



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant
DATE: July 9, 2007
RE: Duke Energy Indiana, Inc. - Edwardsport Generating Station / 083-24145-00003
FROM: Nisha Sizemore
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

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

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-7-3 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER-MOD.dot 03/23/06



Mitchell E. Daniels, Jr.
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100 North Senate Avenue
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**TITLE IV (ACID RAIN) PERMIT RENEWAL
 OFFICE OF AIR QUALITY**

**Duke Energy Indiana, Inc. – Edwardsport Generating Station
 State Road 67, Edwardsport, Indiana 47258**

ORIS: 1004

The owners and operators (hereinafter collectively known as the Permittee) of the above source are issued this permit under the provisions of 326 Indiana Administrative Code (IAC) 21 with conditions listed on the attached pages.

Operation Permit No.: AR 083-19349-00003	
Issued by: Original Signed by Paul Dubenetzky Assistant Commissioner Office of Air Quality	Issuance Date: July 17, 2006 Expiration Date: July 17, 2011
First Permit Modification: AR 083-24145-00003	Pages Affected: Entire Permit
Issued by/Original Signed By: Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: July 9, 2007 Expiration Date: July 17, 2011



Title IV Operating Conditions

Title IV Source Description:

- (a) One (1) No. 2 fuel oil-fired boiler, identified as Unit 6-1 (Boiler 6-1 in the Title V permit), construction commenced prior to August 17, 1971, with a nominal heat input capacity of 510 million Btu per hour (MMBtu/hr), and exhausting to stack 6-1.
- (b) One (1) dry bottom, pulverized coal-fired boiler, identified as Unit 7-1 (Boiler 7-1 in the Title V permit), construction commenced prior to August 17, 1971, with a nominal heat input capacity of 510 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for particulate matter (PM) control, and exhausting to stack 7-1. Stack 7-1 has continuous emissions monitors (CEMs) for nitrogen oxide (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM).
- (c) One (1) dry bottom, pulverized coal-fired boiler, identified as Unit 7-2 (Boiler 7-2 in the Title V permit), construction commenced prior to August 17, 1971, with a nominal heat input capacity of 510 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for particulate matter (PM) control, and exhausting to stack 7-2. Stack 7-2 has continuous emissions monitors (CEMs) for nitrogen oxide (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM).
- (d) One (1) dry bottom, pulverized coal-fired boiler, identified as Unit 8-1 (Boiler 8-1 in the Title V permit), construction commenced prior to August 17, 1971, with a nominal heat input capacity of 510 million Btu per hour (MMBtu/hr), with an electrostatic precipitator (ESP) for particulate matter (PM) control, and exhausting to stack 8-1. Stack 8-1 has continuous emissions monitors (CEMs) for nitrogen oxide (NO_x) and sulfur dioxide (SO₂) and a continuous opacity monitor (COM).

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

1. Statutory and Regulatory Authorities

In accordance with IC 13-17-3-4 and IC 13-17-3-11 as well as Titles IV and V of the Clean Air Act, the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) issues this permit pursuant to 326 IAC 2 and 326 IAC 21 (incorporates by reference 40 Code of Federal Regulations (CFR) 72 through 78).

2. Standard Permit Requirements [326 IAC 21]

- (a) The designated representative has submitted a complete acid rain permit application in accordance with 40 CFR 72.30.
- (b) The Permittee shall operate Units 6-1, 7-1, 7-2 and 8-1 in compliance with this permit.

3. Monitoring Requirements [326 IAC 21]

- (a) The Permittee and, to the extent applicable, the designated representative of Units 6-1, 7-1, 7-2 and 8-1 shall comply with the monitoring requirements as provided in 40 CFR 75 and 76.
- (b) The emissions measurements recorded and reported in accordance with 40 CFR 75 and 76 shall be used to determine compliance by Units 6-1, 7-1, 7-2 and 8-1 with the acid rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (c) The requirements of 40 CFR 75 and 76 shall not affect the responsibility of the Permittee to monitor emissions of other pollutants or other emissions characteristics at Units 6-1, 7-1, 7-2 and 8-1 under other applicable requirements of the Clean Air Act and other provisions of the operating permit for the source.

