



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

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(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

To: Interested Parties

Date: December 29, 2014

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

Source Name: Indianapolis Power & Light Company
Eagle Valley Generating Station

Permit Level: Title V Administrative Amendment

Permit Number: 109-35232-00004

Source Location: 4040 Blue Bluff Road
Martinsville, Indiana

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 35232.

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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December 29, 2014

Maria Russo
Indianapolis Power & Light Co. Eagle Valley Generating Station
4040 Blue Bluff Road
Martinsville, IN 46151

Re: 109-35232-00004
Administrative Amendment to
Part 70 Renewal 109-32791-00004

Dear Maria Russo:

Indianapolis Power & Light Co. Eagle Valley Generating Station was issued a Part 70 Permit Renewal No. 109-32791-00004 on December 26, 2013 for a stationary electric power generating plant located at 4040 Blue Bluff Road, Martinsville, Indiana 46151. On December 9, 2014, the Office of Air Quality (OAQ) received an application from the source requesting to remove the requirements associated with Units 1 and 2 from the permit because these units were retired on December 1, 2014.

Pursuant to 326 IAC 2-7-11(a)(7), this change to the permit is considered an administrative amendment because the permit is amended to change the descriptive information where the revision will not trigger a new applicable requirement or violate a permit term.

See Appendix A for the updated PTE of the source after removal of the emission units.

Proposed Changes:

Pursuant to 326 IAC 2-7-11(a), the permit is hereby administratively amended as follows with the deleted language as strikeouts and new language **bolded**:

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) ~~Two (2) no. 2 fuel oil fired boilers, identified as Unit 1 and Unit 2, constructed in 1949 and 1950, respectively, each with a design heat input capacity of 524 million Btu per hour (MMBtu/hr), both exhausting to stack 1-1.~~
- (ba) One (1) tangentially-fired wet-bottom coal boiler, identified as Unit 3, constructed in 1951, with a design heat input capacity of 524 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) and flue gas conditioning system for control of particulate matter, exhausting to stack 2-1. Unit 3 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Used oil generated onsite and used oil contaminated materials generated onsite may be combusted in Unit 3 as supplemental fuel for energy recovery. Stack 2-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).

- (eb) One (1) tangentially-fired dry-bottom coal fired boiler, identified as Unit 4, constructed in 1953, with a design heat input capacity of 741 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) and flue gas conditioning system for control of particulate matter, exhausting to stack 2-1. Unit 4 is equipped with separated overfire air (SOFA) and low NO_x burners (LNB) for control of NO_x emissions, which were voluntarily installed and are not required to operate. Unit 4 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Stack 2-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).
- (dc) One (1) tangentially-fired dry-bottom coal boiler, identified as Unit 5, constructed in 1953, with a design heat input capacity of 741 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) and flue gas conditioning system for control of particulate matter, exhausting to stack 3-1. Unit 5 is equipped with SOFA and LNB for control of NO_x emissions, which were voluntarily installed and are not required to operate. Unit 5 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Stack 3-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).
- (ed) One (1) tangentially-fired dry-bottom coal boiler, identified as Unit 6, constructed in 1956, with a design heat input capacity of 1017 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, exhausting to stack 3-1. Unit 6 is equipped with Closed-coupled Overfire Air (COFA) for control of NO_x emissions, which was voluntarily installed and is not required to operate. Unit 6 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Used oil generated onsite may be combusted in Unit 6 as supplemental fuel for energy recovery. Unit 6 has had low-NO_x burners installed. Stack 3-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).
- (fe) One (1) distillate oil fired generator, identified as Unit PR-10, constructed in 1967, with a design heat input capacity of 28.4 million Btu per hour (MMBtu/hr), exhausting to stack PR10-1.
- (gf) Coal transfer facilities, with a maximum throughput of 800 tons per hour, with a dust suppression system.
- (hg) Rail car unloading, coal pile unloading, and coal storage, with a maximum capacity of 800 tons per hour.
- (ih) Coal crushers, identified as 1A and 1B, with a maximum combined capacity of 800 tons per hour, each using an enclosure for dust control.

The New Combined Cycle Combustion Turbine Generation Facility Emission Units:

- (ji) Two (2) natural gas fired combustion turbine units each with a natural gas fired duct burner identified as EU-1 and EU-2, permitted in 2013, each with a total rated heat input capacity of 2,542 MMBtu/hr; with NO_x emissions controlled by low combustion burner design and Selective Catalytic Reduction (SCR), and each with an oxidation catalyst system to reduce emissions of CO and VOCs including formaldehyde, and exhausting to stacks S-1 and S-2. Each stack has continuous emissions monitors (CEMS) for NO_x.

*Note: The heat recovery steam generators are not a source of emissions. They have been included for clarity as they are a part of the entire source and operate in conjunction with the duct burners and combustion turbines which are a source of emissions.

- (kj) One (1) natural gas fired Auxiliary Boiler, identified as emission unit EU-3, permitted in 2013, with a rated heat input capacity of 79.3 MMBtu/hr, equipped with low NOx burners (LNB) with flue gas recirculation (FGR) to reduce NOx emissions exhausting to stack S-3.
- (lk) One (1) natural gas fired Dew Point Heater, identified as emission unit EU-4, permitted in 2013, with a rated heat input capacity of 20.8 MMBtu/hr exhausting to stack S-4.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) Two (2) no. 2 fuel oil fired boilers, identified as Unit 1 and Unit 2, constructed in 1949 and 1950, respectively, each with a design heat input capacity of 524 million Btu per hour (MMBtu/hr), both exhausting to stack 1-1.

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

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

D.1.0 Air Quality Analysis Requirements [326 IAC 2-2-4]

Pursuant to the air quality impact assessment requirements of 326 IAC 2-2-4, the Permittee shall permanently discontinue the operation of the emission units in Section D.1 before commercial operation of the Combined Cycle Combustion Turbine Generation Facility. The requirements of this section will no longer be applicable after the units are permanently shutdown.

D.1.1 Particulate Emissions Limitations for Sources of Indirect Heating [326 IAC 6-2-2]

- (a) Pursuant to 326 IAC 6-2-2(a) (Particulate Emissions Limitations for Sources of Indirect Heating: Emission limitations for facilities specified in 326 IAC 6-2-1(b)), the PM emissions from Units 1, 2, 3, 4, 5, and 6 shall not exceed 0.23 pound per million Btu heat input (lb/MMBtu), each.
- (b) Pursuant to 326 IAC 6-2-2(b), the PM emissions from Units 1 and 2 shall not exceed 0.10 pound per million Btu heat input (lb/MMBtu), which is less than 0.23 lb/MMBtu, as requested by the source in a letter dated August 26, 2008.

D.1.2 Temporary Alternative Opacity Limitations [326 IAC 5-1-3]

- (a) Pursuant to 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), the following applies to Eagle Valley Units 1 and 2:
 - (1) When starting a fire in a boiler, or shutting down a boiler, opacity may exceed the forty percent (40%) opacity limit established in 326 IAC 5-1-2. However, opacity levels shall not exceed sixty percent (60%) for any six (6) minute averaging period. Opacity in excess of the applicable limit established in 326 IAC 5-1-2 shall not continue for more than two (2) six (6) minute averaging periods in any twenty-four (24) hour period. [326 IAC 5-1-3(a)]
 - (2) When removing ashes from the fuel bed or furnace in a boiler or blowing tubes, opacity may exceed the forty percent (40%) opacity limit established in 326 IAC 5-1-2. 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 period in any sixty (60) minute period. The averaging periods in excess of the limit set in 326 IAC 5-1-2 shall not be permitted for more than three (3) six (6) minute averaging periods in a twelve (12) hour period. [326 IAC 5-1-3(b)]

- (b) ~~If this facility cannot meet the opacity limitations in (a)(1) and (a)(2) of this condition, the Permittee may submit a written request to IDEM, OAQ, for a temporary alternative opacity limitation in accordance with 326 IAC 5-1-3(d). The Permittee must demonstrate that the alternative limit is needed and justifiable.~~

~~D.1.3 Sulfur Dioxide (SO₂) Limitations [326 IAC 7-4-11]~~

~~Pursuant to 326 IAC 7-4-11 (Morgan County Sulfur Dioxide Emission Limitations), the SO₂ emissions from Unit 1 and Unit 2 shall not exceed 0.37 pounds per million Btu (lbs/MMBtu) each. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated using a calendar month average.~~

Compliance Determination Requirements

~~D.1.4 Testing Requirements [326 IAC 2-1.1-11] [326 IAC 2-7-6(1),(6)] [326 IAC 3-6]~~

~~Compliance with the particulate limitations in Condition D.1.1(b) and with the Opacity limits in Section C—Opacity and Temporary Alternative Opacity Limitations for startup shall be determined as follows:~~

- (a) ~~Compliance with the particulate limitations shall be determined by a performance stack test conducted utilizing methods as approved by the Commissioner. PM testing with both units operating and exhausting to the common stack is permitted. [326 IAC 3-6]~~
- (b) ~~Opacity testing shall be performed in conjunction with the particulate emissions testing in accordance with 40 CFR 60, Appendix A, Method 9. The Method 9 opacity testing (VE readings) shall be recorded for the full duration of the sampling time for each sampling repetition that occurs during daylight hours. [326 IAC 3-5-1(c)(2)(A)(ii)] [326 IAC 5-1-4(a)(1)]~~
- (c) ~~To demonstrate compliance with the Temporary Alternative Opacity Limitation for boiler startups, opacity testing shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, during daylight hours of the startup from light off to completion of start-up. [326 IAC 3-5-1(c)(2)(A)(ii)] [326 IAC 5-1-4(a)(1)]~~
- (d) ~~The PM stack testing and Method 9 opacity testing shall be repeated as follows:~~
- ~~(1) By December 31 of every second calendar year following this valid compliance demonstration; or~~
 - ~~(2) If a unit is not operated at least 1,000 hours in the 2 years since the previous stack test, then testing shall be repeated at least once every 1,000 hours of operation for that unit, or five (5) calendar years from the date of the last valid compliance demonstration, whichever occurs first.~~

~~For the purpose of this permit, "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.~~

- (e) ~~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.~~

~~D.1.5 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 7-2] [326 IAC 7-4-11]~~

~~Compliance shall be determined utilizing one of the following options:~~

- (a) ~~Pursuant to 326 IAC 3-7-4, 326 IAC 7-2, and 326 IAC 7-4-11, the Permittee shall demonstrate that the fuel oil sulfur content does not exceed the equivalent of 0.37 pounds per MMBtu each, using a calendar month average, by:~~

- (1) ~~Providing vendor analysis of fuel delivered, accompanied by a vendor certification; or~~
- (2) ~~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 during or 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) ~~Upon written notification to IDEM by a facility owner or operator, 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 7-2 shall not apply. [326 IAC 7-2-1(g)]~~

~~D.1.6 RESERVED~~

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

~~D.1.7 Visible Emissions Notations [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]~~

- (a) ~~Visible emission notations of the fuel oil fired boiler exhaust shall be performed once per day during normal daylight operations when one or both of Units 1 and 2 are in operation and burning fuel oil. A trained employee shall record whether emissions are normal or abnormal.~~
- (b) ~~For processes operated continuously, "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.~~
- (c) ~~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.~~
- (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.~~
- (e) ~~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.~~

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

~~D.1.8 Record Keeping Requirement~~

- (a) ~~To document the compliance status with the applicable opacity limits and Conditions D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) and (2) below. Records shall be complete and sufficient to establish compliance with the opacity and particulate limits established in Section C - Opacity and Conditions D.1.1 and D.1.2.~~
 - (1) ~~Data and results from the most recent stack test and accompanying Method 9 visible emissions evaluation results for Units 1 and 2.~~

- ~~(2) — Results of the visible emission notations of the stack 1-1 exhaust.~~
- ~~(b) — To document the compliance status with Conditions D.1.3 and D.1.5, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained shall be complete and sufficient to establish compliance with the SO₂ limit as required in Conditions D.1.3 and D.1.5.~~
- ~~(1) — Calendar dates covered in the compliance determination period.~~
- ~~(2) — Monthly weighted average sulfur content.~~
- ~~(3) — Fuel heat content.~~
- ~~(4) — Fuel consumption.~~
- ~~(5) — Monthly weighted average sulfur dioxide emission rate in pounds per million Btus (lb/MMBtu).~~
- ~~(c) — To document the compliance status with Condition D.1.7, the Permittee shall maintain daily records of the visible emission notations of the Boiler stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (e.g. the process did not operate that day).~~
- ~~(d) — Section C – General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.~~

~~D.1.9 – Reporting Requirement~~

~~A quarterly report of opacity exceedances and a quarterly summary of the information to document the compliance status with Condition D.1.3 shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days following the end of each calendar quarter. 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(34). Section C – General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition.~~

SECTION D.1 Reserved

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (ba) One (1) tangentially-fired wet-bottom coal boiler, identified as Unit 3, constructed in 1951, with a design heat input capacity of 524 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) and flue gas conditioning system for control of particulate matter, exhausting to stack 2-1. Unit 3 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Used oil generated onsite and used oil contaminated materials generated onsite may be combusted in Unit 3 as supplemental fuel for energy recovery. Stack 2-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).
- (cb) One (1) tangentially-fired dry-bottom coal fired boiler, identified as Unit 4, constructed in 1953, with a design heat input capacity of 741 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) and flue gas conditioning system for control of particulate matter, exhausting to stack 2-1. Unit 4 is equipped with separated overfire air (SOFA) and low NO_x burners (LNB)

for control of NO_x emissions, which were voluntarily installed and are not required to operate. Unit 4 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Stack 2-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).

(dc) One (1) tangentially-fired dry-bottom coal boiler, identified as Unit 5, constructed in 1953, with a design heat input capacity of 741 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) and flue gas conditioning system for control of particulate matter, exhausting to stack 3-1. Unit 5 is equipped with SOFA and LNB for control of NO_x emissions, which were voluntarily installed and are not required to operate. Unit 5 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Stack 3-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).

(ed) One (1) tangentially-fired dry-bottom coal boiler, identified as Unit 6, constructed in 1956, with a design heat input capacity of 1017 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, exhausting to stack 3-1. Unit 6 is equipped with Closed-coupled Overfire Air (COFA) for control of NO_x emissions, which was voluntarily installed and is not required to operate. Unit 6 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Used oil generated onsite may be combusted in Unit 6 as supplemental fuel for energy recovery. Unit 6 has had low-NO_x burners installed. Stack 3-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).

(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:

(fe) One (1) distillate oil fired generator, identified as Unit PR-10, constructed in 1967, with a design heat input capacity of 28.4 million Btu per hour (MMBtu/hr), exhausting to stack PR10-1.

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

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(gf) Coal transfer facilities, with a maximum throughput of 800 tons per hour, with a dust suppression system.

(hg) Rail car unloading, coal pile unloading, and coal storage, with a maximum capacity of 800 tons per hour.

(ih) Coal crushers, identified as 1A and 1B, with a maximum combined capacity of 800 tons per hour, each using an enclosure for dust control.

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

SECTION D.7 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (ki) Two (2) natural gas fired combustion turbine units each with a natural gas fired duct burner identified as EU-1 and EU-2, permitted in 2013, each with a total rated heat input capacity of 2,542 MMBtu/hr; with NO_x emissions controlled by low combustion burner design and Selective Catalytic Reduction (SCR), and each with an oxidation catalyst system to reduce emissions of CO and VOCs including formaldehyde, and exhausting to stacks S-1 and S-2. Each stack has continuous emissions monitors (CEMS) for NO_x.

*Note: The heat recovery steam generators are not a source of emissions. They have been included for clarity as they are a part of the entire source and operate in conjunction with the duct burners and combustion turbines which are a source of emissions.

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

SECTION D.8 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (lj) One (1) natural gas fired Auxiliary Boiler, identified as emission unit EU-3, permitted in 2013, with a rated heat input capacity of 79.3 MMBtu/hr, equipped with low NO_x burners (LNB) with flue gas recirculation (FGR) to reduce NO_x emissions exhausting to stack S-3.

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

SECTION D.9 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (mk) One (1) natural gas fired Dew Point Heater, identified as emission unit EU-4, permitted in 2013, with a rated heat input capacity of 20.8 MMBtu/hr exhausting to stack S-4.

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

SECTION E TITLE IV CONDITIONS

Oris Code: 991

Title IV Source Description:

- (a) ~~Two (2) no. 2 fuel oil fired boilers, identified as Unit 1 and Unit 2, constructed in 1949 and 1950, respectively, each with a design heat input capacity of 524 million Btu per hour (MMBtu/hr), both exhausting to stack 1-1.~~
- (ba) One (1) tangentially-fired wet-bottom coal boiler, identified as Unit 3, constructed in 1951, with a design heat input capacity of 524 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) and flue gas conditioning system for control of particulate matter, exhausting to stack 2-1. Unit 3 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Used oil generated onsite and used oil contaminated materials generated onsite may be combusted in Unit 3 as supplemental fuel for energy recovery. Stack 2-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).
- (cb) One (1) tangentially-fired dry-bottom coal fired boiler, identified as Unit 4, constructed in 1953, with a design heat input capacity of 741 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) and flue gas conditioning system for control of particulate matter, exhausting to stack 2-1. Unit 4 is equipped with separated overfire air (SOFA) and low NO_x burners (LNB) for control of NO_x emissions, which were voluntarily installed and are not required to operate. Unit 4 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Stack 2-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).
- (dc) One (1) tangentially-fired dry-bottom coal boiler, identified as Unit 5, constructed in 1953, with a design heat input capacity of 741 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) and flue gas conditioning system for control of particulate matter, exhausting to stack 3-1. Unit 5 is equipped with SOFA and LNB for control of NO_x emissions, which were voluntarily installed and are not required to operate. Unit 5 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Stack 3-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).
- (ed) One (1) tangentially-fired dry-bottom coal boiler, identified as Unit 6, constructed in 1956, with a design heat input capacity of 1017 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, exhausting to stack 3-1. Unit 6 is equipped with Closed-coupled Overfire Air (COFA) for control of NO_x emissions, which was voluntarily installed and is not required to operate. Unit 6 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Used oil generated onsite may be combusted in Unit 6 as supplemental fuel for energy recovery. Unit 6 has had low-NO_x burners installed. Stack 3-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).

The New Combined Cycle Combustion Turbine Generation Facility Emission Units:

- (ki) Two (2) natural gas fired combustion turbine units each with a natural gas fired duct burner identified as EU-1 and EU-2, permitted in 2013, each with a total rated heat input capacity of 2,542 MMBtu/hr; with NO_x emissions controlled by low combustion burner design and Selective Catalytic Reduction (SCR), and each with an oxidation catalyst system to reduce emissions of CO and VOCs including formaldehyde, and exhausting to stacks S-1 and S-2. Each stack has continuous emissions monitors (CEMS) for NO_x.

*Note: The heat recovery steam generators are not a source of emissions. They have been included for clarity as they are a part of the entire source and operate in conjunction with the duct burners and combustion turbines which are a source of emissions.

(The information contained in this box is descriptive information and does not constitute enforceable conditions.)

SECTION E.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (ki) Two (2) natural gas fired combustion turbine units each with a natural gas fired duct burner identified as EU-1 and EU-2, permitted in 2013, each with a total rated heat input capacity of 2,542 MMBtu/hr; with NO_x emissions controlled by low combustion burner design and Selective Catalytic Reduction (SCR), and each with an oxidation catalyst system to reduce emissions of CO and VOCs including formaldehyde, and exhausting to stacks S-1 and S-2. Each stack has continuous emissions monitors (CEMS) for NO_x.

*Note: The heat recovery steam generators are not a source of emissions. They have been included for clarity as they are a part of the entire source and operate in conjunction with the duct burners and combustion turbines which are a source of emissions.

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

SECTION E.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (lj) One (1) natural gas fired Auxiliary Boiler, identified as emission unit EU-3, permitted in 2013, with a rated heat input capacity of 79.3 MMBtu/hr, equipped with low NO_x burners (LNB) with flue gas recirculation (FGR) to reduce NO_x emissions exhausting to stack S-3.

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

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: 991

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)

- (a) ~~Two (2) no. 2 fuel oil fired boilers, identified as Unit 1 and Unit 2, constructed in 1949 and 1950, respectively, each with a design heat input capacity of 524 million Btu per hour (MMBtu/hr), both exhausting to stack 1-1.~~
- (ba) One (1) tangentially-fired wet-bottom coal boiler, identified as Unit 3, constructed in 1951, with a design heat input capacity of 524 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) and flue gas conditioning system for control of particulate matter, exhausting to stack 2-1. Unit 3 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Used oil generated onsite and used oil contaminated materials generated onsite may be combusted in Unit 3 as supplemental fuel for energy recovery. Stack 2-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).
- (eb) One (1) tangentially-fired dry-bottom coal fired boiler, identified as Unit 4, constructed in 1953, with a design heat input capacity of 741 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) and flue gas conditioning system for control of particulate matter, exhausting to stack 2-1. Unit 4 is equipped with separated overfire air (SOFA) and low NO_x burners (LNB) for control of NO_x emissions, which were voluntarily installed and are not required to operate. Unit 4 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Stack 2-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).
- (dc) One (1) tangentially-fired dry-bottom coal boiler, identified as Unit 5, constructed in 1953, with a design heat input capacity of 741 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) and flue gas conditioning system for control of particulate matter, exhausting to stack 3-1. Unit 5 is equipped with SOFA and LNB for control of NO_x emissions, which were voluntarily installed and are not required to operate. Unit 5 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Stack 3-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).
- (ed) One (1) tangentially-fired dry-bottom coal boiler, identified as Unit 6, constructed in 1956, with a design heat input capacity of 1017 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, exhausting to stack 3-1. Unit 6 is equipped with Closed-coupled Overfire Air (COFA) for control of NO_x emissions, which was voluntarily installed and is not required to operate. Unit 6 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Used oil generated onsite may be combusted in Unit 6 as supplemental fuel for energy recovery. Unit 6 has had low-NO_x burners installed. Stack 3-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).

