Emergency Reclaim Breaker, identified as LERB, constructed in 2013, with a nominal maximum capacity of 200 tons per hour. ~~[40 CFR 60, Subpart OOO]~~

[Under 40 CFR 60, Subpart OOO, this is considered an affected

unit.]
(11) Two (2) enclosed/underground limestone railcar unloading belt feeders, identified as LRUBF1 and LRUBF2, each with a nominal throughput of 300 tons per hour, emissions are controlled by a total enclosure. [40 CFR 60, Subpart 000]
[Under 40 CFR 60, Subpart 000, this is considered an affected unit.]
(12) Two (2) enclosed/underground limestone storage pile belt feeders, identified as LSPBF1 and LSPBF2, each with a nominal throughput of 250 tons per hour, emissions are controlled by a total enclosure.
[40 CFR 60, Subpart 000]
[Under 40 CFR 60, Subpart 000, this is considered an affected unit.]
(13) Two (2) enclosed limestone wet ball mills, constructed in 2011, identified as LWBM1 and LWBM2, each with a nominal throughput of 70 tons per hour, emissions are controlled by a total enclosure.
[40 CFR 60, Subpart 000]
[Under 40 CFR 60, Subpart 000, this is considered an affected unit.]
...

...

SECTION D.6 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:
Specifically Regulated Insignificant Activities:
(p) This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):
(1) Degreasing operations that do not exceed 145 gallons per 12 months.
(2) Equipment related to manufacturing activities not resulting in the emission of HAPs brazing equipment, cutting torches, soldering equipment, welding equipment.
(3) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: debarring, buffing, polishing, abrasive blasting, pneumatic conveying, and wood working operations.
40 CFR 60, Subpart IIII and 40 CFR 63, Subpart ZZZZ apply to the following:
(4) One (1) emergency diesel generator, identified as EMDG-1, constructed in 2007, rated at less than 1600 horsepower, engine displacement volume less than 10 liters per cylinder and exhausting to the atmosphere.

~~The emergency generator, identified as EMDG-1, is subject to the requirements of New Source Performance Standards (NSPS) for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE), 40 CFR Part 60, Subpart IIII, and National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE), 40 CFR Part 63, Subpart ZZZZ.~~

[Under 40 CFR Part 60, Subpart IIII, this is considered an affected unit.]

[Under 40 CFR Part 63, Subpart ZZZZ, this is considered an affected unit.]

~~40 CFR 60, Subpart IIII applies to the following:~~

(5) **One (1) emergency fire pump, identified as FGD FP, constructed in 2016, rated at less than 1600 horsepower, engine displacement volume less than 10 liters per cylinder, firing No. 2 fuel 100% of the time, and exhausting to the atmosphere.**

[Under 40 CFR Part 60, Subpart IIII, this is considered an affected unit.]

[Under 40 CFR Part 63, Subpart ZZZZ, this is considered an affected unit.]

~~40 CFR 60, Subpart Y applies to the following:~~

(56) Conveyors as follows: Underground coal conveyors including the following equipment:

(i) Conveyor identified as CH-TC-1**[326 IAC 6-3-2]**~~[40 CFR 60, Subpart Y]~~

[Under 40 CFR 60, Subpart Y, this is considered an affected unit.]

...

...

SECTION D.7 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(o) Four (4) 4-Stroke Lean Burn Coal Bed Methane (CBM)-fired Reciprocating Internal Combustion Engines (RICE), constructed in 2011, identified as CBM1 to CBM4, each rated at 4,601 bHP (25.46 MMBtu/hr). CBM1 to CBM4 use Catalytic Oxidation and Selective Catalytic Reduction (SCR) to control VOC, NOx and CO. CBM1 to CBM4 exhaust to stacks SV-CBM1 to SV-CBM4 or to the greenhouses, respectively.

[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected unit.]

[Under 40 CFR 60, Subpart JJJJ, this is considered an affected unit.]

...

...

Emissions Unit Description:	
(a)	One (1) pulverized coal-fired dry bottom boiler, identified as Unit 1 or 1SG1, constructed in 1976, rated at 5,088 million Btu per hour (MMBtu/hr) energy input, used to generate up to 490 megawatts (gross) of electricity. Unit 1 uses No. 2 fuel oil for startups and flame stabilization. Unit 1 cannot operate at load solely using No. 2 fuel oil. ... [Under 40 CFR Part 60, Subpart D, Unit 1 is this is considered an affected facility unit.]
(b)	One (1) pulverized coal-fired dry bottom boiler, identified as Unit 2 or 2SG1, constructed in 1976, rated at 5,088 million Btu per hour (MMBtu/hr) energy input, used to generate up to 490 megawatts (gross) of electricity. Unit 2 uses No. 2 fuel oil for startups and flame stabilization. Unit 2 cannot operate at load solely using No. 2 fuel oil. ... [Under 40 CFR Part 60, Subpart D, Unit 2 is this is considered an affected facility unit.]
...	

...

E.1.2 Fossil-Fuel-Fired Steam Generators NSPS [40 CFR Part 60, Subpart D][326 IAC 12]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart D (included as Attachment A to the operating permit), which are incorporated by reference as 326 IAC 12:

- 1) (1) 40 CFR 60.40
- 2) (2) 40 CFR 60.41
- 3) (3) 40 CFR 60.42; (a), (a)(1)
- 4) (4) 40 CFR 60.43 (a)(2)
- 5) (5) 40 CFR 60.44 (a)(3)
- 6) (6) 40 CFR 60.45; (a), (b), (c), (g), (g)(1), (g)(2), (g)(2)(i), (g)(3), (g)(3)(i), (g)(4)
- 7) (7) 40 CFR 60.46; (a), (b)

...

SECTION E.2

NSPS

Emissions Unit Description:	
...	
(12)	Truck hauling, on paved and unpaved roads. [Under 40 CFR Part 60, Subpart Y, the coal storage and handling system is this is considered an affected facility unit.]
...	
Specifically Regulated Insignificant Activities	
This stationary source also includes the following insignificant activities which are specifically	

regulated, as defined in 326 IAC 2-7-1(21):

- (56) Conveyors as follows: Underground coal conveyors including the following equipment:
 - (i) Conveyor identified as CH-TC-1[326 IAC 6-3-2][~~40 CFR 60, Subpart Y~~]
- [Under 40 CFR 60, Subpart Y, this is considered an affected unit.]**

...

E.2.2 Coal Preparation Plants NSPS [40 CFR Part 60, Subpart Y][326 IAC 12]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart Y (included as Attachment B to the operating permit), which are incorporated by reference as 326 IAC 12 for the emission units listed above:

- ~~1.~~ (1) 40 CFR 60.250
- ~~2.~~ (2) 40 CFR 60.251
- ~~3.~~ (3) 40 CFR 60.254(a)
- 4. (4) 40 CFR 60.255(a)
- ~~5.~~ (5) 40 CFR 60.256(a)
- ~~6.~~ (6) 40 CFR 60.257(a)

...

SECTION E.3 NSPS

Emissions Unit Description:

Insignificant Activities:

- (4) One (1) emergency diesel generator, identified as EMDG-1, constructed in 2007, rated at less than 1600 horsepower, engine displacement volume less than 10 liters per cylinder and exhausting to the atmosphere.

~~The emergency generator, identified as EMDG-1, is subject to the requirements of New Source Performance Standards (NSPS) for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE), 40 CFR Part 60, Subpart IIII, and National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE), 40 CFR Part 63, Subpart ZZZZ.~~

[Under 40 CFR Part 60, Subpart IIII, this is considered an affected unit.]

[Under 40 CFR Part 63, Subpart ZZZZ, this is considered an affected unit.]

...

...

E.3.2 Stationary Compression Ignition Internal Combustion Engines NSPS [40 CFR Part 60, Subpart IIII][326 IAC 12]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart IIII (included as Attachment C to the operating permit), which are incorporated by reference as 326 IAC 12 for the emission units listed above:

- (a) **The emergency generator, identified as EMDG-1, is subject to the following requirements:**

...

- (b) **The emergency fire pump, identified as FGD FP, is subject to the following requirements:**

- (1) 40 CFR 60.4200(a)(2)(ii)
- (2) 40 CFR 60.4205(c)
- (3) 40 CFR 60.4206
- (4) 40 CFR 60.4207(b)
- (5) 40 CFR 60.4209
- (6) 40 CFR 60.4211(a), (c), (f), and (g)
- (7) 40 CFR 60.4212
- (8) 40 CFR 60.4214 (b) and (c)
- (9) 40 CFR 60.4218
- (10) 40 CFR 60.4219
- (11) Table 3 of Subpart IIII
- (12) Table 4 of Subpart IIII
- (13) Table 5 of Subpart IIII
- (14) Table 8 of Subpart IIII

...

SECTION E.4

NSPS

Emissions Unit Description:

- (o) Four (4) 4-Stroke Lean Burn Coal Bed Methane (CBM)-fired Reciprocating Internal Combustion Engines (RICE), approved for construction in 2011, identified as CBM1 to CBM4, each rated at 4,601 bHP (25.46 MMBtu/hr). CBM1 to CBM4 use Catalytic Oxidation and Selective Catalytic Reduction (SCR) to control VOC, NOx and CO. CBM1 to CBM4 exhaust to stacks SV-CBM1 to SV-CBM4 or to the greenhouses, respectively. ~~[40 CFR 63, Subpart ZZZZ]~~[40 CFR 60, Subpart JJJJ]

[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected unit.]

[Under 40 CFR 60, Subpart JJJJ, this is considered an affected unit.]

...

...

E.4.2 Stationary Spark Ignition Internal Combustion Engines NSPS [40 CFR Part 60, Subpart JJJJ][326 IAC 12]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart JJJJ (included as Attachment D to the operating permit), which are incorporated by reference as 326 IAC 12, for the emission units listed above:

- (1) 40 CFR 60.4230(a)(4)(i)
- (2) 40 CFR 60.4233(e)
- (3) 40 CFR 60.4234
- (4) 40 CFR 60.4236(b)
- (5) 40 CFR 60.4243(b)(2)(ii)
- (6) 40 CFR 60.4244

- (7) 40 CFR 60.4245(a), (c) and (d)
- (8) 40 CFR 60.4246
- (9) 40 CFR 60.4248

...

SECTION E.5

NESHAP

Emissions Unit Description:

- (o) Four (4) 4-Stroke Lean Burn Coal Bed Methane (CBM)-fired Reciprocating Internal Combustion Engines (RICE), constructed in 2011, identified as CBM1 to CBM4, each rated at 4,601 bHP (25.46 MMBtu/hr). CBM1 to CBM4 use Catalytic Oxidation and Selective Catalytic Reduction (SCR) to control VOC, NOx and CO. CBM1 to CBM4 exhaust to stacks SV-CBM1 to SV-CBM4 or to the greenhouses, respectively. [~~40 CFR 63, Subpart ZZZZ~~]

[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected unit.]

[Under 40 CFR 60, Subpart JJJJ, this is considered an affected unit.]

...

- (4) One (1) emergency diesel generator, identified as EMDG-1, constructed in 2007, rated at less than 1600 horsepower, engine displacement volume less than 10 liters per cylinder and exhausting to the atmosphere.

~~The emergency generator, identified as EMDG-1, is subject to the requirements of New Source Performance Standards (NSPS) for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE), 40 CFR Part 60, Subpart IIII, and National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE), 40 CFR Part 63, Subpart ZZZZ.~~

[Under 40 CFR Part 60, Subpart IIII, this is considered an affected unit.]

[Under 40 CFR Part 63, Subpart ZZZZ, this is considered an affected unit.]

- (5) One (1) emergency fire pump, identified as FGD FP, constructed in 2016, rated at less than 1600 horsepower, engine displacement volume less than 10 liters per cylinder and exhausting to the atmosphere.

[Under 40 CFR Part 60, Subpart IIII, this is considered an affected unit.]

[Under 40 CFR Part 63, Subpart ZZZZ, this is considered an affected unit.]

...

...

E.5.2 Stationary Reciprocating Internal Combustion Engines NESHAP [40 CFR Part 63, Subpart ZZZZ][326 IAC 20-82]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZ (included as Attachment E to the operating permit), which are incorporated by reference as 326 IAC 20-82, for the emission units listed above:

(a) The emergency generator, identified as EMDG-1, is subject to the following requirements:

- (1) 40 CFR 63.6585
- (2) 40 CFR 63.6590(a),(b)(1)(i)
- (3) 40 CFR 63.6600(c)
- (4) 40 CFR 63.6645(f)
- (5) 40 CFR 63.6675

(b) The emergency fire pump, identified as FGD FP, is subject to the following requirements:

- (1) **40 CFR 63.6585**
- (2) **40 CFR 63.6590 (a)(2)(i) and (c)(6)**
- (3) **40 CFR 63.6595 (a)(5)**
- (4) **40 CFR 63.6665**
- (5) **40 CFR 63.6670 (a) and (b)**
- (6) **40 CFR 63.6675**
- (7) **Table 8 to Subpart ZZZZ**

(b)(c) ...

- (1) 40 CFR 63.6600(b)
- (2) 40 CFR 63.6605
- (3) 40 CFR 63.6610(a)
- (4) 40 CFR 63.6635(a), (b), (c)
- (5) 40 CFR 63.6645(a)(4),(c),(g),(h)
- (6) 40 CFR 63.6650(a)-(f)
- (7) 40 CFR 63.6655(a),(b),(d)
- (8) 40 CFR 63.6585
- (9) 40 CFR 63.6590(a)(2)(i)
- (10) 40 CFR 63.6595(a)(3),(c)
- (11) 40 CFR 63.6615
- (12) 40 CFR 63.6620(a),(b),(d),(e),(i)
- (13) 40 CFR 63.6625(b),(h)
- (14) 40 CFR 63.6630(a)-(c)
- (15) 40 CFR 63.6640(a),(b),(d)
- (16) 40 CFR 63.6660
- (17) 40 CFR 63.6665
- (18) 40 CFR 63.6675

SECTION E.6

NSPS

Emissions Unit Description:

(f) A limestone storage and handling system, constructed between 1978 and 1980, with a nominal throughput of 400,000 tons per year consisting of the following equipment:

(7) Located in the limestone preparation building are the following units:

(B) One (1) enclosed crusher fed by a vibratory feeder, identified as LPC1, constructed in 2008, with a maximum capacity of 45 tons per hour, using the baghouse identified as LPC Baghouse 1 as control, and exhausting to stack LPC Vent 1.

[Under 40 CFR Part 60, Subpart OOO, crusher LPC1 is this is considered an affected facility unit.]

- (C) One (1) enclosed crusher fed by a vibratory feeder, identified as LPC2, constructed in 2010, with a maximum capacity of 45 tons per hour, using the baghouse identified as LPC Baghouse 2 as control, and exhausting to stack LPC Vent 2.

[Under 40 CFR Part 60, Subpart OOO, ~~crusher LPC2 is~~ **this is considered an affected facility unit.**]

- (E) Two (2) enclosed limestone ball mill transfer conveyor systems, constructed in 2011, identified as LBMC1 and LBMC2, each with a nominal throughput of 80 tons per hour, emissions are controlled by a total enclosure.

[Under 40 CFR 60, Subpart OOO, this is considered an affected ~~facility~~ **unit.**]

- (9) Two (2) enclosed limestone weigh belt feeders, constructed in 2011, identified as LWB1.1 and LWB2.1, each with a nominal throughput of 80 tons per hour, emissions are controlled by a total enclosure.

~~[40 CFR 60, Subpart OOO]~~

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

- (10) One (1) enclosed limestone emergency reclaim conveyor, constructed in 2011, identified as LERC, with a nominal throughput of 250 tons per hour, emissions are controlled by a total enclosure.

~~[40 CFR 60, Subpart OOO]~~

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

- (A) One (1) Limestone Emergency Reclaim Feeder, identified as LERF, constructed in 2013, with a nominal maximum capacity of 200 tons per hour.

~~[40 CFR 60, Subpart OOO]~~

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

- (B) One (1) Limestone Emergency Reclaim Breaker, identified as LERB, constructed in 2013, with a nominal maximum capacity of 200 tons per hour.

~~40 CFR 60, Subpart OOO]~~

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

- (11) Two (2) enclosed/underground limestone railcar unloading belt feeders, identified as LRUBF1 and LRUBF2, each with a nominal throughput of 300 tons per hour, emissions are controlled by a total enclosure.

~~[40 CFR 60, Subpart OOO]~~

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

- (12) Two (2) enclosed/underground limestone storage pile belt feeders, identified as LSPBF1 and LSPBF2, each with a nominal throughput of 250 tons per hour, emissions are controlled by a total enclosure. ~~[40 CFR 60, Subpart OOO]~~

~~OOO]~~

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

(13) Two (2) enclosed limestone wet ball mills, constructed in 2011, identified as LWBM1 and LWBM2, each with a nominal throughput of 70 tons per hour, emissions are controlled by a total enclosure. ~~[40 CFR 60, Subpart OOO]~~

[Under 40 CFR 60, Subpart OOO, this is considered an affected unit.]

...

...