4. Sulfur Dioxide Requirements [326 IAC 21]

- (a) The Permittee shall:
- (1) Hold allowances, as of the allowance transfer deadline (as defined in 40 CFR 72.2), in the compliance subaccount of Units 6-1, 7-1, 7-2 and 8-1, after deductions under 40 CFR 73.34(c), not less than the total annual emissions of sulfur dioxide for the previous calendar year from Units 6-1, 7-1, 7-2 and 8-1; and,
 - (2) Comply with the applicable acid rain emissions limitations for sulfur dioxide.
- (b) Each ton of sulfur dioxide emitted in excess of the acid rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Clean Air Act.
- (c) Units 6-1, 7-1, 7-2 and 8-1 shall be subject to the requirements under paragraph 4(a) of the sulfur dioxide requirements as follows:
- (1) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or,
 - (2) Starting on the latter of January 1, 2000, or the deadline for monitor certification under 40 CFR 75, an affected unit under 40 CFR 72.6(a)(3).
- (d) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (e) An allowance shall not be deducted in order to comply with the requirements under paragraph 4(a) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (f) An allowance allocated by the U.S. EPA under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the acid rain permit application, the acid rain permit, the acid rain portion of an operating permit, or the written exemption under 40 CFR 72.7 and 72.8 and 326 IAC 21, and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (g) An allowance allocated by U.S. EPA under the Acid Rain Program does not constitute a property right.
- (h) No permit revision may be required for increases in emissions that are authorized by allowances acquired pursuant to the Acid Rain Program, provided that the increases do not require a permit revision under any other applicable requirement. [326 IAC 2-7-5(4)(A)]
- (i) No limit shall be placed on the number of allowances held by the Permittee. The Permittee may not, however, use allowances as a defense to noncompliance with any applicable requirement other than the requirements of the Acid Rain Program. [326 IAC 2-7-5(4)(B)]
- (j) Sulfur dioxide allowances shall be allocated to each unit at the source as follows:

SO ₂ Annual Allowance Allocations (tons)					
	2005	2006	2007	2008	2009
Unit 6-1	0*	0*	0*	0*	0*
Unit 7-1	347*	347*	347*	347*	347*
Unit 7-2	354*	354*	354*	354*	354*
Unit 8-1	375*	375*	375*	375*	375*

* The number of allowances allocated to Phase II affected units by U.S. EPA may change in a revision to 40 CFR 73 Tables 2, 3 and 4 and 326 IAC 21. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. Neither of the aforementioned conditions necessitates a revision to the unit SO₂ allowance allocations identified in this permit. (See 40 CFR 72.84)

5. Nitrogen Oxides Requirements [326 IAC 21]

- (a) The Permittee shall comply with the applicable acid rain emissions limitation of nitrogen oxides (NO_x) for Units 7-1, 7-2 and 8-1.
- (b) NO_x Emission Averaging Plan for Unit 7-1:
- (1) Pursuant to 40 CFR 76.11, the Indiana Department of Environmental Management, Office of Air Quality approves a NO_x emission averaging plan for Unit 7-1, effective from calendar year 2007 through 2011. Under the plan the NO_x emissions from Unit 7-1 shall not exceed the annual average alternative contemporaneous emissions limitation (ACEL) of 0.78 lb/MMBtu. In addition, Unit 7-1 shall not have an annual heat input greater than 857,864 MMBtu. If Unit 7-1 is in compliance with its applicable emission limitation for each year of the plan, then Unit 7-1 shall not be subject to the applicable emission limitation, under 40 CFR 76.7(a)(2) of 0.46 lb/MMBtu for dry bottom wall-fired boilers until January 1, 2011.
 - (2) Under the plan, the actual Btu-weighted annual average NO_x emission rate for all the units in the plan shall be less than or equal to the Btu-weighted annual average NO_x emission rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations under 40 CFR 76.5, 76.6, or 76.7, except that for any early election units, the applicable emission limitations shall be under 40 CFR 76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for a year under the plan, then Unit 7-1 shall be deemed to be in compliance for that year with its annual ACEL and annual heat input limit.
- (c) NO_x Emission Averaging Plan for Unit 7-2:
- (1) Pursuant to 40 CFR 76.11, the Indiana Department of Environmental Management, Office of Air Quality approves a NO_x emission averaging plan for Unit 7-2, effective from calendar year 2007 through 2011. Under the plan the NO_x emissions from Unit 7-2 shall not exceed the annual average alternative contemporaneous emission limitation (ACEL) of 0.70 lb/MMBtu. In addition, Unit 7-2 shall not have an annual heat input greater than 611,040 MMBtu. If Unit 7-2 is in compliance with its applicable emission limitation for each year of the plan, then Unit 7-2 shall not be subject to the applicable emission limitation, under 40 CFR 76.7(a)(2) of 0.46 lb/MMBtu for dry bottom wall-fired boilers until January 1, 2011.
 - (2) Under the plan, the actual Btu-weighted annual average NO_x emission rate for all the units in the plan shall be less than or equal to the Btu-weighted annual average NO_x emission rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations under 40 CFR 76.5, 76.6, or 76.7, except that for any early election units, the applicable emission limitations shall be under 40 CFR 76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for a year under the plan, then Unit 7-2 shall be deemed to be in compliance for that year with its annual ACEL and annual heat input limit.

