### BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

AMEREN MISSOURI and PINCKNEYVILLE ENERGY CENTER,	)
Petitioner,	) )
<b>v.</b>	) PCB 15-134 ) (CAAPP Permit Appeal - Air)
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,	) )
Respondent.	) )

## **NOTICE OF FILING**

To:

Mr. John T. Therriault, Clerk Illinois Pollution Control Board James R. Thompson Center 100 West Randolph, Suite 11-500 Chicago, Illinois 60601 john.therriault@illinois.gov Ms. Carol Webb, Hearing Officer Illinois Pollution Control Board James R. Thompson Center 100 West Randolph Street, Suite 11-500 Chicago, Illinois 60601 carol.webb@illinois.gov

Mr. Christopher J. Grant Assistant Attorney General Office of the Attorney General 69 West Washington Street, Suite 1800 Chicago, Illinois 60602 cgrant@atg.state.il.us

PLEASE TAKE NOTICE that we have today filed with the Office of the Clerk of the Pollution Control Board MOTION FOR SUMMARY JUDGMENT, a copy of which is herewith served upon you.

Dated: March 17, 2015

## SCHIFF HARDIN LLP

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## MOTION FOR SUMMARY JUDGMENT

Petitioner Ameren Missouri ("Ameren" or "Petitioner") brings this Motion for Summary Judgment pursuant to Section 101.56 of the Illinois Pollution Control Board's ("Board") Procedural Regulations, 35 Ill. Adm. Code 101.516 and Section 2-1005 of the Illinois Code of Civil Procedure, 735 ILCS 5/2-1005. Said motion should be granted for the following reasons:

- 1. In the Clean Air Act Permit Program ("CAAPP)" permits for the Pinckneyville Energy Center ("Pinckneyville" or "facility") issued on November 26, 2002, and attached hereto as Exhibit 1, and April 14, 2010, and attached hereto as Exhibit 2, the Illinois Environmental Protection Agency ("Agency") identified the facility's two 3.71 mmBtu/hr Natural Gas Indirect Heaters ("natural gas heaters" or "heaters") as an insignificant activity under Section 3.1.1.
- 2. This initial determination was the correct interpretation of 35 Ill. Adm. Code §§ 201.210 and 201.211 ("Sections 201.210 and 201.211"), which set forth the criteria for determining whether an emission unit could be deemed insignificant.
- 3. In the Agency's renewal permit for the facility, issued on December 23, 2014, included in the record (R 000109-000236) and attached hereto as Exhibit 3, the

Agency changed its position and listed the natural gas heater as a significant

emissions unit under Condition 4.0.

4. The Agency made this change to the facility's permit without any new

information or evidence in the administrative record, filed with the Board on

December 22, 2014, to support its different determination.

5. The Agency indicated via an email, included in the record (R 000789-R 000806)

and attached hereto as Exhibit 4, that its change in position is based on a

reinterpretation of Sections 201.210 and 201.211.

6. The Agency's revised interpretation is an incorrect interpretation of these

sections.

7. The Agency did not provide detailed written notice, and justification, for

classifying the natural gas heater as a significant emission unit under Condition

4.0, as required under the Act.

8. The Agency's inconsistent determination is arbitrary and capricious because it

was not adequately explained.

9. A memorandum of law accompanies this motion and is incorporated herein.

10. Petitioner accordingly moves to have this Board enter summary judgment in favor

of Petitioner and for any other such relief as the Board deems just and proper.

Respectfully submitted,

AMEREN MISSOURI and PINCKNEYVILLE

ENERGY CENTER

by:

One of Its Attorney

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Dated: March 17, 2015

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# PETITIONER'S MEMORANDUM IN SUPPORT OF THEIR MOTION FOR SUMMARY JUDGMENT

#### I. INTRODUCTION

The Agency issued Petitioner a CAAPP permit for Pinckneyville on November 26, 2002 and a renewal CAAPP permit on April 14, 2010. These permits correctly identified the facility's natural gas heater as an insignificant activity under Section 3.1.1. However, subsequently in its renewal CAAPP permit issued on December 23, 2014, the Agency changed its determination and listed the natural gas heater as a significant emissions unit under Condition 4.0.

Petitioner objects to the Agency's change because it is based on an incorrect reading of 35 Ill.Adm.Code §§ 201.210 and 201.211, a reading which deviates from the Agency's longstanding, and correct, interpretation. Further, petitioner objects to this change because the Agency did not adequately provide notice of, or an explanation for, the change as required under the Act. 415 ILCS 5/39.1.

The questions present in this case are questions of law, not fact. There is no dispute that the Agency issued a CAAPP permit on November 26, 2002 and a renewal CAAPP permit on April 14, 2010 which listed the natural gas heater as an insignificant activity, and that

it issued a renewal permit on December 23, 2014 which listed the same natural gas heater as a significant emissions unit. Because the Agency changed its determination without new evidence in the record to support it, and because it did so without providing adequate notice or explanation, Ameren respectfully requests that the Board remand the Permit back to the Agency for reissuance designating the natural gas heater as an insignificant emission unit.

#### II. UNDISPUTED MATERIAL FACTS

Petitioner's Pinckneyville Energy Center is an electric generating station. Pinckneyville operates as a peaking station, generating electric power when sufficient electric power is not available from other sources. The Pinckneyville electrical generating units ("EGUs") are natural gas combustion turbines and subject to the CAAPP (415 ILCS 5/39.5).

The Agency issued the facility's CAAPP permit on November 26, 2002. This permit listed the facility's natural gas heater as an insignificant activity under Section 3.1.1. The Agency issued the facility's renewal CAAPP permit on April 14, 2010. This permit also listed the facility's natural gas heater as an insignificant activity under Section 3.1.1. The Agency received Petitioner's CAAPP permit renewal application on July 11, 2014. The Agency issued a draft CAAPP renewal permit on October 3, 2014. This draft renewal permit listed the natural gas heater as a significant emissions unit under Condition 4.0. The Agency issued its final CAAPP renewal permit for the facility on December 23, 2014. This final permit also listed the natural gas heater as a significant emissions unit under Condition 4.0.

The Agency did not cite new evidence in the record to support its determination that the natural gas heater should be reclassified as a significant emissions unit and did not include the change in its Statement of Basis for the permit.

#### III. STANDARD OF REVIEW

If IEPA denies a permit or issues a permit with conditions, the permit applicant may appeal IEPA's determination to the Board. 415 ILCS 5/39, 40(a)(1); 35 Ill. Adm. Code 105. The petitioner bears the burden of proof. 415 ILCS 5/40(a)(1). The question before the Board in a permit appeal is whether the applicant proves that the application, as submitted to IEPA, does not violate the Act or Board regulations. *Joliet Sand & Gravel*, 163 Ill. App. 3d 830, 833, 516 N.E.2d 955, 958 (3<sup>rd</sup> Dist. 1987). IEPA's denial letter frames the issues on appeal. ESG Watts, Inc. v. PCB, 286 Ill. App. 3d 325, 676 N.E.2d 299 (3rd Dist. 1997).

In a permit appeal, the Board's review is limited to the administrative record relied upon by IEPA to determine whether the permit was issued in accordance with the Act and regulations. The record must contain evidence to support IEPA's issuance of the permit and attached conditions. *Natural Resources Defense Council, et. al v. IEPA et. al*, PCB 13-17 (Jun. 5, 2014). The Board does not affirm IEPA's decision on the permit unless the record supports the decision. IEPA's decision is not awarded any special deference by the Board. *See IEPA v. PCB*, 115 Ill. 2d 65, 70; 503 N.E.2d 343, 345 (1986).

"If the record, including pleadings, depositions, and admissions on file, together with any affidavits, shows that there is no genuine issue of material fact, and that the moving party is entitled to judgment as a matter of law, the Board will enter summary judgment." 35 Ill. Adm. Code § 101.516(b). "Summary judgment is proper where, when viewed in the light most favorable to the nonmoving party, the pleadings, depositions, admissions, and affidavits on file reveal that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law." *Gen. Cas. Ins. Co. v. Lacey*, 199 Ill.2d 281, 284, 263 Ill.Dec. 816, 769 N.E.2d 18 (Ill. 2002). "[U]nsupported conclusions, opinions, or speculation are

insufficient to raise a genuine issue of material fact." *Outboard Marine Corp. v. Liberty Mut. Ins. Co.*, 154 Ill.2d 90, 132, 180 Ill.Dec. 691, 607 N.E.2d 1204 (Ill. 1992).

#### IV. ARGUMENT

A. The Agency's Previous Determination that the Natural Gas Heaters were an Insignificant Activity is the Correct Legal and Factual Determination.

35 Ill. Adm. Code § 201.211(a) sets forth the specific criteria by which an owner or operator may propose to the Agency that an emission unit be treated as an insignificant activity. Specifically, it provides:

An owner or operator of a CAAPP source may propose to the Agency in its CAAPP application that an emission unit at the source be treated as an insignificant activity consistent with Section 201.210 of this Part, provided the emission unit meets the following criteria and the owner or operator provides the information required in subsection (b) below regarding the emission unit:

- 1.) The emission unit would not emit more than 1.0 lb/hr of any regulated air pollutant not listed as hazardous pursuant to Section 112(b) of the Clean Air Act in absence of air pollution control equipment;
- 2.) The emission unit would not emit more than 0.1 lb/hr of any regulated air pollutant that is listed as hazardous pursuant to Section 112(b) of the Clean Air Act in the absence of air pollution control equipment; and
- 3.) The emission unit is not a process unit.

35 Ill. Adm. Code § 201.211(a).

Section 201.211(c) further specifies the factors the Agency must take into consideration when making its determination whether an emission unit may be treated as insignificant. Specifically, it provides:

The Agency shall determine whether such emission unit may be treated as an insignificant activity considering factors including, but not limited to, the following:

1.) The amount and nature of emissions;

- 2.) The basis by which emissions were determined;
- 3.) The expected consistency and reliability of operation of the emission unit;
- 4.) The operating schedule or intended use of the emission unit;
- 5.) The air pollution control equipment or control measures applied to the emission unit:
- 6.) The nature of applicable requirements;
- 7.) The environmental impact of such emission unit; and
- 8.) The potential benefits to the environment if the emission unit were not treated as an insignificant activity.
- 35 Ill.Adm.Code §201.11(c).

Employing the above §201.211(c) criteria, the Agency previously determined that the natural gas heaters would be treated as an insignificant activity. The following undisputed facts in the record support this determination:

- 1. **The amount and nature of emissions**. The emission units burn natural gas and do not emit greater than 1.0 #/hr of any pollutant.
- The basis by which emissions were determined. Emissions meet the 1.0 #/hr
  maximum emission rate for classification as an insignificant emission unit using
  the maximum heater fuel input multiplied by AP-42 natural gas combustion
  emission factors.
- 3. The expected consistency and reliability of operation of the emission unit.