E.6.2 Nonmetallic Mineral Processing Plants NSPS [40 CFR Part 60, Subpart OOO] [326 IAC 12]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart OOO (included as Attachment F to the operating permit), which are incorporated by reference as 326 IAC 12, for the emission units listed above:

- ~~(a)(1)~~ 40 CFR 60.670 (a)(1),(d)(3),(e),(f)
- ~~(b)(2)~~ 40 CFR 60.671
- ~~(c)(3)~~ 40 CFR 60.672
- ~~(d)(4)~~ 40 CFR 60.675 (a), (c)(1)(i)-(ii),(c)(3),(d)(1),(g),(i)
- ~~(e)(5)~~ 40 CFR 60.676 (a)(1)(i)-(ii),(h)(i)(1), (j)

...

SECTION E.8

NESHAP

Emissions Unit Description:

(a) One (1) pulverized coal-fired dry bottom boiler, identified as Unit 1 or 1SG1, constructed in 1976, rated at 5,088 million Btu per hour (MMBtu/hr) energy input, used to generate up to 490 megawatts (gross) of electricity. Unit 1 uses No. 2 fuel oil for start ups and flame stabilization. Unit 1 cannot operate at load solely using No. 2 fuel oil.

...

[Under 40 CFR Part 60, Subpart D, Unit 1 is this is considered an affected facility unit.]

(b) One (1) pulverized coal-fired dry bottom boiler, identified as Unit 2 or 2SG1, constructed in 1976, rated at 5,088 million Btu per hour (MMBtu/hr) energy input, used to generate up to 490 megawatts (gross) of electricity. Unit 2 uses No. 2 fuel oil for start ups and flame stabilization. Unit 2 cannot operate at load solely using No. 2 fuel oil.

...

[Under 40 CFR Part 60, Subpart D, Unit 2 is this is considered an affected facility unit.]

...

...

SECTION F ACID RAIN PROGRAM CONDITIONS

ORIS Code - 6213

<p>Emissions Unit Description:</p> <p>(a) One (1) pulverized coal-fired dry bottom boiler, identified as Unit 1 or 1SG1, constructed in 1976, rated at 5,088 million Btu per hour (MMBtu/hr) energy input, used to generate up to 490 megawatts (gross) of electricity. Unit 1 uses No. 2 fuel oil for start ups and flame stabilization. Unit 1 cannot operate at load solely using No. 2 fuel oil.</p> <p>...</p> <p>Unit 1 is this is considered an affected facility unit.</p> <p>(b) One (1) pulverized coal-fired dry bottom boiler, identified as Unit 2 or 2SG1, constructed in 1976, rated at 5,088 million Btu per hour (MMBtu/hr) energy input, used to generate up to 490 megawatts (gross) of electricity. Unit 2 uses No. 2 fuel oil for start ups and flame stabilization. Unit 2 cannot operate at load solely using No. 2 fuel oil.</p> <p>...</p> <p>Unit 2 is this is considered an affected facility unit.</p> <p>(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)</p>
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...

SECTION G Clean Air Interstate Rule (CAIR) Nitrogen Oxides Annual, Sulfur Dioxide, and Nitrogen Oxides Ozone Season Trading Programs - CAIR Permit for CAIR Units Under 326 IAC 24-1-1(a), 326 IAC 24-2-1(a), and 326 IAC 24-3-1(a)

ORIS Code: 6213

<p>Emissions Unit Description:</p> <p>(a) One (1) pulverized coal-fired dry bottom boiler, identified as Unit 1 or 1SG1, constructed in 1976, rated at 5,088 million Btu per hour (MMBtu/hr) energy input, used to generate up to 490 megawatts (gross) of electricity. Unit 1 uses No. 2 fuel oil for start ups and flame stabilization. Unit 1 cannot operate at load solely using No. 2 fuel oil.</p> <p>...</p> <p>Unit 1 is this is considered an affected facility unit.</p> <p>(b) One (1) pulverized coal-fired dry bottom boiler, identified as Unit 2 or 2SG1, constructed in 1976, rated at 5,088 million Btu per hour (MMBtu/hr) energy input, used to generate up to 490 megawatts (gross) of electricity. Unit 2 uses No. 2 fuel oil for start ups and flame stabilization. Unit 2 cannot operate at load solely using No. 2 fuel oil.</p>
--

...

[Under 40 CFR Part 60, Subpart D, Unit 2 is **this is considered** an affected facility **unit.**]

...

Conclusion and Recommendation

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 May 10, 2016. Additional information was received on July 19, 2016.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Sommer Cochran at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5376 or toll free at 1-800-451-6027, extension 4-5376.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

Emission Summary
 Source Name: Hoosier Energy REC, Inc - Merom Generating Station
 Source Location: 5500 W Old 54, Sullivan, IN 47882
 Permit Number: 153-37177-00005
 Permit Reviewer: Somner Cochran

Uncontrolled Potential to Emit									
	PM (tons/yr)	PM ₁₀ (tons/yr)	PM _{2.5} (tons/yr)	SO ₂ (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Total HAPs (tons/yr)	Single HAP (tons/yr)
Emission Unit									
One (1) Coal-Fired Boiler Unit 1	99282.63	22835.00	5956.96	205785.81	10028.55	60.17	6017.13	1547.57	1203.43
One (1) Coal-Fired Boiler Unit 2	99282.63	22835.00	5956.96	205785.81	10028.55	60.17	6017.13	1547.57	1203.43
One (1) No. 2 Distillate Oil-fired Aux Boilers	9.74	6.79	4.58	20.96	59.03	1.00	14.76	0.14	0.10
One (1) No. 2 Distillate Oil-fired Aux Boilers	9.74	6.79	4.58	20.96	59.03	1.00	14.76	0.14	0.10
Four (4) 4-Stroke Lean Burn CBM-Fired Engines	3.55	3.55	3.55	0.26	195.49	53.31	444.29	13.47	7.11
One (1) CBM Flare	1.86	1.86	1.86	0.17	6.57	16.42	21.90	0.21	0.19
One (1) FGD Emergency Fire Pump Diesel Generator	0.16	0.16	0.16	0.15	2.32	0.19	0.50	0.0020	0.0006
Flare Pilot: Propane	0.03	0.03	0.03	0.06	0.50	0.04	0.29	0.00	0.00
Coal Storage and Handling System									
Coal Pile F01	8.39	7.13	1.09	0	0	0	0	0	0
Rotary Railcar Dumper, FO2	49.92	23.61	3.58	0	0	0	0	0	0
Truck Unload, Hopper (A, B, & C), FO3	9.36	4.43	0.67	0	0	0	0	0	0
Truck Unload, pile, FO4	6.24	2.95	0.45	0	0	0	0	0	0
Breaker House (Conveying) FO5	24.96	11.81	1.79	0	0	0	0	0	0
Stockout Conveyors CH-CV- 1, 2, & 3, FO6	62.40	29.51	4.47	0	0	0	0	0	0
Reclaim (I, II, & III), FO7	39.93	18.89	2.86	0	0	0	0	0	0
Reclaim Conveyors CH-CV-4/5/6- R/V	19.97	9.44	1.43	0	0	0	0	0	0
Emergency Reclaim FO8	14.98	7.03	1.07	0	0	0	0	0	0
Crusher (I, II, III, IV, & V), FO9	39.93	18.89	2.86	0	0	0	0	0	0
Boiler Building Bunker F10	29.95	14.17	2.15	0	0	0	0	0	0
Truck hauling on unpaved roads	109.57	34.08	3.41	0	0	0	0	0	0
Lime Kiln Dust Silos									
LKD Silo 1	0.02	0.01	0.00	0	0	0	0	0	0
LKD Silo 2	0.02	0.01	0.00	0	0	0	0	0	0
Lime Storage and Handling System									
Railcar Unloading Station LDU 1	3.28	1.55	0.23	0	0	0	0	0	0
Truck Unloading LTU1	2.18	1.03	0.16	0	0	0	0	0	0
Unloading Conveyor LU 1	0.66	0.31	0.05	0	0	0	0	0	0
Limestone Storage Pile LP 1	0.80	0.68	0.10	0	0	0	0	0	0
Limestone Drop Point LDP 1	0.66	0.31	0.05	0	0	0	0	0	0
Limestone Reclaim Conveyor LRC 1	0.20	0.09	0.01	0	0	0	0	0	0
Limestone Reclaim Conveyor LRC 2	0.20	0.09	0.01	0	0	0	0	0	0
Reclaim Conveyor Transfer LRCT 1	0.20	0.09	0.01	0	0	0	0	0	0
Reclaim Conveyor Transfer LRCT 2	0.20	0.09	0.01	0	0	0	0	0	0
Limestone Receiving Bin LRCB 1	0.19	0.09	0.01	0	0	0	0	0	0
Limestone Receiving Bin LRCB 2	0.19	0.09	0.01	0	0	0	0	0	0
Limestone Pre-Crushing LPC 1	0.05	0.02	0.00	0	0	0	0	0	0
Limestone Pre-Crushing LPC 2	0.05	0.02	0.00	0	0	0	0	0	0
Limestone Surge Bin LSB 1	0.05	0.02	0.00	0	0	0	0	0	0
Limestone Surge Bin LSB 2	0.05	0.02	0.00	0	0	0	0	0	0
Limestone Ball Mill Conveyor LBMC1	0.09	0.04	0.01	0	0	0	0	0	0
Limestone Ball Mill Conveyor LBMC2	0.09	0.04	0.01	0	0	0	0	0	0
Weigh Belt Feeder, LWB1	0.02	0.01	0.00	0	0	0	0	0	0
Weigh Belt Feeder, LWB2	0.02	0.01	0.00	0	0	0	0	0	0
Weigh Belt Feeder, LWB3	0.02	0.01	0.00	0	0	0	0	0	0
Weigh Belt Feeder, LWB4	0.02	0.01	0.00	0	0	0	0	0	0
Limestone weigh belt feeder, LWB1.1	0.09	0.04	0.01	0	0	0	0	0	0
Limestone weigh belt feeder, LWB2.1	0.09	0.04	0.01	0	0	0	0	0	0
Limestone Emergency Reclaim Conveyor, LERC	0.27	0.13	0.02	0	0	0	0	0	0
Limestone Emergency Reclaim Feeder, LERF	0.22	0.10	0.02	0	0	0	0	0	0
Limestone Emergency Reclaim Breaker, LERB	0.61	0.61	0.61	0	0	0	0	0	0
Underground Limestone Railcar Belt Feeder, LRUBF1	0.33	0.15	0.02	0	0	0	0	0	0
Underground Limestone Railcar Belt Feeder, LRUBF2	0.33	0.15	0.02	0	0	0	0	0	0
Underground Limestone Storage Pile Belt Feeder, LSPBF1	0.27	0.13	0.02	0	0	0	0	0	0
Underground Limestone Storage Pile Belt Feeder, LSPBF2	0.27	0.13	0.02	0	0	0	0	0	0
Underground Limestone Wet Ball Mill, LWBm1	0.08	0.04	0.01	0	0	0	0	0	0
Underground Limestone Wet Ball Mill, LWBm2	0.08	0.04	0.01	0	0	0	0	0	0
Truck hauling on unpaved roads	1.47	0.48	0.05	0	0	0	0	0	0
Pneumatic Fly Ash System									
Fly Ash Silo 1A, 1B, 2A, 2B and Fly Silo UCS	2.98	0.18	0.18	0	0	0	0	0	0
Emergency Fly Ash Loading (fugitive)	0.26	0.09	0.09	0	0	0	0	0	0
Lime kiln Dust Storage and Handling at IUCS									
Lime Kiln Dust Silo at IUCS	3.94	3.94	3.94	0	0	0	0	0	0
Lime Storage and Handling System at WWT									
Lime Silo at WWT	0.016	0.016	0.016	0	0	0	0	0	0
FGD Slurry Handling System									
Pug Mill 1 & Pug Mill 2	0.18	0.08	0.01	0	0	0	0	0	0
Pozz-O-tec drop point	0.18	0.08	0.01	0	0	0	0	0	0
Wet Bottom Ash Storage and Handling System									
Bottom Ash Decant Bin 1A, 1B, 2A & 2B	0.59	0.23	0.08	0	0	0	0	0	0
Truck hauling on unpaved roads	7.59	2.36	0.24	0	0	0	0	0	0
Pozz-O-tec landfill									
Movement of material (dozers)	0.18	0.08	0.01	0	0	0	0	0	0
One (1) Emergency Diesel Gen EMCG-1	0.28	0.16044	0.16044	1.618	9.6	0.282	2.2	4.41E-03	negl
Unit 1 and 2 - ACI System	0.014	0.014	0.014	0	0	0	0	0	0
Fly ash transfer	0	0	0	0	0	0	0	0	0
Fugitive Dust from Truck Traffic due to fly ash	0.76	0.21	0.02	0	0	0	0	0	0
Fugitive Dust from Truck Traffic	0.30	0.06	0.02	0	0	0	0	0	0
Total Emissions	199037	45885	11961	411616	20390	193	12533	3109	2414

Emission Summary
Source Name: Hoosier Energy REC, Inc - Merom Generating Station
Source Location: 5500 W Old 54, Sullivan, IN 47882
Permit Number: 153-37177-00005
Permit Reviewer: Sommer Cochran

Limited Potential to Emit									
Emission Unit	PM (tons/yr)	PM ₁₀ (tons/yr)	PM _{2.5} (tons/yr)	SO ₂ (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Total HAPs (tons/yr)	Single HAP (tons/yr)
One (1) Coal-Fired Boiler Unit 1	334.28	11.42	2.98	8231.43	1782.84	60.17	6017.13	1362.90	1203.43
One (1) Coal-Fired Boiler Unit 2	334.28	11.42	2.98	8231.43	1782.84	60.17	6017.13	1362.90	1203.43
One (1) No. 2 Distillate Oil-fired Aux Boilers	9.74	6.79	4.58	2.00	5.63	1.00	14.76	0.14	0.10
One (1) No. 2 Distillate Oil-fired Aux Boilers	9.74	6.79	4.58	2.00	5.63	1.00	14.76	0.14	0.10
Four (4) 4-Stroke Lean Burn CBM-Fired Engines	3.55	3.55	3.55	0.26	36.70	34.20	91.80	13.47	7.11
One (1) CBM Flare	0.64	0.64	0.64	0.06	2.25	5.63	7.50	0.07	0.07
One (1) FGD Emergency Fire Pump Diesel Generator	0.16	0.16	0.16	0.15	2.32	0.19	0.50	2.03E-03	6.20E-04
Flare Pilot: Propane	0.03	0.03	0.03	0.06	0.50	0.04	0.29	0.00	0.00
Coal Storage and Handling System									
Coal Pile F01	8.39	7.13	1.09	0	0	0	0	0	0
Rotary Railcar Dumper, FO2	24.96	11.81	1.79	0	0	0	0	0	0
Truck Unload, Hopper (A, B, & C), F03	6.55	3.10	0.47	0	0	0	0	0	0
Truck Unload, pile, FO4	6.24	2.95	0.45	0	0	0	0	0	0
Breaker House (Conveying) FO5	12.48	5.90	0.89	0	0	0	0	0	0
Stockout Conveyors CH-CV- 1, 2, & 3, FO6	43.68	20.66	3.13	0	0	0	0	0	0
Reclaim (I, ii, iii), FO7	11.98	5.67	0.86	0	0	n	0	0	0
Reclaim Conveyors CH-CV-4/5/6-A/B	9.98	4.72	0.72	0	0	0	0	0	0
Emergency Reclaim FO8	10.48	4.96	0.75	0	0	0	0	0	0
Crusher (I, ii, iii, iv, & v), FO9	3.99	1.89	0.29	0	0	0	0	0	0
Boiler Building Bunker F10	3.00	1.42	0.21	0	0	0	0	0	0
Truck hauling on unpaved roads	75.05	23.34	2.33	0	0	0	0	0	0
Lime Kiln Dust Silos				0	0	0	0	0	0
LKD Silo 1	0.000023	0.000011	0.000002	0	0	0	0	0	0
LKD Silo 2	0.000023	0.000011	0.000002	0	0	0	0	0	0
Lime Storage and Handling System									
Railcar Unloading Station LDU 1	1.64	0.77	0.12	0	0	0	0	0	0
Truck Unloading LTU1	2.18	1.03	0.16	0	0	0	0	0	0
Unloading Conveyor LU 1	0.33	0.15	0.02	0	0	0	0	0	0
Limestone Storage Pile LP 1	0.80	0.68	0.10	0	0	0	0	0	0
Limestone Drop Point LDP 1	0.33	0.15	0.02	0	0	0	0	0	0
Limestone Reclaim Conveyor LRC 1	0.20	0.09	0.01	0	0	0	0	0	0
Limestone Reclaim Conveyor LRC 2	0.20	0.09	0.01	0	0	0	0	0	0
Reclaim Conveyor Transfer LRCT 1	0.20	0.09	0.01	0	0	0	0	0	0
Reclaim Conveyor Transfer LRCT 2	0.20	0.09	0.01	0	0	0	0	0	0
Limestone Receiving Bin LRCB 1	0.000191	0.000090	0.000014	0	0	0	0	0	0
Limestone Receiving Bin LRCB 2	0.000191	0.000090	0.000014	0	0	0	0	0	0
Limestone Pre-Crushing LPC 1	0.000049	0.000023	0.000004	0	0	0	0	0	0
Limestone Pre-Crushing LPC 2	0.000049	0.000023	0.000004	0	0	0	0	0	0
Limestone Surge Bin LSB 1	0.000049	0.000023	0.000004	0	0	0	0	0	0
Limestone Surge Bin LSB 2	0.000049	0.000023	0.000004	0	0	0	0	0	0
Limestone Ball Mill Conveyor LBMC1	0.09	0.04	0.01	0	0	0	0	0	0
Limestone Ball Mill Conveyor LBMC2	0.09	0.04	0.01	0	0	0	0	0	0
Weigh Belt Feeder, LWB1	0.0123	0.0058	0.0009	0	0	0	0	0	0
Weigh Belt Feeder, LWB2	0.0123	0.0058	0.0009	0	0	0	0	0	0
Weigh Belt Feeder, LWB3	0.0123	0.0058	0.0009	0	0	0	0	0	0
Weigh Belt Feeder, LWB4	0.0123	0.0058	0.0009	0	0	0	0	0	0
Limestone weigh belt feeder, LWB1.1	0.09	0.04	0.01	0	0	0	0	0	0
Limestone weigh belt feeder, LWB2.1	0.09	0.04	0.01	0	0	0	0	0	0
Limestone Emergency Reclaim Conveyor, LERC	0.00	0.00	0.00	0	0	0	0	0	0
Limestone Emergency Reclaim Feeder, LERF	0.00	0.00	0.00	0	0	0	0	0	0
Limestone Emergency Reclaim Breaker, LERB	0.00	0.00	0.00	0	0	0	0	0	0
Underground Limestone Railcar Belt Feeder, LRUBF1	0.00	0.00	0.00	0	0	0	0	0	0
Underground Limestone Railcar Belt Feeder, LRUBF2	0.00	0.00	0.00	0	0	0	0	0	0
Underground Limestone Storage Pile Belt Feeder, LSPBF1	0.00	0.00	0.00	0	0	0	0	0	0
Underground Limestone Storage Pile Belt Feeder, LSPBF2	0.00	0.00	0.00	0	0	0	0	0	0
Underground Limestone Wet Ball Mill, LWBM1	0.08	0.04	0.01	0	0	0	0	0	0
Underground Limestone Wet Ball Mill, LWBM2	0.08	0.04	0.01	0	0	0	0	0	0
Truck hauling on unpaved roads	1.01	0.31	0.03	0	0	0	0	0	0
Pneumatic Fly Ash System									
Fly Ash Silo 1A, 1B, 2A, 2B and Fly Silo UCS	0.00298	0.00018	0.00018	0	0	0	0	0	0
Emergency Fly Ash Loading (fugitive)	0.26	0.09	0.09	0	0	0	0	0	0
Lime kiln Dust Storage and Handling at IUCS									
Lime Kiln Dust Silo at IUCS	0.00394	0.00394	0.00394	0	0	0	0	0	0
Lime Storage and Handling System at WWT									
Lime Silo at WWT	0.000016	0.000016	0.000016	0	0	0	0	0	0
FGD Slurry Handling System									
Pug Mill 1 & Pug Mill 2	0.18	0.08	0.01	0	0	0	0	0	0
Pozz-O-tec drop point	0.18	0.08	0.01	0	0	0	0	0	0
Wet Bottom Ash Storage and Handling System									
Bottom Ash Decant Bin 1A, 1B, 2A & 2B	0.05	0.02	0.01	0	0	0	0	0	0
Truck hauling on unpaved roads	5.20	1.62	0.16	0	0	0	0	0	0
Pozz-O-tec landfill									
Movement of material (dozers)	0.09	0.04	0.01	0	0	0	0	0	0
One (1) Emergency Diesel Gen EMDC-1	0.28	0.16044	0.16044	1.619	9.6	0.282	2.2	0.0044	negl
Unit 1 and 2 - ACI System	0.014	0.014	0.014	0	0	0	0	0	0
Fly ash transfer	0	0	0	0	0	0	0	0	0
Fugitive Dust from Truck Traffic due to fly ash	0.38	0.11	0.01	0	0	0	0	0	0
Fugitive Dust from Truck Traffic	0.15	0.03	0.01	0	0	0	0	0	0
Total Emissions	924	140	34	16469	3628	163	12166	2740	2414