- (d) NO_x Emission Averaging Plan for Unit 8-1:
- (1) Pursuant to 40 CFR 76.11, the Indiana Department of Environmental Management, Office of Air Quality approves a NO_x emission averaging plan for Unit 8-1, effective from calendar year 2007 through 2011. Under the plan the NO_x emissions from Unit 8-1 shall not exceed the annual average alternative contemporaneous emission limitation (ACEL) of 0.87 lb/MMBtu. In addition, Unit 8-1 shall not have an annual heat input greater than 623,263 MMBtu. If Unit 8-1 is in compliance with its applicable emission limitation for each year of the plan, then Unit 8-1 shall not be subject to the applicable emission limitation, under 40 CFR 76.7(a)(2) of 0.46 lb/MMBtu for dry bottom wall-fired boilers until January 1, 2011.
 - (2) Under the plan, the actual Btu-weighted annual average NO_x emission rate for all the units in the plan shall be less than or equal to the Btu-weighted annual average NO_x emission rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations under 40 CFR 76.5, 76.6, or 76.7, except that for any early election units, the applicable emission limitations shall be under 40 CFR 76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for a year under the plan, then Unit 8-1 shall be deemed to be in compliance for that year with its annual ACEL and annual heat input limit.
- (e) In accordance with 40 CFR 72.40(b)(2), approval of the averaging plan shall be final only when the Kentucky Department of Environmental Protection, Division of Air Quality, North Carolina Department of Environmental and Natural Resources, Division of Air Quality and South Carolina Department of Health and Environmental Control, Bureau of Air Quality have also approved this averaging plan.
- (f) In addition to the described NO_x compliance plan, Units 7-1, 7-2 and 8-1 shall comply with all other applicable requirements of 40 CFR 76, including the duty to reapply for a NO_x compliance plan and requirements covering excess emissions.
- (g) Pursuant to 40 CFR 76, Acid Rain Nitrogen Oxides Emission Reduction Program, the oil fired boiler Unit 6-1 is not subject to the nitrogen oxide limitations set out in 40 CFR 76.

6. Excess Emissions Requirements [40 CFR 77] [326 IAC 21]

- (a) If Unit 6-1, 7-1, 7-2 or 8-1 has excess emissions of sulfur dioxide in any calendar year, the designated representative shall submit a proposed offset plan to U.S. EPA and IDEM, OAQ as required under 40 CFR 77 and 326 IAC 21.
- (b) The designated representative shall submit required information to:

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

and

Ms. Cecilia Mijares
Air and Radiation Division
U.S. Environmental Protection Agency, Region V
77 West Jackson Boulevard
Chicago, IL 60604-3590

and

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

- (c) If Unit 6-1, 7-1, 7-2 or 8-1 has excess emissions, as defined in 40 CFR 72.2, in any calendar year, the Permittee shall:
- (1) Pay to U.S. EPA without demand the penalty required, and pay to U.S. EPA upon demand the interest on that penalty, as required by 40 CFR 77 and 326 IAC 21; and,
 - (2) Comply with the terms of an approved sulfur dioxide offset plan, as required by 40 CFR 77 and 326 IAC 21.