  The emission units are natural gas fired fuel heaters. It consists of a simple natural gas burner and pilot. The system needs little maintenance due to the lack of fouling and also operates reliably. The units operate only when the main emission units (the turbines) operate as the emission unit heats the natural gas fuel used in the turbines.

- 4. The operating schedule or intended use of the emission unit. The emission units operate infrequently and only when the combustion turbines operate. Because the combustion turbines do not operate year round due to plant wide operating limits, the natural gas heaters also have limited operation. For example, in 2011, sister facility Raccoon Creek operated for 610 hours, in 2012, it operated for 370 hours, and in 2013 it operated for only 19 hours.
- 5. The air pollution control equipment or control measures applied to the emission unit. There are no control measures or air pollution control equipment required for these emission units. The units combust natural gas which is considered to be a clean burning fuel.
- 6. The nature of applicable requirements. The emission units are subject to very few applicable requirements. The only applicable requirement identified is the generally applicable opacity limitations in 35 Ill. Adm. Code § 212.122.
- 7. The environmental impact of such emission unit. The emission units have very little environmental impact due to their limited operating schedule and the clean burning characteristics of the natural gas they combust. Because their impact coincides with any impact from the turbines and its operation is only a small fraction of even a single turbine, the impact from the natural gas heaters does not contribute significantly to any impact from the turbines or the facility as a whole.
- 8. The potential benefits to the environment if the emission unit were not treated as an insignificant activity. There is no benefit to the environment of treating these emission units as a significant emission unit. Opacity is unlikely to result from the combustion of natural gas in these small amounts. No other

emissions, monitoring, recordkeeping, or reporting requirements above that already required would be necessitated by treating them as a significant unit. This change will not impose additional control requirements and will not reduce or change the use of this emission unit.

R 000789-R 000806; R 000129-000130.

Based on an analysis of the above § 201.211 factors, the Agency previously determined that these emission units would be treated as an insignificant activity in the CAAPP permit it issued on November 26, 2002 and the renewal permit issued on April 14, 2010. Accordingly, because there is no basis in fact or law to support the Agency's different determination, the units should continue to be treated as an insignificant emission unit.

- B. The Agency's New Interpretation that the Natural Gas Heaters are a Significant Emissions Unit is an Incorrect Reading of the Regulations.
  - 1. The Agency Improperly Rewrites the Regulations to Suit Its New Interpretation.

Ameren learned during the 2014 CAAPP process, based on informal conversations with the Agency described in greater detail below, that the Agency has revised its interpretation of the language in 35 Ill. Adm. Code § 201.211(a) to preclude the Agency from determining that the natural gas heater could be treated as an insignificant activity. The Agency's reinterpretation is incorrect, inconsistent with the regulation and violates basic principles of administrative law.

"The interpretation and construction of the rules of an administrative agency generally are governed by the same rules applicable to statutes." *Rucker v. Wabash R. Co.*, 418 F.2d 146, 149 (7<sup>th</sup> Cir. 1969). Thus, an analysis of the Agency's interpretation of the regulations governing insignificant activities warrants the same analysis as a statutory interpretation. Employing such analysis, it is a "core administrative law principle that an Agency may not rewrite clear statutory terms to suit its own sense of how the statute should operate." *Utility Air Regulatory Group*, 134

S.Ct. 2427, 2446 (2014). Because the Agency's new interpretation of Sections 201.210 and 201.211 rewrites their terms and fundamentally changes their meaning, it does not adhere to this "core administrative law principle."

Specifically, the Agency's change in interpretation is based on the following language from 35 Ill. Adm. Code § 201.211(a):

An owner or operator of a CAAPP source may propose to the Agency in its CAAPP application that an emission unit at the source be treated as an insignificant activity *consistent with Section 201.210 of this Part*, provided the emission unit meets the following criteria...

35 III.Adm.Code § 201.211(a) [emphasis added].

The Agency now reads the language "consistent with Section 201.210 of this Part" to preclude the Agency from designating as insignificant any emission unit that is in a source category covered under Section 201.210 but which is not covered by the specific exemptions listed. Based on this misinterpretation, the natural gas heaters would be precluded because while they are in a source category listed under Section 201.210 (direct combustion units designed and used for comfort heating purposes and fuel combustion emission units), they do not meet the specific requirement that it have a "rated heat input capacity of less than 2.5 mmbtu/hr." 35 Ill. Adm. Code § 201.210(a)(4)(A).

The Agency errs in its new interpretation. Section 201.210 and Section 201.211 create a two-pronged approach to determining insignificant activities. First, Section 201.210 lists a number of activities which by their very nature are insignificant. These activities, which are not purported to be dispositive or limiting in any way, warrant no analysis by the Agency for them to be treated as insignificant. Section 201.211 then sets forth a second discretional prong through which applicants may propose that units, which meet three criteria and for which they provide six pieces of information, be treated as insignificant and which the Agency, taking into

consideration eight required factors, may determine to be insignificant. In other words, while Section 201.210 prescribes per se insignificant status to a number of activities, it does not preclude insignificant status to any activity. Those activities not specifically listed as insignificant under Section 201.210, including those falling under a listed category but failing to meet the stated exemptions, may be proposed to be treated as insignificant under Section 201.211 as long as the activities meet the prescribed criteria and the applicant provides the requisite information. This is the interpretation that the Agency has employed for twenty years and which provides harmony to the process set forth in the two sections.

The Agency's new reading effectively rewrites both sections 201.210 and 201.211. It rewrites Section 201.210(a) to add the following limitation: "No emission unit falling under a category listed below, but which does not meet a stated exemption, may be proposed to be treated as an insignificant activity under Section 201.211." Further, the Agency's interpretation rewrites Section 201.211 so that "consistent with" becomes "unless precluded by one of the named categories in Section 210." The Agency's new interpretation should be invalidated because it rewrites the plain terms of the regulations and thus violates a "core administrative principle." Utility Air Regulatory Group, 134 S.Ct. at 2446.

2. The Agency's Interpretation of the Phrase "Consistent With" is an Incorrect Reading of the Language.

Even if the term "consistent with" contains doubt or obscurity, the Board can seek clarity by relying upon the maxim of "noscitur a sociis," ("a word is known by the company it keeps") in which "the meaning of questionable words or phrases in a statute may be ascertained by reference to the meaning of words or phrases associated with it." *People v. Qualls*, 365 Ill.App.3d 1015, 1020 (2006). More specifically, the maxim can be relied upon "to avoid ascribing to one word a meaning so broad that it is inconsistent with its accompanying words."

Gustafson v. Alloyd Co., 115 S.Ct. 1061, 1069 (1995). Applying this maxim to the following provision confirms that the Agency's new interpretation is an incorrect reading of the language.

An owner or operator of a CAAPP source may propose to the Agency in its CAAPP application that an emission unit at the source be treated as an insignificant activity consistent with Section 201.210 of this Part, provided the emission unit meets the following criteria...

35 Ill.Adm.Code § 201.211(a) [emphasis added].

In applying noscitur a sociis to ascertain the meaning of "consistent with," the accompanying term most instructive is "be treated." Reading these phrases together reveals that "consistent with" is merely a reference to the treatment of insignificant activities under Section 201.210 rather than a preclusion arising out of them. In other words, Section 201.211(a) is simply stating that an applicant may propose that its emission unit be treated in the same manner (i.e. insignificant) as those activities listed under Section 201.210. The Agency's new interpretation takes the phrase out of context and thus fails a basic principle of statutory construction.

### 3. The Agency's New Interpretation Renders the Regulations Meaningless.

The Agency's new interpretation violates another core administrative principle that "no part of the text should be rendered meaningless or superfluous." *People v. Lloyd*, 2013 IL 113510, ¶ 25. In misinterpreting the phrase "consistent with Section 201.210 of this Part," the Agency has done just that to Section 201.211.

In an email described in greater detail below, the Agency stated that under its new interpretation "the implementation of 201.210(a)/211 is that an emission unit either falls under the prescribed listing of 201.210(a) or the broader proposed "listing" of 201.211, not both." R 000789-R 000806. This interpretation has the effect of rendering Section 201.211 meaningless. Section 201.210(a) lists as a category of insignificant activities "emissions units with emissions

that never exceed 0.1 lbs/hr of any regulated air pollutant in the absence of air pollution control equipment and that do not emit any air pollutant listed as hazardous pursuant to section 112(b) of the Clean Air Act." 35 Ill.Adm.Code § 201.210(a)(2). Section 201.210(a) further lists "emission units with emissions that never exceed 0.44 tons/year of any regulated air pollutant in the absence of air pollution control equipment and that do not emit any air pollutant listed as hazardous pursuant to section 112(b) of the Clean Air Act. 35 Ill.Adm.Code § 201.210(a)(3). Because every emission unit proposed to be treated as insignificant under Section 201.211 will naturally fall under the category of "emission unit" as listed in Section 201.210(a) and not meet the stated exemptions, all applications will be precluded from consideration under the Agency's new interpretation. For this reason, the Agency's new interpretation renders Section 201.211 meaningless and superfluous, and is thus invalid. Petitioner's application adhered to the Agency's original, and correct, interpretation of the regulations as written. Therefore, Ameren respectfully requests that the Board remand the permit back to the Agency for reissuance designating the natural gas heaters as an insignificant activity.

# C. The Agency's New Interpretation is an Arbitrary and Capricious Departure from Its Long-Settled Construction.

1. The Agency's New Interpretation is Inconsistent with Its Long-Settled Construction.

A court should accord weight to an agency's "construction and actual application of its own rule unless the agency's interpretation is plainly erroneous or inconsistent with long-settled constructions." *Olin Corp. v. Environmental Protection Agency*, 54 Ill.App.3d 480, 483 (1977). "This doctrine does not invite arbitrariness or inconsistency from case to case, because an interpretation, like its parent statute and rule, binds the agency as its policy and must be followed." *Scheffki v. Coughlin*, 23 Ill.App.3d 971, 973 (1974). While the Board employs a different standard than a reviewing court when assessing an Agency's permit decision, one

which relies exclusively on the administrative record and does not accord deference to the Agency, the holdings above emphasize the legal importance of agency consistency. Without such consistency, Ameren and similarly situated companies will not have any certainty on which to base business decisions to ensure compliance.

The Agency's incorrect reading of Sections 201.210 and 201.211 is inconsistent with the construction the Agency has employed for years. This longstanding construction is evident from the Agency's determination that such natural gas heaters are an insignificant activity not only at Ameren's Pinckneyville facility, but also at its Raccoon Creek (PCB 2015-088) and Goose Creek (PCB 2015-089) facilities.

2. The Agency's New Interpretation is Arbitrary and Capricious Because It Did Not Adequately Explain Its Policy Reversal.