Emission Summary

Source Name: Hoosier Energy REC, Inc - Merom Generating Station
 Source Location: 5500 W Old 54, Sullivan, IN 47882
 Permit Number: 153-37177-00005
 Permit Reviewer: Sommer Cochran

PTE of the New Emission Unit (ton/year)									
Process / Emission Unit	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	VOC	CO	Single HAP	Combined HAPs
FGD Emergency Fire Pump	0.16	0.16	0.16	0.15	2.32	0.19	0.50	0.0006	0.0020
Total:	0.16	0.16	0.16	0.15	2.32	0.19	0.50	0.0006	0.0020

PTE Change of the Modified Emission Unit(s)/Process (ton/year)									
Outdoor Coal Storage area	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	VOC	CO	Single HAP	Combined HAPs
PTE Before Modification	6.13	5.21	0.80	--	--	--	--	--	--
PTE After Modification	8.39	7.13	1.09	--	--	--	--	--	--
PTE Increase From Modification	2.26	1.92	0.29	--	--	--	--	--	--

Total PTE Increase Due to the Modification (ton/year)									
	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	VOC	CO	Single HAP	Combined HAPs
PTE of New Emission units	0.16	0.16	0.16	0.15	2.32	0.19	0.50	0.0006	0.0020
PTE Increase of Modified Emission Units/Process	2.26	1.92	0.29	--	--	--	--	--	--
Total PTE of the Modification	2.42	2.08	0.46	0.15	2.32	0.19	0.50	0.0006	0.0020

TABLE 2 - Boilers (15G1 & 15G2) Firing Coal																
Parameter	Value	Units	Source													
Emission Unit	Boilers 1 & 2		Both identical pulverized coal-fired by bottom boilers													
Fuel	Coal or Fuel Oil		Coal emissions are provided below. Emissions from fuel oil not provided as these boilers cannot operate at load on fuel oil.													
Fuel Heat Value	11,111	Btu/lb	Parameter used in 2010 Title V renewal permit T153-28006-00005													
Sulfur Content of Fuel	5.40	%	Parameter used in 2010 Title V renewal permit T153-28006-00005													
Ash Content of Fuel	9.9	%	Parameter used in 2010 Title V renewal permit T153-28006-00005													
Unlimited Annual Throughput	8760	hr														
Limited Annual Throughput	8760	hr	Assume no annual operating limit													
EMISSIONS WHILE COMBUSTING COAL																
Pollutant	CAS	Emission Factor	Maximum Uncontrolled Emission Rate (lb/hr)		Uncontrolled PTE (tpy)		Permit Limit/Control		Controlled PTE (tpy)		Limited PTE (tpy)		Pollutant Classification	NOTES		
			Boiler1	Boiler2	Boiler1	Boiler2	Permit Limit	Control	Boiler1	Boiler2	Boiler1	Boiler2				
Maximum Heat Input (MMBtu/hr) →			5,088	5,088												
Maximum Fuel Input (ton/hr) →			229	229												
PM ₁₀	N/A	99.00	lb/ton	22.667	22.667	99.283	99.283	0.015	0.015	99.66%	334	334	334	334	CRITERIA	A
PM _{2.5}	N/A	22.77	lb/ton	5.213	5.213	22.835	22.835	N/A	N/A	99.95%	11.42	11.42	11.42	11.42	CRITERIA	A
SO ₂	7446-09-5	205.20	lb/ton	46.983	46.983	205.786	205.786	0.150	0.150	96.00%	8,231	8,231	8,231	8,231	CRITERIA	B
NO _x	N/A	10.00	lb/ton	2.290	2.290	10.029	10.029	0.080	0.080	82.22%	1,783	1,783	1,783	1,783	CRITERIA	C
VOC	N/A	0.06	lb/ton	13.74	13.74	60.17	60.17	N/A	N/A	0%	60.17	60.17	60.17	60.17	CRITERIA	D
CO	630-98-0	6.00	lb/ton	1.374	1.374	6.017	6.017	N/A	N/A	0%	6.017	6.017	6.017	6.017	CRITERIA	H
Greenhouse Gas (CO ₂ e)	N/A	5175	lb/ton	1,184,799	1,184,799	5,189,419	5,189,419	N/A	N/A	0%	5,189,419	5,189,419	5,189,419	5,189,419	CRITERIA	G
CO ₂	124-38-9	5133	lb/ton	1,175,338	1,175,338	5,147,982	5,147,982	N/A	N/A	0%	5,147,982	5,147,982	5,147,982	5,147,982	GHG	E
CH ₄	74-82-8	0.60	lb/ton	138	138	606	606	N/A	N/A	0%	606	606	606	606	GHG	F
N ₂ O	10024-97-2	0.09	lb/ton	20.13	20.13	88.19	88.19	N/A	N/A	0%	88.19	88.19	88.19	88.19	GHG	F
MAX HAP	N/A	N/A				1,203	1,203	N/A	N/A		1,203	1,203	1,203	1,203	N/A	
TOTAL HAP	N/A	N/A				1,548	1,548	N/A	N/A		1,363	1,363	1,363	1,363	N/A	
Sulfuric Acid Mist	7664-93-9	N/A	N/A	N/A	N/A	N/A	N/A	0.007	lb/MMBtu	0%	156	156	156	156	NSPS	M
HCl	7647-01-0	1.20	lb/ton	275	275	1,203	1,203	N/A	N/A	94.16%	70.28	70.28	70.28	70.28	NSPS	N
NH ₃	7664-41-7	0.31	lb/ton	70.98	70.98	311	311	N/A	N/A	99.90%	0.31	0.31	0.31	0.31	NSPS	O
Acetaldehyde	75-07-0	5.70E-04	lb/ton	0.13	0.13	0.57	0.57	N/A	N/A	0%	0.57	0.57	0.57	0.57	HAP	J
Acetophenone	98-86-2	1.50E-05	lb/ton	3.43E-03	3.43E-03	1.50E-02	1.50E-02	N/A	N/A	0%	1.50E-02	1.50E-02	1.50E-02	1.50E-02	HAP	J
Acrolein	107-02-8	2.90E-04	lb/ton	6.64E-02	6.64E-02	0.29	0.29	N/A	N/A	0%	0.29	0.29	0.29	0.29	HAP	J
Benzene	71-43-2	1.30E-03	lb/ton	0.30	0.30	1.30	1.30	N/A	N/A	0%	1.30	1.30	1.30	1.30	HAP	J
Benzyl Chloride	100-44-7	7.00E-04	lb/ton	0.16	0.16	0.70	0.70	N/A	N/A	0%	0.70	0.70	0.70	0.70	HAP	J
Bis(2-ethylhexyl)phthalate (D)	11781-91-7	2.30E-05	lb/ton	1.67E-02	1.67E-02	7.32E-02	7.32E-02	N/A	N/A	0%	7.32E-02	7.32E-02	7.32E-02	7.32E-02	HAP	J
Bromoform	75-25-2	3.90E-05	lb/ton	8.93E-03	8.93E-03	3.91E-02	3.91E-02	N/A	N/A	0%	3.91E-02	3.91E-02	3.91E-02	3.91E-02	HAP	J
Carbon Disulfide	75-15-0	1.30E-04	lb/ton	2.98E-02	2.98E-02	0.13	0.13	N/A	N/A	0%	0.13	0.13	0.13	0.13	HAP	J
2-Chloroacetophenone	532-27-4	7.00E-06	lb/ton	1.60E-03	1.60E-03	7.02E-03	7.02E-03	N/A	N/A	0%	7.02E-03	7.02E-03	7.02E-03	7.02E-03	HAP	J
Chlorobenzene	108-90-7	2.20E-05	lb/ton	5.04E-03	5.04E-03	2.21E-02	2.21E-02	N/A	N/A	0%	2.21E-02	2.21E-02	2.21E-02	2.21E-02	HAP	J
Chloroform	67-66-3	5.90E-05	lb/ton	1.35E-02	1.35E-02	5.92E-02	5.92E-02	N/A	N/A	0%	5.92E-02	5.92E-02	5.92E-02	5.92E-02	HAP	J
Cumene	98-82-8	5.30E-06	lb/ton	1.21E-03	1.21E-03	5.32E-03	5.32E-03	N/A	N/A	0%	5.32E-03	5.32E-03	5.32E-03	5.32E-03	HAP	J
Cyanide	57-12-5	2.50E-03	lb/ton	0.57	0.57	2.51	2.51	N/A	N/A	0%	2.51	2.51	2.51	2.51	HAP	J
2,4-dinitrotoluene	121-14-2	2.80E-07	lb/ton	6.41E-05	6.41E-05	2.81E-04	2.81E-04	N/A	N/A	0%	2.81E-04	2.81E-04	2.81E-04	2.81E-04	HAP	J
Dimethyl Sulfate	77-81-1	4.80E-05	lb/ton	1.10E-02	1.10E-02	4.81E-02	4.81E-02	N/A	N/A	0%	4.81E-02	4.81E-02	4.81E-02	4.81E-02	HAP	J
Ethyl benzene	100-41-4	9.40E-05	lb/ton	2.15E-02	2.15E-02	0.09	0.09	N/A	N/A	0%	0.09	0.09	0.09	0.09	HAP	J
Ethyl chloride	75-00-3	4.20E-05	lb/ton	9.62E-03	9.62E-03	4.21E-02	4.21E-02	N/A	N/A	0%	4.21E-02	4.21E-02	4.21E-02	4.21E-02	HAP	J
Ethylene dichloride	107-06-2	4.00E-05	lb/ton	9.16E-03	9.16E-03	4.01E-02	4.01E-02	N/A	N/A	0%	4.01E-02	4.01E-02	4.01E-02	4.01E-02	HAP	J
Ethylene dibromide	106-93-4	1.20E-06	lb/ton	2.75E-04	2.75E-04	1.20E-03	1.20E-03	N/A	N/A	0%	1.20E-03	1.20E-03	1.20E-03	1.20E-03	HAP	J
Formaldehyde	50-00-0	2.40E-04	lb/ton	5.50E-02	5.50E-02	0.24	0.24	N/A	N/A	0%	0.24	0.24	0.24	0.24	HAP	J
n-Hexane	110-54-3	6.70E-05	lb/ton	1.53E-02	1.53E-02	6.72E-02	6.72E-02	N/A	N/A	0%	6.72E-02	6.72E-02	6.72E-02	6.72E-02	HAP	J
Isophorone	78-59-1	5.80E-04	lb/ton	0.13	0.13	0.58	0.58	N/A	N/A	0%	0.58	0.58	0.58	0.58	HAP	J
Methyl bromide	74-83-9	1.60E-04	lb/ton	3.66E-02	3.66E-02	0.16	0.16	N/A	N/A	0%	0.16	0.16	0.16	0.16	HAP	J
Methyl chloride	74-87-3	5.30E-04	lb/ton	0.12	0.12	0.53	0.53	N/A	N/A	0%	0.53	0.53	0.53	0.53	HAP	J
Methyl ethyl ketone	78-93-3	3.90E-04	lb/ton	8.93E-02	8.93E-02	0.39	0.39	N/A	N/A	0%	0.39	0.39	0.39	0.39	VOC	J
Methylhydrazine	60-34-4	1.70E-04	lb/ton	3.89E-02	3.89E-02	0.17	0.17	N/A	N/A	0%	0.17	0.17	0.17	0.17	HAP	J
Methyl methacrylate	80-62-6	2.00E-05	lb/ton	4.58E-03	4.58E-03	2.01E-02	2.01E-02	N/A	N/A	0%	2.01E-02	2.01E-02	2.01E-02	2.01E-02	HAP	J
Methyl tert butyl ether	1634-04-4	3.50E-05	lb/ton	8.01E-03	8.01E-03	3.51E-02	3.51E-02	N/A	N/A	0%	3.51E-02	3.51E-02	3.51E-02	3.51E-02	HAP	J
Methylene chloride	75-09-2	2.90E-04	lb/ton	6.64E-02	6.64E-02	0.29	0.29	N/A	N/A	0%	0.29	0.29	0.29	0.29	HAP	J
Phenol	108-95-2	1.60E-05	lb/ton	3.66E-03	3.66E-03	1.60E-02	1.60E-02	N/A	N/A	0%	1.60E-02	1.60E-02	1.60E-02	1.60E-02	POM	J
Propionaldehyde	123-38-6	3.80E-04	lb/ton	8.70E-02	8.70E-02	0.38	0.38	N/A	N/A	0%	0.38	0.38	0.38	0.38	HAP	J
Tetrachloroethylene	1127-18-4	4.30E-05	lb/ton	9.85E-03	9.85E-03	4.31E-02	4.31E-02	N/A	N/A	0%	4.31E-02	4.31E-02	4.31E-02	4.31E-02	HAP	J
Toluene	108-88-3	2.40E-04	lb/ton	5.50E-02	5.50E-02	0.24	0.24	N/A	N/A	0%	0.24	0.24	0.24	0.24	HAP	J
1,1,1-trichloroethane	71-55-6	2.00E-05	lb/ton	4.58E-03	4.58E-03	2.01E-02	2.01E-02	N/A	N/A	0%	2.01E-02	2.01E-02	2.01E-02	2.01E-02	HAP	J
Styrene	100-42-5	2.50E-05	lb/ton	5.72E-03	5.72E-03	2.51E-02	2.51E-02	N/A	N/A	0%	2.51E-02	2.51E-02	2.51E-02	2.51E-02	HAP	J
Xylenes	1330-20-7	3.70E-05	lb/ton	8.47E-03	8.47E-03	3.71E-02	3.71E-02	N/A	N/A	0%	3.71E-02	3.71E-02	3.71E-02	3.71E-02	HAP	J
Vinyl acetate	108-05-4	7.60E-06	lb/ton	1.74E-03	1.74E-03	7.62E-03	7.62E-03	N/A	N/A	0%	7.62E-03	7.62E-03	7.62E-03	7.62E-03	HAP	J
Hydrogen chloride	7647-01-0	1.20E+00	lb/ton	275	275	1,203	1,203	N/A	N/A	0%	1,203	1,203	1,203	1,203	HAP	J
Hydrogen fluoride	7664-39-3	1.50E-01	lb/ton	34.34	34.34	150	150	N/A	N/A	0%	150	150	150	150	HAP	J
Biphenyl	92-52-4	1.70E-06	lb/ton	3.89E-04	3.89E-04	1.70E-03	1.70E-03	N/A	N/A	0%	1.70E-03	1.70E-03	1.70E-03	1.70E-03	POM	J
Acenaphthene	83-32-9	5.10E-07	lb/ton	1.17E-04	1.17E-04	5.11E-04	5.11E-04	N/A	N/A	0%	5.11E-04	5.11E-04	5.11E-04	5.11E-04	POM	J
Acenaphthylene	208-96-8	2.50E-07	lb/ton	5.72E-05	5.72E-05	2.51E-04	2.51E-04	N/A	N/A	0%	2.51E-04	2.51E-04	2.51E-04	2.51E-04	POM	J
Anthracene	120-12-7	2.10E-07	lb/ton	4.81E-05	4.81E-05	2.11E-04	2.11E-04	N/A	N/A	0%	2.11E-04	2.11E-04	2.11E-04	2.11E-04	POM	J
Benzo[a]anthracene	56-55-3	8.00E-08	lb/ton	1.83E-05	1.83E-05	8.02E-05	8.02E-05	N/A	N/A	0%	8.02E-05	8.02E-05	8.02E-05	8.02E-05	POM	J
Benzo[b]pyrene	50-32-8	3.80E-08	lb/ton	8.70E-06	8.70E-06	3.81E-05	3.81E-05	N/A	N/A	0%	3.81E-05	3.81E-05	3.81E-05	3.81E-05	POM	J
Benzo[b,k]fluoranthene	110-01-7	1.10E-07	lb/ton	2.52E-05	2.52E-05	1.10E-04	1.10E-04	N/A	N/A	0%	1.10E-04	1.10E-04	1.10E-04	1.10E-04	P	