The New Combined Cycle Combustion Turbine Generation Facility Emission Units:

- (ki) Two (2) natural gas fired combustion turbine units each with a natural gas fired duct burner identified as EU-1 and EU-2, permitted in 2013, each with a total rated heat input capacity of 2,542 MMBtu/hr; with NO_x emissions controlled by low combustion burner design and Selective Catalytic Reduction (SCR), and each with an oxidation catalyst system to reduce emissions of CO and VOCs including formaldehyde, and exhausting to stacks S-1 and S-2. Each stack has continuous emissions monitors (CEMS) for NO_x.

*Note: The heat recovery steam generators are not a source of emissions. They have been included for clarity as they are a part of the entire source and operate in conjunction with the duct burners and combustion turbines which are a source of emissions.

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

All other conditions of the permit shall remain unchanged and in effect.

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: NESHAP 40 CFR 63, Subpart UUUUU Compliance Schedule
Attachment B: NSPS 40 CFR 60, Subpart Dc
Attachment C: NSPS 40 CFR 60, Subpart IIII
Attachment D: NSPS 40 CFR 60, Subpart KKKK
Attachment E: NESHAP 40 CFR 63, Subpart ZZZZ

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 Julie Mendez of my staff, at 317-234-1243 or 1-800-451-6027, and ask for extension 4-1243.

Sincerely,



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

Attachments: Updated Permit and Appendix A

TS/jm

cc: File - Morgan County
Morgan County Health Department
U.S. EPA, Region V
Compliance and Enforcement Branch



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204

(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

Part 70 Operating Permit Renewal
OFFICE OF AIR QUALITY

Indianapolis Power and Light Company (IPL) Eagle Valley Generating Station
(formerly H.T. Pritchard Generating Station)

4040 Blue Bluff Road
Martinsville, Indiana 46151

(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.

Table with 2 columns: Issued by (Original Signed, Tripurari P. Sinha, Ph. D., Section Chief, Permits Branch, Office of Air Quality) and Issuance/Expiration Dates (December 26, 2013 and December 26, 2018).

Table with 2 columns: Issued by (Handwritten signature of Tripurari P. Sinha, Ph. D., Section Chief, Permits Branch, Office of Air Quality) and Issuance/Expiration Dates (December 29, 2014 and December 26, 2018).

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F Reserved

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)

- 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)]
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Certification

Emergency Occurrence Report

Semi-Annual Natural Gas Fired Boiler Certification

Quarterly Report

Quarterly Deviation and Compliance Monitoring Report

Attachment A - NESHAP 40 CFR 63, Subpart UUUUU Compliance Schedule

Attachment B - NSPS 40 CFR 60, Subpart Dc

Attachment C - NSPS 40 CFR 60, Subpart IIII

Attachment D - NSPS 40 CFR 60, Subpart KKKK

Attachment E - NESHAP 40 CFR 63, Subpart ZZZZ

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 utility generating station.

Source Address:	4040 Blue Bluff Road, Martinsville, Indiana 46151
General Source Phone Number:	765-341-2146
SIC Code:	4911
County Location:	Morgan
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) tangentially-fired wet-bottom coal boiler, identified as Unit 3, constructed in 1951, with a design heat input capacity of 524 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) and flue gas conditioning system for control of particulate matter, exhausting to stack 2-1. Unit 3 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Used oil generated onsite and used oil contaminated materials generated onsite may be combusted in Unit 3 as supplemental fuel for energy recovery. Stack 2-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).
- (b) One (1) tangentially-fired dry-bottom coal fired boiler, identified as Unit 4, constructed in 1953, with a design heat input capacity of 741 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) and flue gas conditioning system for control of particulate matter, exhausting to stack 2-1. Unit 4 is equipped with separated overfire air (SOFA) and low NO_x burners (LNB) for control of NO_x emissions, which were voluntarily installed and are not required to operate. Unit 4 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Stack 2-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).
- (c) One (1) tangentially-fired dry-bottom coal boiler, identified as Unit 5, constructed in 1953, with a design heat input capacity of 741 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) and flue gas conditioning system for control of particulate matter, exhausting to stack 3-1. Unit 5 is equipped with SOFA and LNB for control of NO_x emissions, which were voluntarily installed and are not required to operate. Unit 5 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Stack 3-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).

- (d) One (1) tangentially-fired dry-bottom coal boiler, identified as Unit 6, constructed in 1956, with a design heat input capacity of 1017 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, exhausting to stack 3-1. Unit 6 is equipped with Closed-coupled Overfire Air (COFA) for control of NO_x emissions, which was voluntarily installed and is not required to operate. Unit 6 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Used oil generated onsite may be combusted in Unit 6 as supplemental fuel for energy recovery. Unit 6 has had low-NO_x burners installed. Stack 3-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).
- (e) One (1) distillate oil fired generator, identified as Unit PR-10, constructed in 1967, with a design heat input capacity of 28.4 million Btu per hour (MMBtu/hr), exhausting to stack PR10-1.
- (f) Coal transfer facilities, with a maximum throughput of 800 tons per hour, with a dust suppression system.
- (g) Rail car unloading, coal pile unloading, and coal storage, with a maximum capacity of 800 tons per hour.
- (h) Coal crushers, identified as 1A and 1B, with a maximum combined capacity of 800 tons per hour, each using an enclosure for dust control.

The New Combined Cycle Combustion Turbine Generation Facility Emission Units:

- (i) Two (2) natural gas fired combustion turbine units each with a natural gas fired duct burner identified as EU-1 and EU-2, permitted in 2013, each with a total rated heat input capacity of 2,542 MMBtu/hr; with NO_x emissions controlled by low combustion burner design and Selective Catalytic Reduction (SCR), and each with an oxidation catalyst system to reduce emissions of CO and VOCs including formaldehyde, and exhausting to stacks S-1 and S-2. Each stack has continuous emissions monitors (CEMS) for NO_x.

*Note: The heat recovery steam generators are not a source of emissions. They have been included for clarity as they are a part of the entire source and operate in conjunction with the duct burners and combustion turbines which are a source of emissions.

- (j) One (1) natural gas fired Auxiliary Boiler, identified as emission unit EU-3, permitted in 2013, with a rated heat input capacity of 79.3 MMBtu/hr, equipped with low NO_x burners (LNB) with flue gas recirculation (FGR) to reduce NO_x emissions exhausting to stack S-3.
- (k) One (1) natural gas fired Dew Point Heater, identified as emission unit EU-4, permitted in 2013, with a rated heat input capacity of 20.8 MMBtu/hr exhausting to stack S-4.

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

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

- (a) Coal bunker and coal scale exhausts. [326 IAC 6-3] [326 IAC 5]

Before the startup of the Combined Cycle Combustion Turbine Generation Facility, the Coal bunker and coal scale exhausts shall be permanently shut down and decommissioned.

- (b) Other activities or categories not previously identified with potential, uncontrolled emissions equal to or less than thresholds require listing only: Pb 0.6 ton per year or 3.29 pounds per day, SO₂ 5 pounds per hour or 25 pounds per day, NO_x 5 pounds per hour or 25 pounds per day, CO 25 pounds per day, PM₁₀ 5 pounds per hour or 25 pounds per day, VOC 3 pounds per hour or 15 pounds per day:

- (1) Wet process ash handling, with hydroveyors conveying ash to storage ponds. [326 IAC 6-4]

Before the startup of the Combined Cycle Combustion Turbine Generation Facility, the Wet process ash handling shall be permanently shut down and decommissioned.

- (2) Poned ash handling/removal operations. [326 IAC 6-4]

- (3) Truck traffic on paved road. [326 IAC 6-4]

The New Combined Cycle Combustion Turbine Generation Facility Insignificant Emission Units:

- (c) One (1) distillate oil fired Emergency Generator, identified as emission unit EU-5, permitted in 2013, with a rated capacity of 1,826 HP and exhausting through stack S-5. [Under 40 CFR 60, Subpart IIII, the Emergency Generator is considered new affected sources.][Under 40 CFR 63, Subpart ZZZZ, the fired Emergency Generator is considered new affected sources.]
- (d) One (1) distillate oil fired Emergency Fire Pump, identified as emission unit EU-6, permitted in 2013, with a rated capacity of 500 HP and exhausting through stack S-6. [Under 40 CFR 60, Subpart IIII, the Emergency Fire Pump is considered new affected sources.][Under 40 CFR 63, Subpart ZZZZ, the fired Emergency Fire Pump is considered new affected sources.]
- (e) One (1) evaporative cooling tower, identified as emission unit U-7, rated with a circulation rate of 192,000 gpm to provide non-contact cooling water to the steam turbine condenser, permitted in 2013, and equipped with high efficiency drift eliminators.
- (f) Electrical Circuit Breakers containing sulfur hexafluoride (SF₆) identified as emissions unit F-1, permitted in 2013, with fugitive emissions controlled by full enclosure.
- (g) Fugitive equipment leaks from the natural gas supply lines, identified as F-2 controlled by a Leak Detection and Repair (LDAR) program.
- (h) Three (3) Turbine Lube Demister Vents, permitted in 2013.
- (i) One (1) emergency internal combustion engine used to power a fire pump, identified as FP-1, installed in 1980, with a maximum heat input capacity of 0.22 MMBtu/hour and a rating of 86 brake horse power (bhp).

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]

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

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

- (a) This permit, T109-32791-00004, 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.

- (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 T109-32791-00004 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(40). 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]

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

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(yy)) 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] [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.
- (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.

SECTION D.1

Reserved

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) tangentially-fired wet-bottom coal boiler, identified as Unit 3, constructed in 1951, with a design heat input capacity of 524 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) and flue gas conditioning system for control of particulate matter, exhausting to stack 2-1. Unit 3 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Used oil generated onsite and used oil contaminated materials generated onsite may be combusted in Unit 3 as supplemental fuel for energy recovery. Stack 2-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).
- (b) One (1) tangentially-fired dry-bottom coal fired boiler, identified as Unit 4, constructed in 1953, with a design heat input capacity of 741 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) and flue gas conditioning system for control of particulate matter, exhausting to stack 2-1. Unit 4 is equipped with separated overfire air (SOFA) and low NO_x burners (LNB) for control of NO_x emissions, which were voluntarily installed and are not required to operate. Unit 4 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Stack 2-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).
- (c) One (1) tangentially-fired dry-bottom coal boiler, identified as Unit 5, constructed in 1953, with a design heat input capacity of 741 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) and flue gas conditioning system for control of particulate matter, exhausting to stack 3-1. Unit 5 is equipped with SOFA and LNB for control of NO_x emissions, which were voluntarily installed and are not required to operate. Unit 5 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Stack 3-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).
- (d) One (1) tangentially-fired dry-bottom coal boiler, identified as Unit 6, constructed in 1956, with a design heat input capacity of 1017 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, exhausting to stack 3-1. Unit 6 is equipped with Closed-coupled Overfire Air (COFA) for control of NO_x emissions, which was voluntarily installed and is not required to operate. Unit 6 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Used oil generated onsite may be combusted in Unit 6 as supplemental fuel for energy recovery. Unit 6 has had low-NO_x burners installed. Stack 3-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).

(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.2.0 Air Quality Analysis Requirements [326 IAC 2-2-4]

Pursuant to the air quality impact assessment requirements of 326 IAC 2-2-4, the Permittee shall permanently discontinue the operation of the emission units in Section D.2 before commercial operation of the Combined Cycle Combustion Turbine Generation Facility. The requirements of this section will no longer be applicable after the units are permanently shutdown.

D.2.1 Particulate Emissions Limitations for Sources of Indirect Heating [326 IAC 6-2-2]

- (a) Pursuant to 326 IAC 6-2-2 (Particulate Emissions Limitations for Sources of Indirect Heating: Emission limitations for facilities specified in 326 IAC 6-2-1(b)), the PM emissions from Units 1, 2, 3, 4, 5, and 6 shall not exceed 0.23 pound per million Btu heat input (lb/MMBtu).
- (b) Pursuant to 326 IAC 6-2-2(b), the PM emissions from Units 3, 4, 5 and 6 shall not exceed 0.27 pound per million Btu heat input (lb/MMBtu), as requested by Indianapolis Power and Light Company in a letter dated April 12, 1988.

D.2.2 Temporary Alternative Opacity Limitations [326 IAC 5-1-3]

- (a) Pursuant to 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), the following applies:
 - (1) When building a new fire in a boiler, opacity may exceed the 40% opacity limitation established in 326 IAC 5-1-2 for a period not to exceed two and one-half (2.5) hours (twenty-five (25) six (6)-minute averaging periods) or until the flue gas temperature reaches two hundred fifty (250) degrees Fahrenheit, whichever occurs first. [326 IAC 5-1-3(e)]
 - (2) When shutting down a boiler, opacity may exceed the 40% opacity limitation established in 326 IAC 5-1-2 for a period not to exceed one (1) hour (ten (10) six (6)-minute averaging periods). [326 IAC 5-1-3(e)]
 - (3) Operation of the electrostatic precipitator is not required during these times.
 - (4) During the above startup and shutdown periods all reasonable efforts shall be made to minimize the number and magnitude of the exceedances.
- (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. 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 period in any sixty (60) minute period. The averaging periods in excess of the limit set in 326 IAC 5-1-2 shall not be permitted for more than three (3) six (6)-minute averaging periods in a twelve (12) hour period. [326 IAC 5-1-3(b)]

D.2.3 Sulfur Dioxide (SO₂) Limitations [326 IAC 7-4-11]

Pursuant to 326 IAC 7-4-11 (Sulfur Dioxide Emission Limitations for Morgan County):

- (a) SO₂ emissions from Unit 3 shall not exceed 0.37 pounds per million Btu (lbs/MMBtu), compliance with which shall be determined as specified in 326 IAC 7-2-1(c), using a thirty (30) day rolling weighted average. [326 IAC 7-4-11(2)]
- (b) SO₂ emissions from Units 4, 5, and 6 shall not exceed 3.04 pounds per million Btu (lbs/MMBtu) each, compliance with which shall be determined as specified in 326 IAC 7-2-1(c), using a thirty (30) day rolling weighted average. [326 IAC 7-4-11(2)]
- (c) As an exception to the emission limitations specified in (a) and (b), pursuant to 326 IAC 7-4-11(7), at any time in which IPL burns coal on Unit 3, the thirty (30) day rolling weighted average for sulfur dioxide emissions from Units 3, 4, 5, and 6 shall be limited to two and fifty-seven hundredths (2.57) pounds per million Btu each. [326 IAC 7-4-11(3)]

Compliance Determination Requirements

D.2.4 Testing Requirements [326 IAC 2-1.1-11] [326 IAC 2-7-6(1),(6)]

In order to determine compliance with the PM limitation in Condition D.2.1(b) for each units (Units 3, 4, 5 and 6), the Permittee shall conduct before December 31, a performance stack test utilizing methods as approved by the Commissioner. This testing shall be repeated by December 31 of every second calendar year following this valid compliance demonstration. For the purpose of this permit, "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive. 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.

D.2.5 Operation of Electrostatic Precipitator [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule or in this permit, the electrostatic precipitators (ESPs) shall be operated at all times that the boilers vented to the ESPs are in operation. Each flue gas conditioning (FGC) system on Unit 3, Unit 4 and Unit 5 shall be used with the corresponding ESP as necessary to maintain compliance with this permit.

D.2.6 Maintenance of Continuous Opacity Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

- (a) The Permittee shall calibrate, maintain, and operate all necessary continuous opacity monitoring systems (COMS) and related equipment. For a boiler, the COM shall be in operation at all times that the induced draft fan is in operation.
- (b) All continuous opacity monitoring systems 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 continuous opacity monitoring system occurs, a record shall be made of the time and reason of the breakdown and efforts made to correct the problem.
- (d) Whenever a COM is malfunctioning or down for repairs or adjustments for twenty-four (24) hours or more and a backup COM cannot be brought on-line, the Permittee shall provide a certified opacity reader, who may be an employee of the Permittee or an independent contractor, to self-monitor the opacity from the emission unit 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 later than twenty-four 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 COM 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.2.7 Maintenance of Continuous Emission Monitoring Equipment [326 IAC 3-5]

- (a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEMS) and related equipment for NO_x and SO₂ emissions.
- (b) All continuous emission monitoring systems shall meet all applicable performance specifications of 40 CFR 60 and 40 CFR 75 or any other performance specification, and are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.
- (c) 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.
- (d) Whenever a continuous emission monitor other than an opacity monitor is malfunctioning or will be down for maintenance or repairs, the following shall be used as an alternative to continuous data collection
 - (1) If 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.
 - (2) IF the CEM is not used to monitor NO_x or SO₂ emissions pursuant to 40 CFR 75, then supplemental or intermittent monitoring of the parameter shall be implemented as specified in Section D of this permit until such time as the emission monitor system is back in operation.
- (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, 40 CFR 60 or 40 CFR 75.

D.2.8 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 7-2] [326 IAC 7-4-11]

- (a) Pursuant to 326 IAC 7-2-1(e) and 326 IAC 3-7, coal sampling and analysis data obtained in accordance with procedures specified under 326 IAC 3-7 may be used to demonstrate compliance as follows:
 - (1) Pursuant to 326 IAC 7-4-11(6), on a day for which Unit 3 does not burn any coal, compliance with the sulfur dioxide emission limitations in 326 IAC 7-4-11(2) shall be determined as specified in 326 IAC 7-2-1(c), using a thirty (30) day rolling weighted average.
 - (2) Pursuant to 326 IAC 7-4-11(7), on a day for which Unit 3 burns any coal, if the thirty (30) day rolling weighted average for any unit is above two and fifty-seven hundredths (2.57) pounds per million Btu, then 326 IAC 7-2-1(c)(1) does not apply, and the daily average emission rate for that unit for that day shall not exceed two and fifty-seven hundredths (2.57) pounds per million Btu.

In the alternative, SO₂ emissions may be determined by use of CEM in lieu of any other method prescribed herein.

- (b) Pursuant to 326 IAC 7-4-11(8), for the purposes of determining compliance under 326 IAC 7-2-1(b), stack tests performed on Units 3, 4, 5, and 6 shall demonstrate compliance with the most stringent set of limits in effect at any time during the day prior to or during the test based on the Unit 3 operating status and fuel type as indicated by the log maintained pursuant to 326 IAC 7-4-11(9).

D.2.9 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, Indianapolis Power & Light Company, Eagle Valley Station is subject to the following ORDER:

1. Indianapolis Power & Light Company 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 of replacement power indentified in Attachment A for Eagle Valley Units 3, 4, 5, and 6 are initiated, and
 - (b) The dates on-site construction of replacement power indentified in Attachment A for Eagle Valley Units 3, 4, 5, and 6 are completed.
 - (c) The dates by which final compliance with 40 CFR Part 63, Subpart UUUUU for Eagle Valley Units 3, 4, 5 and 6 are achieved.
2. Indianapolis Power & Light Company, Eagle Valley Station Units 3, 4, 5, and 6 shall comply with the standard set forth in 40 CFR Part 63, Subpart UUUUU no later than April 16, 2016.

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

D.2.10 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 and secondary voltages and the currents of the transformer-rectifier (T-R) sets.
- (b) Reasonable response steps shall be taken in accordance with Section C – Response to Exceedances or Excursions whenever the percentage of T-R sets in service falls below 90 percent (90%). T-R set failure resulting in less than 90 percent (90%) 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 obligation with regard to the reasonable response steps required by this condition.

D.2.11 Opacity Readings [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- (a) In the event of emissions exceeding thirty percent (30%) average opacity for three (3) consecutive six (6) minute averaging periods, appropriate response steps shall be taken in accordance with Section C - Response to Exceedances or Excursions such that the cause(s) of the excursion are identified and corrected and opacity levels are brought back below thirty percent (30%). Examples of expected response steps include, but are not limited to, boiler loads being reduced, adjustment of flue gas conditioning rate, and ESP T-R sets being returned to service.

- (b) Opacity readings in excess of thirty percent (30%) but not exceeding the opacity limit for the unit are 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 obligation with regard to the reasonable response steps required by this condition.

D.2.12 SO₂ Monitor Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]

- (a) Whenever the SO₂ continuous emission monitoring (CEM) system is malfunctioning or down for repairs or adjustments and a backup CEM is not brought on-line, the following shall be used to provide information related to SO₂ emissions:
 - (1) If the CEM system is down for less than twenty-four (24) hours and a backup CEM is not brought on-line, the Permittee shall substitute an average of the quality-assured data from the hour immediately before and the hour immediately after the missing data period for each hour of missing data.
 - (2) If the CEM system is down for twenty-four (24) hours or more and a backup CEM is not brought on-line, the Permittee shall either:
 - (A) Conduct fuel sampling as specified in 326 IAC 3-7-2(b). Fuel sample preparation and analysis shall be conducted as specified in 326 IAC 3-7-2(c), 326 IAC 3-7-2(d), and 326 IAC 3-7-2(e). Pursuant to 326 IAC 3-7-3, manual or other non-ASTM automatic sampling and analysis procedures may be used upon a demonstration, submitted to the department for approval, that such procedures provide sulfur dioxide emission estimates representative either of estimates based on coal sampling and analysis procedures specified in 326 IAC 3-7-2 or of continuous emissions monitoring: or
 - (B) Comply with the relevant requirements of 40 CFR Part 75. Subpart D - Missing Data Substitution Procedures

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

D.2.13 Record Keeping Requirement

- (a) To document the compliance status with the applicable opacity and particulate limits and Conditions D.2.1 and D.2.2, the Permittee shall maintain records in accordance with (1) through (4) below. Records shall be complete and sufficient to establish compliance with the opacity and particulate limits in Section C - Opacity and in Conditions D.2.1 and D.2.2.
 - (1) Data and results from the most recent stack test.
 - (2) All continuous opacity monitoring data, pursuant to 326 IAC 3-5.
 - (3) The results of all visible emission (VE) notations and Method 9 visible emission readings taken during any periods of COM downtime.
 - (4) All ESP parametric monitoring readings.
- (b) To document the compliance status with SO₂ Condition D.2.3, the Permittee shall maintain records in accordance with (1) through (3) below. Records shall be complete and sufficient to establish compliance with the SO₂ limits as required in Condition D.2.3. The Permittee shall maintain records in accordance with (2) and (3) or (4) below during SO₂ CEM system downtime.