Further, the Agency's departure from its longstanding construction is arbitrary and capricious because it was not adequately explained. "Unexplained inconsistency" may be "a reason for holding an interpretation to be an arbitrary and capricious change from agency practice." National Cable & Telecommunications Association v. Brand X Internet Services, 545 U.S. 967, 981 (2005). In this case, the Supreme Court asserted the latitude provided to Agencies in interpreting ambiguous statutes, provided the Agency "adequately explains the reasons for a reversal of policy." National Cable & Telecommunications Association, 545 U.S. at 981. The Court also asserted the importance of Agency explanations for policy reversals in Motor Vehicle Manufacturers Association of the United States v. State Farm Automobile Insurance Company, holding that the Agency (National Traffic Highway Safety Administration) "failed to present an adequate basis and explanation" for rescinding one of its programs, invalidating the Agency's final determination. Motor Vehicles Manufacturers of the United States v. State Farm

Automobile Insurance Company, 103 S.Ct. 2856, 2862 (1983). The Supreme Court, in both cases, was addressing precisely the type of unaccountable policy shift the Agency has made here.

These Supreme Court decisions reveal that it is arbitrary and capricious for the Agency to re-interpret regulations that have been in effect for twenty years without properly explaining the inconsistency. The Agency, in an email described below, asserted that "there was never guidance or policy relating to insignificant activities that I am aware of, so I don't think that anything policy-wise is being revised per se." R 000789-R 000806. However, the Agency did in fact have a policy in place because "an interpretation, like its parent statute and rule, binds the agency as its policy and must be followed." *Scheffki*, 23 Ill.App.3d at 973. Therefore, the Agency is reversing a longstanding policy in the manner in which it interprets the regulations. In doing so without adequate explanation, the Agency has rendered its new interpretation arbitrary and capricious. Petitioner listed the natural gas heaters as an insignificant activity in its application in accordance with the Agency's longstanding, and correct, interpretation of the regulations. Therefore, Ameren's application does not violate the Act or Board regulations and Ameren respectfully requests that the Board remand the Permit back to the Agency for reissuance designating the natural gas heater as an insignificant activity.

# D. The Agency Did Not Provide Detailed Written Notice to the Applicant of the Inconsistent Permit Condition.

Section 39.1(d) of the Act, which applies to all applications for permits issued by the Agency, provides that the "Agency shall, after conferring with the applicant, give detailed written notice to the applicant of the Agency's proposed decision on the application, including the terms and conditions of the permit to be issued and the facts, legal citation, conduct or other basis upon which the Agency will rely to support its proposed action." 415 ILCS 5/39.1.

The record reflects that the Agency first listed an Ameren natural gas heater as a significant emissions unit in Pinckneyville's sister facility Raccoon Creek's draft renewal permit, issued on June 24, 2014. In response, on that same day, Petitioner requested from the Agency a proper explanation for this inconsistent determination. R 000789-R 000806. The following day, on June 25, 2014, Mr. Roston Cooper with the Agency responded to Petitioner via email, an email included in the record and attached hereto as Exhibit 3. *Id*.

This email did not constitute a "detailed written notice" to the applicant of the changed permit condition. Mr. Cooper stated that "today we are reading the rule more closely than we did in the past, and thus giving rise to the issue." *Id.* This admission, which is disconcerting in reference to regulations the Agency has been solely responsible for enforcing since 1994, is certainly not a reasonable basis on which to change its determination regarding the natural gas heater, especially where there is no support in the record for such a determination. Because the Agency failed to meet its requirement under the Act to provide detailed written notice to the applicant, Ameren respectfully requests the Board to remand the permit to the Agency for reissuance listing the natural gas heaters as an insignificant activity.

#### V. Conclusion

Based on the foregoing, the Agency actions are arbitrary, capricious and contrary to the law. First, the Agency's initial interpretation was correct and its new interpretation is an incorrect and improper reading of the regulations. Second, the Agency violated the Act by not providing adequate notice or justification for its inconsistency. Petitioner therefore moves this Board to enter summary judgment in favor of Petitioner and remand the permit to the Agency for reissuance listing the natural gas heaters as an insignificant activity and any other such relief as the Board deems just and proper.

# **EXHIBIT 1**

I.D. No.: 145842AAA



## ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

P.O. Box 19506, Springfield, Illinois 62794-9506 Renee Cipriano, Director

217/782-2113

TITLE V - CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT and TITLE I PERMIT

#### PERMITTEE

Ameren Energy Generating Company

Attn: Michael L. Menne

1901 Chouteau Avenue (MC 602) St. Louis, Missouri 63103

Application No.: 01050020

Applicant's Designation: Date Received: May 9, 2001

Operation of: Electric Utility

Date Issued: November 26, 2002 <u>Expiration Date<sup>2</sup></u>: November 26, 2007 Source Location: 4646 White Walnut Road, Pinckneyville, Perry County, IL 62274

Responsible Official: Paul A. Agathen, Senior Vice President

This permit is hereby granted to the above-designated Permittee to OPERATE an electric generation station, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

If you have any questions concerning this permit, please contact John Cashman at 217/782-2113.

Donald E. Sutton, P.E. Manager, Permit Section

Division of Air Pollution Control

DES:JRC:ELK:jar

cc: Illinois EPA, FOS, Region 3 USEPA

This permit may contain terms and conditions which address the applicability, and compliance if determined applicable, of Title I of the CAA and regulations promulgated thereunder, including 40 CFR 52.21 - federal PSD and 35 IAC Part 203 - Major Stationary Sources Construction and Modification. Any such terms and conditions are identified within this permit.

Except as provided in Condition 8.7 of this permit.

GEORGE H. RYAN, GOVERNOR

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#### 1.0 SOURCE IDENTIFICATION

#### 1.1 Source

+ 9

Ameren Energy Generating Company, Pinckneyville Power Plant 4646 White Walnut Road Pinckneyville, Illinois 62274 314/554-2816

I.D. No.: 145842AAA Acid Rain Permit ORIS Code No.: 55202

Standard Industrial Classification: 4911, Electric Utility

#### 1.2 Owner/Parent Company

Ameren Energy Generating Company 1901 Chouteau Avenue (MC 602) St. Louis, Missouri 63103

#### 1.3 Operator

Ameren Energy Generating Company 1901 Chouteau Avenue (MC 602) St. Louis, Missouri 63103

Steven C. Witworth 314/554-4908

#### 1.4 General Source Description

Ameren Energy Generating Company is located at 4646 White Walnut Road, Pinckneyville. The source utilizes natural gas combustion turbines to generate electricity. In addition, the turbines control nitrogen oxide emissions with water injection systems and dry low  $NO_{\rm x}$  combustors.

### 2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT

ACMA	Alternative Compliance Market Account		
Act	Illinois Environmental Protection Act [415 ILCS 5/1 et seq.]		
AP-42	Compilation of Air Pollutant Emission Factors, Volume 1,		
	Stationary Point and Other Sources (and Supplements A		
	through F), USEPA, Office of Air Quality Planning and		
	Standards, Research Triangle Park, NC 27711		
ATU	Allotment Trading Unit		
BAT	Best Available Technology		
Btu	British thermal unit		
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]		
CAAPP	Clean Air Act Permit Program		
CAM	Compliance Assurance Monitoring		
CFR	Code of Federal Regulations		
EGU	electrical generating unit(s)		
ERMS	Emissions Reduction Market System (35 IAC Part 205)		
HAP	Hazardous Air Pollutant		
hr	hour		
IAC	Illinois Administrative Code		
I.D. No.	Identification Number of Source, assigned by Illinois EPA		
ILCS	Illinois Compiled Statutes		
Illinois EPA			
kW	kilowatts		
LAER	Lowest Achievable Emission Rate		
lb	pound		
MACT	Maximum Achievable Control Technology		
mmBtu	Million British thermal units		
Mg	megagram or metric ton		
MW	megawatts		
NESHAP	National Emission Standards for Hazardous Air Pollutants		
NO <sub>×</sub>	Nitrogen Oxides		
NSPS	New Source Performance Standards		
NSSA	new source set-aside		
ORIS	Office of Regulatory Information System		
PM	Particulate Matter		
PM <sub>10</sub>	Particulate matter with an aerodynamic diameter less than or		
	equal to a nominal 10 microns as measured by applicable test		
	or monitoring methods		
ppm	parts per million		
PSD	Prevention of Significant Deterioration (40 CFR 52.21)		
RMP	Risk Management Plan		
SO₂	Sulfur Dioxide		
T	ton (2000 pounds)		
T1	Title I - identifies Title I conditions that have been		
	carried over from an existing permit		
T1N	Title I New - identifies Title I conditions that are being		
	established in this permit		
T1R	Title I Revised - identifies Title I conditions that have		
	been carried over from an existing permit and subsequently		
	revised in this permit		
USEPA	United States Environmental Protection Agency		
VOM	Volatile Organic Material		

#### 3.0 INSIGNIFICANT ACTIVITIES

3.1 Identification of Insignificant Activities

The following activities at the source constitute insignificant activities as specified in 35 IAC 201.210:

3.1.1 Activities determined by the Illinois EPA to be insignificant activities, pursuant to 35 IAC 201.210(a)(1) and 201.211, as follows:

Cooling Towers
Natural Gas Indirect Fuel Heaters
Lube Oil Tank
Fuel Burning Heating Equipment

3.1.2 Activities that are insignificant activities based upon maximum emissions, pursuant to 35 IAC 201.210(a)(2) or (a)(3), as follows:

None

3.1.3 Activities that are insignificant activities based upon their type or character, pursuant to 35 IAC 201.210(a)(4) through (18), as follows:

None

- 3.1.4 Activities that are considered insignificant activities pursuant to 35 IAC 201.210(b).
- 3.2 Compliance with Applicable Requirements

Insignificant activities are subject to applicable requirements notwithstanding status as insignificant activities. In particular, in addition to regulations of general applicability, such as 35 IAC 212.301 and 212.123 (Condition 5.2.2), the Permittee shall comply with the following requirements, as applicable:

- 3.2.1 For each cold cleaning degreaser, the Permittee shall comply with the applicable equipment and operating requirements of 35 IAC 215.182, 218.182, or 219.182.
- 3.2.2 For each particulate matter process emission unit, the Permittee shall comply with the applicable particulate matter emission limit of 35 IAC 212.321 or 212.322. For example, the particulate matter emissions from a process emission unit shall not exceed 0.55 pounds per hour if the emission unit's process weight rate is 100 pounds per hour or less, pursuant to 35 IAC 266.110.
- 3.2.3 For each organic material emission unit that uses organic material, e.g., a mixer or printing line, the Permittee shall comply with the applicable VOM emission limit of 35 IAC 215.301, 218.301, or 219.301, which requires that organic material emissions not exceed 8.0 pounds per hour

or do not qualify as photochemically reactive material as defined in 35 IAC 211.4690.

- 3.3 Addition of Insignificant Activities
  - 3.3.1 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type that is identified in Condition 3.1, until the renewal application for this permit is submitted, pursuant to 35 IAC 201.212(a).
  - 3.3.2 The Permittee must notify the Illinois EPA of any proposed addition of a new insignificant activity of a type addressed by 35 IAC 201.210(a) and 201.211 other than those identified in Condition 3.1, pursuant to Section 39.5(12)(b) of the Act.
  - 3.3.3 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type identified in 35 IAC 201.210(b).