TABLE 3 - AUX BOILERS (FUEL OIL)															
Parameter	Value	Unit	Source												
Emission Unit	Two auxiliary boilers														
Fuel	#2 Fuel Oil														
Fuel Sulfur Content	0.05	%													
Fuel Heat Value	138,000	btu/gal	AP-42 Appendix A												
Unlimited Annual Throughput	8,760	hr/boiler													
Fuel Limit	563,380	gal/yr (each)	Condition D.2.1 of operation permit T 153-28006-00005												
Limited Annual Throughput	836	hr/yr (each)	Calculated from fuel limit.												
Annual Capacity Factor (Group)	0.10		(Limit operation)/(Unlimited operation)												
Pollutant	CAS	Emission Factor	Maximum Uncontrolled Emission		Uncontrolled PTE (t/yr)		Permit Limit/Control Permit Limit		Controlled PTE (t/yr)		Limited PTE (t/yr)		Pollutant Classification	NOTES	
			Boiler1	Boiler2	Boiler1	Boiler2	Control	Boiler1	Boiler2	Boiler1	Boiler2				
			93	53	93	53									
Maximum Heat Input (MMBtu/hr)			674	674											
Maximum Fuel Input (gal/hr)			674	674											
PM	N/A	3.30	lb/1000 gal	2.22	2.22	9.74	9.74	N/A	0%	9.74	9.74	0.93	0.93	CRITERIA	C
PM ₁₀	N/A	2.30	lb/1000 gal	1.55	1.55	6.79	6.79	N/A	0%	6.79	6.79	0.65	0.65	CRITERIA	C
PM _{2.5}	N/A	1.55	lb/1000 gal	1.04	1.04	4.58	4.58	N/A	0%	4.58	4.58	0.44	0.44	CRITERIA	C
SO ₂	7446-09-5	7.10	lb/1000 gal	4.78	4.78	20.96	20.96	N/A	0%	20.96	20.96	2.00	2.00	CRITERIA	A, B
NO _x	N/A	20.00	lb/1000 gal	13.48	13.48	59.03	59.03	N/A	0%	59.03	59.03	5.63	5.63	CRITERIA	A
VOC	N/A	0.34	lb/1000 gal	0.23	0.23	1.00	1.00	N/A	0%	1.00	1.00	0.10	0.10	CRITERIA	A
CO	630-08-0	5.00	lb/1000 gal	3.37	3.37	14.76	14.76	N/A	0%	14.76	14.76	1.41	1.41	CRITERIA	A
Greenhouse Gas (CO ₂ e)	N/A	225.78	lb/1000 gal	15,216	15,216	66,646	66,646	N/A	0%	66,646	66,646	6,360	6,360	CRITERIA	G
CO ₂	124-38-9	225.01	lb/1000 gal	15,164	15,164	66,418	66,418	N/A	0%	66,418	66,418	6,338	6,338	GHG	E
CH ₄	74-82-8	9.13E-01	lb/1000 gal	0.62	0.62	2.69	2.69	N/A	0%	2.69	2.69	0.26	0.26	GHG	F
N ₂ O	10024-97-2	1.83E-01	lb/1000 gal	0.12	0.12	0.54	0.54	N/A	0%	0.54	0.54	5.14E-02	5.14E-02	GHG	F
NH ₃	7664-41-7	0.80	lb/1000 gal	0.54	0.54	2.36	2.36	N/A	0%	2.36	2.36	0.23	0.23	NSPS	H
MAX HAP	N/A					0.10	0.10	N/A	0%	0.10	0.10	9.30E-03	9.30E-03	N/A	
TOTAL HAP	N/A					0.14	0.14	N/A	0%	0.14	0.14	1.37E-02	1.37E-02	N/A	
Benzene	71-43-2	2.14E-04	lb/1000 gal	1.44E-04	1.44E-04	6.32E-04	6.32E-04	N/A	0%	6.32E-04	6.32E-04	6.03E-05	6.03E-05	HAP	D
Ethylbenzene	100-41-4	6.36E-05	lb/1000 gal	4.29E-05	4.29E-05	1.88E-04	1.88E-04	N/A	0%	1.88E-04	1.88E-04	1.79E-05	1.79E-05	HAP	D
Formaldehyde	50-00-0	3.30E-02	lb/1000 gal	2.22E-02	2.22E-02	0.10	0.10	N/A	0%	0.10	0.10	9.30E-03	9.30E-03	HAP	D
Naphthalene	91-20-3	1.13E-03	lb/1000 gal	7.62E-04	7.62E-04	3.34E-03	3.34E-03	N/A	0%	3.34E-03	3.34E-03	3.18E-04	3.18E-04	HAP	D
1,1,1-Trichloroethane	71-55-6	2.36E-04	lb/1000 gal	1.59E-04	1.59E-04	6.97E-04	6.97E-04	N/A	0%	6.97E-04	6.97E-04	6.65E-05	6.65E-05	HAP	D
Toluene	108-88-3	6.20E-03	lb/1000 gal	4.18E-03	4.18E-03	1.83E-02	1.83E-02	N/A	0%	1.83E-02	1.83E-02	1.75E-03	1.75E-03	HAP	D
Xylene (o,p)	1332-20-7	1.09E-04	lb/1000 gal	7.35E-05	7.35E-05	3.22E-04	3.22E-04	N/A	0%	3.22E-04	3.22E-04	3.07E-05	3.07E-05	HAP	D
Acenaphthene	83-32-9	2.11E-05	lb/1000 gal	1.42E-05	1.42E-05	6.23E-05	6.23E-05	N/A	0%	6.23E-05	6.23E-05	5.94E-06	5.94E-06	POM	D
Acenaphthylene	203-96-8	2.53E-07	lb/1000 gal	1.71E-07	1.71E-07	7.47E-07	7.47E-07	N/A	0%	7.47E-07	7.47E-07	7.13E-08	7.13E-08	POM	D
Anthracene	120-12-7	1.22E-06	lb/1000 gal	8.22E-07	8.22E-07	3.60E-06	3.60E-06	N/A	0%	3.60E-06	3.60E-06	3.44E-07	3.44E-07	POM	D
Benzo[a]anthracene	165-15-3	4.01E-06	lb/1000 gal	2.70E-06	2.70E-06	1.18E-05	1.18E-05	N/A	0%	1.18E-05	1.18E-05	1.13E-06	1.13E-06	POM	D
Benzo[b]fluoranthene	205-99-2	1.48E-06	lb/1000 gal	9.97E-07	9.97E-07	4.37E-06	4.37E-06	N/A	0%	4.37E-06	4.37E-06	4.17E-07	4.17E-07	POM	D
Benzo[g,h,i]perylene	191-24-2	2.26E-06	lb/1000 gal	1.52E-06	1.52E-06	6.67E-06	6.67E-06	N/A	0%	6.67E-06	6.67E-06	6.37E-07	6.37E-07	POM	D
Chrysene	218-01-9	2.38E-06	lb/1000 gal	1.60E-06	1.60E-06	7.03E-06	7.03E-06	N/A	0%	7.03E-06	7.03E-06	6.70E-07	6.70E-07	POM	D
Dibenz[a,h]anthracene	53-70-3	1.67E-06	lb/1000 gal	1.13E-06	1.13E-06	4.93E-06	4.93E-06	N/A	0%	4.93E-06	4.93E-06	4.70E-07	4.70E-07	POM	D
Fluoranthene	206-44-0	4.84E-06	lb/1000 gal	3.26E-06	3.26E-06	1.43E-05	1.43E-05	N/A	0%	1.43E-05	1.43E-05	1.36E-06	1.36E-06	POM	D
Fluorene	86-73-7	4.47E-06	lb/1000 gal	3.01E-06	3.01E-06	1.32E-05	1.32E-05	N/A	0%	1.32E-05	1.32E-05	1.26E-06	1.26E-06	POM	D
Indeno(1,2,3-c,d)pyrene	193-39-5	2.14E-06	lb/1000 gal	1.44E-06	1.44E-06	6.32E-06	6.32E-06	N/A	0%	6.32E-06	6.32E-06	6.03E-07	6.03E-07	POM	D
Phenanthrene	85-01-8	1.05E-05	lb/1000 gal	7.08E-06	7.08E-06	3.10E-05	3.10E-05	N/A	0%	3.10E-05	3.10E-05	2.96E-06	2.96E-06	POM	D
Pyrene	129-00-0	4.25E-06	lb/1000 gal	2.86E-06	2.86E-06	1.25E-05	1.25E-05	N/A	0%	1.25E-05	1.25E-05	1.20E-06	1.20E-06	POM	D
OCDD	3268-87-9	3.05E-09	lb/1000 gal	2.09E-09	2.09E-09	9.15E-09	9.15E-09	N/A	0%	9.15E-09	9.15E-09	8.73E-10	8.73E-10	HAP	D
Polycyclic Organic Matter (POM)	N/A	6.06E-05	lb/1000 gal	4.08E-05	4.08E-05	1.79E-04	1.79E-04	N/A	0%	1.79E-04	1.79E-04	1.71E-05	1.71E-05	HAP	D
Arsenic	7440-38-2	5.52E-04	lb/1000 gal	3.72E-04	3.72E-04	1.63E-03	1.63E-03	N/A	0%	1.63E-03	1.63E-03	1.55E-04	1.55E-04	HAP	D
Beryllium	7440-41-7	4.14E-04	lb/1000 gal	2.79E-04	2.79E-04	1.22E-03	1.22E-03	N/A	0%	1.22E-03	1.22E-03	1.17E-04	1.17E-04	HAP	D
Cadmium	7440-43-9	4.14E-04	lb/1000 gal	2.79E-04	2.79E-04	1.22E-03	1.22E-03	N/A	0%	1.22E-03	1.22E-03	1.17E-04	1.17E-04	HAP	D
Chromium	7440-47-3	4.14E-04	lb/1000 gal	2.79E-04	2.79E-04	1.22E-03	1.22E-03	N/A	0%	1.22E-03	1.22E-03	1.17E-04	1.17E-04	HAP	D
Chromium (VI)	18540-29-9	4.14E-04	lb/1000 gal	2.79E-04	2.79E-04	1.22E-03	1.22E-03	N/A	0%	1.22E-03	1.22E-03	1.17E-04	1.17E-04	HAP	D
Cobalt	7440-48-4	4.14E-04	lb/1000 gal	2.79E-04	2.79E-04	1.22E-03	1.22E-03	N/A	0%	1.22E-03	1.22E-03	1.17E-04	1.17E-04	HAP	D
Copper	7440-50-8	8.28E-04	lb/1000 gal	5.58E-04	5.58E-04	2.44E-03	2.44E-03	N/A	0%	2.44E-03	2.44E-03	2.33E-04	2.33E-04	METAL NONHAP	D
Fluoride	16984-48-8	4.14E-04	lb/1000 gal	2.79E-04	2.79E-04	1.22E-03	1.22E-03	N/A	0%	1.22E-03	1.22E-03	1.17E-04	1.17E-04	N/A	
Lead	7139-92-1	1.24E-03	lb/1000 gal	8.37E-04	8.37E-04	3.67E-03	3.67E-03	N/A	0%	3.67E-03	3.67E-03	3.50E-04	3.50E-04	HAP	D
Manganese	7439-96-5	8.28E-04	lb/1000 gal	5.58E-04	5.58E-04	2.44E-03	2.44E-03	N/A	0%	2.44E-03	2.44E-03	2.33E-04	2.33E-04	HAP	D
Mercury	7439-97-6	4.14E-04	lb/1000 gal	2.79E-04	2.79E-04	1.22E-03	1.22E-03	N/A	0%	1.22E-03	1.22E-03	1.17E-04	1.17E-04	HAP	D
Molybdenum	7439-98-7	4.14E-04	lb/1000 gal	2.79E-04	2.79E-04	1.22E-03	1.22E-03	N/A	0%	1.22E-03	1.22E-03	1.17E-04	1.17E-04	METAL NONHAP	D
Nickel	7440-02-0	4.14E-04	lb/1000 gal	2.79E-04	2.79E-04	1.22E-03	1.22E-03	N/A	0%	1.22E-03	1.22E-03	1.17E-04	1.17E-04	HAP	D
Phosphorus	7723-14-0	4.14E-04	lb/1000 gal	2.79E-04	2.79E-04	1.22E-03	1.22E-03	N/A	0%	1.22E-03	1.22E-03	1.17E-04	1.17E-04	N/A	
Selenium	7782-49-2	2.07E-03	lb/1000 gal	1.40E-03	1.40E-03	6.11E-03	6.11E-03	N/A	0%	6.11E-03	6.11E-03	5.83E-04	5.83E-04	HAP	D
Zinc	7440-66-6	5.52E-04	lb/1000 gal	3.72E-04	3.72E-04	1.63E-03	1.63E-03	N/A	0%	1.63E-03	1.63E-03	1.55E-04	1.55E-04	METAL NONHAP	D

NOTES
A AP-42 Table 1.3-1
B Sulfur Content= 0.05
C AP-42 Table 1.3-7 (filterable) and Table 1.3-2 (condensable)
D AP-42 Table 1.3-9 and 1.3-10
E 40 CFR Part 98 Table C-1: Distillate Fuel Oil 2= 0.138 MMBtu/gal, CO₂ emission = 73.96 kg CO₂/MMBtu = 22,501 lb/1000 gal
F 40 CFR Part 98 Table C-2: Distillate Fuel Oil 2= 0.138 MMBtu/gal, CH₄ = 0.0033 kg CH₄/MMBtu, N₂O = 0.0006 kg N₂O / MMBtu
G CO₂e = (Global Warming Potential, GWP) * (Emission). GWP from 40 CFR Part 98 Table A-1. CO₂ = 1, CH₄ = 25, N₂O = 298
H NH₃ emission factor provided by Hoosier Energy.