- (1) All SO₂ continuous emissions monitoring data, pursuant to 326 IAC 3-5-6 and 326 IAC 7-2-1(g).
 - (2) All fuel sampling and analysis data collected for SO₂ CEM downtime, in accordance with Condition D.2.11.
 - (3) Calculated actual fuel usage during each SO₂ CEM downtime for the Unit(s) affected by CEM downtime lasting 24 or more hours.
 - (4) The substitute data used for the missing data periods if data substitution pursuant to 40 CFR Part 75 Subpart D is used to provide data for the SO₂ CEM downtime, in accordance with Condition D.2.11.
- (c) Pursuant to 326 IAC 7-4-11(9), the Permittee shall maintain and make available to the department upon request a log of the operating status and fuel type used for Unit 3. In addition, in the quarterly report required by 326 IAC 7-2-1(a), the Permittee shall submit to the department a daily summary indicating fuel type for Unit 3, and, for days on which Unit 3 burned any coal and any thirty (30) day rolling weighted average was greater than two and fifty-seven hundredths (2.57) pounds per million Btu, the Permittee shall submit to the department the daily average sulfur content, heat content, and sulfur dioxide emission rate for Units 3, 4, 5, and 6. For the purposes of this Condition, "department" refers to the Indiana Department of Environmental Management (IDEM).
- (d) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.

D.2.14 Reporting Requirement

- (a) A quarterly report of opacity exceedances and a quarterly summary of the information to document the compliance status with Condition D.2.3 shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days following the end of each calendar quarter. 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(34). Section C - General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition.
- (b) Pursuant to 326 IAC 3-5-7(5), reporting of continuous monitoring system instrument downtime, except for zero (0) and span checks, which shall be reported separately, shall include the following:
- (1) Date of downtime.
 - (2) Time of commencement.
 - (3) Duration of each downtime.
 - (4) Reasons for each downtime.
 - (5) Nature of system repairs and adjustments.

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

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (e) One (1) distillate oil fired generator, identified as Unit PR-10, constructed in 1967, with a design heat input capacity of 28.4 million Btu per hour (MMBtu/hr), exhausting to stack PR10-1.

(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.3.0 Air Quality Analysis Requirements [326 IAC 2-2-4]

Pursuant to the air quality impact assessment requirements of 326 IAC 2-2-4, the Permittee shall permanently discontinue the operation of the emission units in Section D.3 before commercial operation of the Combined Cycle Combustion Turbine Generation Facility. The requirements of this section will no longer be applicable after the units are permanently shutdown.

D.3.1 Sulfur Dioxide (SO₂) Limitations [326 IAC 7-1.1-2]

Pursuant to 326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations), the SO₂ emissions from Unit PR-10 shall not exceed 0.5 pound per million Btu (lb/MMBtu).

Compliance Determination Requirements

D.3.2 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 7-1.1-2] [326 IAC 7-2]

Pursuant to 326 IAC 3-7-4, 326 IAC 7-1.1-2, and 326 IAC 7-2, the Permittee shall demonstrate that the fuel oil sulfur content does not exceed the equivalent of 0.5 lb/MMBtu, using a calendar month average, by:

- (a) Providing vendor analysis of fuel delivered, accompanied by a vendor certification; or
- (b) Providing analysis of fuel oil samples collected and analyzed in accordance with 326 IAC 3-7-4(a).
 - (1) Oil samples shall be collected from the tanker truck load during or prior to transferring fuel to the storage tank; or
 - (2) Oil samples shall be collected from the storage tank immediately after each addition of fuel to the tank.

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

D.3.3 Record Keeping Requirement

- (a) To document compliance with Condition D.3.1 and D.3.2, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained shall be complete and sufficient to establish compliance with the SO₂ limit as required in Condition D.3.1 and D.3.2.
 - (1) Calendar dates covered in the compliance determination period.
 - (2) Monthly weighted average sulfur content.
 - (3) Fuel heat content.
 - (4) Fuel consumption.

- (5) Monthly weighted average sulfur dioxide emission rate in pounds per million Btus (lb/MMBtu).
- (b) Section C - General Record Keeping Requirements, contains the Permittee's obligations with regard to the record keeping required by this condition.

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (f) Coal transfer facilities, with a maximum throughput of 800 tons per hour, with a dust suppression system.
- (g) Rail car unloading, coal pile unloading, and coal storage, with a maximum capacity of 800 tons per hour.
- (h) Coal crushers, identified as 1A and 1B, with a maximum combined capacity of 800 tons per hour, each using an enclosure for dust control.

(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.4.0 Air Quality Analysis Requirements [326 IAC 2-2-4]

Pursuant to the air quality impact assessment requirements of 326 IAC 2-2-4, the Permittee shall permanently discontinue the operation of the emission units in Section D.4 before commercial operation of the Combined Cycle Combustion Turbine Generation Facility. The requirements of this section will no longer be applicable after the units are permanently shutdown.

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 particulate emission rate from the coal processing drop points and the particulate emission rate from the coal crushers shall not exceed amounts determined by the following:

- (a) 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:

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

- (b) Interpolation and extrapolation 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:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour.}$$

When the process weight rate exceeds two hundred (200) tons per hour, the allowable emission may exceed the pounds per hour limitation calculated using the above equation, provided the concentration of particulate in the discharge gases to the atmosphere is less than 0.10 pounds per one thousand (1,000) pounds of gases.

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

D.4.2 Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- (a) Visible emission notations of any coal transfer exhaust points shall be performed once per week during normal daylight operations when transferring coal. A trained employee shall record whether emissions are normal or abnormal.

- (b) Visible emission notations of the rail car unloading shall be performed once per week during normal daylight operations when unloading coal. A trained employee shall record whether emissions are normal or abnormal.
- (c) Visible emission notations of the coal crusher stack exhaust shall be performed once per week during normal daylight operations when the crusher is in operation. A trained employee shall record whether emissions are normal or abnormal.
- (d) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation.
- (e) 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.
- (f) 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.
- (g) If abnormal emissions are observed at a transfer point exhaust or crusher exhaust or from the coal unloading, 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.

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

D.4.3 Record Keeping Requirement

- (a) To document the compliance status with Condition D.4.2, the Permittee shall maintain weekly records of the visible emission notations of the rail car unloading, crusher and coal transfer exhaust. The Permittee shall include in its weekly record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (e.g. the process did not operate that week).
- (b) Section C - General Record Keeping Requirements, contains the Permittee's obligations with regard to the record keeping required by this condition.

SECTION D.5

Reserved

SECTION D.6 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(1) Wet process ash handling, with hydroveyors conveying ash to storage ponds. [326 IAC 6-4]

Before the startup of the Combined Cycle Combustion Turbine Generation Facility, the Wet process ash handling shall be permanently shut down and decommissioned.

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

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

D.6.0 Air Quality Analysis Requirements [326 IAC 2-2-4]

Pursuant to the air quality impact assessment requirements of 326 IAC 2-2-4, the Permittee shall permanently discontinue the operation of the "wet process ash handling with hydroveyors conveying ash to storage ponds" before commercial operation of the Combined Cycle Combustion Turbine Generation Facility.

SECTION D.7 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (i) Two (2) natural gas fired combustion turbine units each with a natural gas fired duct burner identified as EU-1 and EU-2, permitted in 2013, each with a total rated heat input capacity of 2,542 MMBtu/hr; with NO_x emissions controlled by low combustion burner design and Selective Catalytic Reduction (SCR), and each with an oxidation catalyst system to reduce emissions of CO and VOCs including formaldehyde, and exhausting to stacks S-1 and S-2. Each stack has continuous emissions monitors (CEMS) for NO_x.

*Note: The heat recovery steam generators are not a source of emissions. They have been included for clarity as they are a part of the entire source and operate in conjunction with the duct burners and combustion turbines which are a source of emissions.

(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 PM, PM₁₀ and PM_{2.5} PSD BACT [326 IAC 2-2-3]

Pursuant to PSD/Significant Source Modification 109-32471-00004 and 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)), the Best Available Control Technologies (BACT) for the natural gas-fired combined cycle combustion turbines, identified as EU-1 and EU-2 shall be as follows:

- (a) The PM, PM₁₀ and PM_{2.5} emissions from the combined cycle combustion turbines identified as EU-1 and EU-2 shall not exceed 16.8 pounds per hour, each and 0.0066 pounds per MMBtu, each with duct firing based on 3-hr average through the use of good combustion practices and fuel specification.
- (b) The PM, PM₁₀ and PM_{2.5} emissions from the combined cycle combustion turbines identified as EU-1 and EU-2 shall not exceed 13.9 pounds per hour, each and 0.0055 pounds per MMBtu, each without duct firing based on 3-hr average through the use of good combustion practices and fuel specification.
- (c) Only pipeline natural gas shall be fired in the combined cycle combustion turbines identified as EU-1 and EU-2.

D.7.2 H₂SO₄ PSD BACT [326 IAC 2-2-3]

Pursuant to PSD/Significant Source Modification 109-32471-00004 and 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)), the Best Available Control Technologies (BACT) for the natural gas-fired combined cycle combustion turbines, identified as EU-1 and EU-2 shall be as follows:

- (a) The H₂SO₄ emissions from the combined cycle combustion turbines identified as EU-1 and EU-2 shall be limited by restricting the S content of the natural gas to 0.75 gr S/100 scf on a monthly average basis.
- (b) Only pipeline natural gas shall be fired in the combined cycle combustion turbines identified as EU-1 and EU-2.

D.7.3 CO PSD BACT [326 IAC 2-2-3]

Pursuant to PSD/Significant Source Modification 109-32471-00004 and 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)), the Best Available Control Technologies (BACT) for the natural gas-fired combined cycle combustion turbines, identified as EU-1 and EU-2 shall be as follows:

- (a) The CO emissions from the CCCTs shall be controlled by a catalytic oxidation; and
- (b) The CO emissions shall not exceed 2.0 ppmvd @15% O₂ based on a 3-hour average.
- (c) Only pipeline natural gas shall be fired in the combined cycle combustion turbines identified as EU-1 and EU-2.

D.7.4 VOC PSD BACT [326 IAC 2-2-3][326 IAC 8-1-6]

Pursuant to PSD/Significant Source Modification 109-32471-00004 and 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)) and 326 IAC 8-1-6, the Best Available Control Technologies (BACT) for the natural gas-fired combined cycle combustion turbines, identified as EU-1 and EU-2 shall be as follows:

- (a) The VOC emissions from the CCCTs shall be controlled by a catalytic oxidation;
- (b) The VOC emissions shall not exceed 2.0 ppmvd @15% O₂, with duct burners based on 3-hour average.
- (c) The VOC emissions shall not exceed 1.0 ppmvd @15% O₂, without duct burners based on 3-hour average.
- (d) Only pipeline natural gas shall be fired in the combined cycle combustion turbines identified as EU-1 and EU-2.

D.7.5 NO_x PSD BACT [326 IAC 2-2-3]

Pursuant to PSD/Significant Source Modification 109-32471-00004 and 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)), the Best Available Control Technologies (BACT) for the natural gas-fired combined cycle combustion turbines, identified as EU-1 and EU-2 shall be as follows:

- (a) The NO_x emissions from the CCCTs shall be controlled by a Selective Catalytic Reduction and Dry Low NO_x combustors.
- (b) The NO_x emissions shall not exceed 2.0ppmv @15% O₂ with duct burners based on a 3-hour average.
- (c) Only pipeline natural gas shall be fired in the combined cycle combustion turbines identified as EU-1 and EU-2.

D.7.6 GHGs PSD BACT [326 IAC 2-2-3]

Pursuant to PSD/Significant Source Modification 109-32471-00004 and 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)), the Best Available Control Technologies (BACT) for the natural gas-fired combined cycle combustion turbines, identified as EU-1 and EU-2 shall be as follows:

- (a) The net heat rate shall not exceed 7,750 Btu/kW-hr (HHV-net) for each CCCT block (ISO conditions, without duct firing or inlet evaporative cooling, and not accounting for transformer losses).

- (b) The total CO₂e emissions for both combined cycle combustion turbines shall be limited to less than 2,649,570 tons of CO₂e per twelve (12) consecutive month period with compliance determined at the end of each month.

D.7.7 Hazardous Air Pollutants (HAPs) Minor Limits

The emissions of single HAP, formaldehyde, from the combined cycle combustion turbines identified as EU-1 and EU-2, shall be limited to less than nine (9.0) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with the above limits, combined with the potential to emit formaldehyde emissions from all other emission units will limit the potential to emit from this source to less than ten (10) tons per year of formaldehyde and make the source an area source of HAPs.

D.7.8 Startup and Shutdown Limitations for Combustion Turbines [326 IAC 2-2-3]

Pursuant to PSD/Significant Source Modification 109-32471-00004 and 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)), the following shall apply to each combustion turbine:

- (a) A startup is defined as the operation in the period beginning when continuous fuel flow to the combustion turbine is initiated and ending when the CCCT achieves consecutive CEMS data points in compliance with the primary BACT limits.
- (b) Steady-state operating condition shall be defined as the period of time that the combustion turbine is operating in dry low NO_x (premix) mode and in compliance with the primary BACT limit.
- (c) A shutdown is defined as operation beginning when the combustion turbine exits dry low-NO_x (premix) mode and ending with termination of continuous fuel flow to each turbine.
- (d) A startup/shutdown cycle is a pair of subsequent shutdown and startup events (i.e., one startup followed by one shutdown represents one startup/shutdown cycle).
- (e) Unit Offline is represented by the Unit on-line Time being 0.
- (f) An event is defined as:
 - (1) exactly one (1) startup or exactly one (1) shutdown

For CO and NO_x, the source determined the worst-case operating scenario that results in the highest modeled impacts to be a cold start of the CCCTs. The modeled cold start emission rates are based on startup emission totals provided by the turbine vendor. Therefore, the source proposes to use the cold start emission totals, per CCCT as a short-term limit during startup/shutdown events, as follows:

CO	-	3,390 lb/event
NO _x	-	429 lb/event

- (g) The total NO_x emissions from the combined cycle combustion turbines stacks shall not exceed 68 tons per twelve (12) consecutive month period, for the duration of the combined startup and shutdown events, with compliance determined at the end of each month.
- (h) The total CO emissions from the combined cycle combustion turbines stacks shall not exceed 565 tons per twelve (12) consecutive month period, for the duration of the combined startup and shutdown events, with compliance determined at the end of each month.

- (i) The total VOC emissions from the combined cycle combustion turbines stacks shall not exceed 146 tons per twelve (12) consecutive month period, for the duration of the combined startup and shutdown events, with compliance determined at the end of each month.

Compliance Determination Requirements

D.7.9 Oxidation Catalyst

In order to ensure compliance with Conditions D.7.3, D.7.4 and D.7.7, the oxidation catalyst shall be in operation at all times when the natural gas-fired combined cycle combustion turbines are in operation except during periods of startup and shutdown.

D.7.10 Nitrogen Oxide Control

In order to ensure compliance with Condition D.7.5 - NO_x PSD BACT, the Selective Catalytic Reduction and Dry Low NO_x combustors shall be in operation and control emissions from the natural gas-fired combustion turbines at all times that the natural gas-fired combined cycle combustion turbines are in operation except during periods of startup and shutdown.

D.7.11 H₂SO₄ Compliance Determination Requirements [326 IAC 2-2]

In order to ensure compliance with Condition D.7.2, the Permittee shall maintain a record of the monthly average sulfur content of the natural gas based on vendor data.

D.7.12 Greenhouse Gases (GHGs) Calculations

To determine the compliance status with Condition D.7.6 - GHGs PSD BACT, the following equation shall be used to determine the CO₂e emissions from the natural gas-fired combined cycle combustion turbines, identified as EU-1 and EU-2:

$$\text{CO}_2\text{e emissions (tons/month)} = [(\text{Fuel Usage (mmscf/month)} \times \text{Heat Content (mmbtu/mmscf)}) \times (\text{CO}_2 \text{ EF (lb/mmbtu)} \times \text{CO}_2 \text{ GWP} + \text{CH}_4 \text{ EF (lb/mmbtu)} \times \text{CH}_4 \text{ GWP} + \text{N}_2\text{O EF (lb/mmbtu)} \times \text{N}_2\text{O GWP})] \times 1/2000 \text{ (ton/lb)}$$

Where:

Fuel Usage (mmscf/month) = monthly fuel usage data from company records

Heat Content (mmbtu/mmscf) = standard value in AP-42 for natural gas or vendor data, if available

CO₂ EF (lb/mmbtu) = 120 lbs/mmbtu for combustion with duct firing and 122 lbs/mmbtu for combustion without duct firing

CH₄ EF (lb/mmbtu) = 0.0022 lbs/MMBtu emission factor from GHG MRR (40 CFR 98, Subpart C) for natural gas

N₂O EF (lb/mmbtu) = 0.00022 lbs/MMBtu emission factor from GHG MRR (40 CFR 98, Subpart C) for natural gas

CO₂ GWP = 1.0 global warming potential from GHG MRR (40 CFR 98, Subpart A)

CH₄ GWP = 21 global warming potential from GHG MRR (40 CFR 98, Subpart A)

N₂O GWP = 310 global warming potential from GHG MRR (40 CFR 98, Subpart A)

D.7.13 HAPs Minor Limits Calculations

To determine the compliance status with Condition D.7.7 - Hazardous Air Pollutants (HAPs) minor Limits, the following equation shall be used to determine formaldehyde emissions from the natural gas-fired combined cycle combustion turbines, identified as EU-1 and EU-2:

$$L \text{ (tons/month)} = (7.1 \times 10^{-4} \times Q_u + C \times Q_c) / 2000 \text{ lbs/ton}$$

Where:

- L = 9 tons of (formaldehyde) per 12 month rolling period.
7.1 x 10⁻⁴ is the uncontrolled emission factor for formaldehyde (lbs/MMBtu)
- Qu = 12- month rolling total heat input to the CT units (MMBtu) when the oxidation catalyst is not fully operational during startup and shutdown conditions
- Qc = 12- month rolling total heat input to the CT units (MMBtu) when the oxidation catalyst is fully operational (includes heat input to duct burners).
- C = is the controlled emission factor for formaldehyde (lbs/MMBtu), which would be based on stack test results of the CCCTs. Prior to stack testing the factor will be conservatively assumed to equal 60% of the uncontrolled emission factor.

D.7.14 Maintenance of Continuous Emission Monitoring Equipment [326 IAC 3-5][326 IAC-2-2-3]

- (a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEMS) and related equipment for NO_x and O₂ emissions.
- (b) All CEMS required by this permit shall meet all applicable performance specifications of 40 CFR 60 and 40 CFR 75 or any other applicable performance specifications, and are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.
- (c) 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.
- (d) Whenever a NO_x or O₂ CEMS is down for more than twenty-four (24) hours, the Permittee shall monitor the catalyst inlet temperature used in conjunction with the CCCT units with a continuous temperature monitoring system and comply with the following:

The Permittee shall measure the operating temperature of the catalyst inlet bed temperature no less often than once per four (4) hours. In the event of a monitoring system malfunction, failure to measure the operating temperature of the catalyst bed inlet temperature is not a deviation of the permit. Failure to take response steps shall be considered a deviation from the permit. If the measured temperature is below the minimum temperature as supplied by the manufacturer, reasonable response steps shall be taken to return the catalyst bed inlet temperature to the required minimum temperature. A reading that is below the minimum 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 a deviation from this permit.
- (e) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 40 CFR 60, 40 CFR 75 and 40 CFR 96.

D.7.15 Testing Requirements [326 IAC 2-1.1-11]

- (a) In order to demonstrate compliance with Conditions D.7.1 - PM, PM₁₀ and PM_{2.5} PSD BACT, within sixty (60) days of reaching maximum capacity but no later than one hundred and eighty (180) days after initial startup, the Permittee shall conduct PM, PM₁₀ and PM_{2.5} emissions stack testing of the emissions from the combined cycle combustion turbines utilizing methods as approved by the commissioner. Testing shall be conducted with and without the duct burners in operation. This test shall be repeated by December 31 of every fifth year following the date of the most recent valid compliance demonstration. 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 demonstrate compliance with Condition D.7.3 - CO PSD BACT, within sixty (60) days of reaching maximum capacity but no later than one hundred and eighty (180) days after initial startup, the Permittee shall conduct CO emissions stack testing of the emissions from the oxidation catalyst controlling the combined cycle combustion turbines utilizing methods as approved by the commissioner. Testing shall be conducted with the duct burners in operation. This test shall be repeated by December 31 of every fifth year following the date of the most recent valid compliance demonstration. 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 demonstrate compliance with Condition D.7.4 - VOC PSD BACT, within sixty (60) days of reaching maximum capacity but no later than one hundred and eighty (180) days after initial startup, the Permittee shall conduct VOC emissions stack testing of the emissions from oxidation catalyst controlling the combined cycle combustion turbines utilizing methods as approved by the commissioner. Testing shall be conducted with and without the duct burners in operation. This test shall be repeated by December 31 of every fifth year following the date of the most recent valid compliance demonstration. 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.
- (d) In order to demonstrate compliance with Condition D.7.6(a) - GHGs PSD BACT, within sixty (60) days of reaching maximum capacity but no later than one hundred and eighty (180) days after initial startup, the Permittee shall conduct net heat rate performance testing for combined cycle combustion turbines utilizing methods as approved by the commissioner. This test shall be repeated by December 31 of every fifth year following the date of the most recent valid compliance demonstration. 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.
- (e) In order to demonstrate compliance with Condition D.7.7 - Hazardous Air Pollutants (HAPs) minor Limits, within sixty (60) days of reaching maximum capacity but no later than one hundred and eighty (180) days after initial startup, the Permittee shall conduct HAPs (formaldehyde) emissions stack testing of the emissions from oxidation catalyst controlling the combined cycle combustion turbines utilizing methods as approved by the commissioner. This test shall be repeated by December 31 of every fifth year following the date of the most recent valid compliance demonstration. 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.7.16 Oxidation Catalyst Parametric Monitoring [40 CFR 64]

- (a) In order to ensure compliance with Conditions D.7.3, D.7.4 and D.7.7, a continuous monitoring system shall be calibrated, maintained, and operated on the oxidation catalyst for measuring operating temperature. For the purposes of this condition, continuous monitoring means recording the temperature no less often than every 15 minutes. The output of this system shall be recorded as a three (3) hour average. From the date of the start up of the oxidation catalyst until the approved stack test results are available, the Permittee shall operate the oxidation catalyst at or above the 3-hour average temperature of 500°F.