### 4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE

Emission		Date	Emission Control
Unit	Description	Constructed	Equipment
CT01	444 mmBtu/hr Natural Gas	Nov 1999	Water Injection
	Fired Turbine		System
CT02	444 mmBtu/hr Natural Gas	Nov 1999	Water Injection
	Fired Turbine		System
CT03	444 mmBtu/hr Natural Gas	Nov 1999	Water Injection
	Fired Turbine		System
CT04	444 mmBtu/hr Natural Gas	Nov 1999	Water Injection
	Fired Turbine		System
CT05	552.5 mmBtu/hr Natural	Feb 2001	Dry Low NO <sub>x</sub>
	Gas Fired Turbine		Combustors
CT06	552.5 mmBtu/hr Natural	Feb 2001	Dry Low NO <sub>x</sub>
	Gas Fired Turbine		Combustors
CT07	552.5 mmBtu/hr Natural	Feb 2001	Dry Low NO <sub>x</sub>
	Gas Fired Turbine		Combustors
CT08	552.5 mmBtu/hr Natural	Feb 2001	Dry Low $\mathtt{NO}_{x}$
	Gas Fired Turbine		Combustors
D05	5.21 mmBtu/hr Natural Gas	Feb 2001	None
	Fired Start-up Engine		
D06	5.21 mmBtu/hr Natural Gas	Feb 2001	None
	Fired Start-up Engine		
D07	5.21 mmBtu/hr Natural Gas	Feb 2001	None
	Fired Start-up Engine		
D08	5.21 mmBtu/hr Natural Gas	Feb 2001	None
	Fired Start-up Engine		

#### 5.0 OVERALL SOURCE CONDITIONS

#### 5.1 Source Description

- 5.1.1 This permit is issued based on the source requiring a CAAPP permit as a major source of  $NO_x$ , PM,  $SO_2$ , and VOM emissions.
- 5.1.2 This permit is issued based on the source not being a major source of HAPs.
- 5.1.3 This permit is issued based on the source requiring a CAAPP permit as an "affected source" for the purposes of Acid Deposition Control, Title IV of the Clean Air Act.

#### 5.2 Applicable Regulations

- 5.2.1 Specific emission units at this source are subject to particular regulations as set forth in Section 7 (Unit-Specific Conditions) of this permit.
- 5.2.2 In addition, emission units at this source are subject to the following regulations of general applicability:
  - a. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 IAC 212.301 and 212.314.

Compliance with this requirement is considered to be assured by the inherent nature of operations at this source, as demonstrated by historical operation.

b. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 212.123(b) and 212.124.

#### 5.2.3 Ozone Depleting Substances

The Permittee shall comply with the standards for recycling and emissions reduction of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

- b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

#### 5.2.4 Risk Management Plan

Should this stationary source, as defined in 40 CFR Section 68.3, become subject to the Accidental Release Prevention regulations in 40 CFR Part 68, then the owner or operator shall submit [40 CFR 68.215(a)(2)(i) and (ii)]:

- a. A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR 68.10(a); or
- b. A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan (RMP), as part of the annual compliance certification required by 40 CFR Part 70 or 71.
- 5.2.5 a. Should this stationary source become subject to a regulation under 40 CFR Parts 60, 61, or 63, or 35 IAC after the date issued of this permit, then the owner or operator shall, in accordance with the applicable regulation(s), comply with the applicable requirements by the date(s) specified and shall certify compliance with the applicable requirements of such regulation(s) as part of the annual compliance certification, as required by 40 CFR Part 70 or 71.
  - b. No later than upon the submittal for renewal of this permit, the owner or operator shall submit, as part of an application, the necessary information to address either the non-applicability of, or demonstrate compliance with all applicable requirements of any potentially applicable regulation which was promulgated after the date issued of this permit.

#### 5.2.6 Episode Action Plan

a. If the source is required to have an episode action plan pursuant to 35 IAC 244.142, the Permittee shall maintain at the source and have on file with the Illinois EPA a written episode action plan (plan) for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with

safe operating procedures. The plan shall contain the information specified in 35 IAC 244.144.

- b. The Permittee shall immediately implement the appropriate steps described in this plan should an air pollution alert or emergency be declared.
- c. If a change occurs at the source which requires a revision of the plan (e.g., operational change, change in the source contact person), a copy of the revised plan shall be submitted to the Illinois EPA for review within 30 days of the change. Such plans shall be further revised if disapproved by the Illinois EPA.
- d. For sources required to have a plan pursuant to 35 IAC 244.142, a copy of the original plan and any subsequent revisions shall be sent to:
  - i. Illinois EPA, Compliance Section; and
  - ii. For sources located in Cook County and outside of the city of Chicago: Cook County Department of Environmental Control; or
  - iii. For sources located within the city of Chicago: Chicago Department of Environmental Control.

#### 5.2.7 CAM Plan

This stationary source has a pollutant-specific emissions unit that is subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources. As a result of this application either not having been submitted or deemed complete by April 20, 1998, the source is required to comply with the requirements of 40 CFR Part 64 for large pollutant-specific emissions units in the initial application and CAAPP permit. The source must submit a CAM plan for all other affected pollutantspecific emissions units upon application for renewal of the initial CAAPP permit, or upon a significant modification to the CAAPP permit for the construction or modification of a large pollutant-specific emissions unit which has the potential post-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

5.3 Non-Applicability of Regulations of Concern

None

5.4 Source-Wide Operational and Production Limits and Work Practices

In addition to the source-wide requirements in the Standard Permit Conditions in Section 9, the Permittee shall fulfill the following source-wide operational and production limitations and/or work practice requirements:

None

#### 5.5 Source-Wide Emission Limitations

#### 5.5.1 Permitted Emissions for Fees

The annual emissions from the source, not considering insignificant activities as addressed by Section 3.0 of this permit, shall not exceed the following limitations. The overall source emissions shall be determined by adding emissions from all emission units. Compliance with these limits shall be determined on a calendar year basis. These limitations (Condition 5.5.1) are set for the purpose of establishing fees and are not federally enforceable.

#### Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	94.0
Sulfur Dioxide (SO <sub>2</sub> )	20.0
Particulate Matter (PM)	79.0
Nitrogen Oxides (NO <sub>x</sub> )	442.0
HAP, not included in VOM or PM	
Total	635.0

#### 5.5.2 Emissions of Hazardous Air Pollutants

This permit is issued based on the emissions of HAPs as listed in Section 112(b) of the CAA not being equal to or exceeding 10 tons per year of a single HAP or 25 tons per year of any combination of such HAPs, so that this source is considered a minor source for HAPs.

#### 5.5.3 Other Source-Wide Emission Limitations

Other source-wide emission limitations are not set for this source pursuant to either the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21, Illinois EPA rules for Major Stationary Sources Construction and Modification, 35 IAC Part 203, or Section 502(b)(10) of the CAA. However, there may be unit specific emission limitations set forth in Section 7 of this permit pursuant to these rules.

#### 5.6 General Recordkeeping Requirements

#### 5.6.1 Emission Records

The Permittee shall maintain records of the following items for the source to demonstrate compliance with Condition 5.5.1, pursuant to Section 39.5(7)(b) of the Act:

Total annual emissions on a calendar year basis for the emission units covered by Section 7 (Unit Specific Conditions) of this permit.

- 5.6.2 Records for HAP Emissions
  - a. Emissions of HAPs, ton/mo and ton/yr.
- 5.6.3 Records for Operating Scenarios

N/A

- 5.6.4 Retention and Availability of Records
  - a. All records and logs required by this permit shall be retained for at least five years from the date of entry (unless a longer retention period is specified by the particular recordkeeping provision herein), shall be kept at a location at the source that is readily accessible to the Illinois EPA or USEPA, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.
  - b. The Permittee shall retrieve and print, on paper during normal source office hours, any records retained in an electronic format (e.g., computer) in response to an Illinois EPA or USEPA request for records during the course of a source inspection.
- 5.7 General Reporting Requirements
  - 5.7.1 General Source-Wide Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the source with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

5.7.2 Annual Emissions Report

The annual emissions report required pursuant to Condition 9.7 shall contain emissions information for the previous calendar year.

- 5.8 General Operational Flexibility/Anticipated Operating Scenarios
  N/A
- 5.9 General Compliance Procedures
  - 5.9.1 General Procedures for Calculating Emissions

Compliance with the source-wide emission limits specified in Condition 5.5 shall be based on the recordkeeping and reporting requirements of Conditions 5.6 and 5.7, and Compliance Procedures in Section 7 (Unit Specific Conditions) of this permit.

#### 6.0 EMISSIONS CONTROL PROGRAMS

#### 6.1 NO<sub>x</sub> Trading Program

#### 6.1.1 Description of NO<sub>x</sub> Trading Program

The  $\mathrm{NO_x}$  Trading Program is a regional "cap and trade" market system for large sources of  $\mathrm{NO_x}$  emissions in the eastern United States, including Illinois. It is designed to reduce and maintain  $\mathrm{NO_x}$  emissions from the emission units covered by the program within a budget to help contribute to attainment and maintenance of the ozone ambient air quality standard in the multi-state region covered by the program, as required by Section 126 of the CAA. The  $\mathrm{NO_x}$  Trading Program applies in addition to other applicable requirements for  $\mathrm{NO_x}$  emissions and in no way relaxes these other requirements.

Electrical generating units (EGU) that are subject to the  $NO_x$  Trading Program are referred to as "budget EGU." Sources that have one or more EGU or other units subject to the  $NO_x$  Trading Program are referred to as budget sources.

The NO<sub>x</sub> Trading Program controls NO<sub>x</sub> emissions from budget EGU and other budget units during a seasonal control period from May 1 through September 30 of each year, when weather conditions are conducive to formation of ozone in the ambient air. (In 2004, the first year that the  $NO_x$ Trading Program is in effect, the control period will be May 31 through September 30.) By November 30 of each year, the allowance transfer deadline, each budget source must hold " $NO_x$  allowances" for the actual  $NO_x$  emissions of its budget units during the preceding control period. USEPA will then retire NOx allowances in the source's accounts in amounts equivalent to its seasonal emissions. If a source does not have sufficient allowances in its accounts, USEPA would subtract allowances from the source's future allocation for the next control period and impose other penalties as appropriate. Stringent monitoring procedures developed by USEPA apply to budget units to assure that actual emissions of NO<sub>x</sub> emissions are accurately determined.

The number of  $NO_x$  allowances available for budget sources is set by the overall budget for  $NO_x$  emissions established by USEPA. This budget requires a substantial reduction in  $NO_x$  emissions from historical levels as necessary to meet air quality goals. In Illinois, existing budget sources initially receive their allocation or share of the  $NO_x$  allowances budgeted for EGU in an amount determined by rule [35 IAC Part 217, Appendix F]. Between 2007 and 2011, the allocation mechanism for existing EGU gradually shifts to one based on the actual operation of EGU in preceding control periods. New budget EGU, for which limited operating data may be available, may obtain  $NO_x$  allowances from the new source set-aside (NSSA), a portion of the overall budget reserved for new EGU.