7. Record Keeping and Reporting Requirements [326 IAC 21]

- (a) Unless otherwise provided, the Permittee shall keep on site each of the following documents for a period of 5 years, as required by 40 CFR 72.9(f), from the date the document is created. This period may be extended for cause, at any time prior to the end of the 5 years, in writing by U.S. EPA or IDEM, OAQ:
- (1) The certificate of representation for the designated representative of Units 6-1, 7-1, 7-2 and 8-1 and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5 year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
 - (2) All emissions monitoring information collected in accordance with 40 CFR 75 shall be retained on site for 3 years;
 - (3) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
 - (4) Copies of all documents used to complete an acid rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (b) The designated representative of Units 6-1, 7-1, 7-2 and 8-1 shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR 72.90, Subpart I, 40 CFR 75, and 326 IAC 21. The required information is to be submitted to the appropriate authority(ies) as specified in 40 CFR 72.90, Subpart I, and 40 CFR 75.

8. Submissions [326 IAC 21]

- (a) The designated representative of Units 6-1, 7-1, 7-2, and 8-1 shall submit a certificate of representation, and any superseding certificate of representation, to U.S. EPA and IDEM, OAQ in accordance with 40 CFR 72 and 326 IAC 21.
- (b) The designated representative shall submit required information to:

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

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

- (c) Each such submission under the Acid Rain Program shall be submitted, signed and certified by the designated representative for all sources on behalf of which the submission is made.
- (d) In each submission under the Acid Rain Program, the designated representative shall certify, by his or her signature, the following statements which shall be included verbatim in the submission:
 - (1) "I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made.", and
 - (2) "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."
- (e) The designated representative of Units 6-1, 7-1, 7-2 and 8-1 shall notify the Permittee:
 - (1) By the date of submission, of any Acid Rain Program submissions by the designated representative;
 - (2) Within 10 business days of receipt of any written determination by U.S. EPA or IDEM, OAQ; and,
 - (3) Provided that the submission or determination covers Unit 6-1, 7-1, 7-2 or 8-1.
- (f) The designated representative of Units 6-1, 7-1, 7-2 and 8-1 shall provide the Permittee a copy of any submission or determination under paragraph 8(e), unless the Permittee expressly waives the right to receive a copy.

9. Severability [326 IAC 21]

Invalidation of the acid rain portion of an operating permit does not affect the continuing validity of the rest of the operating permit, nor shall invalidation of any other portion of the operating permit affect the continuing validity of the acid rain portion of the permit. [40 CFR 72.72(b), 326 IAC 21, and 326 IAC 2-7-5(5)]

10. Liability [326 IAC 21]

- (a) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, an acid rain permit, an acid rain portion of an operation permit, or a written exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement by U.S. EPA pursuant to Section 113(c) of the Clean Air Act and shall be subject to enforcement by IDEM pursuant to 326 IAC 21 and IC 13-30-3.
- (b) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to Section 113(c) of the Clean Air Act, 18 U.S.C. 1001 and IDEM pursuant to 326 IAC 21 and IC 13-30-6-2.

- (c) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (d) Units 6-1, 7-1, 7-2 and 8-1 shall meet the requirements of the Acid Rain Program.
- (e) Any provision of the Acid Rain Program that applies to Unit 6-1, 7-1, 7-2 or 8-1, including a provision applicable to the designated representative of Unit 6-1, 7-1, 7-2 or 8-1 shall also apply to the Permittee.
- (f) Any provision of the Acid Rain Program that applies to Unit 6-1, 7-1, 7-2 or 8-1, including a provision applicable to the designated representative, shall also apply to the Permittee. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO_x averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR 75, including 40 CFR 75.16, 75.17, and 75.18, the Permittee and the designated representative of one affected unit shall not be liable for any violation by any other affected unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
- (g) Each violation of a provision of 40 CFR 72, 73, 75, 76, 77, and 78 by Unit 6-1, 7-1, 7-2 or 8-1, or by the Permittee or designated representative shall be a separate violation of the Clean Air Act.