- (b) On and after the date the approved stack test results are available, the Permittee shall operate the oxidation catalyst at or above the three (3) hour average temperature specified by the catalyst manufacturer for VOC, CO and formaldehyde control or as established during the most recent compliant stack test.
- (c) Section C - Response to Excursions or Exceedences contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A temperature average below the three hour average specified by the catalyst manufacturer for VOC, CO and formaldehyde control or as established in the most recent compliance stack test is not considered a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

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

D.7.17 Record Keeping Requirement

- (a) In order to document the compliance status with Conditions D.7.1, D.7.2, D.7.3, D.7.4, D.7.5, D.7.6 and D.7.7, the Permittee shall maintain monthly records of the amount and type of fuel combusted in the combined cycle combustion turbines.
- (b) To document the compliance status with Condition D.7.2 - H₂SO₄ PSD BACT, the Permittee shall maintain the monthly vendors records of the fuel sulfur content of the natural gas combusted in the turbines and the associated duct burners.
- (c) To document the compliance status with Condition D.7.6 (b) - GHGs PSD BACT, the Permittee shall maintain monthly records of the CO_{2e} emissions.
- (d) To document the compliance status with the emission limits in Condition D.7.7 - Hazardous Air Pollutants (HAPs) minor Limits, the Permittee shall maintain monthly records of the formaldehyde emissions.
- (e) To document compliance with Condition D.7.8 - Startup and Shutdown Limitations for Combustion Turbines, the Permittee shall maintain records of the following:
 - (1) The type of operation (i.e. startup, shutdown) with supporting operational data;
 - (2) The total number of minutes for startup and shutdown operation per event; and
 - (3) Records shall be maintained at any time the unit is off-line.
 - (4) The CEMS data, fuel flow meter data, and/or Method 19 calculations used to determine the mass emissions rate corresponding to each startup and shutdown operating period.
- (f) To document the compliance status with Condition D.7.14 - Maintenance of Continuous Emission Monitoring Equipment, the Permittee shall record the output of the continuous monitoring systems and shall perform the required record keeping and reporting, pursuant to 326 IAC 3-5-6 and 326 IAC 3-5-7.
- (g) In the event that a breakdown of the NO_x or O₂ continuous emission monitoring system (CEMS) occurs in Condition D.7.14 - Maintenance of Continuous Emission Monitoring Equipment, the Permittee shall maintain records of all CEMS malfunctions, out of control periods, calibration and adjustment activities, and repair or maintenance activities.
- (h) To document the compliance status with Conditions D.7.14 - Maintenance of Continuous Emission Monitoring Equipment, the Permittee shall maintain the monthly records of the

NOx emissions from each of the combined cycle combustion turbines EU-1 and EU-2 based upon the CEM data.

- (i) In order to document the compliance status with Condition D.7.16 - Oxidation Catalyst Parametric Monitoring, the Permittee shall maintain continuous temperature records (on a three- (3-) hour average basis) for each oxidation catalyst to demonstrate compliance.
- (j) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.

D.7.18 Reporting Requirements

A quarterly summary of the information to document the compliance status with Conditions D.7.6(b), D.7.7, D.7.8(g), D.7.8(h) and D.7.8(i) shall be submitted using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days following the end of each calendar quarter. 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(34). Section C - General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition.

SECTION D.8 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (j) One (1) natural gas fired Auxiliary Boiler, identified as emission unit EU-3, permitted in 2013, with a rated heat input capacity of 79.3 MMBtu/hr, equipped with low NOx burners (LNB) with flue gas recirculation (FGR) to reduce NOx emissions exhausting to stack S-3.

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

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

D.8.1 PM, PM₁₀ and PM_{2.5} PSD BACT [326 IAC 2-2-3]

Pursuant to PSD/Significant Source Modification 109-32471-00004 and 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)), the Best Available Control Technologies (BACT) for the natural gas-fired auxiliary boiler, identified as EU-3 shall be as follows:

The PM, PM_{2.5} and PM₁₀ emissions from the Auxiliary Boiler, identified as EU-3 shall not exceed 0.005 lb/MMBtu and 0.4 lbs/hour, based on a 3-hr average period through the use of good combustion practices and fuel specification.

D.8.2 H₂SO₄ PSD BACT [326 IAC 2-2-3]

Pursuant to PSD/Significant Source Modification 109-32471-00004 and 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)), the Best Available Control Technologies (BACT) for the natural gas-fired auxiliary boiler, identified as EU-3 shall be as follows:

- (a) The H₂SO₄ emissions from the auxiliary boiler, identified as EU-3 shall be limited by limiting the S content of the natural gas to 0.75 gr S/100 scf on a monthly average basis.

D.8.3 CO PSD BACT [326 IAC 2-2-3]

Pursuant to PSD/Significant Source Modification 109-32471-00004 and 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)), the Best Available Control Technologies (BACT) for the natural gas-fired auxiliary boiler, identified as EU-3 shall be as follows:

The CO emissions from the Auxiliary Boiler (EU-3) operation shall not exceed 0.083 lb/MMBtu and 6.5 lbs/hr, based on a 3 - hour average through the use of advanced ultra -low NOx burner.

D.8.4 VOC PSD BACT [326 IAC 2-2-3]

Pursuant to PSD/Significant Source Modification 109-32471-00004 and 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)), the Best Available Control Technologies (BACT) for the natural gas-fired auxiliary boiler, identified as EU-3 shall be as follows:

The VOC emissions from the Auxiliary Boiler, identified as EU-3 shall not exceed 0.0053 lb/MMBtu and 0.42 lbs/hr, based on a 3-hr average period through the use of advanced ultra - low NOx burner.

D.8.5 NOx PSD BACT [326 IAC 2-2-3]

Pursuant to PSD/Significant Source Modification 109-32471-00004 and 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)), the Best Available Control Technologies (BACT) for the natural gas-fired auxiliary boiler, identified as EU-3 shall be as follows:

- (a) The NOx emissions from the Auxiliary Boiler, identified as EU-3 shall be controlled by Low NOx Burners with Flue Gas Recirculation.

- (b) The NO_x emissions shall be limited to less than 0.011 lb/MMBtu and 0.87 pounds per hour, based on a 3-hour average period.

D.8.6 GHGs PSD BACT [326 IAC 2-2-3]

Pursuant to PSD/Significant Source Modification 109-32471-00004 and 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)), the Best Available Control Technologies (BACT) for the natural gas-fired auxiliary boiler, identified as EU-3 shall be as follows:

The GHGs BACT for the Auxiliary Boiler shall be as follows:

- (a) Operating and Maintenance (O&M) Practices;
- (b) Combustion Turning;
- (c) The boiler will be equipped with oxygen trim controls and oxygen analyzers;
- (d) The boiler will be equipped with an economizer;
- (e) The boiler will be equipped with a condensate return system (recovery);
- (f) Steam and hot lines will be insulated; and
- (g) Boiler designed for 80% thermal efficiency (HHV).
- (h) The total CO_{2e} emissions for Auxiliary Boiler shall be limited to less than 40,639 tons of CO_{2e} per twelve (12) consecutive month period with compliance determined at the end of each month.

D.8.7 Startup, Shutdown and Other Opacity Limits [326 IAC 5-1-3]

- (a) Pursuant to 326 IAC 5-1-3 (a) (Temporary Alternative Opacity Limitations), when building a new fire in a boiler, or shutting down a boiler, opacity may exceed the applicable opacity limit established in 326 IAC 5-1-2. However, opacity levels shall not exceed sixty percent (60%) for any six (6)-minute averaging period. Opacity in excess of the applicable opacity limit established in 326 IAC 5-1-2 shall not continue for more than two (2) six (6)-minute averaging periods in any twenty-four (24) hour period.
- (b) If a facility cannot meet the opacity limitations of 326 IAC 5-1-3(a) or (b), the Permittee may submit a written request to IDEM, OAQ, for a temporary alternative opacity limitation in accordance with 326 IAC 5-1-3(d). The Permittee must demonstrate that the alternative limit is needed and justifiable.

Compliance Determination Requirements

D.8.8 Nitrogen Oxide Control

In order to ensure compliance with Condition D.8.5 - NO_x PSD BACT, the Low NO_x Burners with Flue Gas Recirculation shall be installed and utilized at all times that the auxiliary boiler is in operation.

D.8.9 H₂SO₄ Compliance Determination Requirements [326 IAC 2-2]

In order to ensure compliance with Condition D.8.2, the Permittee shall maintain a record of the monthly average sulfur content of the natural gas based on vendor data.

D.8.10 Testing Requirements [326 IAC 2-1.1-11]

- (a) In order to demonstrate compliance with Condition D.8.1 - PM, PM₁₀ and PM_{2.5} PSD BACT, within sixty (60) days of reaching maximum capacity but no later than one hundred and eighty (180) days after initial startup, the Permittee shall conduct PM, PM₁₀ and PM_{2.5} emissions stack testing of the emissions from the auxiliary boiler utilizing

methods as approved by the commissioner. This test shall be performed once. 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 demonstrate compliance with Condition D.8.3 - CO PSD BACT, within sixty (60) days of reaching maximum capacity but no later than one hundred and eighty (180) days after initial startup, the Permittee shall conduct CO emissions stack testing of the emissions from the auxiliary boiler utilizing methods as approved by the commissioner. This test shall be performed once. 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 demonstrate compliance with Condition D.8.4 - VOC PSD BACT, within sixty (60) days of reaching maximum capacity but no later than one hundred and eighty (180) days after initial startup, the Permittee shall conduct VOC emissions stack testing of the emissions from the auxiliary boiler utilizing methods as approved by the commissioner. This test shall be performed once. 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.
- (d) In order to demonstrate compliance with Condition D.8.5 - NOx PSD BACT, within sixty (60) days of reaching maximum capacity but no later than one hundred and eighty (180) days after initial startup, the Permittee shall conduct NOx emissions stack testing of the emissions from the auxiliary boiler utilizing methods as approved by the commissioner. This test shall be repeated by December 31 of every fifth year following the date of the most recent valid compliance demonstration. 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.
- (e) In order to demonstrate compliance with Condition D.8.6(h) – GHGs PSD BACT, within sixty (60) days of reaching maximum capacity but no later than 180 days after initial startup, the Permittee shall perform thermal efficiency testing of the auxiliary boiler, identified as EU-3 utilizing methods approved by the Commissioner. These tests shall be conducted once. 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.

D.8.11 Greenhouse Gases (GHGs) Calculations

To determine the compliance status with Condition D.8.6(h), the following equation shall be used to determine the CO₂e emissions from the Auxiliary Boiler:

$$\text{CO}_2\text{e emissions (ton/month)} = [(\text{Fuel Usage (mmscf/month)} \times \text{Heat Content (mmbtu/mmscf)}) \times (\text{CO}_2 \text{ EF (lb/mmbtu)} \times \text{CO}_2 \text{ GWP} + \text{CH}_4 \text{ EF (lb/mmbtu)} \times \text{CH}_4 \text{ GWP} + \text{N}_2\text{O EF (lb/mmbtu)} \times \text{N}_2\text{O GWP})] \times 1/2000 \text{ (ton/lb)}$$

Where:

Fuel Usage (mmscf/month) = monthly auxiliary boiler fuel usage data from company records

Heat Content (mmbtu/mmscf) = standard value in AP-42 for natural gas, or vendor data, if available

CO₂ EF (lb/mmbtu) = 117 lbs/MMBtu emission factor from GHG MRR (40 CFR 98, Subpart

C) for natural gas
CH₄ EF (lb/mmBtu) = 0.0022 lbs/MMBtu emission factor from GHG MRR (40 CFR 98, Subpart C) for natural gas
N₂O EF (lb/mmBtu) = 0.00022 lbs/MMBtu emission factor from GHG MRR (40 CFR 98, Subpart C) for natural gas
CO₂ GWP = 1.0 global warming potential from GHG MRR (40 CFR 98, Subpart A)
CH₄ GWP = 21 global warming potential from GHG MRR (40 CFR 98, Subpart A)
N₂O GWP = 310 global warming potential from GHG MRR (40 CFR 98, Subpart A)

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

D.8.12 Record Keeping Requirements

- (a) In order to document the compliance status with Conditions D.8.1, D.8.2, D.8.3, D.8.4, D.8.5, D.8.6 and D.8.11, the Permittee shall maintain monthly records of the type and amount of fuel combusted in the auxiliary boiler.
- (b) To document the compliance status with Condition D.8.2 - H₂SO₄ PSD BACT, the Permittee shall maintain the monthly vendor records of the fuel sulfur content of the natural gas combusted in the auxiliary boiler.
- (c) To document the compliance status with Condition D.8.6(h) - GHGs PSD BACT, the Permittee shall maintain the monthly records of the total CO_{2e} emissions from the auxiliary boiler.
- (d) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.

D.8.13 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.8.6(h) shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days following the end of each calendar quarter. 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(34). Section C - General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition.

SECTION D.9 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (k) One (1) natural gas fired Dew Point Heater, identified as emission unit EU-4, permitted in 2013, with a rated heat input capacity of 20.8 MMBtu/hr exhausting to stack S-4.

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

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

D.9.1 PM, PM₁₀ and PM_{2.5} PSD BACT [326 IAC 2-2-3]

Pursuant to PSD/Significant Source Modification 109-32471-00004 and 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)), the Best Available Control Technologies (BACT) for the dew point heater, identified as EU-4 shall be as follows:

The PM, PM₁₀ and PM_{2.5} emissions from the Dew Point Heater, identified as EU-4 shall be limited to less than 0.0072 lb/MMBtu and 0.15 lbs/hr, based on a 3-hr average period through the use of good combustion practices and fuel specification.

D.9.2 H₂SO₄ PSD BACT [326 IAC 2-2-3]

Pursuant to PSD/Significant Source Modification 109-32471-00004 and 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)), the Best Available Control Technologies (BACT) for the dew point heater, identified as EU-4 shall be as follows:

- (a) The H₂SO₄ emissions from the dew point heater, identified as EU-4 shall be limited by limiting the S content of the natural gas to 0.75 gr S/100 scf on a monthly average basis.

D.9.3 CO PSD BACT [326 IAC 2-2-3]

Pursuant to PSD/Significant Source Modification 109-32471-00004 and 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)), the Best Available Control Technologies (BACT) for the dew point heater, identified as EU-4 shall be as follows:

The CO emissions from the Dew Point Heater (EU-4) operation shall not exceed 0.082 lb/MMBtu and 1.7 lbs/hr, based on a 3 - hour average through the use of good combustion and low NOx burners.

D.9.4 VOC PSD BACT [326 IAC 2-2-3]

Pursuant to PSD/Significant Source Modification 109-32471-00004 and 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)), the Best Available Control Technologies (BACT) for the dew point heater, identified as EU-4 shall be as follows:

The VOC emissions from the Dew Point Heater, identified as EU-3 shall not exceed 0.0053 lb/MMBtu and 0.11 lbs/hr, based on a 3-hr average period through the use of good combustion and low NOx burners.

D.9.5 NOx PSD BACT [326 IAC 2-2-3]

Pursuant to PSD/Significant Source Modification 109-32471-00004 and 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)), the Best Available Control Technologies (BACT) for the dew point heater, identified as EU-4 shall be as follows:

- (a) The NOx emissions from the Dew Point Heater, identified as EU-4 shall be controlled by a Low NOx Burner with Flue Gas Recirculation.

- (b) The NOx emissions shall be limited to less than 0.032 lb/MMBtu and 0.67 pounds per hour, based on a 3-hr average period.

D.9.6 GHGs PSD BACT [326 IAC 2-2-3]

Pursuant to PSD/Significant Source Modification 109-32471-00004 and 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)), the Best Available Control Technologies (BACT) for the dew point heater, identified as EU-4 shall be as follows:

- (a) The good engineering design and Combustion Practices.
- (b) The use of only natural gas.
- (c) The total CO₂e emissions for Dew Point Heater shall be limited to less than 10,659 tons of CO₂e per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance Determination Requirements

D.9.7 Nitrogen Oxide Control

In order to ensure compliance with Condition D.9.5 - NOx PSD BACT, the low NOx burner shall be installed and utilized at all times that the dew point heater, identified as EU-4 is in operation.

D.9.8 Compliance Determination Requirements [326 IAC 2-2]

In order to determine compliance status with Conditions D.9.1 - PM, PM₁₀ and PM_{2.5} PSD BACT and D.9.2 - H₂SO₄ PSD BACT, the Permittee shall only use natural gas in the dew point heater EU-4.

D.9.9 Greenhouse Gases (GHGs) Calculations

To determine the compliance status with Condition D.9.6(c), the following equation shall be used to determine the CO₂e emissions from the dew point heater, identified as EU-4:

$$\text{CO}_2\text{e emissions (ton/month)} = [(\text{Fuel Usage (mmscf/month)} \times \text{Heat Content (mmbtu/mmscf)}) \times (\text{CO}_2 \text{ EF (lb/mmbtu)} \times \text{CO}_2 \text{ GWP} + \text{CH}_4 \text{ EF (lb/mmbtu)} \times \text{CH}_4 \text{ GWP} + \text{N}_2\text{O EF (lb/mmbtu)} \times \text{N}_2\text{O GWP})] \times 1/2000 \text{ (ton/lb)}$$

Where:

Fuel Usage (mmscf/month) = monthly dew point heater usage data from company records
Heat Content (mmbtu/mmscf) = standard value in AP-42 for natural gas, or vendor data, if available

CO₂ EF (lb/mmbtu) = 117 lbs/MMBtu emission factor from GHG MRR (40 CFR 98, Subpart C) for natural gas

CH₄ EF (lb/mmbtu) = 0.0022 lbs/MMBtu emission factor from GHG MRR (40 CFR 98, Subpart C) for natural gas

N₂O EF (lb/mmbtu) = 0.00022 lbs/MMBtu emission factor from GHG MRR (40 CFR 98, Subpart C) for natural gas

CO₂ GWP = 1.0 global warming potential from GHG MRR (40 CFR 98, Subpart A)

CH₄ GWP = 21 global warming potential from GHG MRR (40 CFR 98, Subpart A)

N₂O GWP = 310 global warming potential from GHG MRR (40 CFR 98, Subpart A)

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

D.9.10 Record Keeping Requirements

- (a) In order to document the compliance status with Conditions D.9.1, D.9.2, D.9.3, D.9.4, D.9.5, and D.9.6, the Permittee shall maintain monthly records of the type and amount of

fuel combusted in the auxiliary boilers.

- (b) To document the compliance status with Condition D.9.6(c) - GHGs PSD BACT, the Permittee shall maintain the monthly records of the total CO_{2e} emissions from the auxiliary boilers.
- (c) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.

D.9.11 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.9.6(c) shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days following the end of each calendar quarter. 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(34). Section C - General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition.

SECTION D.10 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Insignificant Activities

- (c) One (1) distillate oil fired Emergency Generator, identified as emission unit EU-5, permitted in 2013, with a rated capacity of 1,826 HP and exhausting through stack S-5. [Under 40 CFR 60, Subpart IIII, the Emergency Generator is considered new affected sources.][Under 40 CFR 63, Subpart ZZZZ, the fired Emergency Generator is considered new affected sources.]
- (d) One (1) distillate oil fired Emergency Fire Pump, identified as emission unit EU-6, permitted in 2013, with a rated capacity of 500 HP and exhausting through stack S-6. [Under 40 CFR 60, Subpart IIII, the Emergency Fire Pump is considered new affected sources.][Under 40 CFR 63, Subpart ZZZZ, the fired Emergency Fire Pump is considered new affected sources.]

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

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

D.10.1 PM, PM₁₀, PM_{2.5}, NO_x, CO, H₂SO₄ and GHGs PSD BACT [326 IAC 2-2-3]

Pursuant to PSD/Significant Source Modification 109-32471-00004 and 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)), the Best Available Control Technologies (BACT) for the Emergency Generator, identified as emission unit EU-5 shall be as follows:

Emergency Diesel Generator, identified as (EU5):

- (a) The PM, PM₁₀ and PM_{2.5} emissions from the Emergency Generator, Identified as EU-5, shall not exceed 0.15 g/hp-hr, through the use of combustion design control.
- (b) The H₂SO₄ emissions;
 - 1. The sulfur content of the fuel oil shall not exceed 15ppm.
- (c) The CO emissions from the Emergency Generators, Identified as EU-5 shall not exceed 2.6 g/hp-hr through the use of combustion design controls and usage limitation.
- (d) The NO_x and VOC emissions from the Emergency Generator shall be limited to less than 4.80 g/bhp-hr for NMHC + NO_x through the use of Combustion Design Controls.
- (e) The GHGs BACT for the Emergency Diesel Generator, Identified as EU5 shall be as follows:
 - 1. The use of a good engineering design; and
 - 2. The total CO₂e emissions for Emergency Diesel Generator shall be limited to less than 605 tons of CO₂e per twelve (12) consecutive month period with compliance determined at the end of each month.