In addition to directly receiving or purchasing  $NO_x$  allowances as described above, budget sources may transfer  $NO_x$  allowances from one of their units to another. They may also purchase allowances in the marketplace from other sources that are willing to sell some of the allowances that they have received. Each budget source must designate an account representative to handle all its allowance transactions. The USEPA, in a central national system, will maintain allowance accounts and record transfer of allowances among accounts.

The ability of sources to transfer allowances will serve to minimize the costs of reducing  $NO_x$  emissions from budget units to comply with the overall  $NO_x$  budget. In particular, the  $NO_x$  emissions of budget units that may be most economically controlled will be targeted by sources for further control of emissions. This will result in a surplus of  $NO_x$  allowances from those units that can be transferred to other units at which it is more difficult to control  $NO_x$  emissions. Experience with reduction of sulfur dioxide emissions under the federal Acid Rain program has shown that this type of trading program not only achieves regional emission reductions in a more cost-effective manner but also results in greater overall reductions than application of traditional emission standards to individual emission units.

The USEPA developed the plan for the  $NO_x$  Trading Program with assistance from affected states. Illinois' rules for the  $NO_x$  Trading Program for EGU are located at 35 IAC Part 217, Subpart W, and have been approved by the USEPA. These rules provide for interstate trading of  $NO_x$  allowances, as mandated by Section 9.9 of the Act. Accordingly, these rules refer to and rely upon federal rules at 40 CFR Part 96, which have been developed by USEPA for certain aspects of the  $NO_x$  Trading Program, and which an individual state must follow to allow for interstate trading of allowances.

Note: This narrative description of the  $\mathrm{NO}_{\times}$  Trading Program is for informational purposes only and is not enforceable.

#### 6.1.2 Applicability

a. The following emission units at this source are budget EGU for purposes of the NO<sub>x</sub> Trading Program. Accordingly, this source is a budget source and the Permittee is the owner or operator of a budget source and budget EGU. In this section of this permit, these emission units are addressed as budget EGU.

Eight Natural Gas Fired Turbines CT01 - CT08

b. This permit does not provide "low-emitter status" for the above emission units pursuant to 35 IAC 217.754(c).

#### 6.1.3 General Provisions of the NO<sub>x</sub> Trading Program

- a. This source and the budget EGU at this source shall comply with all applicable requirements of Illinois' NO<sub>x</sub> Trading Program, i.e., 35 IAC Part 217, Subpart W, and 40 CFR Part 96 (excluding 40 CFR 96.4(b) and 96.55(c), and excluding 40 CFR 96, Subparts C, E and I), pursuant to 35 IAC 217.756(a) and 217.756(f)(2).
- b. Any provision of the  $NO_x$  Trading Program that applies to a budget source (including any provision applicable to the account representative of a budget source) shall also apply to the owner and operator of such budget sources and to the owner and operator of each budget EGU at the source, pursuant to 35 IAC 217.756(f)(3).
- c. Any provision of the NO<sub>x</sub> Trading Program that applies to a budget EGU (including any provision applicable to the account representative of a budget EGU) shall also apply to the owner and operator of such budget EGU. Except with regard to requirements applicable to budget EGUs with a common stack under 40 CFR 96, Subpart H, the owner and operator and the account representative of one budget EGU shall not be liable for any violation by any other budget EGU of which they are not an owner or operator or the account representative, pursuant to 35 IAC 217.756(f)(4).

#### 6.1.4 Requirements for NO<sub>x</sub> Allowances

- Beginning in 2004, by November 30 of each year, the allowance transfer deadline, the account representative of each budget EGU at this source shall hold allowances available for compliance deduction under 40 CFR 96.54 in the budget EGUs compliance account or the source's overdraft account in an amount that shall not be less than the budget EGUs total tons of NO<sub>x</sub> emissions for the preceding control period, rounded to the nearest whole ton, as determined in accordance with 40 CFR 96, Subpart H, plus any number necessary to account for actual utilization (e.g., for testing, start-up, malfunction, and shut down) under 40 CFR 96.42(e) for the control period, pursuant to 35 IAC 217.756(d)(1). For purposes of this requirement, an allowance may not be utilized for a control period in a year prior to the year for which the allowance is allocated, pursuant to 35 IAC 217.756(d)(5).
- b. The account representative of a budget EGU that has excess emissions in any control period, i.e.,  $NO_x$  emissions in excess of the number of  $NO_x$  allowances held as provided above, shall surrender allowances as required for deduction under 40 CFR 96.54(d)(1), pursuant to 35 IAC 201.756(f)(5). In addition, the

owner or operator of a budget EGU that has excess emissions shall pay any fine, penalty, or assessment, or comply with any other remedy imposed under 40 CFR 96.54(d)(3) and the Act, pursuant to 35 IAC 217.756(f)(6). Each ton of  $\rm NO_x$  emitted in excess of the number of  $\rm NO_x$  allowances held as provided above for each budget EGU for each control period shall constitute a separate violation of 35 IAC Part 217 and the Act, pursuant to 35 IAC 217.756(d)(2).

An allowance allocated by the Illinois EPA or USEPA under the  $NO_x$  Trading Program is a limited authorization to emit one ton of NOx in accordance with the  $NO_x$  Trading Program. As explained by 35 IAC 217.756(d)(6), no provisions of the  $NO_x$  Trading Program, the budget permit application, the budget permit, or a retired unit exemption under 40 CFR 96.5 and no provision of law shall be construed to limit the authority of the United States or the State of Illinois to terminate or limit this authorization. As further explained by 35 IAC 217.756(d)(7), an allowance allocated by the Illinois EPA or USEPA under the NOx Trading Program does not constitute a property right. As provided by 35 IAC 217.756(d)(4), allowances shall be held in, deducted from, or transferred among allowances accounts in accordance with 35 IAC Part 217, Subpart W, and 40 CFR 96, Subparts F and G.

# 6.1.5 Monitoring Requirements for Budget EGU

- a. The Permittee shall comply with the monitoring requirements of 40 CFR Part 96, Subpart H, for each budget EGU and the compliance of each budget EGU with the emission limitation under Condition 6.1.4(a) shall be determined by the emission measurements recorded and reported in accordance with 40 CFR 96, Subpart H, pursuant to 35 IAC 217.756(c)(1), (c)(2) and (d)(3).
- b. The account representative for the source and each budget EGU at the source shall comply with those sections of the monitoring requirements of 40 CFR 96, Subpart H, applicable to an account representative, pursuant to 35 IAC 217.756(c)(1) and (d)(3).

Note: Pursuant to 40 CFR 96.70(b), new budget EGU that commence operation before January 1, 2003 are to begin complying with applicable monitoring requirements of 40 CFR Part 96 at least one year in advance of the start of the first control period governed by the  $\rm NO_x$  Trading Program.

#### 6.1.6 Recordkeeping Requirements for Budget EGU

Unless otherwise provided below, the Permittee shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created.

This 5-year period may be extended for cause at any time prior to the end of the 5 years, in writing by the Illinois EPA or the USEPA.

- a. The account certificate of representation of the account representative for the source and each budget EGU at the source and all documents that demonstrate the truth of the statements in the account certificate of representation, in accordance with 40 CFR 96.13, as provided by 35 IAC 217.756(e)(1)(A). These certificates and documents must be retained on site at the source for at least 5-years after they are superseded because of the submission of a new account certificate of representation changing the account representative.
- b. All emissions monitoring information, in accordance with 40 CFR 96, Subpart H, (provided that to the extent that 40 CFR 96, Subpart H, provides for a 3year period for retaining records, the 3-year period shall apply), pursuant to 35 IAC 217.756(e)(1)(B).
- c. Copies of all reports, compliance certifications, and other submissions and all records made or required under the  $NO_x$  Trading Program or documents necessary to demonstrate compliance with requirements of the  $NO_x$  Trading Program, pursuant to 35 IAC 217.756(e)(1)(C).
- d. Copies of all documents used to complete a budget permit application and any other submission under the  $NO_x$  Trading Program, pursuant to 35 IAC 217.756(e)(1)(D).

### 6.1.7 Reporting Requirements for Budget EGU

- a. The account representative for this source and each budget EGU at this source shall submit to the Illinois EPA and USEPA the reports and compliance certifications required under the  $NO_x$  Trading Program, including those under 40 CFR 96, Subparts D and H, and 35 IAC 217.774, pursuant to 35 IAC 217.756(e)(2).
- b. Notwithstanding the provisions in Conditions 9.8 and 9.9 of this CAAPP permit, these submittals need only be signed by the designated representative, who may serve in place of the responsible official for this purpose, as provided by Section 39.5(1) of the Act, and submittals to the Illinois EPA need only be made to the Illinois EPA, Air Compliance Section.

## 6.1.8 Allocation of NOx Allowances to Budget EGU

a. For 2004, 2005 and 2006, the budget EGU identified in Condition 6.1.2(a) will not be entitled to direct allocations of  $NO_{\rm x}$  allowances because these EGU will

be considered "new" budget EGU, as defined in 35 IAC 217.768(a)(1).

- b. i. Beginning in 2007, these budget EGU will cease to be "new" budget EGU and the source will be entitled to an allocation of  $NO_x$  allowances for these budget EGU as provided in 35 IAC 217.764. For example, for 2007, the allocation of  $NO_x$  allowances will be governed by 35 IAC 217.764(b)(2) and (b)(4).
  - ii. In accordance with 35 IAC 217.762, the theoretical number of  $NO_x$  allowances for these budget EGU, calculated as the product of the applicable  $NO_x$  emissions rate and heat input as follows, shall be the basis for determining the allocation of  $NO_x$  allowances to these EGU:
    - A. As provided by 35 IAC 217.762(a)(2), the applicable NO<sub>x</sub> emission rate for these EGU is 0.129 lb/mmBtu. This is the permitted emission rate for these EGU as contained in Construction Permit 99090035, pursuant to which the EGU were constructed. The permitted emission rate is the applicable rate because it is between 0.15 lb/mmBtu and 0.055 lb/mmBtu, as provided by 35 IAC 217.762(a)(2).
    - B. The applicable heat input (mmBtu/control period) shall be the average of the two highest heat inputs from the control periods four to six years prior to the year for which the allocation is being made, as provided by 35 IAC 217.762(b)(1).
- 6.1.9 Eligibility for  ${\rm NO_x}$  Allowances from the New Source Set-Aside (NSSA)
  - a. In 2004, 2005 and 2006, the budget EGU identified in Condition 6.1.2(a) will qualify as "new" budget EGU that commenced commercial operation prior to January 1, 2004. As such, the Permittee may be entitled to obtain  $NO_{\times}$  allowances from the NSSA for these EGU without charge, as provided by 35 IAC 217.768.
  - b. For the purpose of any such request for  $NO_x$  allowances, the  $NO_x$  emission rate shall be the permitted emission rate of these EGU as specified in Condition 6.1.8(b)(ii) and the projected heat input shall not exceed the average of the EGUs two highest seasonal heat inputs for the control periods one to three years prior to the allocation year, pursuant to 35 IAC 217.768(e).