TABLE 4 - MATERIAL TRANSFER AND FUGITIVE EMISSIONS															
Activity	Transfer Points	Emission Factor (A)				Throughput	Uncontrolled PTE			Control (A)	Controlled PTE & Limited PTE				
		PM	PM ₁₀	PM _{2.5}	Units		PM (tpy)	PM ₁₀ (tpy)	PM _{2.5} (tpy)		PM (tpy)	PM ₁₀ (tpy)	PM _{2.5} (tpy)		
COAL/LIME KILN DUST HANDLING															
Coal Pile F01	N/A	645	549	83.91	lb/acre-yr	19.00	acres	6.13	5.21	0.80	none	0%	6.13	5.21	0.80
Rotary Railcar Dumper, F02	4	1.42E-03	6.74E-04	1.02E-04	lb/ton	2,000	tph	49.92	23.61	3.58	P.E.	50%	24.96	11.81	1.79
Truck Unload, Hopper (A, B, & C), F03	3	1.42E-03	6.74E-04	1.02E-04	lb/ton	500	tph	9.36	4.43	0.67	P.E.	30%	6.55	3.10	0.47
Truck Unload, pile, F04	1	1.42E-03	6.74E-04	1.02E-04	lb/ton	1,000	tph	6.24	2.95	0.45	none	0%	6.24	2.95	0.45
Breaker House (Conveying) F05	2	1.42E-03	6.74E-04	1.02E-04	lb/ton	2,000	tph	24.96	11.81	1.79	P.E.	50%	12.48	5.90	0.89
Stockout Conveyors CH-CV-1, 2, & 3, F06	5	1.42E-03	6.74E-04	1.02E-04	lb/ton	2,000	tph	62.40	29.51	4.47	Flaps	30%	43.68	20.66	3.13
Reclaim (I, II, & III), F07	4	1.42E-03	6.74E-04	1.02E-04	lb/ton	1,600	tph	39.93	18.89	2.86	Encl. & W.S.	70%	11.98	5.67	0.86
Reclaim Conveyors CH-CV-4/5/6-A/B	4	1.42E-03	6.74E-04	1.02E-04	lb/ton	800	tph	19.97	9.44	1.43	P.E.	50%	9.98	4.72	0.72
Emergency Reclaim F08	4	1.42E-03	6.74E-04	1.02E-04	lb/ton	600	tph	14.98	7.08	1.07	P.E.	30%	10.48	4.96	0.75
Crusher (I, II, III, IV, & V), F09	4	1.42E-03	6.74E-04	1.02E-04	lb/ton	1,600	tph	39.93	18.89	2.86	W.S.	90%	3.99	1.89	0.29
Boiler Building Bunker F10	3	1.42E-03	6.74E-04	1.02E-04	lb/ton	1,600	tph	29.95	14.17	2.15	Encl. & W.S.	90%	3.00	1.42	0.21
Truck hauling on unpaved roads	N/A	12.59	3.92	0.39	lb/VMT	17,406	VMT	110	34.08	3.41	precipitation	32%	75.05	23.34	2.33
Lime Kiln Dust Silos															
LKD Silo 1	1	1.42E-03	6.74E-04	1.02E-04	lb/ton	3.75	tph	2.34E-02	1.11E-02	1.68E-03	baghouse	99.9%	2.34E-05	1.11E-05	1.68E-06
LKD Silo 2	1	1.42E-03	6.74E-04	1.02E-04	lb/ton	3.75	tph	2.34E-02	1.11E-02	1.68E-03	baghouse	99.9%	2.34E-05	1.11E-05	1.68E-06
LIMESTONE HANDLING															
Railcar Unloading Station LDU 1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	3,000	tph	3.28	1.55	0.23	P.E.	50%	1.64	0.77	0.12
Truck Unloading LDU1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	2,000	tph	2.18	1.03	0.16	none	0%	2.18	1.03	0.16
Unloading Conveyor LU 1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	600	tph	0.66	0.31	4.69E-02	suppression	50%	0.33	0.15	2.35E-02
Limestone Storage Pile LP 1	N/A	469	399	61.02	lb/acre-yr	3.40	acres	0.80	0.68	0.10	none	0%	0.80	0.68	0.10
Limestone Drop Point LDP 1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	600	tph	0.66	0.31	4.69E-02	telescoping spout	50%	0.33	0.15	2.35E-02
Limestone Reclaim Conveyor LRC 1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	180	tph	0.20	0.09	1.41E-02	none	0%	0.20	0.09	1.41E-02
Limestone Reclaim Conveyor LRC 2	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	180	tph	0.20	0.09	1.41E-02	none	0%	0.20	0.09	1.41E-02
Reclaim Conveyor Transfer LRC 1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	180	tph	0.20	0.09	1.41E-02	none	0%	0.20	0.09	1.41E-02
Reclaim Conveyor Transfer LRC 2	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	180	tph	0.20	0.09	1.41E-02	none	0%	0.20	0.09	1.41E-02
Limestone Receiving Bin LRCB 1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	175	tph	0.19	0.09	1.37E-02	baghouse	99.9%	1.91E-04	9.04E-05	1.37E-05
Limestone Receiving Bin LRCB 2	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	175	tph	0.19	0.09	1.37E-02	baghouse	99.9%	1.91E-04	9.04E-05	1.37E-05
Limestone Pre-Crushing LPC 1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	45.00	tph	4.91E-02	2.32E-02	3.52E-03	baghouse	99.9%	4.91E-05	2.32E-05	3.52E-06
Limestone Pre-Crushing LPC 2	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	45.00	tph	4.91E-02	2.32E-02	3.52E-03	baghouse	99.9%	4.91E-05	2.32E-05	3.52E-06
Limestone Surge Bin LSB 1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	45.00	tph	4.91E-02	2.32E-02	3.52E-03	baghouse	99.9%	4.91E-05	2.32E-05	3.52E-06
Limestone Surge Bin LSB 2	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	45.00	tph	4.91E-02	2.32E-02	3.52E-03	baghouse	99.9%	4.91E-05	2.32E-05	3.52E-06
Limestone Ball Mill Conveyor LBMC1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	80.00	tph	8.74E-02	4.13E-02	6.26E-03	none	0%	8.74E-02	4.13E-02	6.26E-03
Limestone Ball Mill Conveyor LBMC2	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	80.00	tph	8.74E-02	4.13E-02	6.26E-03	none	0%	8.74E-02	4.13E-02	6.26E-03
Weigh Belt Feeder, LWB1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	22.50	tph	2.46E-02	1.16E-02	1.76E-03	P.E.	50%	1.23E-02	5.81E-03	8.80E-04
Weigh Belt Feeder, LWB2	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	22.50	tph	2.46E-02	1.16E-02	1.76E-03	P.E.	50%	1.23E-02	5.81E-03	8.80E-04
Weigh Belt Feeder, LWB3	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	22.50	tph	2.46E-02	1.16E-02	1.76E-03	P.E.	50%	1.23E-02	5.81E-03	8.80E-04
Weigh Belt Feeder, LWB4	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	22.50	tph	2.46E-02	1.16E-02	1.76E-03	P.E.	50%	1.23E-02	5.81E-03	8.80E-04
Limestone weigh belt feeder, LWB1.1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	80.00	tph	8.74E-02	4.13E-02	6.26E-03	none	0%	8.74E-02	4.13E-02	6.26E-03
Limestone weigh belt feeder, LWB2.1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	80.00	tph	8.74E-02	4.13E-02	6.26E-03	none	0%	8.74E-02	4.13E-02	6.26E-03
Limestone Emergency Reclaim Conveyor, LERC	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	250	tph	0.27	0.13	1.96E-02	T.E.	100%	-	-	-
Limestone Emergency Reclaim Feeder, LERF	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	200	tph	0.22	0.10	1.56E-02	underground	100%	-	-	-
Limestone Emergency Reclaim Breaker, LERB	1	7.00E-04	7.00E-04	7.00E-04	lb/ton	200	tph	0.61	0.61	0.61	underground	100%	-	-	-
Underground Limestone Railcar Belt Feeder, LRUBF1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	300	tph	0.33	0.15	2.35E-02	T.E.	100%	-	-	-
Underground Limestone Railcar Belt Feeder, LRUBF2	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	300	tph	0.33	0.15	2.35E-02	T.E.	100%	-	-	-
Underground Limestone Storage Pile Belt Feeder, LSPBF1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	250	tph	0.27	0.13	1.96E-02	T.E.	100%	-	-	-
Underground Limestone Storage Pile Belt Feeder, LSPBF2	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	250	tph	0.27	0.13	1.96E-02	T.E.	100%	-	-	-
Underground Limestone Wet Ball Mill, LWBM1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	70.00	tph	7.65E-02	3.62E-02	5.48E-03	none	0%	7.65E-02	3.62E-02	5.48E-03
Underground Limestone Wet Ball Mill, LWBM2	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	70.00	tph	7.65E-02	3.62E-02	5.48E-03	none	0%	7.65E-02	3.62E-02	5.48E-03
Truck hauling on unpaved roads	N/A	18.38	5.72	0.57	lb/VMT	160	VMT	1.47	0.46	4.57E-02	precipitation	32%	1.01	0.31	3.13E-02
FLY ASH/LIME KILN DUST/FGD SLURRY/BOTTOM ASH HANDLING FACILITIES															
Fly Ash Silo 1A (100 tph)	N/A														
Fly Ash Silo 1B (100 tph)	N/A														
Fly Ash Silo 2A (100 tph)	N/A	3.40E-03	2.00E-04	2.00E-04	lb/ton	1,752,000	tpy	2.98	0.18	0.18	baghouse	99.9%	2.98E-03	1.75E-04	1.75E-04
Fly Ash Silo 2B (100 tph)	N/A														
Fly Ash Silo IUCS (100 tph)	N/A														
Emergency Fly Ash Loading (fugitive)	N/A	3.00E-04	1.00E-04	1.00E-04	lb/ton	1,752,000	tpy	0.26	8.76E-02	8.76E-02	none	0.0%	0.26	8.76E-02	8.76E-02
Lime Kiln Dust Storage and Handling at IUCS															
Lime Kiln Dust Silo at IUCS	N/A	0.30	0.30	0.30	lb/ton	26,280	tpy	3.94	3.94	3.94	baghouse	99.9%	3.94E-03	3.94E-03	3.94E-03
Lime Storage and Handling System at WWT															
Lime Silo at WWT	N/A	0.30	0.30	0.30	lb/ton	110	tpy	1.64E-02	1.64E-02	1.64E-02	baghouse	99.9%	1.64E-05	1.64E-05	1.64E-05
FGD Slurry Handling System															
Pug Mill 1		1.36E-04	6.43E-05	9.73E-06	lb/ton	2,628,000	tpy	0.18	8.44E-02	1.28E-02	whirl-a-jet	0.0%	0.18	8.44E-02	1.28E-02
Pug Mill 2															
Pozz-o-tec Drop Point	N/A	1.36E-04	6.43E-05	9.73E-06	lb/ton	300	tph	0.18	8.44E-02	1.28E-02	none	0.0%	0.18	8.44E-02	1.28E-02
Wet Bottom Ash Storage and Handling System															
Bottom Ash Decant Bin 1A															
Bottom Ash Decant Bin 1B															
Bottom Ash Decant Bin 2A		3.90E-02	1.50E-02	5.29E-03	lb/ton	30,160	tpy	0.59	0.23	7.98E-02	P.E.	92.0%	4.70E-02	1.81E-02	6.38E-03
Bottom Ash Decant Bin 2B															
Truck hauling on unpaved roads	N/A	12.59	3.92	0.39	lb/VMT	1,206	VMT	7.59	2.36	0.24	precipitation	32%	5.20	1.62	0.16
Pozz-o-tec Landfill															
Movement of material (dozers)	N/A	1.36E-04	6.43E-05	9.73E-06	lb/ton	2,628,000	tpy	0.18	8.44E-02	1.28E-02	water spray	50%	8.93E-02	4.22E-02	6.39E-03
TOTAL								451	196	31.93			233	98.94	13.69

NOTES:

(A) P.E. = Partial Enclosure, T.E. = Total Enclosure, W.S. = Wet Suppression

SEE TABLE 5 FOR EMISSION FACTOR REFERENCES

TABLE 4 - MATERIAL TRANSFER AND FUGITIVE EMISSIONS															
Activity	Transfer Points	Emission Factor (A)				Throughput	Uncontrolled PTE			Control (A)	Controlled PTE & Limited PTE				
		PM	PM ₁₀	PM _{2.5}	Units		PM (tpy)	PM ₁₀ (tpy)	PM _{2.5} (tpy)		PM (tpy)	PM ₁₀ (tpy)	PM _{2.5} (tpy)		
COAL/LIME KILN DUST HANDLING															
Coal Pile F01	N/A	645	549	83.91	lb/acre-yr	26.00	acres	8.39	7.13	1.09	none	0%	8.39	7.13	1.09
Rotary Railcar Dumper, F02	4	1.42E-03	6.74E-04	1.02E-04	lb/ton	2,000	tph	49.92	23.61	3.58	P.E.	50%	24.96	11.81	1.79
Truck Unload, Hopper (A, B, & C), F03	3	1.42E-03	6.74E-04	1.02E-04	lb/ton	500	tph	9.36	4.43	0.67	P.E.	30%	6.55	3.10	0.47
Truck Unload, pile, F04	1	1.42E-03	6.74E-04	1.02E-04	lb/ton	1,000	tph	6.24	2.95	0.45	none	0%	6.24	2.95	0.45
Breaker House (Conveying) F05	2	1.42E-03	6.74E-04	1.02E-04	lb/ton	2,000	tph	24.96	11.81	1.79	P.E.	50%	12.48	5.90	0.89
Stockout Conveyors CH-CV-1, 2, & 3, F06	5	1.42E-03	6.74E-04	1.02E-04	lb/ton	2,000	tph	62.40	29.51	4.47	Flaps	30%	43.68	20.66	3.13
Reclaim (I, II, & III), F07	4	1.42E-03	6.74E-04	1.02E-04	lb/ton	1,600	tph	39.93	18.89	2.86	Encl. & W.S.	70%	11.98	5.67	0.86
Reclaim Conveyors CH-CV-4/5/6-A/B	4	1.42E-03	6.74E-04	1.02E-04	lb/ton	800	tph	19.97	9.44	1.43	P.E.	50%	9.98	4.72	0.72
Emergency Reclaim F08	4	1.42E-03	6.74E-04	1.02E-04	lb/ton	600	tph	14.98	7.08	1.07	P.E.	30%	10.48	4.96	0.75
Crusher (I, II, III, IV, & V), F09	4	1.42E-03	6.74E-04	1.02E-04	lb/ton	1,600	tph	39.93	18.89	2.86	W.S.	90%	3.99	1.89	0.29
Boiler Building Bunker F10	3	1.42E-03	6.74E-04	1.02E-04	lb/ton	1,600	tph	29.95	14.17	2.15	Encl. & W.S.	90%	3.00	1.42	0.21
Truck hauling on unpaved roads	N/A	12.59	3.92	0.39	lb/VMT	17,406	VMT	110	34.08	3.41	precipitation	32%	75.05	23.34	2.33
Lime Kiln Dust Silos															
LKD Silo 1	1	1.42E-03	6.74E-04	1.02E-04	lb/ton	3.75	tph	2.34E-02	1.11E-02	1.68E-03	baghouse	99.9%	2.34E-05	1.11E-05	1.68E-06
LKD Silo 2	1	1.42E-03	6.74E-04	1.02E-04	lb/ton	3.75	tph	2.34E-02	1.11E-02	1.68E-03	baghouse	99.9%	2.34E-05	1.11E-05	1.68E-06
LIMESTONE HANDLING															
Railcar Unloading Station LDU 1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	3,000	tph	3.28	1.55	0.23	P.E.	50%	1.64	0.77	0.12
Truck Unloading LUTU 1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	2,000	tph	2.18	1.03	0.16	none	0%	2.18	1.03	0.16
Unloading Conveyor LU 1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	600	tph	0.66	0.31	4.69E-02	suppression	50%	0.33	0.15	2.35E-02
Limestone Storage Pile LP 1	N/A	469	399	61.02	lb/acre-yr	3.40	acres	0.80	0.68	0.10	none	0%	0.80	0.68	0.10
Limestone Drop Point LDP 1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	600	tph	0.66	0.31	4.69E-02	telescoping spout	50%	0.33	0.15	2.35E-02
Limestone Reclaim Conveyor LRC 1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	180	tph	0.20	0.09	1.41E-02	none	0%	0.20	0.09	1.41E-02
Limestone Reclaim Conveyor LRC 2	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	180	tph	0.20	0.09	1.41E-02	none	0%	0.20	0.09	1.41E-02
Reclaim Conveyor Transfer LRC 1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	180	tph	0.20	0.09	1.41E-02	none	0%	0.20	0.09	1.41E-02
Reclaim Conveyor Transfer LRC 2	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	180	tph	0.20	0.09	1.41E-02	none	0%	0.20	0.09	1.41E-02
Limestone Receiving Bin LRCB 1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	175	tph	0.19	0.09	1.37E-02	baghouse	99.9%	1.91E-04	9.04E-05	1.37E-05
Limestone Receiving Bin LRCB 2	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	175	tph	0.19	0.09	1.37E-02	baghouse	99.9%	1.91E-04	9.04E-05	1.37E-05
Limestone Pre-Crushing LPC 1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	45.00	tph	4.91E-02	2.32E-02	3.52E-03	baghouse	99.9%	4.91E-05	2.32E-05	3.52E-06
Limestone Pre-Crushing LPC 2	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	45.00	tph	4.91E-02	2.32E-02	3.52E-03	baghouse	99.9%	4.91E-05	2.32E-05	3.52E-06
Limestone Surge Bin LSB 1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	45.00	tph	4.91E-02	2.32E-02	3.52E-03	baghouse	99.9%	4.91E-05	2.32E-05	3.52E-06
Limestone Surge Bin LSB 2	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	45.00	tph	4.91E-02	2.32E-02	3.52E-03	baghouse	99.9%	4.91E-05	2.32E-05	3.52E-06
Limestone Ball Mill Conveyor LBMC1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	80.00	tph	8.74E-02	4.13E-02	6.26E-03	none	0%	8.74E-02	4.13E-02	6.26E-03
Limestone Ball Mill Conveyor LBMC2	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	80.00	tph	8.74E-02	4.13E-02	6.26E-03	none	0%	8.74E-02	4.13E-02	6.26E-03
Weigh Belt Feeder, LWB1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	22.50	tph	2.46E-02	1.16E-02	1.76E-03	P.E.	50%	1.23E-02	5.81E-03	8.80E-04
Weigh Belt Feeder, LWB2	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	22.50	tph	2.46E-02	1.16E-02	1.76E-03	P.E.	50%	1.23E-02	5.81E-03	8.80E-04
Weigh Belt Feeder, LWB3	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	22.50	tph	2.46E-02	1.16E-02	1.76E-03	P.E.	50%	1.23E-02	5.81E-03	8.80E-04
Weigh Belt Feeder, LWB4	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	22.50	tph	2.46E-02	1.16E-02	1.76E-03	P.E.	50%	1.23E-02	5.81E-03	8.80E-04
Limestone weigh belt feeder, LWB1.1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	80.00	tph	8.74E-02	4.13E-02	6.26E-03	none	0%	8.74E-02	4.13E-02	6.26E-03
Limestone weigh belt feeder, LWB2.1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	80.00	tph	8.74E-02	4.13E-02	6.26E-03	none	0%	8.74E-02	4.13E-02	6.26E-03
Limestone Emergency Reclaim Conveyor, LERC	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	250	tph	0.27	0.13	1.96E-02	T.E.	100%	-	-	-
Limestone Emergency Reclaim Feeder, LERF	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	200	tph	0.22	0.10	1.56E-02	underground	100%	-	-	-
Limestone Emergency Reclaim Breaker, LERB	1	7.00E-04	7.00E-04	7.00E-04	lb/ton	200	tph	0.61	0.61	0.61	underground	100%	-	-	-
Underground Limestone Railcar Belt Feeder, LRUBF1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	300	tph	0.33	0.15	2.35E-02	T.E.	100%	-	-	-
Underground Limestone Railcar Belt Feeder, LRUBF2	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	300	tph	0.33	0.15	2.35E-02	T.E.	100%	-	-	-
Underground Limestone Storage Pile Belt Feeder, LSPBF1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	250	tph	0.27	0.13	1.96E-02	T.E.	100%	-	-	-
Underground Limestone Storage Pile Belt Feeder, LSPBF2	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	250	tph	0.27	0.13	1.96E-02	T.E.	100%	-	-	-
Underground Limestone Wet Ball Mill, LWBM1	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	70.00	tph	7.65E-02	3.62E-02	5.48E-03	none	0%	7.65E-02	3.62E-02	5.48E-03
Underground Limestone Wet Ball Mill, LWBM2	1	2.49E-04	1.18E-04	1.79E-05	lb/ton	70.00	tph	7.65E-02	3.62E-02	5.48E-03	none	0%	7.65E-02	3.62E-02	5.48E-03
Truck hauling on unpaved roads	N/A	18.38	5.72	0.57	lb/VMT	160	VMT	1.47	0.46	4.57E-02	precipitation	32%	1.01	0.31	3.13E-02
FLY ASH/LIME KILN DUST/FGD SLURRY/BOTTOM ASH HANDLING FACILITIES															
Fly Ash Silo 1A (100 tph)	N/A														
Fly Ash Silo 1B (100 tph)	N/A														
Fly Ash Silo 2A (100 tph)	N/A														
Fly Ash Silo 2B (100 tph)	N/A														
Fly Ash Silo IUCS (100 tph)	N/A														
Emergency Fly Ash Loading (fugitive)	N/A	3.00E-04	1.00E-04	1.00E-04	lb/ton	1,752,000	tpy	0.26	8.76E-02	8.76E-02	none	0.0%	0.26	8.76E-02	8.76E-02
Lime Kiln Dust Storage and Handling at IUCS															
Lime Kiln Dust Silo at IUCS	N/A	0.30	0.30	0.30	lb/ton	26,280	tpy	3.94	3.94	3.94	baghouse	99.9%	3.94E-03	3.94E-03	3.94E-03
Lime Storage and Handling System at WWT															
Lime Silo at WWT	N/A	0.30	0.30	0.30	lb/ton	110	tpy	1.64E-02	1.64E-02	1.64E-02	baghouse	99.9%	1.64E-05	1.64E-05	1.64E-05
FGD Slurry Handling System															
Pug Mill 1		1.36E-04	6.43E-05	9.73E-06	lb/ton	2,628,000	tpy	0.18	8.44E-02	1.28E-02	whirl-a-jet	0.0%	0.18	8.44E-02	1.28E-02
Pug Mill 2															
Pozz-o-tec Drop Point	N/A	1.36E-04	6.43E-05	9.73E-06	lb/ton	300	tph	0.18	8.44E-02	1.28E-02	none	0.0%	0.18	8.44E-02	1.28E-02
Wet Bottom Ash Storage and Handling System															
Bottom Ash Decant Bin 1A															
Bottom Ash Decant Bin 1B															
Bottom Ash Decant Bin 2A		3.90E-02	1.50E-02	5.29E-03	lb/ton	30,160	tpy	0.59	0.23	7.98E-02	P.E.	92.0%	4.70E-02	1.81E-02	6.38E-03
Bottom Ash Decant Bin 2B															
Truck hauling on unpaved roads	N/A	12.59	3.92	0.39	lb/VMT	1,206	VMT	7.59	2.36	0.24	precipitation	32%	5.20	1.62	0.16
Pozz-o-tec Landfill															
Movement of material (dozers)	N/A	1.36E-04	6.43E-05	9.73E-06	lb/ton	2,628,000	tpy	0.18	8.44E-02	1.28E-02	water spray	50%	8.93E-02	4.22E-02	6.39E-03
TOTAL								453	198	32.22			236	101	13.99

NOTES:

(A) P.E. = Partial Enclosure, T.E. = Total Enclosure, W.S. = Wet Suppression

SEE TABLE 5 FOR EMISSION FACTOR REFERENCES

TABLE 5 - MATERIAL HANDLING EMISSION FACTOR SUPPORTING INFORMATION					
Coal/Lime Kiln Dust (LKD) Handling					
Emission Factor Reference: AP-42 Page 13.2.4-4, 11/06					
Emission Factor Equation: $EF = k \cdot 0.0032 \cdot (U/S)^{1.3} \cdot (M/2)^{1.4} = \text{lb/ton}$					
<i>Parameter</i>	<i>PM</i>	<i>PM₁₀</i>	<i>PM_{2.5}</i>	<i>Units</i>	<i>Notes</i>
Particle Size Multiplier (k)	0.74	0.35	0.053	dimensionless	
Mean Wind Speed (U)	8.1	8.1	8.1	mph	AP 42, Evansville, IN
Moisture Content (M)	4.5	4.5	4.5	%	Site Specific
Emission Factor (EF)	1.42E-03	6.74E-04	1.02E-04	lb/ton	
Coal Storage Pile Wind Erosion					
Emission Factor Reference: WRAP Fugitive Dust Handbook with Midwest Research					
Emission Factor Equation: $EF = 1.7 \cdot (s/1.5)^{365} \cdot (365-p) / 235 \cdot (f/15)$					
<i>Parameter</i>	<i>PM</i>	<i>PM₁₀</i>	<i>PM_{2.5}</i>	<i>Units</i>	<i>Notes</i>
particle fraction	1	0.85	0.13		
silt content (s)	2.2	2.2	2.2	%	AP-42 Table 13.2.4-1
Days precipitation >0.1" (p)	115	115	115	days	AP-42 13.2.2-1
Wind frequency >12 mph (f)	10	10	10	%	NCDC Evansville, IN
EF	645	549	83.91	lb/acre-yr	
Coal Handling: Traffic on Unpaved Roads					
AP42 13.2.2-3, 11/06					
Emission Factor Equation: $EF = k \cdot (s/12)^a \cdot (W/3)^b$					
VMT Basis: $10\% \cdot (4,351,419 \text{ tons}) / (25 \text{ tons per load}) = 17,406 \text{ loads} \cdot (1 \text{ VMT/load}) = 17,406 \text{ VMT}$					
<i>Parameter</i>	<i>PM</i>	<i>PM₁₀</i>	<i>PM_{2.5}</i>	<i>Units</i>	<i>Notes</i>
Constant (k)	4.9	1.5	0.15		
Constant (a)	0.7	0.9	0.9		
Constant (b)	0.45	0.45	0.45		
Surface silt content (s)	13	13	13	%	Calculations in permit T153-28006-00005
Mean vehicle weight (W)	50	50	50	tons	Calculations in permit T153-28006-00005, assume 25 ton vehicle + 25 ton load
Uncontrolled EF	18.4	5.7	0.6	lb/VMT	Equation 1(A)
Days precipitation >0.1" (p)	115	115	115	days/yr	AP-42 13.2.2-1
Control Factor	0.68	0.68	0.68		(365-P)/365, equation 2
Controlled EF	12.59	3.92	0.39	lb/VMT	
Limestone Handling					
Emission Factor Reference: AP-42 Page 13.2.4-4, 11/06					
Emission Factor Equation: $EF = k \cdot 0.0032 \cdot (U/S)^{1.3} \cdot (M/2)^{1.4} = \text{lb/ton}$					
<i>Parameter</i>	<i>PM</i>	<i>PM₁₀</i>	<i>PM_{2.5}</i>	<i>Units</i>	<i>Notes</i>
Particle Size Multiplier (k)	0.74	0.35	0.053	dimensionless	
Mean Wind Speed (U)	1	1	1	mph	Conveyor speed - Air permit 153-33441-00005, August 2, 2013
Moisture Content (M)	2.24	2.24	2.24	%	Air permit 153-33441-00005, August 2, 2013
Emission Factor (EF)	2.49E-04	1.18E-04	1.79E-05	lb/ton	
Limestone Storage Pile (LP1) Wind Erosion					
Emission Factor Reference: WRAP Fugitive Dust Handbook with Midwest Research					
Emission Factor Equation: $EF = 1.7 \cdot (s/1.5)^{365} \cdot (365-p) / 235 \cdot (f/15)$					
<i>Parameter</i>	<i>PM</i>	<i>PM₁₀</i>	<i>PM_{2.5}</i>	<i>Units</i>	<i>Notes</i>
particle fraction	1	0.85	0.13		
silt content (s)	1.6	1.6	1.6	%	AP-42 Table 13.2.4-1
Days precipitation >0.1" (p)	115	115	115	days	AP-42 13.2.2-1
Wind frequency >12 mph (f)	10	10	10	%	NCDC Evansville, IN
EF	469	399	61.02	lb/acre-yr	
Limestone Handling: Traffic on Unpaved Roads					
AP42 13.2.2-3, 11/06					
Emission Factor Equation: $EF = k \cdot (s/12)^a \cdot (W/3)^b$					
VMT Basis: $10\% \cdot (400,000 \text{ tons}) / (25 \text{ tons per load}) = 160 \text{ loads} \cdot (1 \text{ VMT/load}) = 160 \text{ VMT}$					
<i>Parameter</i>	<i>PM</i>	<i>PM₁₀</i>	<i>PM_{2.5}</i>	<i>Units</i>	<i>Notes</i>
Constant (k)	4.9	1.5	0.15		
Constant (a)	0.7	0.9	0.9		
Constant (b)	0.45	0.45	0.45		
Surface silt content (s)	13	13	13	%	Calculations in permit T153-28006-00005
Mean vehicle weight (W)	50	50	50	tons	Calculations in permit T153-28006-00005, assume 25 ton vehicle + 25 ton load
Uncontrolled EF	18.4	5.7	0.6	lb/VMT	Equation 1(A)
Days precipitation >0.1" (p)	115	115	115	days/yr	AP-42 13.2.2-1
Control Factor	0.68	0.68	0.68		(365-P)/365, equation 2
Controlled EF	12.59	3.92	0.39	lb/VMT	
Fly Ash Silos (1A, 1B, 2A, 2B, IUCS)					
Emission Factor Reference: AWMA Air Pollution Engineering Manual (1992), page 784, Table 2: Crushed Stone - Tunnel Belt, Factor not provided for PM _{2.5} , Assume PM _{2.5} = PM ₁₀					
Emergency Fly Ash Loading (fugitive)					
Emission Factor Reference: AWMA Air Pollution Engineering Manual (1992), page 784, Table 2: Crushed Stone - Conveyor Truck Loading, Factor not provided for PM _{2.5} , Assume PM _{2.5} = PM ₁₀					
Lime Kiln Dust Silo @ IUCS & Lime Silo @ WWT					
Emission Factor Reference: AWMA Air Pollution Engineering Manual (1992), page 789, Table 1: Lime: Closed Truck Loading, Factor not provided for PM _{2.5} , Assume PM _{2.5} = PM ₁₀					
Pozz-o-tec Drop Point					
Pozz-o-tec Movement IUCS					
Pozz-o-tec Movement Landfill					
Pozz-o-tec Pug Mills					
Emission Factor Reference: AP-42 Page 13.2.4-4, 11/06					
Emission Factor Equation: $EF = k \cdot 0.0032 \cdot (U/S)^{1.3} \cdot (M/2)^{1.4} = \text{lb/ton}$					
<i>Parameter</i>	<i>PM</i>	<i>PM₁₀</i>	<i>PM_{2.5}</i>	<i>Units</i>	<i>Notes</i>
Particle Size Multiplier (k)	0.74	0.35	0.053	dimensionless	
Mean Wind Speed (U)	8.1	8.1	8.1	mph	AP 42, Evansville, IN
Moisture Content (M)	24.11	24.11	24.11	%	Site Specific
Emission Factor (EF)	1.36E-04	6.43E-05	9.73E-06	lb/ton	
Bottom Ash Decant Bins					
Emission factors provided by Hoosier Energy, source not identified.					
Ash Handling: Traffic on Unpaved Roads					
AP42 13.2.2-3, 11/06					
Emission Factor Equation: $EF = k \cdot (s/12)^a \cdot (W/3)^b$					
VMT Basis: $10\% \cdot (30,160 \text{ tons}) / (25 \text{ tons per load}) = 1,206 \text{ loads} \cdot (1 \text{ VMT/load}) = 1,206 \text{ VMT}$					
<i>Parameter</i>	<i>PM</i>	<i>PM₁₀</i>	<i>PM_{2.5}</i>	<i>Units</i>	<i>Notes</i>
Constant (k)	4.9	1.5	0.15		
Constant (a)	0.7	0.9	0.9		
Constant (b)	0.45	0.45	0.45		
Surface silt content (s)	13	13	13	%	Calculations in permit T153-28006-00005
Mean vehicle weight (W)	50	50	50	tons	Calculations in permit T153-28006-00005, assume 25 ton vehicle + 25 ton load
Uncontrolled EF	18.4	5.7	0.6	lb/VMT	Equation 1(A)
Days precipitation >0.1" (p)	115	115	115	days/yr	AP-42 13.2.2-1
Control Factor	0.68	0.68	0.68		(365-P)/365, equation 2
Controlled EF	12.59	3.92	0.39	lb/VMT	
Limestone Emergency Reclaim Breaker (LERB)					
Emission Factor Reference: AP-42 Table 11.19.2.2, (1/1995)					
<i>Parameter</i>	<i>PM</i>	<i>PM₁₀</i>	<i>PM_{2.5}</i>	<i>Units</i>	<i>Notes</i>
Emission Factor (EF)	7.00E-04	7.00E-04	7.00E-04	lb/ton	

Appendix A: Emission Calculations
Reciprocating Internal Combustion Engines - Diesel Fuel
FGD Fire Pump (FGD FP)
Output Rating (<=600 HP)
Maximum Input Rate (<=4.2 MMBtu/hr)

Company Name: Hoosier Energy REC, Inc - Merom Generating Station
Address City IN Zip: 5500 W Old 54, Sullivan, IN 47882
Permit Number: 153-37177-00005
Reviewer: Sommer Cochran
Date: 20-Jun-2016

A. Emissions calculated based on heat input capacity (MMBtu/hr)

Heat Input Capacity (MMBtu/hr)	2.1
Maximum Hours Operated per Year	500
Potential Throughput (MMBtu/yr)	1,050

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMBtu	0.31	0.31	0.31	0.29	4.41	0.36	0.95
Potential Emission in tons/yr	0.16	0.16	0.16	0.15	2.32	0.19	0.50

*PM and PM2.5 emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

Hazardous Air Pollutants (HAPs)

	Pollutant							
	Benzene	Toluene	Xylene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/MMBtu	9.33E-04	4.09E-04	2.85E-04	3.91E-05	1.18E-03	7.67E-04	9.25E-05	1.68E-04
Potential Emission in tons/yr	4.90E-04	2.15E-04	1.50E-04	2.05E-05	6.20E-04	4.03E-04	4.86E-05	8.82E-05

Potential Emission of Total HAPs (tons/yr)	2.03E-03
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Green House Gas Emissions (GHG)

	Pollutant		
	CO2	CH4	N2O
Emission Factor in lb/MMBtu	#####	6.61E-03	1.32E-03
Potential Emission in tons/yr	#####	3.47E-03	6.94E-04

Summed Potential Emissions in tons/yr	8.61E+01
CO2e Total in tons/yr	8.64E+01

Appendix A - Emission Calculation Sheet
Coal Bed Methane Flare - NOx, CO, VOC and Particulate from Natural Gas Combustion

Source Name: Hoosier Energy REC, Inc - Merom Generating Station
 Source Location: 5500 W Old 54, Sullivan, IN 47882
 Permit Number: 153-37177-00005
 Permit Reviewer: Sommer Cochran

Max. Heat Input
MMBtu/hr

25.00

Limited Hours of Operation (hr/yr) = 3,000 hrs
Gas Heating Value = 1,020.00 Btu/CF

Hourly Gas Usage 0.0245 MMCF/hr
Limited Gas Usage 73.50 MMCF/yr based on 3,000.00 hrs
Unlimited Gas Usage 214.62 MMCF/yr

Flare Emissions

	Pollutant				
	NOx	CO	VOC	PM	PM10/2.5
Emission Factor in lb/MMBtu	0.060	0.2000	0.150	0.017	0.017
Emission Factor in lb/MMCF	61.20	204.00	153.00	17.00	17.00
Unlimited PTE (tons/yr)	6.57	21.90	16.42	1.86	1.86
Limited PTE (tons/yr)	2.25	7.50	5.63	0.64	0.64

Notes:

- 1) PM and PM10 are assumed to equal PM2.5 as stated in AP-42, Chapter 2.4, Table 2.4-4. The applicant submitted an emission factor for all PM of 17 lb/MMCF of CH4 with all of the gas assumed to be CH4. This emission factor is 1.13 times higher than the emission emission factor listed in AP-42, Chapter 2.4, Table 2.4-4, 10/08 of 15 lb/MMCF of CH4.
- 2) The applicant submitted an emission factor for VOC of 0.15 lb/MMBtu. This emission factor is 28 times higher than the AP-42 emission factor of 5.5 lb/MMCF in Table 1.4-2, 7/98, after conversion.
- 3) The applicant submitted a CO emission factor of 0.2lb/MMBtu. This emission factor is 2 times higher than the AP-42 emission factor of 98 lb/MMCF listed in Table 1.4-1, 7/98, after conversion.
- 4) The applicant submitted a NOx emission factor of 0.06 lb/MMBtu. This emission factor is 1.2 times higher than the AP-42 emission factor of 50 lb/MMCF listed in Table 1.4-1, 7/98, after conversion. IDEM assumed the flare operates in a manner similar to a small boiler with low NOx burners.