D.10.2 PM, PM₁₀, PM_{2.5}, NO_x, CO, H₂SO₄ and GHGs PSD BACT [326 IAC 2-2-3]

Pursuant to PSD/Significant Source Modification 109-32471-00004 and 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)), the Best Available Control Technologies (BACT) for the Emergency Fire Pump, identified as emission unit EU-6 shall be as follows:

Emergency Fire Pump Engine, identified as EU-6:

- (a) The PM, PM₁₀ and PM_{2.5} emissions from the Emergency Fire Pump Engine shall not exceed 0.15 g/hp-hr through the use of combustion design control.
- (b) H₂SO₄ BACT Limits
 - 1. The sulfur content of the fuel oil shall not exceed 15ppm.
- (c) The CO emissions from the Emergency Fire pump Engine shall not exceed 2.6 g/hp-hr through the use of combustion design controls and usage limitation.
- (d) The NO_x and VOC emissions from the Emergency Fire Pump Engine shall not exceed 3.0 g/bhp-hr for NMHC + NO_x through the use of Combustion Design Controls and usage limitation.
- (e) The GHGs BACT for the Emergency Diesel Generator, Identified as EU-6 shall be as follows:
 - 1. The use of a good engineering design; and
 - 2. The total CO_{2e} emissions for Firewater Pump Engine shall be limited to less than 158 tons of CO_{2e} per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance Determination Requirements

D.10.3 Greenhouse Gases (GHGs) Calculations

- (a) To determine the compliance status with Condition D.10.1(e)(2), the following equation shall be used to determine the CO_{2e} emissions from the Emergency Diesel Generator (EU-5):

$$\text{CO}_{2e} \text{ emissions (ton/month)} = [(\text{Fuel Usage (gal/month)} \times \text{Heat Content (mmbtu/gal)}) \times (\text{CO}_2 \text{ EF (lb/mmbtu)} \times \text{CO}_2 \text{ GWP} + \text{CH}_4 \text{ EF (lb/mmbtu)} \times \text{CH}_4 \text{ GWP} + \text{N}_2\text{O EF (lb/mmbtu)} \times \text{N}_2\text{O GWP})] \times 1/2000 \text{ (ton/lb)}$$

Where:

Fuel Usage (gal/month) = monthly emergency generator fuel usage data from company records
Heat Content (mmbtu/gal) = standard value in AP-42 for diesel fuel, or vendor data, if available

CO₂ EF (lb/mmbtu) = 163 lbs/MMBtu emission factor from GHG MRR (40 CFR 98, Subpart C) for diesel fuel

CH₄ EF (lb/mmbtu) = 0.00661 lbs/MMBtu emission factor from GHG MRR (40 CFR 98, Subpart C) for diesel fuel

N₂O EF (lb/mmbtu) = 0.00132 lbs/MMBtu emission factor from GHG MRR (40 CFR 98, Subpart C) for diesel fuel

CO₂ GWP = 1.0 global warming potential from GHG MRR (40 CFR 98, Subpart A)

CH₄ GWP = 21 global warming potential from GHG MRR (40 CFR 98, Subpart A)

N₂O GWP = 310 global warming potential from GHG MRR (40 CFR 98, Subpart A)

- (b) To determine the compliance status with Condition D.10.2(g)(3), the following equation shall be used to determine the CO_{2e} emissions from the Emergency Fire Pump Engine (EU-6):

$$\text{CO}_{2e} \text{ emissions (ton/month)} = [(\text{Fuel Usage (gal/month)} \times \text{Heat Content (mmbtu/gal)}) \times (\text{CO}_2 \text{ EF (lb/mmbtu)} \times \text{CO}_2 \text{ GWP} + \text{CH}_4 \text{ EF (lb/mmbtu)} \times \text{CH}_4 \text{ GWP} + \text{N}_2\text{O EF (lb/mmbtu)} \times \text{N}_2\text{O GWP})] \times 1/2000 \text{ (ton/lb)}$$

Where:

Fuel Usage (gal/month) = monthly fire pump engine fuel usage data from company records
Heat Content (mmbtu/gal) = standard value in AP-42 for diesel fuel, or vendor data, if available

CO₂ EF (lb/mmbtu) = 163 lbs/MMBtu emission factor from GHG MRR (40 CFR 98, Subpart C) for diesel fuel

CH₄ EF (lb/mmbtu) = 0.00661 lbs/MMBtu emission factor from GHG MRR (40 CFR 98, Subpart C) for diesel fuel

N₂O EF (lb/mmbtu) = 0.00132 lbs/MMBtu emission factor from GHG MRR (40 CFR 98, Subpart C) for diesel fuel

CO₂ GWP = 1.0 global warming potential from GHG MRR (40 CFR 98, Subpart A)

CH₄ GWP = 21 global warming potential from GHG MRR (40 CFR 98, Subpart A)

N₂O GWP = 310 global warming potential from GHG MRR (40 CFR 98, Subpart A)

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

D.10.4 Record Keeping Requirements

- (a) In order to document the compliance status with Conditions D.10.1(b) and D.10.2(b), the Permittee shall maintain monthly records of the percent sulfur content of the fuel used in the emergency diesel engine and the fire pump engine.
- (b) To document compliance with Conditions D.10.1(e) and D.10.2(e), the Permittee shall maintain monthly records of hours of operation of the emergency diesel engine and the fire pump engine.
- (c) To document the compliance status with Conditions D.10.1(e)(2), D.10.2(e)(2) and D.10.3, the Permittee shall maintain records of the total amount of fuel used each month in the emergency diesel engine and fire pump engine and the total CO_{2e} emissions from the emergency diesel engine and fire pump engine.
- (e) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.

D.10.5 Reporting Requirements

A quarterly summary of the information to document the compliance status with Conditions D.10.1(e)(2) and D.10.2(e)(2) shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days following the end of each calendar quarter. 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(34). Section C - General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition.

SECTION D.11 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Insignificant Activities

- (e) One (1) evaporative cooling tower, identified as emission unit U-7, rated with a circulation rate of 192,000 gpm to provide non-contact cooling water to the steam turbine condenser, permitted in 2013, and equipped with high efficiency drift eliminators.

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

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

D.11.1 PM, PM₁₀ and PM_{2.5} PSD BACT [326 IAC 2-2-3]

Pursuant to PSD/Significant Source Modification 109-32471-00004 and 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)), the Best Available Control Technologies (BACT) for the cooling water, identified as EU-7 shall be as follows:

- (a) The PM, PM₁₀ and PM_{2.5} emissions from the Cooling Tower, identified as U-7 shall be controlled by High efficiency drift eliminators designed with a drift loss rate of less than 0.0005% and maximum total dissolved solids (TDS) shall be less than 5000 ppm.
- (b) The PM, PM₁₀ and PM_{2.5} emissions from the Cooling Tower shall be less than 2.4, 1.5 and 0.005 pounds per hour, respectively.

Compliance Determination

D.11.2 PM, PM₁₀ and PM_{2.5} Control

- (a) In order to ensure compliance with Conditions D.11.1 - PM and PM₁₀ and PM_{2.5} PSD BACT, the high efficiency drift eliminators for particulate control shall be in operation and control emissions from each cooling tower at all times that the cooling towers are in operation.
- (b) The Permittee shall perform monthly tests of the blow-down water quality using EPA-approved method. This monthly test shall not be required for any 30-day period in which the wet cooling tower is not in operation, provided that the Permittee maintains a log of wet cooling tower operation.
- (c) The Permittee shall calculate the PM, PM₁₀, and PM_{2.5} emission rates using an equation based on the TDS and water circulation rate using the following formula.

$$E = (c \times T \times Q \times 8.34 \times 60 \times DR) / 10^6$$

Where:

E = mass emission rate in lbs/hr for PM, PM₁₀ and PM_{2.5};
c = particle size fraction (c=1 for PM; 0.635 for PM₁₀ and 0.00213 for PM_{2.5});
T = Total Dissolved Solids, mg/l;
Q = Cooling tower circulation rate, gallons/min; and
DR = Drift rate (assumed to be 0.0005% based on design).

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

D.11.3 Record Keeping Requirements

- (a) To document the compliance status with Condition D.11.1, the Permittee shall maintain a log that contains the date and result of each blow-down water quality test and resulting mass rate. This log shall be maintained onsite for a minimum of five years and shall be provided to EPA and IDEM upon request.

- (b) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.

SECTION D.12 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Insignificant Activities

- (f) Electrical Circuit Breakers containing sulfur hexafluoride (SF₆) identified as emissions unit F-1, permitted in 2013, with fugitive emissions controlled by full enclosure.

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

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

D.12.1 GHGs PSD BACT [326 IAC 2-2-3]

Pursuant to PSD/Significant Source Modification 109-32471-00004 and 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)), the Best Available Control Technologies (BACT) for the Electrical Circuit Breakers, identified as SF₆ shall be as follows:

- (1) The use of totally enclosed pressure system with a design leak rate of 0.5% by weight and a density alarm for leak detection.
- (2) The total SF₆ emissions from all the circuit breakers shall not exceed 59.8 tons of CO₂e per twelve (12) consecutive month period with compliance determined at the end of each month.

SECTION D.13 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Insignificant Activities

- (g) Fugitive equipment leaks from the natural gas supply lines, identified as F-2.

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

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

D.13.1 GHGs PSD BACT [326 IAC 2-2-3]

Pursuant to PSD/Significant Source Modification 109-32471-00004 and 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)), the Best Available Control Technologies (BACT) for the Fugitive equipment leaks shall be as follows:

The BACT for fugitive GHG emissions shall be use of Auditory, Visual, and Olfactory (AVO) Monitoring program for methane leaks.

SECTION D.14 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Insignificant Activities

(h) Three (3) Turbine Lube Demister Vents, permitted in 2013.

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

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

D.14.1 PM, PM₁₀ and PM_{2.5} PSD BACT [326 IAC 2-2-3]

Pursuant to PSD/Significant Source Modification 109-32471-00004 and 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)), the Best Available Control Technologies (BACT) for the Turbine Lube Oil Demister Vents shall be as follows:

The PM, PM₁₀ and PM_{2.5} emissions from the Turbine Lube Oil Demister Vents shall be the use of good design and operating practices.

SECTION E TITLE IV CONDITIONS

Oris Code: 991

Title IV Source Description:

- (a) One (1) tangentially-fired wet-bottom coal boiler, identified as Unit 3, constructed in 1951, with a design heat input capacity of 524 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) and flue gas conditioning system for control of particulate matter, exhausting to stack 2-1. Unit 3 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Used oil generated onsite and used oil contaminated materials generated onsite may be combusted in Unit 3 as supplemental fuel for energy recovery. Stack 2-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).
- (b) One (1) tangentially-fired dry-bottom coal fired boiler, identified as Unit 4, constructed in 1953, with a design heat input capacity of 741 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) and flue gas conditioning system for control of particulate matter, exhausting to stack 2-1. Unit 4 is equipped with separated overfire air (SOFA) and low NO_x burners (LNB) for control of NO_x emissions, which were voluntarily installed and are not required to operate. Unit 4 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Stack 2-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).
- (c) One (1) tangentially-fired dry-bottom coal boiler, identified as Unit 5, constructed in 1953, with a design heat input capacity of 741 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) and flue gas conditioning system for control of particulate matter, exhausting to stack 3-1. Unit 5 is equipped with SOFA and LNB for control of NO_x emissions, which were voluntarily installed and are not required to operate. Unit 5 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Stack 3-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).
- (d) One (1) tangentially-fired dry-bottom coal boiler, identified as Unit 6, constructed in 1956, with a design heat input capacity of 1017 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, exhausting to stack 3-1. Unit 6 is equipped with Closed-coupled Overfire Air (COFA) for control of NO_x emissions, which was voluntarily installed and is not required to operate. Unit 6 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Used oil generated onsite may be combusted in Unit 6 as supplemental fuel for energy recovery. Unit 6 has had low-NO_x burners installed. Stack 3-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).

The New Combined Cycle Combustion Turbine Generation Facility Emission Units:

- (i) Two (2) natural gas fired combustion turbine units each with a natural gas fired duct burner identified as EU-1 and EU-2, permitted in 2013, each with a total rated heat input capacity of 2,542 MMBtu/hr; with NO_x emissions controlled by low combustion burner design and Selective Catalytic Reduction (SCR), and each with an oxidation catalyst system to reduce emissions of CO and VOCs including formaldehyde, and exhausting to stacks S-1 and S-2. Each stack has continuous emissions monitors (CEMS) for NO_x.

*Note: The heat recovery steam generators are not a source of emissions. They have been included for clarity as they are a part of the entire source and operate in conjunction with the duct burners and combustion turbines which are a source of emissions.

(The information contained in this box is descriptive information and does not constitute enforceable conditions.)

Acid Rain Program

E.1.1 Acid Rain Permit [326 IAC 2-7-5(1)(C)] [326 IAC 21] [40 CFR 72 through 40 CFR 78]

Pursuant to 326 IAC 21 (Acid Deposition Control), the Permittee shall comply with all provisions of the Acid Rain permit issued for this source, and any other applicable requirements contained in 40 CFR 72 through 40 CFR 78. The Acid Rain permit for this source is attached to this permit as Attachment A, and is incorporated by reference.

E.1.2 Title IV Emissions Allowances [326 IAC 2-7-5(4)] [326 IAC 21]

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 the 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 E.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (i) Two (2) natural gas fired combustion turbine units each with a natural gas fired duct burner identified as EU-1 and EU-2, permitted in 2013, each with a total rated heat input capacity of 2,542 MMBtu/hr; with NO_x emissions controlled by low combustion burner design and Selective Catalytic Reduction (SCR), and each with an oxidation catalyst system to reduce emissions of CO and VOCs including formaldehyde, and exhausting to stacks S-1 and S-2. Each stack has continuous emissions monitors (CEMS) for NO_x.

*Note: The heat recovery steam generators are not a source of emissions. They have been included for clarity as they are a part of the entire source and operate in conjunction with the duct burners and combustion turbines which are a source of emissions.

(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 12][40 CFR 60, Subpart KKKK]

E.2.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart 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 two (2) natural gas combustion turbines EU-1 and EU-2 and two (2) duct burners associated with the heat recovery steam generators, except as otherwise specified in 40 CFR Part 60, Subparts KKKK.

E.2.2 New Source Performance Standards for Stationary Combustion Turbines Requirements [40 CFR Part 60, Subpart KKKK] [326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart KKKK, the Permittee shall comply with the provisions of New Source Performance Standards for Stationary Combustions Turbines, which are incorporated by reference as 326 IAC 12, for the two (2) natural gas combustion turbines EU-1 and EU-2 and two (2) duct burners associated with the heat recovery steam generators as specified as follows:

1. 40 CFR 60.4300
2. 40 CFR 60.4305
3. 40 CFR 60.4320
4. 40 CFR 60.4330(a)(1) or (2)
5. 40 CFR 60.4333
6. 40 CFR 60.4340(b)(1)
7. 40 CFR 60.4345
8. 40 CFR 60.4350(a)-(e), (f)(1)-(2), (h)
9. 40 CFR 60.4360
10. 40 CFR 60.4365
11. 40 CFR 60.4370(b), (c)
12. 40 CFR 60.4375(a)
13. 40 CFR 60.4380(b)
14. 40 CFR 60.4385(a), (c)
15. 40 CFR 60.4395
16. 40 CFR 60.4400(a), (b)(2), (b)(4)-(6)
17. 40 CFR 60.4405
18. 40 CFR 60.4415

19. 40 CFR 60.4420

SECTION E.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (j) One (1) natural gas fired Auxiliary Boiler, identified as emission unit EU-3, permitted in 2013, with a rated heat input capacity of 79.3 MMBtu/hr, equipped with low NOx burners (LNB) with flue gas recirculation (FGR) to reduce NOx emissions exhausting to stack S-3.

(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 12][40 CFR 60, Subpart Dc]

- E.3.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart 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 natural gas fired auxiliary boiler, except as otherwise specified in 40 CFR Part 60, Subpart Dc.

- E.3.2 New Source Performance Standards for Small-Commercial-Institutional Steam Generating Units Requirements [40 CFR Part 60, Subpart Dc] [326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart Dc, the Permittee shall comply with the provisions of New Source Performance Standards for Small-Commercial-Institutional Steam Generating Units, which are incorporated by reference as 326 IAC 12, for the natural gas fired auxiliary boiler as specified as follows:

1. 40 CFR 60.40c(a)-(d)
2. 40 CFR 60.41c
3. 40 CFR 60.48c(a)(1), (3)
4. 40 CFR 60.48c(g),(i)

SECTION E.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (c) One (1) distillate oil fired Emergency Generator, identified as emission unit EU-5, permitted in 2013, with a rated capacity of 1,826 HP and exhausting through stack S-5. [Under 40 CFR 60, Subpart IIII, the Emergency Generator is considered new affected sources.][Under 40 CFR 63, Subpart ZZZZ, the fired Emergency Generator is considered new affected sources.]
- (d) One (1) distillate oil fired Emergency Fire Pump, identified as emission unit EU-6, permitted in 2013, with a rated capacity of 500 HP and exhausting through stack S-6. [Under 40 CFR 60, Subpart IIII, the Emergency Fire Pump is considered new affected sources.][Under 40 CFR 63, Subpart ZZZZ, the fired Emergency Fire Pump is considered new affected sources.]

(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 12] [40 CFR 60, Subpart IIII]

E.4.1 General Provisions Relating to NSPS IIII [326 IAC 12][40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the emergency diesel generator and the emergency fire pump engine described in this section except when otherwise specified in 40 CFR Part 60, Subpart IIII.

E.4.2 Standards of Performance for Stationary Compression Ignition Internal Combustion Engines [326 IAC 12][40 CFR Part 60, Subpart IIII]

The Permittee who owns and operates stationary compression ignition (CI) internal combustion engines (ICE) shall comply with the following provisions of 40 CFR Part 60, Subpart IIII, included as an Attachment in this permit. The source is subject to the following portions of Subpart IIII:

The emergency fire pump engine is subject to the following Sections of 40 CFR Part 60, Subpart IIII.

1. 40 CFR 60.4200(a)(2)(ii)
2. 40 CFR 60.4202(d)
3. 40 CFR 60.4205(c)
4. 40 CFR 60.4206
5. 40 CFR 60.4207
6. 40 CFR 60.4211(a), (c)
7. 40 CFR 60.4218
8. 40 CFR 60.4219

The emergency diesel generator is subject to the following Sections of 40 CFR Part 60, Subpart IIII.

1. 40 CFR 60.4200(a)(2)(i)
2. 40 CFR 60.4202(a)(2)
3. 40 CFR 60.4205(b)
4. 40 CFR 60.4206
5. 40 CFR 60.4207
6. 40 CFR 60.4211(a), (c)
7. 40 CFR 60.4218
8. 40 CFR 60.4219

SECTION E.5 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (c) One (1) distillate oil fired Emergency Generator, identified as emission unit EU-5, permitted in 2013, with a rated capacity of 1,826 HP and exhausting through stack S-5. [Under 40 CFR 60, Subpart IIII, the Emergency Generator is considered new affected sources.][Under 40 CFR 63, Subpart ZZZZ, the fired Emergency Generator is considered new affected sources.]
- (d) One (1) distillate oil fired Emergency Fire Pump, identified as emission unit EU-6, permitted in 2013, with a rated capacity of 500 HP and exhausting through stack S-6. [Under 40 CFR 60, Subpart IIII, the Emergency Fire Pump is considered new affected sources.][Under 40 CFR 63, Subpart ZZZZ, the fired Emergency Fire Pump is considered new affected sources.]
- (j) One (1) emergency internal combustion engine used to power a fire pump, identified as FP-1, installed in 1980, with a maximum heat input capacity of 0.22 MMBtu/hour and a rating of 86 brake horse power (bhp).

(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 20] [40 CFR 63, Subpart ZZZZ]

E.5.1 General Provisions Relating to National Emissions Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [326 IAC 20-1][40 CFR Part 63, Subpart A]

Pursuant to 40 CFR 63.6590, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1 for the affected source, as specified in Appendix A of 40 CFR Part 63, Subpart ZZZZ, in accordance with the schedule in 40 CFR 63 Subpart ZZZZ.

E.5.2 National Emissions Standard for Hazardous Air Pollutants for stationary Reciprocating Internal Combustion Engines [40 CFR Part 63, Subpart ZZZZ][326 IAC 20-82-1]

Pursuant to CFR Part 63, Subpart ZZZZ, the Permittee shall comply with the provisions of 40 CFR Part 63.6590, for the affected source, as specified as follows:

1. 40 CFR 63.6590
2. 40 CFR 63.6645

The emergency internal combustion engine, identified as FP-1 is subject to the following Sections of 40 CFR Part 63, Subpart ZZZZ.

1. 40 CFR 63.6580
2. 40 CFR 63.6585
3. 40 CFR 63.6590(a)(1)(ii)
4. 40 CFR 63.6595(a)(1)
5. 40 CFR 63.6595(c)
6. 40 CFR 63.6602
7. 40 CFR 63.6605
8. 40 CFR 63.6612
9. 40 CFR 63.6620(a)
10. 40 CFR 63.6625(e),(f),(h),(i)
11. 40 CFR 63.6640(a),(b),(e),(f)
12. 40 CFR 63.6645(a)(5)
13. 40 CFR 63.6650(a)

14. 40 CFR 63.6650(b)(1)-(5)
15. 40 CFR 63.6650(c),(d),(e),(f)
16. 40 CFR 63.6655(a)(1),(2),(4)
17. 40 CFR 63.6660
18. 40 CFR 63.6665
19. 40 CFR 63.6670
20. 40 CFR 63.6675
21. Table 2c(1)
22. Table 6(9)
23. Table 7(a)
24. Table 8

SECTION F RESERVED

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)

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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)

- (a) One (1) tangentially-fired wet-bottom coal boiler, identified as Unit 3, constructed in 1951, with a design heat input capacity of 524 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) and flue gas conditioning system for control of particulate matter, exhausting to stack 2-1. Unit 3 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Used oil generated onsite and used oil contaminated materials generated onsite may be combusted in Unit 3 as supplemental fuel for energy recovery. Stack 2-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).
- (b) One (1) tangentially-fired dry-bottom coal fired boiler, identified as Unit 4, constructed in 1953, with a design heat input capacity of 741 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) and flue gas conditioning system for control of particulate matter, exhausting to stack 2-1. Unit 4 is equipped with separated overfire air (SOFA) and low NO_x burners (LNB) for control of NO_x emissions, which were voluntarily installed and are not required to operate. Unit 4 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Stack 2-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).
- (c) One (1) tangentially-fired dry-bottom coal boiler, identified as Unit 5, constructed in 1953, with a design heat input capacity of 741 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) and flue gas conditioning system for control of particulate matter, exhausting to stack 3-1. Unit 5 is equipped with SOFA and LNB for control of NO_x emissions, which were voluntarily installed and are not required to operate. Unit 5 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Stack 3-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).
- (d) One (1) tangentially-fired dry-bottom coal boiler, identified as Unit 6, constructed in 1956, with a design heat input capacity of 1017 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for control of particulate matter, exhausting to stack 3-1. Unit 6 is equipped with Closed-coupled Overfire Air (COFA) for control of NO_x emissions, which was voluntarily installed and is not required to operate. Unit 6 will combust no. 2 fuel oil during startup, shutdown, and stabilization periods. Used oil generated onsite may be combusted in Unit 6 as supplemental fuel for energy recovery. Unit 6 has had low-NO_x burners installed. Stack 3-1 has continuous emission monitoring systems (CEMS) for NO_x and SO₂ and a continuous opacity monitor (COM).