11. Effect on Other Authorities [326 IAC 21]

No provision of the Acid Rain Program, an acid rain permit application, an acid rain permit, an acid rain portion of an operation permit, or a written exemption under 40 CFR 72.7 or 72.8 shall be construed as:

- (a) Except as expressly provided in Title IV of the Clean Air Act (42 USC 7651 to 7651(o)), exempting or excluding the Permittee and, to the extent applicable, the designated representative of Unit 6-1, 7-1, 7-2 or 8-1 from compliance with any other provision of the Clean Air Act, including the provisions of Title I of the Clean Air Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
- (b) Limiting the number of allowances a unit can hold; provided, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Clean Air Act;
- (c) Requiring a change of any kind in any state law regulating electric utility rates and charges, affecting any state law regarding such state regulation, or limiting such state regulation, including any prudence review requirements under such state law;
- (d) Modifying the Federal Power Act (16 USC 791(a) et seq.) or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
- (e) Interfering with or impairing any program for competitive bidding for power supply in a state in which such a program is established.

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document
For a Phase II Acid Rain NO_x Averaging Plan
Permit Modification

Source Background and Description

Source Name:	Duke Energy Indiana, Inc. - Edwardsport Generating Station
Source Location:	State Road 67, Edwardsport, Indiana, 47258
Mailing Address:	1000 East Main Street, Plainfield, Indiana, 46168
County:	Knox
Operated By:	Duke Energy Indiana, Inc.
Designated Representative:	Barry E. Pulskamp
ORIS Code:	1004
Original Phase II Permit No.:	083-5207-00003, issued on December 31, 1997
Phase II Renewal Permit No.:	083-19349-00003, issued on July 17, 2006
Phase II Permit Modification No.:	083-24145-00003
Permit Reviewer:	Gary Freeman, (317) 233-5334

Phase II Permit Modification

The Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) has reviewed a Phase II Acid Rain permit modification application submitted by Duke Energy Indiana, Inc. on December 27, 2006. The application is to revise the NO_x Averaging Plan for the following affected units at the station located at State Road 67, Edwardsport, Indiana 47258.

- (a) Unit 6-1: one oil-fired boiler,
- (b) Units 7-1, 7-2, 8-1: three (3) coal burning dry-bottom boilers.

Existing Approvals

The source has been operating under the following previous Phase II approvals:

- (a) AR 083-5207-00003, issued on December 31, 1997
- (b) AR 083-10322-00003, issued on August 12, 2004
- (c) AR 083-19349-00003, issued July 17, 2006

PSI Energy, Inc. was issued a Title IV permit for the Edwardsport Generating Station, effective from January 1, 2000 to December 31, 2004. On November 6, 1998, PSI Energy, Inc. submitted a Phase II NO_x Compliance Plan and incorporated a new Phase II NO_x Averaging Plan for the Edwardsport Generating Station. PSI Energy, Inc, Edwardsport Generating Station revised the Title IV Emissions Averaging Plan on January 25, 2001. PSI Energy, Inc, Edwardsport Generating Station submitted a Phase II Acid Rain renewal application on July 1, 2004. An application was received December 12, 2006 stating effective October 1, 2006 PSI Energy, Inc, - Edwardsport Generating Station operating name was changed to Duke Energy Indiana, Inc. - Edwardsport Generating Station.

Proposed Changes

This permit modification AR 083-24145-00003 covers calendar years 2007 to 2011 involving the same affected units as indicated in the Phase II permit renewal AR 083-19349-00003, issued on July 17, 2006. The Phase II renewal is revised as follows. The **bold faced language** is new language that has been added and the ~~strikeout~~ is language that has been removed.