# 6.1.10 Eligibility for Early Reduction Credits (ERC)

- a. The Permittee did not request  $NO_x$  allowances for the budget EGU identified in Condition 6.1.2(a) for early reductions in its  $NO_x$  emissions in the 2001 control period in accordance with 35 IAC 217.770.
- b. i. The Permittee may pursue  $NO_x$  allowances for early reductions in  $NO_x$  emissions, i.e., reductions made during the 2002 and 2003 control period, as provided by 35 IAC 217.770.
  - ii. For the purpose of any such request, the  $NO_x$  emissions must have been reduced by at least 30 percent less than the permitted emission rate of these EGU as specified in Condition 6.1.8(b)(ii), pursuant to 35 IAC 217.770(c)(1).

# 6.1.11 Budget Permit Required by the $NO_x$ Trading Program

- a. For this source, this segment of the CAAPP Permit, i.e., Section 6.1, is the Budget Permit required by the NO<sub>x</sub> Trading Program and is intended to contain federally enforceable conditions addressing all applicable NO<sub>x</sub> Trading Program requirements. This Budget Permit shall be treated as a complete and segregable portion of the source's entire CAAPP permit, as provided by 35 IAC 217.758(a)(2).
- b. The Permittee and any other owner or operator of this source and each budget EGU at the source shall operate the budget EGU in compliance with this Budget Permit, pursuant to 35 IAC 217.756(b)(2).
- c. No provision of this Budget Permit or the associated application shall be construed as exempting or excluding the Permittee, or other owner or operator and, to the extent applicable, the account representative of a budget source or budget EGU from compliance with any other regulation or requirement promulgated under the CAA, the Act, the approved State Implementation Plan, or other federally enforceable permit, pursuant to 35 IAC 217.756(g).
- d. Upon recordation by USEPA under 40 CFR 96, Subpart F or G, or 35 IAC 217.782, every allocation, transfer, or deduction of an allowance to or from the budget units' compliance accounts or to or from the overdraft account for the budget source is deemed to amend automatically, and become part of, this budget permit, pursuant to 35 IAC 217.756(d)(8). This automatic amendment of this budget permit shall be deemed an operation of law and will not require any further review.
- e. No revision of this Budget Permit shall excuse any violation of the requirements of the  $NO_{\rm x}$  Trading

- Program that occurs prior to the date that the revisions to this permit takes effect, pursuant to 35 IAC 217.756(f)(1).
- f. The Permittee, or other owner or operator of the source, shall reapply for a Budget Permit for the source as required by 35 IAC Part 217, Subpart W and Section 39.5 of the Act. For purposes of the  $\mathrm{NO}_{\mathrm{x}}$  Trading Program, the application shall contain the information specified by 35 IAC 217.758(b)(2).

### 6.2 Acid Rain Program

# 6.2.1 Applicability

Under Title IV of the CAA, Acid Deposition Control, this source is an affected source and the following emission units at the source are affected units for acid deposition:

Eight Natural Gas Fired Turbines CT01 - CT08

Note: Title IV of the CAA, and other laws and regulations promulgated thereunder, establish requirements for affected sources related to control of emissions of pollutants that contribute to acid rain. For purposes of this permit, these requirements are referred to as Title IV provisions.

### 6.2.2 Applicable Emission Requirements

The owners and operators of the source shall not violate applicable Title IV provisions. In particular,  $SO_2$  emissions of the affected units shall not exceed any allowances that the source lawfully holds under Title IV provisions. [Section 39.5(7)(g) and (17)(l) of the Act]

Note: Affected sources must hold  $SO_2$  allowances to account for the  $SO_2$  emissions from affected units at the source that are subject to Title IV provisions. Each allowance is a limited authorization to emit up to one ton of  $SO_2$  emissions during or after a specified calendar year. The possession of allowances does not authorize exceedances of applicable emission standards or violations of ambient air quality standards.

# 6.2.3 Monitoring, Recordkeeping and Reporting

The owners and operators of the source and, to the extent applicable, their designated representative, shall comply with applicable requirements for monitoring, recordkeeping and reporting specified by Title IV provisions, including 40 CFR Part 75. [Section 39.5(7)(b) and 17(m) of the Act]

Note: As further addressed by Section 7 of this permit, the following emission determination methods are currently being used for the affected units at this source.

 $NO_x$ : Continuous Emissions Monitoring (40 CFR 75.12)  $SO_2$ : Continuous Emissions Monitoring (40 CFR 75.11)  $CO_2$ : Continuous Emission Monitoring (40 CFR 75.14)  $CO_2$ : Continuous Monitoring for Oxygen (40 CFR 75.13)

### 6.2.4 Acid Rain Permit

The owners and operators of the source shall comply with the terms and conditions of the source's Acid Rain permit. [Section 39.5(17)(1) of the Act]

Note: The source is subject to an Acid Rain permit, which was issued pursuant to Title IV provisions, including Section 39.5(17) of the Act. Affected sources must be operated in compliance with their Acid Rain permits. This source's Acid Rain permit is incorporated by reference into this permit and a copy of the current Acid Rain permit is included as Attachment 2 of this permit. Revisions and modifications of this Acid Rain permit, including administrative amendments and automatic amendments (pursuant to Sections 408(b) and 403(d) of the CAA or regulations thereunder) are governed by Title IV provisions, as provided by Section 39.5(13)(e) of the Act. Accordingly, revision or renewal of the Acid Rain permit may be handled separately from this CAAPP permit and a copy of the new Acid Rain permit may be included in this permit by administrative amendment.

### 6.2.5 Coordination with Other Requirements

- a. This permit does not contain any conditions that are intended to interfere with or modify the requirements of Title IV provisions. In particular, this permit does not restrict the flexibility under Title IV provisions of the owners and operators of this source to amend their Acid Rain compliance plan. [Section 39.5(17)(h) of the Act]
- b. Where another applicable requirement of the CAA is more stringent than an applicable requirement of Title IV provisions, both requirements are incorporated into this permit and are enforceable and the owners and operators of the source shall comply with both requirements. [Section 39.5(7)(h) of the Act]

### 7.0 UNIT SPECIFIC CONDITIONS

# 7.1 Turbines (CT01 - CT04)

# 7.1.1 Description

The turbines are process emission units used to generate electricity. The turbines are powered by natural gas.  $\rm NO_x$  emissions are controlled with a water injection system.

7.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
CT01	444 mmBtu/hr Natural Gas Fired Turbine	Water Injection System
CT02	444 mmBtu/hr Natural Gas Fired Turbine	Water Injection System
CT03	444 mmBtu/hr Natural Gas Fired Turbine	Water Injection System
CT04	444 mmBtu/hr Natural Gas Fired Turbine	Water Injection System

### 7.1.3 Applicability Provisions and Applicable Regulations

- a. The "affected turbines" for the purpose of these unit-specific conditions, are turbines described in Conditions 7.1.1 and 7.1.2.
- b. The affected turbines are subject to the emission limits identified in Condition 5.2.2.
- c. The affected turbines are subject to the NSPS for Stationary Gas Turbines, 40 CFR 60 Subparts A and GG, because the heat input at peak load is equal to or greater than 10.7 gigajoules per hour (10 mmBtu/hr), based on the lower heating value of the fuel fired and the affected turbine commenced construction, modification, or reconstruction after October 3, 1977. The Illinois EPA administers the NSPS for subject sources in Illinois pursuant to a delegation agreement with the USEPA.

### i. Standard for Nitrogen Oxides:

Pursuant to 40 CFR 60.332(b), electric utility stationary gas turbines with a heat input at peak load greater than 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired shall comply with the provisions of 40 CFR 60.332(a)(1). Pursuant to 40 CFR 60.332(a)(1), no owner or operator of an affected turbine shall cause to be discharged into the atmosphere from such gas turbine, any gases which contain nitrogen oxides in excess of:

STD = 0.0075  $\frac{(14.4)}{Y}$  + F

### Where:

- STD = Allowable  $NO_x$  emissions (percent by volume at 15 percent oxygen and on a dry basis).
- Y = Manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour.
- F = NO<sub>x</sub> emission allowance for fuel-bound nitrogen calculated from the nitrogen content of the fuel as follows:

Fuel-bound nitrogen (percent by weight)	$(NO_x percent by volume)$
$N \le 0.015$ $0.015 < N \le 0.1$ $0.1 < N \le 0.25$ N > 0.25	0.04 (N) 0.04 + 0.0067(N - 0.1) 0.005

# Where:

N = The nitrogen content of the fuel (percent by weight) determined in according with Condition 7.1.8.

## ii. Standard for Sulfur Dioxide

- A. No owner or operator of an affected turbine shall cause to be discharged into the atmosphere from any stationary gas turbine any gases which contain sulfur dioxide in excess of 0.015 percent by volume at 15 percent oxygen and on a dry basis [40 CFR 60.333(a)].
- B. No owner or operator of an affected turbine shall burn in any stationary gas turbine any fuel which contains sulfur in excess of 0.8 percent by weight [40 CFR 60.333(b)].
- d. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to excess 2000 ppm [35 IAC 214.301].

- e. i. No owner or operator shall cause or allow the emissions of NO<sub>x</sub> into the atmosphere from the affected turbines to exceed 0.25 lbs/mmBtu of actual heat input during each ozone control period from May 1 through September 30, based on a ozone control period average, for that unit [35 IAC 217.706(a)].
  - ii. Notwithstanding the above emission limitation of 35 IAC 217.706(a), the affected turbines subject to a more stringent NO<sub>x</sub> emission limitation pursuant to any State or federal statute, including the Act, the Clean Air Act, or any regulations promulgated thereunder, shall comply with both the requirements of 35 IAC 217 Subpart V and that more stringent emission limitation [35 IAC 217.706(b)].

## f. Malfunction and Breakdown Provisions

In the event of a malfunction or breakdown of an affected turbine, the Permittee is authorized to continue operation of the unit in violation of the applicable requirement of 35 IAC 212.123(a) (see Condition 5.2.2(b)) and the hourly limits of Condition 7.1.6, as necessary to provide essential service, i.e. prevent interruption in or shortage of the public's electricity supply, provided that operation shall not be continued solely for the economic benefit of the Permittee or to prevent risk of injury to personnel or severe damage to equipment. This authorization is subject to the following requirements:

- i. The Permittee shall repair the damaged feature(s) of the engine or remove the engine from service as soon as practicable.
- ii. The Permittee shall fulfill the applicable recordkeeping and reporting requirements of Conditions 7.1.9(b) and 7.1.10(a).