The New Combined Cycle Combustion Turbine Generation Facility Emission Units:

- (i) Two (2) natural gas fired combustion turbine units each with a natural gas fired duct burner identified as EU-1 and EU-2, permitted in 2013, each with a total rated heat input capacity of 2,542 MMBtu/hr; with NO_x emissions controlled by low combustion burner design and Selective Catalytic Reduction (SCR), and each with an oxidation catalyst system to reduce emissions of CO and VOCs including formaldehyde, and exhausting to stacks S-1 and S-2. Each stack has continuous emissions monitors (CEMS) for NO_x.

*Note: The heat recovery steam generators are not a source of emissions. They have been included for clarity as they are a part of the entire source and operate in conjunction with the duct burners and combustion turbines which are a source of emissions.

(The information describing the process contained in this facility 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 units, CAIR SO₂ units, and CAIR NO_x ozone season units subject to this CAIR permit are Units 1, 2, 3, 4, 5 and 6.

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.4.1, Nitrogen Oxides Emission Requirements, Condition G.4.2, Sulfur Dioxide Emission Requirements, and Condition G.4.3, Nitrogen Oxides Ozone Season Emission Requirements.

G.4.1 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.4.2 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 the 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.4.3 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 the 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.5 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.6 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), 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), 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.7 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.8 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.9 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.10 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), 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), 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: Indianapolis power and Light Company (IPL) Eagle Valley Generating Station
Source Address: 4040 Blue Bluff Road, Martinsville, Indiana 46151
Part 70 Permit No.: T109-32791-00004

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: Indianapolis power and Light Company (IPL) Eagle Valley Generating Station
Source Address: 4040 Blue Bluff Road, Martinsville, Indiana 46151
Part 70 Permit No.: T109-32791-00004

This form consists of 2 pages

Page 1 of 2

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

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

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

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

Page 2 of 2

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

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

Part 70 Quarterly Report

Source Name: Indianapolis Power and Light (IPL) Eagle Valley Generating Station
Source Address: 4040 Blue Bluff Road, Martinsville, IN 46151
Part 70 Permit No.: T109-32791-00004
Facility: Combined Cycle Combustion Turbines EU-1 - EU-2
Parameter: NOx Emissions
Limit: shall not exceed 68 tons per twelve (12) consecutive month period, for the duration of the combined startup and shutdown events, with compliance determined at the end of each month.

QUARTER :

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

No deviation occurred in this quarter.

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

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

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

Part 70 Quarterly Report

Source Name: Indianapolis Power and Light (IPL) Eagle Valley Generating Station
Source Address: 4040 Blue Bluff Road, Martinsville, IN 46151
Part 70 Permit No.: T109-32791-00004
Facility: Combined Cycle Combustion Turbines EU-1 - EU-2
Parameter: CO Emissions
Limit: shall not exceed 565 tons per twelve (12) consecutive month period, for the duration of the combined startup and shutdown events, with compliance determined at the end of each month.

QUARTER :

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on:

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

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

Part 70 Quarterly Report

Source Name: Indianapolis Power and Light (IPL) Eagle Valley Generating Station
Source Address: 4040 Blue Bluff Road, Martinsville, IN 46151
Part 70 Permit No.: T109-32791-00004
Facility: Combined Cycle Combustion Turbines EU-1 - EU-2
Parameter: VOC Emissions
Limit: shall not exceed 146 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

QUARTER :

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on:

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

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

Part 70 Quarterly Report

Source Name: Indianapolis Power and Light (IPL) Eagle Valley Generating Station
Source Address: 4040 Blue Bluff Road, Martinsville, IN 46151
Part 70 Permit No.: T109-32791-00004
Facility: Combined Cycle Combustion Turbine EU-1 - EU-2
Parameter: CO_{2e}
Limit: shall not exceed 2,649,570 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

QUARTER :

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

No deviation occurred in this quarter.

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

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

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

Part 70 Quarterly Report

Source Name: Indianapolis Power and Light (IPL) Eagle Valley Generating Station
Source Address: 4040 Blue Bluff Road, Martinsville, IN 46151
Part 70 Permit No.: T109-32791-00004
Facility: Auxiliary Boiler EU-3
Parameter: CO₂e
Limit: shall not exceed 40,639 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

QUARTER :

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

No deviation occurred in this quarter.

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

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

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

Part 70 Quarterly Report

Source Name: Indianapolis Power and Light (IPL) Eagle Valley Generating Station
Source Address: 4040 Blue Bluff Road, Martinsville, IN 46151
Part 70 Permit No.: T109-32791-00004
Facility: Dew Point Heater EU-4
Parameter: CO_{2e}
Limit: shall not exceed 10,569 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

QUARTER :

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

No deviation occurred in this quarter.

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

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

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

Part 70 Quarterly Report

Source Name: Indianapolis Power and Light (IPL) Eagle Valley Generating Station
Source Address: 4040 Blue Bluff Road, Martinsville, IN 46151
Part 70 Permit No.: T109-32791-00004
Facility: Emergency Generator EU-5
Parameter: CO₂e
Limit: shall not exceed 605 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

QUARTER :

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

No deviation occurred in this quarter.

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

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

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

Part 70 Quarterly Report

Source Name: Indianapolis Power and Light (IPL) Eagle Valley Generating Station
Source Address: 4040 Blue Bluff Road, Martinsville, IN 46151
Part 70 Permit No.: T109-32791-00004
Facility: Fire Pump Engine EU-6
Parameter: CO_{2e}
Limit: shall not exceed 157.5 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

QUARTER :

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

No deviation occurred in this quarter.

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

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

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

Part 70 Quarterly Report

Source Name: Indianapolis Power and Light (IPL) Eagle Valley Generating Station
Source Address: 4040 Blue Bluff Road, Martinsville, IN 46151
Part 70 Permit No.: T109-32791-00004
Facility: Combined Cycle Combustion Turbines EU-1 - EU-2
Parameter: Single HAPs Emissions (Formaldehyde)
Limit: less than 9 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

QUARTER :

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

No deviation occurred in this quarter.

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

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

**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: Indianapolis power and Light Company (IPL) Eagle Valley Generating Station
Source Address: 4040 Blue Bluff Road, Martinsville, Indiana 46151
Part 70 Permit No.: T109-32791-00004

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

Page 1 of 2

<p>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".</p>	
<p><input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.</p>	
<p><input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD</p>	
<p>Permit Requirement (specify permit condition #)</p>	
<p>Date of Deviation:</p>	<p>Duration of Deviation:</p>
<p>Number of Deviations:</p>	
<p>Probable Cause of Deviation:</p>	
<p>Response Steps Taken:</p>	
<p>Permit Requirement (specify permit condition #)</p>	
<p>Date of Deviation:</p>	<p>Duration of Deviation:</p>
<p>Number of Deviations:</p>	
<p>Probable Cause of Deviation:</p>	
<p>Response Steps Taken:</p>	

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: _____

**Appendix A: Emissions Calculations
Emission Summary**

Company Name: IPL Eagle Valley Generating Station
 Address City IN Zip: 4040 Blue Bluff Road, Martinsville, IN 46151
 Permit Number: 109-35232-00004
 Permit Reviewer: Julie Mendez

Uncontrolled Potential to Emit

	PM (tons/yr)	PM₁₀ (tons/yr)	PM_{2.5} (tons/yr)	SO₂ (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NOx (tons/yr)	GHGs as CO₂e (tons/yr)	H₂SO₄ (tons/yr)	HAPs (tons/yr)
Emission Unit										
Boiler Unit 3	1207	448	448	2047	5.39	53.9	3340	521,050	0	146
Boiler Unit 4	2438	561	561	2895	7.62	76.2	1676	736,829	0	207
Boiler Unit 5	2438	561	561	2895	7.62	76.2	1676	736,829	0	207
Boiler Unit 6	3346	770	770	3973	10.46	105	2300	1,011,275	0	284
Distillate Oil Generator PR-10	1.78	0.89	1.16	69.7	0.18	4.44	17.8	19,179	0	0.006
Coal Transfer facilities				0	0	0	0	0	0	0
Railcar Unloading	327	327	327	0	0	0	0	0	0	0
Coal Crusher				0	0	0	0	0	0	0
Emer. Fire Pump FP-1	0.047	0.047	0.047	0.044	0.054	0.14	0.67	24.81	0	0.0006
Deisel no. 2 Fuel Tank	0	0	0	0	0.16	0	0	0	0	0
CT-1	60.9	60.9	60.9	15.2	84	310.5	81.6	1,324,785	6.73	10.8
CT-2	60.9	60.9	60.9	15.2	84	310.5	81.6	1,324,785	6.73	10.8
Aux Boiler EU-3	1.74	1.74	1.74	0.49	1.84	28.5	3.82	40,639	0.037	0.72
Dew Point Heater EU-4	0.66	0.66	0.66	0.13	0.48	7.47	2.92	10,659	0.010	0.17
Fire Pump EU-6	0.04	0.04	0.04	0.002	0.03	0.72	0.80	157	0	0.004
Emergency Generator EU-5	0.16	0.15	0.15	0.01	0.10	2.63	4.70	605	0	0.01
Cooling Tower EU-7	10.50	6.70	0.02	0	0	0	0	0	0	0
Paved Roads/Parking	0.216	0.043	0.011	0	0	0	0	0	0	0
Methane Leaks	0	0	0	0	0	0	0	1467	0	0
Circuit Breaker F-1	0	0	0	0	0	0	0	59.8	0	0
3 Lube Oil Vents	0.23	0.23	0.23	0	0	0	0	0	0	0
Total Emissions	9,893	2,799	2,792	11,912	202	976	9,187	5,728,344	13.51	866

**Appendix A: Emissions Calculations
Emission Summary**

Company Name: IPL Eagle Valley Generating Station
 Address City IN Zip: 4040 Blue Bluff Road, Martinsville, IN 46151
 Permit Number: 109-35232-00004
 Permit Reviewer: Julie Mendez

Limited Potential to Emit

	PM (tons/yr)	PM₁₀ (tons/yr)	PM_{2.5} (tons/yr)	SO₂ (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NOx (tons/yr)	GHGs as CO₂e (tons/yr)	H₂SO₄ (tons/yr)	HAPs (tons/yr)
Emission Unit										
Boiler Unit 3	1207	448	448	2047	5.39	53.9	3340	521,050	0	146
Boiler Unit 4	2438	561	561	2895	7.62	76.2	1676	736,829	0	207
Boiler Unit 5	2438	561	561	2895	7.62	76.2	1676	736,829	0	207
Boiler Unit 6	3346	770	770	3973	10.46	105	2300	1,011,275	0	284
Distillate Oil Generator PR-10	1.78	0.89	1.16	69.7	0.18	4.44	17.8	19,179	0	0.006
Coal Transfer facilities				0	0	0	0	0	0	0
Railcar Unloading	327	327	327	0	0	0	0	0	0	0
Coal Crusher				0	0	0	0	0	0	0
Emer. Fire Pump FP-1	0.047	0.047	0.047	0.044	0.054	0.14	0.67	24.81	0	0.0006
Deisel no. 2 Fuel Tank	0	0	0	0	0.16	0	0	0	0	0
CT-1	60.9	60.9	60.9	15.2	84	310.5	81.6	1,324,785	6.73	10.8
CT-2	60.9	60.9	60.9	15.2	84	310.5	81.6	1,324,785	6.73	10.8
Aux Boiler EU-3	1.74	1.74	1.74	0.49	1.84	28.5	3.82	40,639	0.037	0.72
Dew Point Heater EU-4	0.66	0.66	0.66	0.13	0.48	7.47	2.92	10,659	0.010	0.17
Fire Pump EU-6	0.04	0.04	0.04	0.002	0.03	0.72	0.80	157	0	0.004
Emergency Generator EU-5	0.16	0.15	0.15	0.01	0.10	2.63	4.70	605	0	0.01
Cooling Tower EU-7	10.50	6.70	0.02	0	0	0	0	0	0	0
Paved Roads/Parking	0.216	0.043	0.011	0	0	0	0	0	0	0
Methane Leaks	0	0	0	0	0	0	0	1467	0	0
Circuit Breaker F-1	0	0	0	0	0	0	0	59.8	0	0
3 Lube Oil Vents	0.23	0.23	0.23	0	0	0	0	0	0	0
Total Emissions	9,893	2,799	2,792	11,912	202	976	9,187	5,728,344	13.51	Single HAP >10 Combined HAPs > 25

Emission Unit	MW output	MMBtu/hr
CT-1	656 MW nominal capacity	2463
CT-1 w/ Duct Burner		2542
CT-2		2463
CT-2 w/ Duct Burner		2542
Aux. Boiler	EU-3	79.3
Dew Point Heater	EU-4	20.8
	HP	MMBtu/hr
Fire Pump Engine	EU-5	500
Emergency generator	EU-6	1826
		14.8

W. Eagle Valley

Basis for Emission Factors

	Proposed permit Limits Based On Vendor data
	AP-42
	40 CFR Part 98; Tables A-1, C-1 and C-2

	Units	Emission Factors													
		NOx	CO	VOC	SO2	PM	PM10	PM2.5	H2SO4	Fluorides	Lead	Mercury	CO2	CH4	N2O
	ppmv	2	2	2											
per CT NG w duct firing	lbs/hr	18.9	14.4	8.99	3.55	16.78	16.78	16.78	2.06				306,306	5.60	0.56
	lbs/MMBtu				0.0014	0.0066	0.0066	0.0066	0.00081					2.20E-03	2.20E-04
per CT NG w/o duct firing	lbs/hr	18.6	11.3	3.25	3.45	13.55	13.55	13.55	1.47				301,647	5.43	0.54
	lbs/MMBtu				0.0014	0.0055	0.0055	0.0055	0.00060					2.20E-03	2.20E-04
Aux Boiler	lbs/MMBtu	0.011	0.082	0.0053	0.0014	0.005	0.005	0.005	0.000107			2.55E-07	117	2.20E-03	2.20E-04
	lbs/hr	0.87	6.50	0.42	0.11	0.40	0.40	0.40	0.00850			2.02E-05			
Dew Point Heater	lbs/MMBtu	0.032	0.082	0.0053	0.0014	0.0072	0.0072	0.0072	0.000107			2.55E-07	117	2.20E-03	2.20E-04
	lbs/hr	0.67	1.71	0.11	0.029	0.150	0.150	0.150	0.00223			5.30E-06			
Fire Pump Engine	lbs/MMBtu	0.831	0.745	0.029	0.0015	0.043	0.043	0.043	0.000115				163	6.61E-03	1.32E-03
	lbs/hr	3.20	2.87	0.11	0.0060	0.17	0.17	0.17	0.00044						
Emergency Generator	lbs/MMBtu	1.27	0.709	0.027	0.0015	0.043	0.043	0.043	0.000115				163	6.61E-03	1.32E-03
	lbs/hr	18.8	10.50	0.40	0.022	0.64	0.6	0.6	0.00170						
Lube Oil Demister Vents	lbs/hr/venting					0.0174	0.0174	0.0174							

Global Warming Potentials			
1	21	310	23,900

Emission Unit	Hours/Year	Potential to Emit, Tons/Year													CO2e	Total HAPs	Formaldehyde		
		NOx	CO	VOC	SO2	PM	PM10	PM2.5	H2SO4	Fluorides	Lead	Mercury	CO2	CH4				N2O	SF6
CT-1 w/duct firing	1000	9.5	7.2	4.5	1.8	8.4	8.4	8.4	1.0				153,153	2.80	0.28		153,299	1.27	0.90
CT-1 w/o duct firing	7760	72.2	43.8	12.6	13.4	52.6	52.6	52.6	5.7				1,170,390	21.07	2.11		1,171,486	9.54	6.79
CT-2 w/duct firing	1000	9.5	7.2	4.5	1.8	8.4	8.4	8.4	1.0				153,153	2.80	0.28		153,299	1.27	0.90
CT-2 w/o duct firing	7760	72.2	43.8	12.6	13.4	52.6	52.6	52.6	5.7				1,170,390	21.07	2.11		1,171,486	9.54	6.79
Auxiliary Boiler	8760	3.8	28.5	1.8	0.5	1.7	1.7	1.7	0.04			0.0001	40,599	0.77	0.08		40,639	0.72	0.028
Dew Point Heater	8760	2.92	7.47	0.48	0.13	0.66	0.66	0.66	0.010			0.000023	10,649	0.20	0.02		10,659	0.17	0.007
Fire Pump	500	0.80	0.72	0.03	0.0015	0.041	0.041	0.041					156.94	0.0064	0.0013		157.47	0.0037	0.001
Emergency Generator	500	4.70	2.63	0.10	0.01	0.16	0.15	0.15					603.29	0.0245	0.0049		605.32	0.0058	0.000
Cooling Towers	8760					10.5	6.7	0.020											
Paved Roads/Parking	8760					0.216	0.043	0.011											
Methane leaks	8760													69.85				1466.9	
Circuit Breakers	8760															0.0025		59.8	
3 Lube Oil vents	8760					0.229	0.229	0.229											
Totals		175.5	141.4	36.7	30.9	135.4	131.5	124.7	13.5	0.0	0.000	0.00011	2,699,095	118.6	4.9	0.003	2,703,157	22.52	15.41

CCCT Subtotal		163.2	102.1	34.2	30.3	121.9	121.9	121.9	13.5	0.0	0.000	0.00	2,647,087	47.7	4.8	0.0	2,649,569	21.62	15.37
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SD/NNSR Significance Threshold, tons/yr	40	100	40	40	25	15	10	7	3	0.6	0.1	NA	NA	NA	NA	75,000
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Potential to Emit, 8760 Hours: Non-Normal Load Operation (cold, warm, hot starts and shutdown conditions)

Emission Unit	Events/ year	Minutes/ Event	Hours Down/ event	Hours/ year	Emission Rate, lbs/hour			PTE, tons/year		
					NOx	CO	VOC	NOx	CO	VOC
CT-1 @100% load w/ duct firing				1000	18.9	12.6	8.99	9.5	6.3	4.5
CT-1 @ 100% Load w/o duct firing				3863.0	18.4	11.2	3.25	35.5	21.6	6.3
CT-1 Cold Starts	16	225	72	60.0	114.3	904	265.8	3.4	27.1	8.0
CT-1 Warm Starts	260	119	8	515.7	111	950.5	242.5	28.6	245.1	62.5
CT-1 Hot Starts	10	50	0	8.3	41.4	370.6	60.3	0.2	1.5	0.3
CT-1 Shutdown	286	17		81.0	37.9	218.3	60.4	1.5	8.8	2.4
CT-1 Annual Total								78.7	310.5	84.0
CT-2 @100% load w/ duct firing				1000	18.9	12.6	8.99	9.5	6.3	4.5
CT-2 @ 100% Load w/o duct firing				3863.0	18.4	11.2	3.25	35.5	21.6	6.3
CT-2 Cold Starts	16	225	72	60.0	114.3	904	265.8	3.4	27.1	8.0
CT-2 Warm Starts	260	119	8	515.7	111	950.5	242.5	28.6	245.1	62.5
CT-2 Hot Starts	10	50	0	8.3	41.4	370.6	60.3	0.2	1.5	0.3
CT-2 Shutdown	286	17		81.0	37.9	218.3	60.4	1.5	8.8	2.4
CT-2 Annual Total								78.7	310.5	84.0
CT-1 & CT-2 Total								157.5	621.0	167.9
CT-1 & CT-2 Startup Shutdown Total								67.5	565.2	146.4

	Emissions per event, lbs		
	NOx	CO	VOC
Cold Start	428.6	3390.0	996.8
Warm Start	220.2	1885.2	481.0
Hot Start	34.5	308.8	50.3
Shut Down	10.7	61.9	17.1

Potential to Emit, 8760 Hours: Non-Normal Load Operation (cold, warm, hot starts and shutdown conditions) Case 2

Emission Unit	Events/ year	Minutes/ Event	Hours Down/ event	Hours/ year	Emission Rate, lbs/hour			PTE, tons/year		
					NOx	CO	VOC	NOx	CO	VOC
CT-1 @100% load w/ duct firing				1000	18.9	12.6	8.99	9.5	6.3	4.5
CT-1 @ 100% Load w/o duct firing				4072.3	18.4	11.2	3.25	37.5	22.8	6.6
CT-1 Cold Starts	5	229	72	19.1	114.3	1295	1686	1.1	12.4	16.1
CT-1 Warm Starts	260	123	10	533.0	111	1363	1538	29.6	363.2	409.9
CT-1 Hot Starts	10	71	4	11.8	41.4	527.7	794	0.2	3.1	4.7
CT-1 Shutdown	275	27		123.8	37.9	245.8	671	2.3	15.2	41.5
CT-1 Annual Total								80.2	423.0	483.3
CT-2 @100% load w/ duct firing				1000	18.9	12.6	8.99	9.5	6.3	4.5
CT-2 @ 100% Load w/o duct firing				4072.3	18.4	11.2	3.25	37.5	22.8	6.6
CT-2 Cold Starts	5	229	72	19.1	114.3	1295	1686	1.1	12.4	16.1
CT-2 Warm Starts	260	123	10	533.0	111	1363	1538	29.6	363.2	409.9
CT-2 Hot Starts	10	71	4	11.8	41.4	527.7	794	0.2	3.1	4.7
CT-2 Shutdown	275	27		123.8	37.9	245.8	671	2.3	15.2	41.5
CT-2 Annual Total								80.2	423.0	483.3
CT-1 & CT-2 Total								160.4	846.1	966.6
CT-1 & CT-2 Startup Shutdown Total								66.5	787.9	944.4