5. Nitrogen Oxides Requirements [326 IAC 21]

- (a) The Permittee shall comply with the applicable acid rain emissions limitation of nitrogen oxides (NO_x) for Units 7-1, 7-2 and 8-1.
- (b) NO_x Emission Averaging Plan for Unit 7-1:
- (1) Pursuant to 40 CFR 76.11, the Indiana Department of Environmental Management, Office of Air Quality approves a NO_x emission averaging plan for Unit 7-1, effective from calendar year ~~2005~~ **2007** through ~~2007~~ **2011**. Under the plan the NO_x emissions from Unit 7-1 shall not exceed the annual average alternative contemporaneous emissions limitation (ACEL) of ~~0.82 lb/MMBtu~~ **0.78 lb/MMBtu**. In addition, Unit 7-1 shall not have an annual heat input greater than ~~2,333,333~~ **857,864** MMBtu. If Unit 7-1 is in compliance with its applicable emission limitation for each year of the plan, then Unit 7-1 shall not be subject to the applicable emission limitation, under 40 CFR 76.7(a)(2) of 0.46 lb/MMBtu for dry bottom wall-fired boilers until January 1, ~~2008~~ **2011**.
 - (2) Under the plan, the actual Btu-weighted annual average NO_x emission rate for all the units in the plan shall be less than or equal to the Btu-weighted annual average NO_x emission rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations under 40 CFR 76.5, 76.6, or 76.7, except that for any early election units, the applicable emission limitations shall be under 40 CFR 76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for a year under the plan, then Unit 7-1 shall be deemed to be in compliance for that year with its annual ACEL and annual heat input limit.
- (c) NO_x Emission Averaging Plan for Unit 7-2:
- (1) Pursuant to 40 CFR 76.11, the Indiana Department of Environmental Management, Office of Air Quality approves a NO_x emission averaging plan for Unit 7-2, effective from calendar year ~~2005~~ **2007** through ~~2007~~ **2011**. Under the plan the NO_x emissions from Unit 7-2 shall not exceed the annual average alternative contemporaneous emissions limitation (ACEL) of ~~0.82 lb/MMBtu~~ **0.70 lb/MMBtu**. In addition, Unit 7-2 shall not have an annual heat input greater than ~~2,333,333~~ **611,040** MMBtu. If Unit 7-2 is in compliance with its applicable emission limitation for each year of the plan, then Unit 7-2 shall not be subject to the applicable emission limitation, under 40 CFR 76.7(a)(2) of 0.46 lb/MMBtu for dry bottom wall-fired boilers until January 1, ~~2008~~ **2011**.
 - (2) Under the plan, the actual Btu-weighted annual average NO_x emission rate for all the units in the plan shall be less than or equal to the Btu-weighted annual average NO_x emission rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations under 40 CFR 76.5, 76.6, or 76.7, except that for any early election units, the applicable emission limitations shall be under 40 CFR 76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for a year under the plan, then Unit 7-2 shall be deemed to be in compliance for that year with its annual ACEL and annual heat input limit.

- (d) NO_x Emission Averaging Plan for Unit 8-1:
- (1) Pursuant to 40 CFR 76.11, the Indiana Department of Environmental Management, Office of Air Quality approves a NO_x emission averaging plan for Unit 8-1, effective from calendar year ~~2005~~ **2007** through ~~2007~~ **2011**. Under the plan the NO_x emissions from Unit 8-1 shall not exceed the annual average alternative contemporaneous emission limitation (ACEL) of ~~0.82 lb/MMBtu~~ **0.87 lb/MMBtu**. In addition, Unit 8-1 shall not have an annual heat input greater than ~~2,333,333~~ **623,263** MMBtu. If Unit 8-1 is in compliance with its applicable emission limitation for each year of the plan, then Unit 8-1 shall not be subject to the applicable emission limitation, under 40 CFR 76.7(a)(2) of 0.46 lb/MMBtu for dry bottom wall-fired boilers until January 1, ~~2008~~ **2011**.
 - (2) Under the plan, the actual Btu-weighted annual average NO_x emission rate for all the units in the plan shall be less than or equal to the Btu-weighted annual average NO_x emission rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations under 40 CFR 76.5, 76.6, or 76.7, except that for any early election units, the applicable emission limitations shall be under 40 CFR 76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for a year under the plan, then Unit 8-1 shall be deemed to be in compliance for that year with its annual ACEL and annual heat input limit.
- (e) In accordance with 40 CFR 72.40(b)(2), approval of the averaging plan shall be final only when the ~~Ohio Environmental Protection Agency, Division of Air Pollution Control;~~ Kentucky Department of Environmental Protection, Division of Air Quality, **North Carolina Department of Environmental and Natural Resources, Division of Air Quality and South Carolina Department of Health and Environmental Control, Bureau of Air Quality** have also approved this averaging plan.
- (f) In addition to the described NO_x compliance plan, Units 7-1, 7-2 and 8-1 shall comply with all other applicable requirements of 40 CFR 76, including the duty to reapply for a NO_x compliance plan and requirements covering excess emissions.
- (g) Pursuant to 40 CFR 76, Acid Rain Nitrogen Oxides Emission Reduction Program, the oil fired boiler Unit 6-1 is not subject to the nitrogen oxide limitations set out in 40 CFR 76.