## g. Startup Provisions

The Permittee is authorized to operate an affected turbine in violation of the applicable limit of 35 IAC 212.123(a) (see Condition 5.2.2(b)) and the hourly limits of Condition 7.1.6 during startup pursuant to 35 IAC 201.262, as the Permittee has affirmatively demonstrated that all reasonable efforts have been made to minimize startup emissions, duration of individual starts, and frequency of startups. This authorization is subject to the following:

i. This authorization only extends for a period of up to 1-hour following initial firing of fuel during each startup event.

- ii. The Permittee shall take the following measures to minimize emissions resulting from startups, the duration of startups, and minimize the frequency of startups:
  - A. Operating in accordance with the manufacturer's written operating and startup procedures, including a pre-check of the unit, or other written procedures developed and maintained by the Permittee so as to minimize the duration of startups and the emissions associated with startups. These procedures should allow for review of operating parameters of the unit during startup, or shutdown as necessary to make adjustments to reduce or eliminate excess emissions.
  - B. Maintaining units in accordance with written procedures developed and maintained by the Permittee so as to minimize the duration of startups and the frequency of startups. These maintenance practices shall include maintenance activities before the unit is started up, when the unit is in operation, and when the unit is shut down.
  - C. The procedures described above shall be reviewed at least annually to make necessary adjustments and shall be made available to the Illinois EPA upon request.
- iii. The Permittee shall fulfill the applicable
   recordkeeping requirements of Condition
   7.1.9(a).
- 7.1.4 Non-Applicability of Regulations of Concern
  - a. This permit is issued based on the affected turbines not being subject to the requirements of 35 IAC 212.321 or 212.322, because due to the unique nature of these units, a process weight rate can not be set so that such rules can not reasonably be applied.
  - b. The affected turbines are not subject to 35 IAC 217.141, because the affected turbines are not by definition a fuel combustion unit.
  - c. The affected turbines are not subject to 35 IAC 216.121, because the affected turbines are not by definition a fuel combustion unit.

- 7.1.5 Operational and Production Limits and Work Practices
  - a. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate any affected turbine in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA or the USEPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source [40 CFR 60.11(d)].
  - b. Natural gas shall be the only fuel fired in the affected turbines.
  - c. The affected turbines shall be equipped, operated, and maintained with water injection to control  $NO_{\kappa}$  emissions.
  - d. The affected turbines shall not fire more than 3,200 million scf of natural gas per year [T1]. The above limitations were established in Permit 99090035.

### 7.1.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected turbines are subject to the following:

a. Hourly emissions from each affected turbine shall not exceed the following limits:

Pollutant	(Lb/Hour)
$NO_x$	57.0
CO	55.0
SO <sub>2</sub>	11.4
VOM	11.4
PM	10.85

b. Total emissions from the affected turbines shall not exceed the following limits:

<u>Pollutant</u>	(Ton/Year)
$NO_{x}$	200.0
CO	200.0
SO <sub>2</sub>	200.0
VOM	200.0
PM	190.0

c. Compliance with annual limits shall be determined on a daily basis from the sum of the data for the current day plus the preceding 364 days (running 365 day total) [T1].

The above limitations were established in Permit 99090035, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

## 7.1.7 Testing Requirements

- a. The affected turbines shall comply with the applicable testing requirements of 40 CFR 60.335.
- b. PM and VOM concentrations in the exhaust from the affected turbines shall be measured before annual emissions, as calculated based on the limits in Condition 7.1.6 and the compliance procedures of Condition 7.1.12, exceed 100 tons.

## 7.1.8 Monitoring Requirements

- a. The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60 Subpart GG and using water injection to control  $NO_x$  emissions shall install and operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine. This system shall be accurate to within  $\pm 5.0$  percent [40 CFR 60.334(a)].
- b. The affected turbines shall comply with the applicable monitoring requirements of 40 CFR 60.334 except monitoring of fuel nitrogen content shall not be required while natural gas is the only fuel fired in the affected turbine, since there is no fuel-bound nitrogen and since the free nitrogen does not contribute appreciable to  $NO_{\rm x}$  emissions.
- c. i. The Permittee shall install, operate, and maintain a Continuous Emissions Monitoring (CEM) system on the affected turbines to measure emissions of  $NO_x$ . The applicable procedures under 40 CFR 75.12 and 40 CFR 75, subpart H shall be followed for the installation, evaluation, and operation of this  $NO_x$  CEM system.
  - ii. The Permittee shall install, operate, and maintain a CEM system on the affected turbine to measure emissions of SO<sub>2</sub> according to the applicable procedures under 40 CFR 75.11(d), or the Permittee shall conduct fuel monitoring for fuels fired in the affected turbines

according to the procedures in 40 CFR 75, Appendix D.

- d. i. The owner or operator of an affected turbine subject to 35 IAC 217 Subpart V (Condition 7.1.3(e)) shall install, calibrate, maintain and operate continuous emissions monitoring systems (CEMS) for NO<sub>x</sub> that meet the requirements of 40 CFR 75, Subpart B [35 IAC 217.710(a)].
  - ii. Notwithstanding 35 IAC 217.710(a) above, the owner or operator of a gas-fired peaking unit or oil-fired peaking unit as defined in 40 CFR 72.2 may determine  $NO_x$  emissions in accordance with the emissions estimation protocol of 40 CFR 75, Subpart E [35 IAC 217.710(b)].
  - iii. Notwithstanding 35 IAC 217.710(a) above, the owner or operator of a combustion turbine that operates less than 350 hour per ozone control period may determine the heat input and NO<sub>x</sub> emissions of the turbine as follows [35 IAC 217.710(c)]:
    - A. Heat input shall be determined from the metered fuel usage to the turbine or the calculated heat input determined as the product of the turbine's maximum hourly heat input and hours of operation as recorded by operating instrumentation on the turbine [35 IAC 217.710(c)(1)].
    - B. NO<sub>x</sub> emissions shall be determined as the product of the heat input, as determined above, and the appropriate default NO<sub>x</sub> emission factors below [35 IAC 217.710(c)(2)]:
      - 0.7 lbs/mmBtu Natural gas 1.2 lbs/mmBtu - Fuel oil

# 7.1.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected turbine to demonstrate compliance with Conditions 5.5.1, 7.1.3, 7.1.5, and 7.1.6, pursuant to Section 39.5(7)(b) of the Act:

a. Records for Startup

The Permittee shall maintain the following records, pursuant to Section 39.5(7)(b) of the Act, for each affected turbine subject to Condition 7.1.3(g), which at a minimum shall include the following information for each startup:

- Date and duration of the startup, i.e., start time and time normal operation achieved.
- If normal operation was not achieved within 1hour, an explanation why startup could not be achieved.
- iii. An explanation why established startup procedures could not be performed, if not performed.
- iv. The nature of opacity, i.e., severity and duration, during the startup and the nature of opacity at the conclusion of startup, if above normal.
- v. Whether exceedance of Condition 5.2.2 may have occurred during startup, with explanation and estimated duration (minutes).
- b. Records for Malfunctions and Breakdowns

The Permittee shall maintain records, pursuant to 35 IAC 201.263, of continued operation of an affected turbine during malfunctions and breakdown, which as a minimum, shall include:

- i. Date and duration of malfunction or breakdown.
- A detailed explanation of the malfunction or breakdown.
- iii. An explanation why the damaged feature(s) could not be repaired as soon as practicable or the affected turbine could not be removed from service without risk of injury to personnel or severe damage to equipment.
- iv. The measures used to reduce the quantity of emissions and the duration of the event.
- v. The steps taken to prevent similar malfunctions or breakdowns or reduce their frequency and severity.
- vi. The amount of release above typical emissions during malfunction/breakdown.
- c. The owner or operator of an affected turbine subject to the requirements of 35 IAC 217 Subpart V (Condition 7.1.3(e)) shall:
  - i. Comply with the recordkeeping and reporting requirements of 40 CFR 75 applicable to  $NO_x$  emissions during the ozone control period, including, but not limited to, 40 CFR 75.54(b) and (d) [35 IAC 217.712(a)].

- ii. Notwithstanding 35 IAC 217.712(a) above, the owner or operator of a combustion turbine for which heat input and NO<sub>x</sub> emissions are determined pursuant to 35 IAC 217.710(c) (Condition 7.1.8(d)(iii)) shall comply with the following recordkeeping and reporting requirements [35 IAC 217.712(b)]:
  - A. Maintain records of the heat input and  $NO_x$  emissions of the turbine as determined in accordance with 35 IAC 217.710(c), and records of metered fuel use or operating hours used to determine heat input [35 IAC 217.712(b)(1)].
- d. A maintenance and repair log for each affected turbine, listing activities performed with date.
- e. The sulfur content of the fuels fired in the affected turbines.
- f. Fuel consumption for the affected turbines, scf/day and scf/year.
- g. Ratio of water to fuel being fired in the affected turbines.
- h. Operating hours and for the affected turbines, hr/day and hr/year.
- i. Heat content of the fuel being fired in the affected turbines.
- j. Emissions of each pollutant from the affected turbines, including emissions from startups, with supporting calculations including documentation on the validity of the emission factors used, ton/day and ton/yr.
- k. The Permittee shall maintain the following if required:
  - Any periods during which a continuous monitoring system was not operational, with explanation.
  - ii. Any 1-hour period during which the average water to fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined by test to be necessary to comply with requirements for NO<sub>x</sub> emissions, with the average water-to-fuel ratio, average fuel consumption, ambient conditions, and turbine load.
  - iii. Any period when the affected turbine was in operation during which ice fog was deemed to be a traffic hazard, the ambient conditions

existing during the periods, the date and time the water injection system was deactivated, and the date and time the system was reactivated.

iv. Any day in which emission and/or opacity exceeded an applicable standard or limit.

### 7.1.10 Reporting Requirements

a. Reporting of Malfunctions and Breakdowns

The Permittee shall provide the following notification and reports to the Illinois EPA, Compliance Section and Regional Field Office, pursuant to 35 IAC 201.263, concerning continued operation of an affected turbine subject to Condition 7.1.3(f) during malfunction or breakdown.