1826 HP Emergency RICE		14.8 MMBtu/hr	
Diesel IC Engines > 600 HP, AP-42 Tables 3.4-2 and 3.4-3	lbs/MMBtu	Tons/year	
Benzene	7.76E-04	2.87E-03	
Toluene	2.81E-04	1.04E-03	
Xylenes	1.93E-04	7.14E-04	
Formaldehyde	7.89E-05	2.92E-04	
Acetaldehyde	2.52E-05	9.32E-05	
Acrolein	7.88E-06	2.92E-05	
Naphthalene	1.30E-04	4.81E-04	
Acenaphthylene	9.23E-06	3.42E-05	
Acenaphthene	4.68E-06	1.73E-05	
Fluorene	1.28E-05	4.74E-05	
Phenanthrene	4.08E-05	1.51E-04	
Anthracene	1.23E-06	4.55E-06	
Fluoranthrene	4.03E-06	1.49E-05	
Pyrene	3.71E-06	1.37E-05	
Benz(a)anthracene	6.22E-07	2.30E-06	
Chrysene	1.53E-06	5.66E-06	
Benzo(b)fluoranthrene	1.11E-06	4.11E-06	
Benzo(k)fluoranthrene	2.18E-07	8.07E-07	
Benzo(a)pyrene	2.57E-07	9.51E-07	
Indeno(1,2,3-cd)pyrene	4.14E-07	1.53E-06	
Dibenz(a,h)anthracene	3.46E-07	1.28E-06	
Benzo(g,h,l)perylene	5.56E-07	2.06E-06	
Total	1.57E-03	0.0058	

500 HP Fire Pump RICE		3.85 MMBtu/hr	
Diesel IC Engines < 600 HP, AP-42 Table 3.3-2	lbs/MMBtu	Tons/year	
Benzene	9.33E-04	8.98E-04	
Toluene	4.09E-04	3.94E-04	
Xylenes	2.85E-04	2.74E-04	
1,3-Butadiene	3.91E-05	3.76E-05	
Formaldehyde	1.18E-03	1.14E-03	
Acetaldehyde	7.67E-04	7.38E-04	
Acrolein	9.25E-05	8.90E-05	
Naphthalene	8.48E-05	8.16E-05	
Acenaphthylene	5.06E-06	4.87E-06	
Acenaphthene	1.42E-06	1.37E-06	
Fluorene	2.92E-05	2.81E-05	
Phenanthrene	2.94E-05	2.83E-05	
Anthracene	1.87E-06	1.80E-06	
Fluoranthrene	7.61E-06	7.32E-06	
Pyrene	4.78E-06	4.60E-06	
Benz(a)anthracene	1.68E-06	1.62E-06	
Chrysene	3.53E-07	3.40E-07	
Benzo(b)fluoranthrene	9.91E-08	9.54E-08	
Benzo(k)fluoranthrene	1.55E-07	1.49E-07	
Benzo(a)pyrene	1.88E-07	1.81E-07	
Indeno(1,2,3-cd)pyrene	3.75E-07	3.61E-07	
Dibenz(a,h)anthracene	5.83E-07	5.61E-07	
Benzo(g,h,l)perylene	4.89E-07	4.71E-07	
Total	3.87E-03	0.0037	

Auxiliary Boiler		79.3 MMBtu/hr	
Natural Gas Fired Boilers AP-42 Tables 1.4-3 and 1.4-4	lbs/MMCF	Tons/year	
Benzene	2.10E-03	7.97E-04	
Toluene	3.40E-03	1.29E-03	
Formaldehyde	7.50E-02	2.85E-02	
1,3-Butadiene	3.91E-05	1.48E-05	
Naphthalene	6.10E-04	2.31E-04	
Acenaphthylene	1.80E-06	6.83E-07	
Acenaphthene	1.80E-06	6.83E-07	
Fluorene	2.80E-06	1.06E-06	
Phenanthrene	1.70E-05	6.45E-06	
Anthracene	2.40E-06	9.11E-07	
Fluoranthrene	3.00E-06	1.14E-06	
Pyrene	5.00E-06	1.90E-06	
Benz(a)anthracene	1.80E-06	6.83E-07	
Chrysene	1.80E-06	6.83E-07	
Benzo(b)fluoranthrene	1.80E-06	6.83E-07	
Benzo(k)fluoranthrene	1.80E-06	6.83E-07	
Benzo(a)pyrene	1.20E-06	4.55E-07	
Indeno(1,2,3-cd)pyrene	1.80E-06	6.83E-07	
Dibenz(a,h)anthracene	1.20E-06	4.55E-07	
Benzo(g,h,l)perylene	1.20E-06	4.55E-07	
2 Methylnaphthalene	2.50E-05	9.48E-06	
3 methylcloranthene	1.60E-06	6.07E-07	
7,12-Dimethylbenz(a)anthracene	1.60E-05	6.07E-06	
Dichlorobenzene	1.20E-03	4.55E-04	
Hexane	1.80E+00	6.83E-01	
Arsenic	2.00E-04	7.59E-05	
Barium	4.40E-03	1.67E-03	
Beryllium	1.20E-05	4.55E-06	
Cadmium	1.10E-03	4.17E-04	
Chromium	1.40E-03	5.31E-04	
Cobalt	8.40E-05	3.19E-05	
Manganese	3.80E-04	1.44E-04	
Mercury	2.60E-04	9.86E-05	
Nickel	2.10E-03	7.97E-04	
Selenium	2.40E-05	9.11E-06	
Total HAPs	1.89E+00	0.72	

Dew Point Heater		20.8 MMBtu/hr	
Natural Gas Fired Boilers AP-42 Tables 1.4-3 and 1.4-4	lbs/MMCF	Tons/year	
Benzene	2.10E-03	1.88E-04	
Toluene	3.40E-03	3.04E-04	
Formaldehyde	7.50E-02	6.70E-03	
1,3-Butadiene	3.91E-05	3.49E-06	
Naphthalene	6.10E-04	5.45E-05	
Acenaphthylene	1.80E-06	1.61E-07	
Acenaphthene	1.80E-06	1.61E-07	
Fluorene	2.80E-06	2.50E-07	
Phenanthrene	1.70E-05	1.52E-06	
Anthracene	2.40E-06	2.14E-07	
Fluoranthrene	3.00E-06	2.68E-07	
Pyrene	5.00E-06	4.47E-07	
Benz(a)anthracene	1.80E-06	1.61E-07	
Chrysene	1.80E-06	1.61E-07	
Benzo(b)fluoranthrene	1.80E-06	1.61E-07	
Benzo(k)fluoranthrene	1.80E-06	1.61E-07	
Benzo(a)pyrene	1.20E-06	1.07E-07	
Indeno(1,2,3-cd)pyrene	1.80E-06	1.61E-07	
Dibenz(a,h)anthracene	1.20E-06	1.07E-07	
Benzo(g,h,l)perylene	1.20E-06	1.07E-07	
2 Methylnaphthalene	2.50E-05	2.23E-06	
3 methylcloranthene	1.60E-06	1.43E-07	
7,12-Dimethylbenz(a)anthracene	1.60E-05	1.43E-06	
Dichlorobenzene	1.20E-03	1.07E-04	
Hexane	1.80E+00	1.61E-01	
Arsenic	2.00E-04	1.79E-05	
Barium	4.40E-03	3.93E-04	
Beryllium	1.20E-05	1.07E-06	
Cadmium	1.10E-03	9.82E-05	
Chromium	1.40E-03	1.25E-04	
Cobalt	8.40E-05	7.50E-06	
Manganese	3.80E-04	3.39E-05	
Mercury	2.60E-04	2.32E-05	
Nickel	2.10E-03	1.88E-04	
Selenium	2.40E-05	2.14E-06	
Total HAPs	1.89	0.17	

CT-1 w/o Duct Burner	2463	MMBtu/hr	7760	hrs/year
CT-1 w/ Duct Burner	2542	MMBtu/hr	1000	hrs/yr
CT-2 w/o Duct Burner	2463	MMBtu/hr	7760	hrs/year
CT-2 w/ Duct Burner	2542	MMBtu/hr	1000	hrs/yr

2 CT Units with Duct Burners		Tons/Year PTE, Uncontrolled					Tons/Year PTE @ 80% control
Natural Gas Fired Turbines AP-42 Table 3.1-3	lbs/MMBtu	CT-1 w/o Duct Burner	CT-1 w Duct Burner	CT-2 w/o Duct Burner	CT-2 w Duct Burner	Totals	
Benzene	1.20E-05	1.15E-01	1.53E-02	1.15E-01	1.53E-02	2.60E-01	5.20E-02
Toluene	1.30E-04	1.24E+00	1.65E-01	1.24E+00	1.65E-01	2.82E+00	5.63E-01
Xylenes	6.40E-05	6.12E-01	8.13E-02	6.12E-01	8.13E-02	1.39E+00	2.77E-01
Formaldehyde	7.10E-04	6.79E+00	9.02E-01	6.79E+00	9.02E-01	1.54E+01	3.07E+00
1,3-Butadiene	4.30E-07	4.11E-03	5.47E-04	4.11E-03	5.47E-04	9.31E-03	1.86E-03
Acetaldehyde	4.00E-05	3.82E-01	5.08E-02	3.82E-01	5.08E-02	8.66E-01	1.73E-01
Acrolein	6.40E-06	6.12E-02	8.13E-03	6.12E-02	8.13E-03	1.39E-01	2.77E-02
Ethylbenzene	3.20E-05	3.06E-01	4.07E-02	3.06E-01	4.07E-02	6.93E-01	1.39E-01
Naphthalene	1.30E-06	1.24E-02	1.65E-03	1.24E-02	1.65E-03	2.82E-02	5.63E-03
PAH	2.20E-06	2.10E-02	2.80E-03	2.10E-02	2.80E-03	4.76E-02	9.53E-03
Total HAPs	9.98E-04	9.54	1.27	9.54	1.27	21.62	4.32

Hazardous Air Pollutant	2 CTs with Duct Burners	Auxiliary Boiler	Dew Point Heater	Emergency Generator RICE	Fire Pump Rice	Project Totals
Benzene	2.60E-01	7.97E-04	1.88E-04	2.87E-03	8.98E-04	2.65E-01
Toluene	2.82E+00	1.29E-03	3.04E-04	1.04E-03	3.94E-04	2.82E+00
Formaldehyde	1.54E+01	2.85E-02	6.70E-03	2.92E-04	1.14E-03	1.54E+01
1,3-Butadiene	9.31E-03	1.48E-05	3.49E-06	NA	3.76E-05	9.37E-03
Naphthalene	1.30E-06	2.31E-04	5.45E-05	4.81E-04	8.16E-05	8.50E-04
Acenaphthylene	NA	6.83E-07	1.61E-07	3.42E-05	4.87E-06	3.99E-05
Acenaphthene	NA	6.83E-07	1.61E-07	1.73E-05	1.37E-06	1.95E-05
Fluorene	NA	1.06E-06	2.50E-07	4.74E-05	2.81E-05	7.68E-05
Phenanthrene	NA	6.45E-06	1.52E-06	1.51E-04	2.83E-05	1.87E-04
Anthracene	NA	9.11E-07	2.14E-07	4.55E-06	1.80E-06	7.48E-06
Fluoranthrene	NA	1.14E-06	2.68E-07	1.49E-05	7.32E-06	2.36E-05
Pyrene	NA	1.90E-06	4.47E-07	1.37E-05	4.60E-06	2.07E-05
Benz(a)anthracene	NA	6.83E-07	1.61E-07	2.30E-06	1.62E-06	4.76E-06
Chrysene	NA	6.83E-07	1.61E-07	5.66E-06	3.40E-07	6.84E-06
Benzo(b)fluoranthrene	NA	6.83E-07	1.61E-07	4.11E-06	9.54E-08	5.05E-06
Benzo(k)fluoranthrene	NA	6.83E-07	1.61E-07	8.07E-07	1.49E-07	1.80E-06
Benzo(a)pyrene	NA	4.55E-07	1.07E-07	9.51E-07	1.81E-07	1.69E-06
Indeno(1,2,3-cd)pyrene	NA	6.83E-07	1.61E-07	1.53E-06	3.61E-07	2.74E-06
Dibenz(a,h)anthracene	NA	4.55E-07	1.07E-07	1.28E-06	5.61E-07	2.40E-06
Benzo(g,h,l)perylene	NA	4.55E-07	1.07E-07	2.06E-06	4.71E-07	3.09E-06
2 Methylnaphthalene	NA	9.48E-06	2.23E-06	NA	NA	1.17E-05
3 methylcloranthene	NA	6.07E-07	1.43E-07	NA	NA	7.50E-07
7,12-Dimethylbenz (a)anthracene	NA	6.07E-06	1.43E-06	NA	NA	7.50E-06
Dichlorobenzene	NA	4.55E-04	1.07E-04	NA	NA	5.62E-04
Hexane	NA	6.83E-01	1.61E-01	NA	NA	8.44E-01
Acetaldehyde	8.66E-01	NA	NA	9.32E-05	7.38E-04	8.67E-01
Acrolein	1.39E-01	NA	NA	2.92E-05	8.90E-05	1.39E-01
Ethylbenzene	6.93E-01	NA	NA			6.93E-01
Xylenes	1.39E+00	NA	NA	7.14E-04	2.74E-04	1.39E+00
PAH	4.76E-02	NA	NA	NA	NA	4.76E-02
Arsenic	NA	7.59E-05	1.79E-05	NA	NA	9.37E-05
Barium	NA	1.67E-03	3.93E-04	NA	NA	2.06E-03
Beryllium	NA	4.55E-06	1.07E-06	NA	NA	5.62E-06
Cadmium	NA	4.17E-04	9.82E-05	NA	NA	5.16E-04
Chromium	NA	5.31E-04	1.25E-04	NA	NA	6.56E-04
Cobalt	NA	3.19E-05	7.50E-06	NA	NA	3.94E-05
Manganese	NA	1.44E-04	3.39E-05	NA	NA	1.78E-04
Mercury	NA	9.86E-05	2.32E-05	NA	NA	1.22E-04
Nickel	NA	7.97E-04	1.88E-04	NA	NA	9.84E-04
Selenium	NA	9.11E-06	2.14E-06	NA	NA	1.12E-05
HAP Totals	21.6	0.7	0.2	0.006	0.004	22.5

0.019	lb PM/1000 gal circulated
0.02%	% Liquid Drift
12,000	Total Dissolved Solids (mg/L)

Proposed Cooling Tower

Process Unit	Circulation Rate		Make-Up Rate		Total Dissolved Solids (mg/L)	PM/PM ₁₀ /PM _{2.5}				
	Unit	Value	Unit	Value		% Liquid Drift	EF	Unit	lb/hr ¹	tpy
Cooling Tower	192,000	gpm	0	gpm	5,000	0.0005%	1.98E-04	lb/1000 gal	2.280	9.986

Cooling Tower PM/PM₁₀/PM_{2.5} Emission Factor Calculation

$$PM / PM_{10} / PM_{2.5} EF = PM EF_{AP-42} * \frac{TLD_{design}}{TLD_{AP-42}} * \frac{TDS_{future}}{TDS_{AP-42}}$$

Where,

PM EF_{AP-42} = AP-42 Emission Factor for PM10 (lb/1000 gal)

TLD_{design} = Design total liquid drift (%)

TLD_{AP-42} = Design total liquid drift (%)

TDS_{future} = Estimated future total dissolved solid content (mg/L)

TDS_{AP-42} = Total dissolved solid content used in AP-42 (mg/L)

Cooling Tower PM/PM₁₀/PM_{2.5} Emission Calculation

$$PM / PM_{10} / PM_{2.5} = (R + M) * PM EF$$

Where,

R = Recirculation rate (400 gal/min)

M = Make-up rate (20 gal/min - Assumed to be 3% of recirculation rate)

PAVED ROAD SPREADSHEET

Average Vehicle Weight (W) (tons):	3.00	Average weight of vehicles from Assumptions Tab 40 vehicles; 1.5 miles/day; 365 days per year
VMT	21,900	
Potential Days of Operation	365	
Typical Days of Operation	365	Enter 0.6 for public road, 120 for asphalt batching industrial road, 12 for concrete batching industrial road, 70 for sand & gravel processing industrial road, 8.2 for quarry industrial road. If facility has a permit with a silt loading limit, use that s
Road Surface Silt Loading (g/m ²):	0.6	
Days/Year with at Least 0.01 inches of Precipitation	100	See Map - Figure 1 for value. 100 may be entered as a default value.

Determination of Annual Emissions

SOURCE OF EMISSION FACTOR:	EQUATION	VALUES
The emission factor is taken from Equation 1 in AP-42, 13.2.1, Paved Roads (updated January 2011).	$EF = [(k) \times [(sL)^{0.91}] \times [(W)^{1.02}] / (1 - (p/1460)) \text{ lb/VMT}$	k = constant = 0.0022 for PM-10 and 0.00054 for PM-2.5 from AP-42 Table 13.2.1-1 (lb/VMT value) sL = road surface silt loading = 0.6 from AP-42 Table 13.2.1-3 or entered above W = Average Vehicle Weight (tons) p = Number of Days per Year

EMISSIONS CALCULATIONS

Process	Pollutant	Emission Factor	Emission Factor Units	Source of Emission Factor	Potential Emissions (tons/year)	Actual Emissions (Tons/Yr)	lbs/hour
Paved Road	PM	0.020	lb/vmt	AP-42	0.2162	0.2162	0.04935
	PM-10	0.004			0.0432	0.0432	0.00987
	PM-2.5	0.001			0.0106	0.0106	0.00242

SF6	No. of Components	SF6/ component, lbs	% leak Assumption	SF6, tons/year	GWP = 23,900
	10	100	0.5%	0.0025	59.75

	Number of Components	Uncontrolled			Controlled		
		Factor, lbs/hr/compo nent	tons/yr CH4	tons/year CO2e	Factor, lbs/hr/compon ent	tons/yr CH4	tons/year CO2e
Valves	500	0.008	17.52	367.92	0.00024	0.53	11.04
Flanges	1300	0.003	17.08	358.72	9E-05	0.51	10.76
Compressor seals	2	0.474	4.15	87.20	0.001422	0.01	0.26
Relief valves	30	0.216	28.38	596.03	0.000648	0.09	1.79
Open ended lines	20	0.031	2.72	57.03	9.3E-05	0.01	0.17
Total			69.85	1466.90		1.14	24.02

Emission factors from TCEQ vHP LDAR Program

Appendix A: Emission Calculations
Coal Combustion: Tangentially fired Boilers (Wet-Bottom)
Boiler No. 3

Company Name: IPL Eagle Valley Generating Station
 Address City IN Zip: 4040 Blue Bluff Road, Martinsville, IN 46151
 Permit Number: 109-35232-00004
 Permit Reviewer: Julie Mendez

Heat Input Capacity
 MMBtu/hr
 524

Heat Content of Coal
 Btu/lb of Coal
 10650

Potential Throughput
 tons/year
 215504.23

Weight %
 Sulfur in Fuel
 S = 0.5 %
 A = 1.6 %

ESP Control Efficiency 0.992 %

Emission Factor in lb/ton	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	11.2 (7A)	4.16 (2.6A)	19.0 (38S)	31.0	0.05	0.5
Potential Emission in tons/yr #1	1206.82	448.25	2047.29	3340.32	5.39	53.88
Potential Emission in tons/yr	1206.82	448.25	2047.29	3340.32	5.39	53.88
Controlled Emission in tons per year	9.65	3.59	2047.29			
Equivalent Controlled Emissions in lb/mmBtu	0.00					

Methodology

Emission Factors are from AP 42 (Update 9/98), Tables 1.1-4 and 1.1-3 (SCC 1-01-002-02/22, 1-02-002-02/22-06/2).

Potential Throughput (tons/year) = Heat Input Capacity (MMBtu/hr) x 10⁶ Btu/MMBtu / Heat Content of Coal (Btu/lb) / 2,000 lb/ton x 8,760 hrs/yr.

Heat Content of theCoal is taken from the application.

Additional emission factors for commerical/institutional and electric generation boilers are available in AP-42, Chapter 1.1.

Several HAPS emission factors are also available in AP-42, Chapter 1.1, depending on the type of boiler.

Emission (tons/yr) = Throughput tons per year x Emission Factor (lb/ton) / 2,000 lb/ton.

Emissions (lb/MMBtu) = 10⁶ Btu/MMBtu / Heat Content of Coal (Btu/lb) / 2,000 lb/ton x Emission Factor (lb/ton).

Company Name: IPL Eagle Valley Generating Station
 Address City IN Zip: 4040 Blue Bluff Road, Martinsville, IN 46151
 Permit Number: 109-35232-00004
 Permit Reviewer: Julie Mendez

HAPs - Organics

Emission Factor in lb/ton of coal	HCl 1.2	HF 0.15	Benzene 0.0013	Cyanide 0.0025	PCDD/ PCDF 1.76E-09
Potential to Emit in tons/yr	129	16	0	0	0

HAPs - Metals

Emission Factor in lb/ton of coal	Selenium 1.3E-03	Cadmium 5.1E-05	Chromium 2.6E-04	Manganese 4.9E-04	Nickel 2.8E-04	Beryllium 2.10E-05	Arsenic 4.10E-04	Lead 4.20E-04
Potential Emission in tons/yr	0.1	5.5E-03	0.0	0.1	0.0	0.0	0.0	0.0

Emission Factors from AP-42, Chapter 1.1 for industrial overfeed stoker SCC 1-02-002-05/25
 HAPs emission factors are available in AP-42, Chapter 1.1.
 Emission (tons/yr) = Throughput tons per year x Emission Factor (lb/ton) / 2,000 lb/ton

Total HAPs: 146

Appendix A: Emission Calculations
Coal Combustion: Tangentially fired Boilers (Wet-Bottom)
Boiler No. 4

Company Name: IPL Eagle Valley Generating Station
 Address City IN Zip: 4040 Blue Bluff Road, Martinsville, IN 46151
 Permit Number: 109-35232-00004
 Permit Reviewer: Julie Mendez

Heat Input Capacity
 MMBtu/hr
 741

Heat Content of Coal
 Btu/lb of Coal
 10650

Potential Throughput
 tons/year
 304749.30

Weight %
 Sulfur in Fuel
 S = 0.5 %
 A = 1.6 %

ESP Control Efficiency 0.992 %

Emission Factor in lb/ton	Pollutant					
	PM* (10A)	PM10* (2.3A)	SO2 (38S)	NOx	VOC	CO
Potential Emission in tons/yr #1	2437.99	560.74	2895.12	1676.12	7.62	76.19
Potential Emission in tons/yr	2437.99	560.74	2895.12	1676.12	7.62	76.19
Controlled Emission in tons per year	19.50	4.49	2895.12			
Equivalent Controlled Emissions in lb/MMBtu	0.01					

Methodology

Emission Factors are from AP 42 (Update 9/98), Tables 1.1-4 and 1.1-3 (SCC 1-01-002-02/22, 1-02-002-02/22-06/2).