Specific NO_x Compliance and Averaging Plan

There are three (3) affected units, identified as Units 7-1, 7-2, and 8-1, in this generating station. Table 1 and 2 below summarize the NO_x compliance and averaging plan for these units.

Table 1			
Calendar Years 2005 to 2006	Emission Limitation per 40 CFR 76.5, 76.6 or 76.7 (lb/MMBTU)	Alternative Limit (lb/MMBTU)	Heat Input Limit (MMBTU)
Unit 7-1	0.46	0.82	2,333,333
Unit 7-2	0.46	0.82	2,333,333
Unit 8-1	0.46	0.82	2,333,333
Calendar Years 2007 thru 2011	Emission Limitation per 40 CFR 76.5, 76.6 or 76.7 (lb/MMBTU)	Alternative Limit (lb/MMBTU)	Heat Input Limit (MMBTU)
Unit 7-1	0.46	0.78	857,864
Unit 7-2	0.46	0.70	611,040
Unit 8-1	0.46	0.87	623,263
The BTU weighted annual emission rate averaged over the units if they are operated in accordance with the proposed averaging plan = 0.27			
BTU weighted annual average emission rate for the same units operated in compliance with 40 CFR 76 = 0.48			

Table 2			
List of Sources Participating in the NO _x Averaging Plan as submitted on January 11, 2007 Calendar Years 2006 to 2009			
Source Names	No. of Units	Source Names	No. of Units
Belews Creek, NC	2	Gallagher, IN	4
Buck, NC	5	Gibson, IN	5
Cayuga, IN	2	Marshall, NC	4
Cliffside, NC	5	Riverbend, NC	4
Dan River, NC	3	W. S. Lee, SC	3
East Bend, KY	1	Wabash River	6
Edwardsport, IN	3	Total No. of Units	52
G. G. Allen, NC	5	Total No. of Sources	14

Unit 6-1, an oil fired boiler, is not subject to the Nitrogen Oxides Requirements; it does not burn coal.

Recommendation

The staff recommends to the IDEM's Commissioner that the Title IV Acid Rain NO_x Averaging Plan permit modification be approved. This recommendation is based on the following facts and conditions:

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

A Phase II Acid Rain permit modification application and additional information for the purposes of this review were received on December 27, 2006, January 3, 2007 and January 11, 2007.

IDEM Contact

- (a) **Permit**
Questions regarding the proposed Phase II permit modification can be directed to Gary Freeman at the Indiana Department Environmental Management (IDEM), Office of Air Quality (OAQ), 100 North Senate Avenue, MC61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-5334 or toll free at 1-800-451-6027 extension 3-5334.

- (b) **Compliance Inspection**
The source will be inspected by IDEM's compliance inspection staff. Persons seeking to obtain information regarding the source's compliance status or to report any potential violation of any permit condition should contact Dan Hancock at the Office of Air Quality (OAQ) address or by telephone at (317) 232-8429 or toll free at 1-800-451-6027 extension 232-8429.

- (c) **Copies**
Copies of the Code of Federal Regulations (CFR) referenced in the permit may be obtained from:

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

or

The Government Printing Office
Washington, D.C. 20402

or

on the Government Printing Office website at
<http://www.access.gpo.gov/nara/cfr/index.html>