Methodology:

- 1) Fuel Usage = [Heat Input (MMBtu/hr) x Operating Hours (hr/yr) x 1,000,000 Btu/MMBtu x 1 CF/1020 Btu x MMCF/1,000,000 CF]
- 2) Estimated Loading = [PTE (ton/yr) x 2000 lb/ton] / Total Fuel Used (MMCF/yr)
- 3) Unlimited PTE (tons/yr) = Max. Heat Input (MMBtu/hr) x Emission Factor (lbs/MMBtu) x 8760 hrs/yr x 1 ton/2000 lbs.
- 4) Limited PTE (tons/yr) = Max. Heat Input (MMBtu/hr) x Emission Factor (lbs/MMBtu) x Limited Hours of operation (hrs/yr) x 1 ton/2000 lbs.

Appendix A - Emission Calculation Sheet

Coal Bed Methane Flare - SO₂ from Natural Gas Combustion

Source Name: Hoosier Energy REC, Inc - Merom Generating Station
Source Location: 5500 W Old 54, Sullivan, IN 47882
Permit Number: 153-37177-00005
Permit Reviewer: Sommer Cochran

Max. Heat Input MMBtu/hr	Hours of Operation (hr/yr)	Estimated Gas Usage Based on 8,760 Hours (MMCF/yr)
25.00	3,000	214.71
Flare (CBM)		1,020.00
		Flare Btu/CF

SO₂ Emission Calculation

Sulfur Content of Gas = 10 PPM (Estimated)	MW of Sulfur = 32.065 g/gmol
Temperature (°C) = 21.11 °C	MW of SO ₂ = 64.07 g/gmol
Temperature (°K) = 294.11 °K	

Step 1 - Calculate the flow rate of sulfur in the CBM stream (8,760 hrs of Operation)

Note : 10 ppm is the same as 10 parts of pollutant in a gas containing 1,000,000 parts as a whole.

Q Sulfur (MMCF/yr) = 214.71 MMCF CBM/yr x 10 MMCF S / 1,000,000 MMCF CBM
Q Sulfur (MMCF/yr) = 0.0021 MMCF/yr
Q Sulfur (CFM) = 0.0040 SCFM
Q Sulfur (M³/yr) = 59.5413 M³/yr

Step 2 - Calculate the Uncontrolled Mass Emissions (UME) for Sulfur (8,760 hr of Operation)

Note : Use Equation (4) in AP-42, Chapter 2.4-10, October 2008

$$\text{UME Sulfur (Kg/yr)} = \frac{[\text{Q Sulfur (M}^3\text{/yr)}] \times [\text{MW of Sulfur (g/gmol)}] \times [1 \text{ atm}]}{[8.205 \times 10^{-5} \text{ M}^3 \cdot \text{atm} / \text{gmol} \cdot \text{K}] \times [1,000 \text{ g/Kg}] \times [273 + \text{T (}^\circ\text{C)}]}$$

$$\text{UME Sulfur (Kg/yr)} = \frac{[59.5413] \times [32.065] \times [1]}{[8.205 \text{ E}^{-05}] \times [1000] \times [273 + 21.11]} = 79.12 \text{ Kg/yr}$$

Step 3 - Calculate the Uncontrolled Mass Emissions (UME) for SO₂ (8,760 hrs of Operation)

$$\text{UME SO}_2 \text{ (kg/yr)} = \text{UME Sulfur} \times [\text{MW SO}_2 / \text{MW S}] = 158.09 \text{ Kg/yr}$$

$$\begin{aligned} \text{UME SO}_2 \text{ (ton/yr)} &= \text{UME Sulfur} \times [2.2 \text{ lb} / \text{Kg}] \times [1 \text{ ton} / 2,000 \text{ lb}] = \mathbf{0.17 \text{ TPY SO}_2} \\ \text{UME SO}_2 \text{ (lb/hr)} &= (0.18 \text{ TPY} * 2000 \text{ lb/ton}) / (8,760 \text{ hr/yr}) = \mathbf{0.039 \text{ lb/hr}} \end{aligned}$$

Step 4 - Calculate the Limited Mass Emissions (UME) for SO₂ (3,000 hrs of Operation)

Uncontrolled SO ₂ Emission Rate =	0.039	lb/hr	
Limited Hours of Operation =	3,000	hrs/yr	
Limited SO₂ Emission Rate =	117	lb/yr	SO₂
	0.06	TPY	SO₂

Appendix A - Emission Calculation Sheet

Coal Bed Methane Flare - HAP Emissions from Natural Gas Combustion

Source Name: Hoosier Energy REC, Inc - Merom Generating Station

Source Location: 5500 W Old 54, Sullivan, IN 47882

Permit Number: 153-37177-00005

Permit Reviewer: Sommer Cochran

Maximum Heat Input Rate	25.00	MMBtu/hr	
CBM Heating Value	1,020.00	Btu/CF	
Fuel Usage	0.0246	MMCF/hr	
Hours of Operation	3,000	hr	

Potential to Emit HAPs

HAP	Unlimited PTE			Limited PTE	Emission Factor Source
	lb/MMCF	lb/hr	TPY	TPY	
2-Methylnaphthalene	2.40E-05	5.90E-07	2.59E-06	8.86E-07	AP-42, Table 1.4-3, 7/98
3-Methylchloranthrene	1.80E-06	4.43E-08	1.94E-07	6.65E-08	AP-42, Table 1.4-3, 7/98
7,12-Dimethylbenz(a)anthracene	1.60E-05	3.94E-07	1.72E-06	5.90E-07	AP-42, Table 1.4-3, 7/98
Acenaphthene	1.80E-06	4.43E-08	1.94E-07	6.65E-08	AP-42, Table 1.4-3, 7/98
Acenaphthylene	1.80E-06	4.43E-08	1.94E-07	6.65E-08	AP-42, Table 1.4-3, 7/98
Anthracene	2.40E-06	5.90E-08	2.58E-07	8.85E-08	AP-42, Table 1.4-3, 7/98
Benz(a)anthracene	1.80E-06	4.43E-08	1.94E-07	6.65E-08	AP-42, Table 1.4-3, 7/98
Benzene	2.10E-03	5.17E-05	2.26E-04	7.75E-05	AP-42, Table 1.4-3, 7/98
Benzo(a)pyrene	1.20E-06	2.95E-08	1.29E-07	4.43E-08	AP-42, Table 1.4-3, 7/98
Benzo(b)fluroanthene	1.80E-06	4.43E-08	1.94E-07	6.65E-08	AP-42, Table 1.4-3, 7/98
Benzo(g,h,i)perylene	1.20E-06	2.95E-08	1.29E-07	4.43E-08	AP-42, Table 1.4-3, 7/98
Benzo(k)fluoranthene	1.80E-06	4.43E-08	1.94E-07	6.65E-08	AP-42, Table 1.4-3, 7/98
Chrysene	1.80E-06	4.43E-08	1.94E-07	6.65E-08	AP-42, Table 1.4-3, 7/98
Dibenzo(a,h)anthracene	1.20E-06	2.95E-08	1.29E-07	4.43E-08	AP-42, Table 1.4-3, 7/98
Dichlorobenzene	1.20E-03	2.95E-05	1.29E-04	4.43E-05	AP-42, Table 1.4-3, 7/98
Fluoranthene	3.00E-06	7.38E-08	3.23E-07	1.11E-07	AP-42, Table 1.4-3, 7/98
Fluorene	2.80E-06	6.89E-08	3.02E-07	1.03E-07	AP-42, Table 1.4-3, 7/98
Formaldehyde	7.50E-02	1.85E-03	8.08E-03	2.77E-03	AP-42, Table 1.4-3, 7/98
n-Hexane	1.80E+00	4.43E-02	1.94E-01	6.64E-02	AP-42, Table 1.4-3, 7/98
Indeno(1,2,3-cd)pyrene	1.80E-06	4.43E-08	1.94E-07	6.65E-08	AP-42, Table 1.4-3, 7/98
Naphthalene	6.40E-06	1.57E-07	6.89E-07	2.36E-07	AP-42, Table 1.4-3, 7/98
Phenanthrene	1.70E-05	4.18E-07	1.83E-06	6.27E-07	AP-42, Table 1.4-3, 7/98
Pyrene	5.00E-06	1.23E-07	5.39E-07	1.85E-07	AP-42, Table 1.4-3, 7/98
Toluene	3.40E-03	8.36E-05	3.66E-04	1.25E-04	AP-42, Table 1.4-3, 7/98
Arsenic	2.00E-04	4.92E-06	2.15E-05	7.38E-06	AP-42, Table 1.4-3, 7/98
Beryllium	1.20E-05	2.95E-07	1.29E-06	4.43E-07	AP-42, Table 1.4-3, 7/98
Cadmium	1.10E-03	2.71E-05	1.19E-04	4.06E-05	AP-42, Table 1.4-3, 7/98
Chromium	1.40E-03	3.44E-05	1.51E-04	5.17E-05	AP-42, Table 1.4-3, 7/98
Cobalt	8.40E-05	2.07E-06	9.05E-06	3.10E-06	AP-42, Table 1.4-3, 7/98
Manganese	3.80E-04	9.35E-06	4.09E-05	1.40E-05	AP-42, Table 1.4-3, 7/98
Mercury	2.60E-04	6.40E-06	2.80E-05	9.59E-06	AP-42, Table 1.4-3, 7/98
Nickel	2.10E-03	5.17E-05	2.26E-04	7.75E-05	AP-42, Table 1.4-3, 7/98
Selenium	2.40E-05	5.90E-07	2.59E-06	8.86E-07	AP-42, Table 1.4-3, 7/98
Zinc	2.90E-02	7.13E-04	3.12E-03	1.07E-03	AP-42, Table 1.4-3, 7/98
Single HAP (n-Hexane)			0.19	0.066	
Total HAP			0.21	0.071	

Sample Calculation

$$\begin{aligned} \text{Emission Rate (lb/hr)} &= 2.40 \text{ E-05 lb/MMCF} \times 25.00 \text{ MMBtu/hr} = 5.90 \text{ E-07 lb/hr} \\ \text{Unlimited PTE (ton/yr)} &= 5.90 \text{ E-07 lb/hr} \times 8,760 \text{ hr/yr} \times 1 \text{ ton}/2,000 \text{ lb} = 2.59 \text{ E-06 tons/yr} \\ \text{Limited PTE (ton/yr)} &= 5.90 \text{ E-07 lb/hr} \times \text{hours of operation} \times 1 \text{ ton}/2,000 \text{ lb} = 2.59 \text{ E-06 tons/yr} \end{aligned}$$

**Appendix A - Emission Calculation Sheet
Coal Bed Methane Flare - Potential to Emit from Pilot Propane Combustion**

**Source Name: Hoosier Energy REC, Inc - Merom Generating Station
Source Location: 5500 W Old 54, Sullivan, IN 47882
Permit Number: 153-37177-00005
Permit Reviewer: Sommer Cochran**

Max. Heat Input MMBtu/hr	Hours of Operation (hr/yr)	Estimate Annual Gas Usage Based on Hours (Kgal/yr)	Heat Content Propane (Btu / gallon)
0.80	8,760	76.59	91,500

Flare Emissions

	Pollutant				
	NOx	CO	VOC	PM	PM10/2.5
Emission Factor in lb/Kgal	13.000	7.5000	1.000	0.7	0.7
PTE (tons/yr)	0.50	0.29	0.04	0.03	0.03

Notes:

- 1) NOx, CO, VOC, PM and PM10 emission factors are from AP-42, Table 1.5-1, July 2008.
- 2) HAP emissions are not reported in AP-42.

Methodology:

- 1) Propane Usage = [0.8 MMBtu/hr] x [8,760 hr/yr] x [1 gallon/91,500 Btu] x [1E+06Btu/MMBtu] x [Kgal/1,000 gallon]
- 2) Emissions (tons/yr) = [Emission Factor (lb/Kgal) x Usage (Kgal/yr)] / [2000 lb/ton]

Appendix A - Emission Calculation Sheet Coal Bed Methane Flare - SO₂ from Propane Combustion

Source Name: Hoosier Energy REC, Inc - Merom Generating Station
Source Location: 5500 W Old 54, Sullivan, IN 47882
Permit Number: 153-37177-00005
Permit Reviewer: Sommer Cochran

Max Heat Input Capacity = 0.8 MMBtu/hr
Hours of Operation = 8,760 Hours
Liquid Propane Heat Content = 91,500 Btu/gallon
Vaporized Propane Heat Content = 2,500 Btu/scf

Estimated Propane Gas Usage Flare Pilot (SCFM)

$$\begin{aligned} \text{Usage (SCFM)} &= 0.8 \text{ MMBtu/hr} \times 1 \text{ SCF} / 2500 \text{ Btu} \times 1,000,000 \text{ BTU} / \text{MMBtu} \times 1 \text{ hr} / 60 \text{ Min} \\ &= 5.33 \text{ SCFM Propane Gas} \end{aligned}$$

SO₂ Emission Calculation

Sulfur Content of Gas =	254 PPM (Estimated)	MW of Sulfur =	32.065 g/gmol
Temperature (°C) =	25 °C	MW of SO ₂ =	64.07 g/gmol
Temperature (°K) =	298 °K		

Step 1 - Calculate the flow rate of sulfur in the CBM stream

Note : 254 ppm is the same as 254 parts of pollutant in a gas containing 1,000,000 parts as a whole.

$$\begin{aligned} \text{Q Sulfur (SCFM)} &= 5.33 \text{ SCFM} \times 254 \text{ Parts Sulfur} / 1,000,000 \text{ Parts Gas} \\ &= 0.0014 \text{ SCFM Sulfur} \end{aligned}$$

$$\begin{aligned} \text{Q Sulfur (M}^3\text{/yr)} &= 0.0014 \text{ SCFM} \times 60 \text{ min/hr} \times 8,760 \text{ hr/yr} \times 1 \text{ Cubic Meter}/35.31 \text{ Cubic Feet} \\ &= 20.84 \text{ M}^3\text{/yr} \end{aligned}$$

Step 2 - Calculate the Uncontrolled Mass Emissions (UME) for Sulfur

Note : Use Equation (4) in AP-42, Chapter 2.4-10, October 2008

$$\text{UME Sulfur (Kg/yr)} = \frac{[\text{Q Sulfur (M}^3\text{/yr)}] \times [\text{MW of Sulfur (g/gmol)}] \times [1 \text{ atm}]}{[8.205 \times 10^{-5} \text{ M}^3 \cdot \text{atm} / \text{gmol} \cdot \text{K}] \times [1,000 \text{ g/Kg}] \times [273 + \text{T (}^\circ\text{C)}]}$$

$$\text{UME Sulfur (Kg/yr)} = \frac{[20.84] \times [32.065] \times [1]}{[8.205 \text{ E}^{-05}] \times [1000] \times [273 + 25]} = 27.33 \text{ Kg/yr}$$

Step 3 - Calculate the Uncontrolled Mass Emissions (UME) for SO₂

$$\text{UME SO}_2 \text{ (kg/yr)} = \text{UME Sulfur} \times [\text{MW SO}_2 / \text{MW S}] = 54.61 \text{ Kg/yr}$$

$$\text{UME SO}_2 \text{ (ton/yr)} = \text{UME Sulfur} \times [2.2 \text{ lb} / \text{Kg}] \times [1 \text{ ton} / 2,000 \text{ lb}] = 0.06 \text{ TPY SO}_2$$

**Large Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (>600 HP)
Maximum Input Rate (>4.2 MMBtu/hr)**

**Source Name: Hoosier Energy REC, Inc - Merom Generating Station
Source Location: 5500 W Old 54, Sullivan, IN 47882
Permit Number: 153-37177-00005
Permit Reviewer: Sommer Cochran**

B. Emissions calculated based on output rating (hp)

Output Horsepower Rating (hp)	1600.0
Maximum Hours Operated per Year	500
Potential Throughput (hp-hr/yr)	800,000
Sulfur Content (S) of Fuel (% by weight)	0.500

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	7.00E-04	4.01E-04	4.01E-04	4.05E-03 (.00809S)	2.40E-02 **see below	7.05E-04	5.50E-03
Potential Emission in tons/yr	0.28	0.16	0.16	1.62	9.60	0.28	2.20

*PM10 emission factor in lb/hp-hr was calculated using the emission factor in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

**NOx emission factor: uncontrolled = 0.024 lb/hp-hr, controlled by ignition timing retard = 0.013 lb/hp-hr

Hazardous Air Pollutants (HAPs)

	Pollutant						
	Benzene	Toluene	Xylene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/hp-hr****	5.43E-06	1.97E-06	1.35E-06	5.52E-07	1.76E-07	5.52E-08	1.48E-06
Potential Emission in tons/yr	2.17E-03	7.87E-04	5.40E-04	2.21E-04	7.06E-05	2.21E-05	5.94E-04

***PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

****Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

Methodology

Emission Factors are from AP 42 (Supplement B 10/96) Tables 3.4-1 , 3.4-2, 3.4-3, and 3.4-4.

Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Maximum Hours Operated per Year]

Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] * [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]

Potential Emission of Total HAPs (tons/yr)	4.41E-03
---	-----------------

Green House Gas Emissions (GHG)

	Pollutant		
	CO2	CH4	N2O
Emission Factor in lb/hp-hr	1.16E+00	6.35E-05	9.30E-06
Potential Emission in tons/yr	4.64E+02	2.54E-02	3.72E-03

Summed Potential Emissions in tons/yr	4.64E+02
CO2e Total in tons/yr	4.66E+02

Methodology

Emission Factors are from AP 42 (Supplement B 10/96) Tables 3.4-1 , 3.4-2, 3.4-3, and 3.4-4.

CH4 and N2O Emission Factor from 40 CFR 98 Subpart C Table C-2.

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Maximum Hours Operated per Year]

Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] * [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]

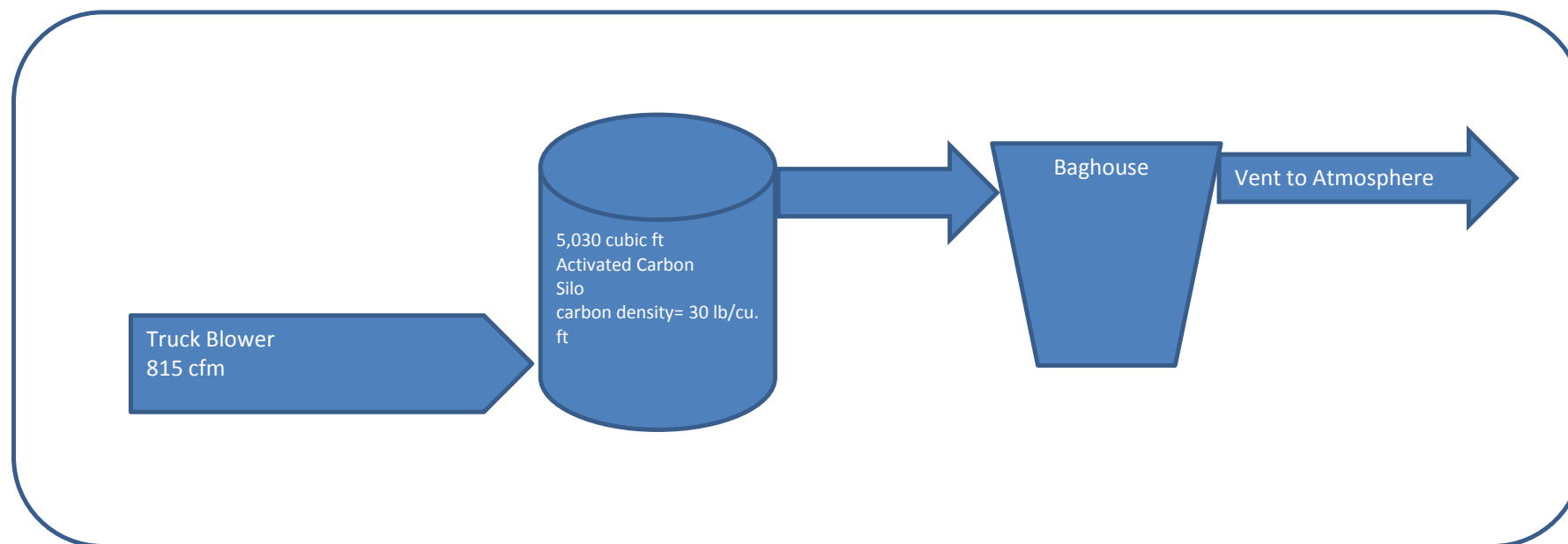
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O

Potential Emission ton/yr x N2O GWP (298).

Increase in boiler stack emissions from ACI			
Parameter	Value	Unit	Source
Number of Trucks	195.00	trucks/yr	Estimated
Carbon per truck	45,000	lb/truck	Data from Hoosier Energy
Mass of carbon Injected	4,387.50	tpy	(trucks) * (mass per truck)
Fraction of carbon PM or smaller	1.00	fraction	Assume that all carbon is PM. The MSDS describes it as a powder. It is unknown if the "powder" is fine enough to be considered PM, but for the purposes of this calculation, it is all assumed to be PM.
Mass of carbon PM or smaller	4,387.50	tpy	(mass carbon injected) * (fraction PM)
Capture Efficiency	100.00%		All exhaust is routed to ESP
Control Efficiency	99.99%		ESP control efficiency
Mass of carbon emitted to stacks	0.439	tpy	(mass PM or smaller) * (capture) * (1-control)
Mass of carbon to fly ash	4,387.06	tpy	(total mass of carbon) - (mass carbon emitted to stack)

	45,000	lb/truck	Data from Hoosier Energy
	4,387.50	tpy	(trucks) * (mass per truck)
Mass of PM2.5	4387.5	tpy	(mass carbon injected) * (fraction PM2.5)
	0.44	tpy	(mass PM or smaller) * (capture) * (1-control)
Mass of carbon to fly ash	4,387.06	tpy	

EMISSION CALCULATIONS FOR ACTIVATED CARBON LOADING/STORAGE SYSTEM			
Parameter	Value	Units	Footnotes
Total Air Flow Through Baghouse	815	scfm	Truck blower specification
Baghouse Rating	0.005	gr/dscf	Performance guarantee
Particulate Matter Emission	245	gr/hr	(baghouse rating) * (air flow)
Conversion of grains to lb	7,000	gr/lb	Conversion
Mass Emission of Particulate Matter Emitted	0.0349	lb/hr	Convert grains to lb
Duration of each loading event	4.0	hr	Assumed time blower is left on. Actual time will likely be much shorter
Total Mass Emission Rate for each loading event	0.14	lb PM/event	Total Mass Emission for Test = (Total Mass Emission Rate) * (Duration of Test)
Total number of trucks unloaded per year	195.00	trucks/yr	Maximum anticipated based on maximum system capacity.
Annual Particulate Matter Emissions	0.014	ton/yr	(# of trucks/yr) * (lb PM/event)



The Activated Carbon Injection (ACI) system consists of one truck blower, one silo, and one baghouse to accept and store activated carbon. Carbon is then fed to the flue gas ductwork upstream of the ESP (as required) through a closed system. Emissions occur from the baghouse vent through the act of transferring activated carbon from truck to the silo. The silo does not have any vents except to the baghouse. The performance guarantee on the baghouse is 0.005 gr/dscf. The maximum number of trucks that could unload in a year is 195 trucks. Assume an unloading event takes 4 hours.

Average Vehicle Weight Calculation							
Vehicle Type	Trucks/Day	Average Weight (tons)	Total Trips per Year	Miles per Trip	Vehicle Miles Traveled (miles per year)	Traffic Component (%)	Component Weight (tons)
Transfer Trailer	<1	23.75	195.0	2.34	456	100.000%	23.75
Total VMT					456		
Average Vehicle Weight (tons) - W							23.75

Site Specific Constants				
Value Name	Symbol	Value	Units	Source
Emission Factor	E	---	lb/VMT	Calculated
Particle Size Multiplier	k for PM	0.011	lb/VMT	AP-42 Table 13.2.1-1, January 2011
Particle Size Multiplier	k for PM10	0.0022	lb/VMT	AP-42 Table 13.2.1-1, January 2011
Particle Size Multiplier	k for PM2.5	0.00054	lb/VMT	AP-42 Table 13.2.1-1, January 2011
Silt Loading	sL (Winter)	2.4	g/cubic meter	AP-42, Table 13.2.1-2, January 2011, ADT <500 (0.6 x 4)
Silt Loading	sL (Non-Winter)	7.4	g/cubic meter	Assume silt loading at a landfill
Winter Days	Winter Days	90	days	Estimated
Non-Winter Days	Non-Winter Days	275	days	Estimated
Days >0.01" of rain	P	125	days	AP-42, Figure 13.2.1-2, January 2011
Total Days in Period	N	365	days	Days in the period
Mean Vehicle Weight	W	23.75	tons	Calculated above

Winter Emission Factor Calculations		
$E = [k * (sL \text{ for winter})^{0.91} * (W)^{1.02}] * [1 - P/(4 * N)]$		AP-42, Chapter 13.2.1-5, January 2011, Eq. 2
E for PM (lb/VMT) =	0.56 lb/VMT	
E for PM10 (lb/VMT) =	0.11 lb/VMT	
E for PM2.5 (lb/VMT) =	0.03 lb/VMT	

Non-Winter Emission Factor Calculations		
$E = [k * (sL \text{ for non-winter})^{0.91} * (W)^{1.02}] * [1 - P/(4 * N)]$		AP-42, Chapter 13.2.1-5, January 2011, Eq. 2
E for PM (lb/VMT) =	1.57 lb/VMT	
E for PM10 (lb/VMT) =	0.31 lb/VMT	
E for PM2.5 (lb/VMT) =	0.08 lb/VMT	

Annual Average Emission Factors		
$\text{Annual Average Emission Factor} = [\text{Winter Days} * \text{Winter Factor} + \text{Non-Winter Days} * \text{Non-Winter Factor}] / 365$		
E for PM (lb/VMT) =	1.32 lb/VMT	
E for PM10 (lb/VMT) =	0.26 lb/VMT	
E for PM2.5 (lb/VMT) =	0.07 lb/VMT	

Potential to Emit		
PM Emissions (TPY) = [Annual Average E for PM (lb/VMT) * Total VMT/yr * 1 ton / 2,000 lb]		0.30 TPY
PM10 Emissions (TPY) = [Annual Average E for PM10 (lb/VMT) * Total VMT/yr * 1 ton / 2,000 lb]		0.06 TPY
PM2.5 Emissions (TPY) = [Annual Average E for PM2.5 (lb/VMT) * Total VMT/yr * 1 ton / 2,000 lb]		0.02 TPY

Controlled Potential to Emit		
Control Efficiency	50.00% (street sweeping and water application)	
Limited PM Emissions (TPY) = Potential to Emit PM * (1 - Control Efficiency)		0.15 TPY
Limited PM10 Emissions (TPY) = Potential to Emit PM10 * (1 - Control Efficiency)		0.03 TPY
Limited PM2.5 Emissions (TPY) = Potential to Emit PM2.5 * (1 - Control Efficiency)		0.01 TPY

Average Vehicle Weight Calculation

Vehicle Type	Trucks/Day	Average Weight (tons)	Total Trips per Year	Miles per Trip	Vehicle Miles Traveled (miles per year)	Traffic Component (%)	Component Weight (tons)
Poz-o-tec Haul Truck	<1	143.5	129	1.0	129	100.000%	143.50
Total VMT					129		
Average Vehicle Weight (tons) - W							143.50

Site Specific Constants

Value Name	Symbol	Value	Units	Source
Emission Factor	E	---	lb/VMT	Calculated
Particle Size Multiplier	k for PM	4.90	lb/VMT	AP-42, Table 13.2.2-2, November 2006
Particle Size Multiplier	k for PM10	1.50	lb/VMT	AP-42, Table 13.2.2-2, November 2006
Particle Size Multiplier	k for PM2.5	0.15	lb/VMT	AP-42, Table 13.2.2-2, November 2006
Silt Content	s	6.40	%	
Days >0.01" of rain	P	125.00	days	AP-42, Figure 13.2.2-1, November 2006
Emperical Constant	a for PM	0.70	Unitless	AP-42, Table 13.2.2-2, November 2006
Emperical Constant	a for PM10	0.90	Unitless	AP-42, Table 13.2.2-2, November 2006
Emperical Constant	a for PM2.5	0.90	Unitless	AP-42, Table 13.2.2-2, November 2006
Emperical Constant	b for PM	0.45	Unitless	AP-42, Table 13.2.2-2, November 2006
Emperical Constant	b for PM10	0.45	Unitless	AP-42, Table 13.2.2-2, November 2006
Emperical Constant	b for PM2.5	0.45	Unitless	AP-42, Table 13.2.2-2, November 2006
Mean Vehicle Weight	W	143.50	tons	Calculated above

Emission Factor Calculations

$$E = [k * (s/12)^a * (W/3)^b] * [(365 - P) / 365]$$

AP-42, Chapter 13.2.1-5, January 2011, Eq. 2

E for PM (lb/VMT) =	11.83 lb/VMT
E for PM10 (lb/VMT) =	3.19 lb/VMT
E for PM2.5 (lb/VMT) =	0.32 lb/VMT

Potential to Emit

PM Emissions (TPY) = [E for PM (lb/VMT) * Total VMT/yr * 1 ton / 2,000 lb]	0.76 TPY
PM10 Emissions (TPY) = [E for PM10 (lb/VMT) * Total VMT/yr * 1 ton / 2,000 lb]	0.21 TPY
PM2.5 Emissions (TPY) = [E for PM2.5 (lb/VMT) * Total VMT/yr * 1 ton / 2,000 lb]	0.02 TPY

Controlled Potential to Emit

Control Efficiency	50.00% (water application)	
Limited PM Emissions (TPY) = Potential to Emit PM * (1 - Control Efficiency)		0.38 TPY
Limited PM10 Emissions (TPY) = Potential to Emit PM10 * (1 - Control Efficiency)		0.11 TPY
Limited PM2.5 Emissions (TPY) = Potential to Emit PM2.5 * (1 - Control Efficiency)		0.01 TPY



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SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Ms. Angie Lee
Environmental Specialist
Hoosier Energy REC, Inc. – Merom Generating Station
5500 W. Old 54
Sullivan, Indiana 47882

DATE: August 17, 2016

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

SUBJECT: Final Decision
Title V – Administrative Amendment
153-37177-00005

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
Karl Black, Plant Manager
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 2/17/2016

Mail Code 61-53

IDEM Staff	VBIDDLE 8/17/2016 Hoosier Energy REC, Inc. - Merom Generating Station		153-37177-00005 FINAL	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
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1		Angie Lee Hoosier Energy REC, Inc. - Merom Generating Statio PO Box 908 Bloomington IN 47402-0908 (Source CAATS) VIA CERTIFIED MAIL USPS										
2		Karl Black Merom Generating Station Plant Manager Hoosier Energy REC, Inc. - Merom Generating Statio 5500 W Old 54 Sullivan IN 47882 (RO CAATS)										
3		Ms. Beverly Coulson 4800 W. State Rd 54 Sullivan IN 47882 (Affected Party)										
4		Sullivan City Council and Mayors Office 32 N. Court St. Sullivan IN 47882 (Local Official)										
5		Sullivan County Health Department 31 N Court Street Sullivan IN 47882-1509 (Health Department)										
6		Sullivan County Commissioners 100 Courthouse Square Sullivan IN 47882-1593 (Local Official)										
7		Mr. Richard Monday 545 E. Margaret Dr. Terre Haute IN 47801 (Affected Party)										
8		Ms. Kathy Cash 1200 G St. NW Suite 1000 Washington DC 2005 (Affected Party)										
9		Martha Blann 4919 W Co Rd 25 N Sullivan IN 47882 (Affected Party)										
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