Potential Throughput (tons/year) = Heat Input Capacity (MMBtu/hr) x 10⁶ Btu/MMBtu / Heat Content of Coal (Btu/lb) / 2,000 lb/ton x 8,760 hrs/yr.

Heat Content of theCoal is taken from the application.

Additional emission factors for commerical/institutional and electric generation boilers are available in AP-42, Chapter 1.1.

Several HAPS emission factors are also available in AP-42, Chapter 1.1, depending on the type of boiler.

Emission (tons/yr) = Throughput tons per year x Emission Factor (lb/ton) / 2,000 lb/ton.

Emissions (lb/MMBtu) = 10⁶ Btu/MMBtu / Heat Content of Coal (Btu/lb) / 2,000 lb/ton x Emission Factor (lb/ton).

Company Name: IPL Eagle Valley Generating Station
 Address City IN Zip: 4040 Blue Bluff Road, Martinsville, IN 46151
 Permit Number: 109-35232-00004
 Permit Reviewer: Julie Mendez

HAPs - Organics

Emission Factor in lb/ton of coal	HCl 1.2	HF 0.15	Benzene 0.0013	Cyanide 0.0025	PCDD/ PCDF 1.76E-09
Potential to Emit in tons/yr	183	23	0	0	0

HAPs - Metals

Emission Factor in lb/ton of coal	Selenium 1.3E-03	Cadmium 5.1E-05	Chromium 2.6E-04	Manganese 4.9E-04	Nickel 2.8E-04	Beryllium 2.10E-05	Arsenic 4.10E-04	Lead 4.20E-04
Potential Emission in tons/yr	0.2	7.8E-03	0.0	0.1	0.0	0.0	0.1	0.1

Emission Factors from AP-42, Chapter 1.1 for industrial overfeed stoker SCC 1-02-002-05/25
 HAPs emission factors are available in AP-42, Chapter 1.1.
 Emission (tons/yr) = Throughput tons per year x Emission Factor (lb/ton) / 2,000 lb/ton

Total HAPs: 207

Appendix A: Emission Calculations
Coal Combustion: Tangentially fired Boilers (Wet-Bottom)
Boiler No. 5

Company Name: IPL Eagle Valley Generating Station
 Address City IN Zip: 4040 Blue Bluff Road, Martinsville, IN 46151
 Permit Number: 109-35232-00004
 Permit Reviewer: Julie Mendez

Heat Input Capacity
 MMBtu/hr
 741

Heat Content of Coal
 Btu/lb of Coal
 10650

Potential Throughput
 tons/year
 304749.30

Weight %
 Sulfur in Fuel
 S = 0.5 %
 A = 1.6 %

ESP Control Efficiency 0.992 %

Emission Factor in lb/ton	Pollutant					
	PM* (10A)	PM10* (2.3A)	SO2 (38S)	NOx	VOC	CO
Potential Emission in tons/yr #1	2437.99	560.74	2895.12	1676.12	7.62	76.19
Potential Emission in tons/yr	2437.99	560.74	2895.12	1676.12	7.62	76.19
Controlled Emission in tons per year	19.50	4.49	2895.12			
Equivalent Controlled Emissions in lb/mmBtu	0.01					

Methodology

Emission Factors are from AP 42 (Update 9/98), Tables 1.1-4 and 1.1-3 (SCC 1-01-002-02/22, 1-02-002-02/22-06/2).

Potential Throughput (tons/year) = Heat Input Capacity (MMBtu/hr) x 10⁶ Btu/MMBtu / Heat Content of Coal (Btu/lb) / 2,000 lb/ton x 8,760 hrs/yr.

Heat Content of theCoal is taken from the application.

Additional emission factors for commerical/institutional and electric generation boilers are available in AP-42, Chapter 1.1.

Several HAPS emission factors are also available in AP-42, Chapter 1.1, depending on the type of boiler.

Emission (tons/yr) = Throughput tons per year x Emission Factor (lb/ton) / 2,000 lb/ton.

Emissions (lb/MMBtu) = 10⁶ Btu/MMBtu / Heat Content of Coal (Btu/lb) / 2,000 lb/ton x Emission Factor (lb/ton).

Company Name: IPL Eagle Valley Generating Station
 Address City IN Zip: 4040 Blue Bluff Road, Martinsville, IN 46151
 Permit Number: 109-35232-00004
 Permit Reviewer: Julie Mendez

HAPs - Organics

Emission Factor in lb/ton of coal	HCl 1.2	HF 0.15	Benzene 0.0013	Cyanide 0.0025	PCDD/ PCDF 1.76E-09
Potential to Emit in tons/yr	183	23	0	0	0

HAPs - Metals

Emission Factor in lb/ton of coal	Selenium 1.3E-03	Cadmium 5.1E-05	Chromium 2.6E-04	Manganese 4.9E-04	Nickel 2.8E-04	Beryllium 2.10E-05	Arsenic 4.10E-04	Lead 4.20E-04
Potential Emission in tons/yr	0.2	7.8E-03	0.0	0.1	0.0	0.0	0.1	0.1

Emission Factors from AP-42, Chapter 1.1 for industrial overfeed stoker SCC 1-02-002-05/25
 HAPs emission factors are available in AP-42, Chapter 1.1.
 Emission (tons/yr) = Throughput tons per year x Emission Factor (lb/ton) / 2,000 lb/ton

Total HAPs: 207

Appendix A: Emission Calculations
Coal Combustion: Tangentially fired Boilers (Wet-Bottom)
Boiler No. 6

Company Name: IPL Eagle Valley Generating Station
 Address City IN Zip: 4040 Blue Bluff Road, Martinsville, IN 46151
 Permit Number: 109-35232-00004
 Permit Reviewer: Julie Mendez

Heat Input Capacity
 MMBtu/hr
 1017

Heat Content of Coal
 Btu/lb of Coal
 10650

Potential Throughput
 tons/year
 418259.15

Weight %
 Sulfur in Fuel
 S = 0.5 %
 A = 1.6 %

ESP Control Efficiency 0.992 %

Emission Factor in lb/ton	Pollutant					
	PM* (10A)	PM10* (2.3A)	SO2 (38S)	NOx	VOC	CO
Potential Emission in tons/yr #1	3346.07	769.60	3973.46	2300.43	10.46	104.56
Potential Emission in tons/yr	3346.07	769.60	3973.46	2300.43	10.46	104.56
Controlled Emission in tons per year	26.77	6.16	3973.46			
Equivalent Controlled Emissions in lb/mmBtu	0.01					

Methodology

Emission Factors are from AP 42 (Update 9/98), Tables 1.1-4 and 1.1-3 (SCC 1-01-002-02/22, 1-02-002-02/22-06/2).

Potential Throughput (tons/year) = Heat Input Capacity (MMBtu/hr) x 10⁶ Btu/MMBtu / Heat Content of Coal (Btu/lb) / 2,000 lb/ton x 8,760 hrs/yr.

Heat Content of theCoal is taken from the application.

Additional emission factors for commerical/institutional and electric generation boilers are available in AP-42, Chapter 1.1.

Several HAPS emission factors are also available in AP-42, Chapter 1.1, depending on the type of boiler.

Emission (tons/yr) = Throughput tons per year x Emission Factor (lb/ton) / 2,000 lb/ton.

Emissions (lb/MMBtu) = 10⁶ Btu/MMBtu / Heat Content of Coal (Btu/lb) / 2,000 lb/ton x Emission Factor (lb/ton).

Company Name: IPL Eagle Valley Generating Station
 Address City IN Zip: 4040 Blue Bluff Road, Martinsville, IN 46151
 Permit Number: 109-35232-00004
 Permit Reviewer: Julie Mendez

HAPs - Organics

Emission Factor in lb/ton of coal	HCl 1.2	HF 0.15	Benzene 0.0013	Cyanide 0.0025	PCDD/ PCDF 1.76E-09
Potential to Emit in tons/yr	251	31	0	1	0

HAPs - Metals

Emission Factor in lb/ton of coal	Selenium 1.3E-03	Cadmium 5.1E-05	Chromium 2.6E-04	Manganese 4.9E-04	Nickel 2.8E-04	Beryllium 2.10E-05	Arsenic 4.10E-04	Lead 4.20E-04
Potential Emission in tons/yr	0.3	1.1E-02	0.1	0.1	0.1	0.0	0.1	0.1

Emission Factors from AP-42, Chapter 1.1 for industrial overfeed stoker SCC 1-02-002-05/25
 HAPs emission factors are available in AP-42, Chapter 1.1.
 Emission (tons/yr) = Throughput tons per year x Emission Factor (lb/ton) / 2,000 lb/ton

Total HAPs: 284

**Appendix A: Emissions Calculations
Emission Summary**

Company Name: IPL Eagle Valley Generating Station
 Address City IN Zip: 4040 Blue Bluff Road, Martinsville, IN 46151
 Permit Number: 109-35232-00004
 Permit Reviewer: Julie Mendez

Coal Combustion							
Emission Unit	Coal Throughput (ton/yr)	CO₂ Emission Factor (lb/ton)	CH₄ Emission Factor (lb/ton)	N₂O Emission Factor (lb/ton)	CO₂ Emissions (ton/yr)	CH₄ Emissions (ton/yr)	N₂O Emissions (ton/yr)
Boiler Unit 3	215,504	4,810	0.04	0.08	518,288	4	9
Boiler Unit 4	304,749	4,810	0.04	0.08	732,922	6	12
Boiler Unit 5	304,749	4,810	0.04	0.08	732,922	6	12
Boiler Unit 6	418,259	4,810	0.04	0.08	1,005,913	8	17

Greenhouse Gas Emissions - CO₂e Calculation							
	Worst Case Emissions			Global Warming Potential			CO₂e (TPY)
	CO₂ Emissions (ton/yr)	CH₄ Emissions (ton/yr)	N₂O Emissions (ton/yr)	CO₂ (Unitless)	CH₄ (Unitless)	N₂O Emissions (Unitless)	
Boiler Unit 1	518,288	4	9	1	21	310	521,050
Boiler Unit 2	732,922	6	12	1	21	310	736,829
Boiler Unit 3	732,922	6	12	1	21	310	736,829
Boiler Unit 4	1,005,913	8	17	1	21	310	1,011,275

**Appendix A: Emissions Calculations
Industrial Boilers (> 100 mmBtu/hr)
#1 and #2 Fuel Oil**

Company Name: IPL Eagle Valley Generating Station
Address, City IN Zip: 4040 Blue Bluff Road, Martinsville, IN 46151
Permit Number: 109-35232-00004
Reviewer: Julie Mendez

Heat Input Capacity
MMBtu/hr

28.4

Potential Throughput
kgals/year

1777.028571

S = Weight % Sulfur
0.5

Emission Factor in lb/kgal	Pollutant						
	PM*	PM10	direct PM2.5	SO2	NOx	VOC	CO
	2.0	1.0	1.3	78.5 (142S)	20.0	0.20	5.0
Potential Emission in tons/yr	1.8	0.9	1.2	69.7	17.8	0.2	4.4

Methodology

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu

Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-02/03 - SCC 1-02-005-01/02/03) Supplement E 9/98

*PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.

Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

**Appendix A: Emissions Calculations
Industrial Boilers (> 100 mmBtu/hr)
#1 and #2 Fuel Oil
HAPs Emissions**

Company Name: IPL Eagle Valley Generating Station
Address, City IN Zip: 4040 Blue Bluff Road, Martinsville, IN 46151
Permit Number: 109-35232-00004
Reviewer: Julie Mendez

HAPs - Metals					
Emission Factor in lb/mmBtu	Arsenic 4.0E-06	Beryllium 3.0E-06	Cadmium 3.0E-06	Chromium 3.0E-06	Lead 9.0E-06
Potential Emission in tons/yr	4.98E-04	3.73E-04	3.73E-04	3.73E-04	1.12E-03

HAPs - Metals (continued)				
Emission Factor in lb/mmBtu	Mercury 3.0E-06	Manganese 6.0E-06	Nickel 3.0E-06	Selenium 1.5E-05
Potential Emission in tons/yr	3.73E-04	7.46E-04	3.73E-04	1.87E-03

Methodology

No data was available in AP-42 for organic HAPs.

Potential Emissions (tons/year) = Throughput (mmBtu/hr)*Emission Factor (lb/mmBtu)*8,760 hrs/yr / 2,000 lb/ton

See Page 3 for Greenhouse Gas calculations.

**Appendix A: Emissions Calculations
Industrial Boilers (> 100 mmBtu/hr)
#1 and #2 Fuel Oil
Greenhouse Gas Emissions**

Company Name: IPL Eagle Valley Generating Station
Address, City IN Zip: 4040 Blue Bluff Road, Martinsville, IN 46151
Permit Number: 109-35232-00004
Reviewer: Julie Mendez

Emission Factor in lb/kgal	Greenhouse Gas		
	CO2	CH4	N2O
	21,500	0.216	0.26
Potential Emission in tons/yr	19,103	0.2	0.2
Summed Potential Emissions in tons/yr	19,103		
CO2e Total in tons/yr	19,179		

Methodology

The CO2 Emission Factor for #1 Fuel Oil is 21500. The CO2 Emission Factor for #2 Fuel Oil is 22300.

Emission Factors are from AP 42, Tables 1.3-3, 1.3-8, and 1.3-12 (SCC 1-03-005-01/02/03) Supplement E 9/99 (see erata file)

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Appendix A: Emission Calculations
Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (<=600 HP)
Maximum Input Rate (<=4.2 MMBtu/hr)

Company Name: IPL Eagle Valley Generating Station
Address City IN Zip: 4040 Blue Bluff Road, Martinsville, IN 46151
Permit Number: 109-35232-00004
Reviewer: Julie Mendez

Output Horsepower Rating (hp)	86.0
Maximum Hours Operated per Year	500
Potential Throughput (hp-hr/yr)	43,000

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	0.0022	0.0022	0.0022	0.0021	0.0310	0.0025	0.0067
Potential Emission in tons/yr	0.05	0.05	0.05	0.04	0.67	0.05	0.14

*PM and PM2.5 emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

Hazardous Air Pollutants (HAPs)

	Pollutant							
	Benzene	Toluene	Xylene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/hp-hr****	6.53E-06	2.86E-06	2.00E-06	2.74E-07	8.26E-06	5.37E-06	6.48E-07	1.18E-06
Potential Emission in tons/yr	1.40E-04	6.16E-05	4.29E-05	5.88E-06	1.78E-04	1.15E-04	1.39E-05	2.53E-05

***PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

****Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

Potential Emission of Total HAPs (tons/yr)	5.83E-04
---	-----------------

Green House Gas Emissions (GHG)

	Pollutant		
	CO2	CH4	N2O
Emission Factor in lb/hp-hr	1.15E+00	4.63E-05	9.26E-06
Potential Emission in tons/yr	2.47E+01	9.95E-04	1.99E-04

Summed Potential Emissions in tons/yr	2.47E+01
CO2e Total in tons/yr	2.48E+01

Methodology

Emission Factors are from AP42 (Supplement B 10/96), Tables 3.3-1 and 3.3-2

CH4 and N2O Emission Factor from 40 CFR 98 Subpart C Table C-2.

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Maximum Hours Operated per Year]

Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] * [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) +

N2O Potential Emission ton/yr x N2O GWP (310).

	Horse Power	Number of Units	Operating Schedule				3-year Construction Period		Fuel Use		Emission Factors			Emissions, tons/project		Emissions, tons/ve		Unpaved Road Emissions					
			Hours/day	Days/week	Weeks / yr	Capacity Factor (%)	Days (each)	Hours, total	gallons/h	gallons Total for 3-years	PM2.5, gr/HP-hr	NMOC/ NOx, gr/HP-hr	NOx, gr/HP-hr	PM2.5	NOx	PM2.5	NOx	Average Speed, mph	Miles per Project	PM2.5 Emissions, Tons/proje ct	PM2.5 Emissions, Tons/year		
Site Preparation	Vibratory Compactor	180	2	10	5	20	0.75	100	1500	11.7	17550	0.22	3	3	0.065	0.893	0.022	0.298	5	7500	1.01	0.34	
	Motor Grader	140	2	10	5	20	0.75	100	1500	9.2	13800	0.22	3	3	0.051	0.694	0.017	0.231	5	7500	1.01	0.34	
	Dump Truck	400	2	10	5	10	0.75	50	750	26	19500	0.15	3	3	0.050	0.992	0.017	0.331	5	3750	0.51	0.17	
	Wheel Loader	600	2	10	5	20	0.75	100	1500	42.5	63750	0.15	3	3	0.149	2.976	0.050	0.992	5	7500	1.01	0.34	
	Dozer	350	2	10	5	8	0.75	40	600	24	14400	0.15	3	3	0.035	0.694	0.012	0.231	5	3000	0.41	0.14	
	Excavator	350	4	10	5	25	0.75	125	3750	23.4	87750	0.15	3	3	0.217	4.340	0.072	1.447	5	18750	2.53	0.84	
	Scraper	300	2	10	5	8	0.75	40	600	21.3	12780	0.15	3	3	0.030	0.595	0.010	0.198	5	3000	0.41	0.14	
	Pavers	140	1	10	5	2	0.75	10	75	9.2	690	0.22	3	3	0.003	0.035	0.001	0.012	5	375	0.05	0.02	
	Generators/Compressors	40	2	10	5	8	0.75	40	600	2.5	1500	0.44	5.6	5.6	0.012	0.148	0.004	0.049	NA	NA	NA	NA	
	Welding Machine	40	10	10	5	50	0.50	250	12500	3.2	40000	0.6	5.6	5.6	0.331	3.086	0.110	1.029	NA	NA	NA	NA	
Plant Construction	Dump Truck	400	2	10	5	20	0.50	100	1000	26	26000	0.15	3	3	0.066	1.323	0.022	0.441	5	5000	0.68	0.23	
	Wheel Loader	600	2	10	5	50	0.50	250	2500	10.2	25500	0.22	3	3	0.364	4.960	0.121	1.653	5	12500	1.69	0.56	
	Water Truck	150	2	10	5	120	0.25	600	3000	42.5	127500	0.15	3	3	0.074	1.488	0.025	0.496	5	15000	2.03	0.68	
	Crawler Crane	300	2	10	5	50	0.50	250	2500	20.3	50750	0.15	3	3	0.124	2.480	0.041	0.827	NA	NA	NA	NA	
	Concrete Truck	300	2	10	5	8	0.50	40	400	20.7	8280	0.15	3	3	0.020	0.397	0.007	0.132	5	2000	0.27	0.09	
	Concret Pump	70	2	10	5	8	0.50	40	400	6.1	2440	0.3	3.5	3.5	0.009	0.108	0.003	0.036	NA	NA	NA	NA	
	Flat Bed Tractor Trailer	250	2	10	5	10	0.50	50	500	22.7	11350	0.15	3	3	0.021	0.413	0.007	0.138	5	2500	0.34	0.11	
	Forklift	80	5	10	5	80	0.50	400	10000	5.42	54200	0.3	3.5	3.5	0.265	3.086	0.088	1.029	5	50000	6.75	2.25	
	Crane	300	2	10	5	35	0.50	175	1750	18.92	33110	0.15	3	3	0.087	1.736	0.029	0.579	NA	NA	NA	NA	
	Generators/Compressors	40	6	10	5	80	0.50	400	12000	2.51	30120	0.44	5.6	5.6	0.233	2.963	0.078	0.988	NA	NA	NA	NA	
Totals													2.2	33.4	0.7	11.1					138,375	18.7	6.2

All Engines are assumed to use diesel fuel
 PM2.5 emission factor for unpaved roads based on AP-42, Chapter 13-2-2 equation, vehicle weight = 22 tons; silt content = 8.5%; a=0.9; b=0.45 ; k=0.15. Factor = 0.27 lbs/VMT

	Tons/Year	
	PM2.5	Nox
Engine Emissions from Construction	0.73	11.1
Unpaved Roadway Emissions	6.23	
Total	6.96	11.1



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Maria Russo
Indianapolis Power & Light Co. Eagle Valley Generating Station
4040 Blue Bluff Road
Martinsville, IN 46151

DATE: December 29, 2014

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

SUBJECT: Final Decision
Title V Administrative Amendment
109-35232-00004

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:
Kevin Cook, Plant Manager
Justin Barrett
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 6/13/2013

Mail Code 61-53

IDEM Staff	VHAUN 12/29/2014 109-35232-00004 FINAL Indianapolis Power & Light Co. Eagle Valley Generating Station			AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: CERTIFICATE OF MAILING ONLY	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		Maria Russo Indianapolis Power & Light Co. Eagle Valley Gener 4040 Blue Bluff Rd Martinsville IN 46151 (Source CAATS)					CONFIRMED DELIVERY					
2		Kevin Cook Plant Manager Indianapolis Power & Light Co. Eagle Valley Gener 4040 Blue Bluff Rd Martinsville IN 46151 (RO CAATS)										
3		Morgan County Commissioners 180 South Main Street Martinsville IN 46151 (Local Official)										
4		Martinsville City Council and Mayors Office P.O. Box 1415, 59 South Jefferson Street Martinsville IN 46151 (Local Official)										
5		Clayton D. & Patricia A. Arthur 5178 Brenda Boulevard Greenwood IN 46143 (Affected Party)										
6		Morgan County Health Department 180 S Main Street, Suite 252 Martinsville IN 46151-1988 (Health Department)										
7		David Jones 7977 N. Taylors Rd. Mooresville IN 46158 (Affected Party)										
8		Claudia Parker 6761 Centenary Rd. Mooresville IN 46158 (Affected Party)										
9		James Swails 6568 E. Rosebud Lane Mooresville IN 46158 (Affected Party)										
10		John Thurston 6548 E. Watson Mooresville IN 46158 (Affected Party)										
11		Bethany Town Council 7355 Bethany Park Martinsville IN 46151 (Local Official)										
12		Justin Barrett IPL One Monument Circle Indianapolis IN 46204 (Source – addl contact)										
13												
14												
15												

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