- i. The Permittee shall notify the Illinois EPA's regional office by telephone as soon as possible during normal working hours, but no later than three (3) days, upon the occurrence of noncompliance due to malfunction or breakdown.
- ii. Upon achievement of compliance, the Permittee shall give a written follow-up notice to the Illinois EPA, Compliance Section and Regional Field Office, providing a detailed explanation of the event, an explanation why continued operation of the affected turbine was necessary, the length of time during which operation continued under such conditions, the measures taken by the Permittee to minimize and correct deficiencies with chronology, and when the repairs were completed or when the affected turbine was taken out of service.
- b. Pursuant to 40 CFR 60.7(c) and 60.334(c), a report shall be submitted by the Permittee to the Illinois EPA on a quarterly basis no later than 30 days after the end of the calendar quarter. This report shall contain information on any one-hour period when the average water to fuel ratio falls below the ratio needed to show compliance. For such periods, the report shall include the actual water to fuel ratio, average fuel consumption, ambient conditions and turbine load. This report shall also include any periods when an affected turbine operated without water injection because ice fog was deemed a traffic hazard.
- c. The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of an affected turbine with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such

deviations, and any corrective actions or preventive measures taken:

- i. Emissions from or operation of an affected turbine in excess of the limits specified in Conditions 7.1.3, 7.1.5 and 7.1.6 within 30 days of such occurrence.
- d. i. Annually report the heat input and  $NO_x$  emissions of the turbines as determined in accordance with 35 IAC 217.710(c) (Condition 7.1.8(d)(iii)), for each ozone control period, by November 30 of each year [35 IAC 217.712(b)(2)].
  - ii. Pursuant to 35 IAC 217.712(c) and (d), no later than November 30 of each year, the Permittee shall submit a report to the Illinois EPA that demonstrates that the affected turbines have complied with Condition 7.1.3(e). These reports shall be accompanied by a certification statement signed by a responsible official for the Permittee as specified by 35 IAC 217.712(c).
- 7.1.11 Operational Flexibility/Anticipated Operating Scenarios
  N/A

# 7.1.12 Compliance Procedures

- a. i. Compliance with Condition 7.1.3(c)(i) is considered to be assured by the use of natural gas because natural gas contains negligible fuel bound nitrogen.
  - ii. Compliance with Condition 7.1.3(c)(ii) is demonstrated by the monitoring requirements of 7.1.8 and by the recordkeeping requirements of 7.1.9.
- b. Compliance with Condition 7.1.3(d) is demonstrated by proper operating conditions of the affected turbine.
- c. Compliance with Condition 7.1.3(e) shall be demonstrated by the monitoring requirements of 7.1.8, the records required in Condition 7.1.9, and the reporting requirements of 7.1.10.
- d. Compliance with the emission limits in Conditions 5.5 and 7.1.6 shall be determined by using published emission factors, Illinois EPA approved stack test data, Illinois EPA approved measured emission factors, or approved manufacturer's data and the recordkeeping requirements in Condition 7.1.9.

### 7.2 Turbines (CT05 - CT08)

### 7.2.1 Description

The turbines are process emission units used to generate electricity. The turbines are powered by natural gas.  $NO_x$  emissions are controlled with a dry low  $NO_x$  combustors.

7.2.2 List of Emission Units and Air Pollution Control Equipment

Emission		Emission Control
Unit	Description	Equipment
CT05	552.5 mmBtu/hr Natural Gas	Dry Low NO <sub>x</sub>
	Fired Turbine	Combustors
CT06	552.5 mmBtu/hr Natural Gas	Dry Low NOx
	Fired Turbine	Combustors
CT07	552.5 mmBtu/hr Natural Gas	Dry Low NOx
	Fired Turbine	Combustors
CT08	552.5 mmBtu/hr Natural Gas	Dry Low NOx
	Fired Turbine	Combustors

# 7.2.3 Applicability Provisions and Applicable Regulations

- a. The "affected turbines" for the purpose of these unit-specific conditions, are turbines described in Conditions 7.2.1 and 7.2.2.
- b. The affected turbines are subject to the emission limits identified in Condition 5.2.2.
- c. The affected turbines are subject to the NSPS for Stationary Gas Turbines, 40 CFR 60 Subparts A and GG, because the heat input at peak load is equal to or greater than 10.7 gigajoules per hour (10 mmBtu/hr), based on the lower heating value of the fuel fired and the affected turbine commenced construction, modification, or reconstruction after October 3, 1977. The Illinois EPA administers the NSPS for subject sources in Illinois pursuant to a delegation agreement with the USEPA.

### i. Standard for Nitrogen Oxides:

Pursuant to 40 CFR 60.332(b), electric utility stationary gas turbines with a heat input at peak load greater than 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired shall comply with the provisions of 40 CFR 60.332(a)(1). Pursuant to 40 CFR 60.332(a)(1), no owner or operator of an affected turbine shall cause to be discharged into the atmosphere from such gas turbine, any gases which contain nitrogen oxides in excess of:

STD = 0.0075 
$$\frac{(14.4)}{Y}$$
 + F

#### Where:

- STD = Allowable  $NO_x$  emissions (percent by volume at 15 percent oxygen and on a dry basis).
- Y = Manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour.
- $\begin{tabular}{lll} F &=& NO_x & emission & allowance & for & fuel-\\ & bound & nitrogen & calculated & from & the\\ & nitrogen & content & of & the & fuel & as\\ & & follows: \\ \end{tabular}$

Fuel-bound nitrogen (percent by weight)	$(NO_x percent by volume)$
$N \le 0.015$	0
$0.015 < N \le 0.1$	0.04 (N)
$0.1 < N \le 0.25$	0.04 + 0.0067(N - 0.1)
N > 0.25	0.005

### Where:

N = The nitrogen content of the fuel (percent by weight) determined in according with Condition 7.2.8.

### ii. Standard for Sulfur Dioxide

- A. No owner or operator of an affected turbine shall cause to be discharged into the atmosphere from any stationary gas turbine any gases which contain sulfur dioxide in excess of 0.015 percent by volume at 15 percent oxygen and on a dry basis [40 CFR 60.333(a)].
- B. No owner or operator of an affected turbine shall burn in any stationary gas turbine any fuel which contains sulfur in excess of 0.8 percent by weight [40 CFR 60.333(b)].
- d. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to excess 2000 ppm [35 IAC 214.301].
- e. i. No owner or operator shall cause or allow the emissions of  $NO_x$  into the atmosphere from the affected turbines to exceed 0.25 lbs/mmBtu of actual heat input during each ozone control

period from May 1 through September 30, based on a ozone control period average, for that unit [35 IAC 217.706(a)].

ii. Notwithstanding the above emission limitation of 35 IAC 217.706(a), the affected turbines subject to a more stringent NO<sub>x</sub> emission limitation pursuant to any State or federal statute, including the Act, the Clean Air Act, or any regulations promulgated thereunder, shall comply with both the requirements of 35 IAC 217 Subpart V and that more stringent emission limitation [35 IAC 217.706(b)].

### f. Malfunction and Breakdown Provisions

In the event of a malfunction or breakdown of an affected engine, the Permittee is authorized to continue operation of the unit in violation of the applicable requirement of 35 IAC 212.123(a) (see Condition 5.2.2(b)) and the hourly limits of Condition 7.2.6, as necessary to provide essential service, i.e. prevent interruption in or shortage of the public's electricity supply, provided that operation shall not be continued solely for the economic benefit of the Permittee or to prevent risk of injury to personnel or severe damage to equipment. This authorization is subject to the following requirements:

- i. The Permittee shall repair the damaged feature(s) of the engine or remove the engine from service as soon as practicable.
- ii. The Permittee shall fulfill the applicable recordkeeping and reporting requirements of Conditions 7.2.9(b) and 7.2.10(a).

## g. Startup Provisions

The Permittee is authorized to operate an affected turbine in violation of the applicable limit of 35 IAC 212.123(a) (see Condition 5.2.2(b)) and the hourly limits of Condition 7.2.6 during startup pursuant to 35 IAC 201.262, as the Permittee has affirmatively demonstrated that all reasonable efforts have been made to minimize startup emissions, duration of individual starts, and frequency of startups. This authorization is subject to the following:

- This authorization only extends for a period of up to 1-hour following initial firing of fuel during each startup event.
- ii. The Permittee shall take the following measures to minimize emissions resulting from

startups, the duration of startups, and minimize the frequency of startups:

- A. Operating in accordance with the manufacturer's written operating and startup procedures, including a pre-check of the unit, or other written procedures developed and maintained by the Permittee so as to minimize the duration of startups and the emissions associated with startups. These procedures should allow for review of operating parameters of the unit during startup, or shutdown as necessary to make adjustments to reduce or eliminate excess emissions.
- B. Maintaining units in accordance with written procedures developed and maintained by the Permittee so as to minimize the duration of startups and the frequency of startups. These maintenance practices shall include maintenance activities before the unit is started up, when the unit is in operation, and when the unit is shut down.
- C. The procedures described above shall be reviewed at least annually to make necessary adjustments and shall be made available to the Illinois EPA upon request.
- iii. The Permittee shall fulfill the applicable
   recordkeeping requirements of Condition
   7.2.9(a).
- 7.2.4 Non-Applicability of Regulations of Concern
  - a. This permit is issued based on the affected turbines not being subject to the requirements of 35 IAC 212.321 or 212.322, because due to the unique nature of these units, a process weight rate can not be set so that such rules can not reasonably be applied.
  - b. The affected turbines are not subject to 35 IAC 217.141, because the affected turbines are not by definition a fuel combustion unit.
  - c. The affected turbines are not subject to 35 IAC 216.121, because the affected turbines are not by definition a fuel combustion unit.
- 7.2.5 Operational and Production Limits and Work Practices
  - a. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate any affected turbine in a manner consistent with good air

pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA or the USEPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source [40 CFR 60.11(d)].

- b. Natural gas shall be the only fuel in the affected turbines.
- c. The affected turbines shall be equipped, operated, and maintained with dry low  $NO_{\rm x}$  combustors to control  $NO_{\rm x}$  emissions.
- e. The affected turbines shall not fire more than 8,306 million scf of natural gas per year (including 872 million scf of natural gas usage considering approximately 10% of the total turbine operating time less than 60% turbine load). Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1]. The above limitations were established in Permit 00090076.
- f. Except during startup or shutdown of an affected turbine or for the purpose of emission testing, the Permittee shall minimize operation of the affected turbines below 60 percent load and shall not operate turbines below such lower load at which emission testing has demonstrated compliance with the applicable hourly emission limits in Condition 7.2.6.

### 7.2.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected turbines are subject to the following:

a. Hourly emissions from each affected turbine shall not exceed the following limits:

Pollutant	(Lb/Hour)
$NO_x$	30.0
CO	17.0
SO <sub>2</sub>	1.0
MOV	5.0
PM	5.0

b. Hourly emissions from each affected turbine shall not exceed the following limits when operated at or below 60% load:

Pollutant	(Lb/Hour)	
со	77.0	
VOM	23.0	

- c. Unless an alternative factor is established for the pollutant or emissions monitoring is performed for the pollutant, emissions of NO<sub>x</sub>, CO and VOM during an hour that includes a startup shall be presumed to be 125, 400 and 250 percent respectively of the limits in Condition 7.1.6(a), for example, NO<sub>x</sub> emissions during an hour with a startup shall be presumed to be 37.5 lb/hr rather than 30 lb/hr as allowed for normal operation. These presumptions are based on data describing maximum emissions during startup of a turbine. Any alternative factor for emissions during startup of a turbine shall be based on representative emission testing conducted with USEPA Reference Test Methods [T1].
- d. Total emissions from the affected turbines shall not exceed the following limits:

Pollutant	(Ton/Year)
$NO_x$	230.0
CO	178.0
SO <sub>2</sub>	8.0
VOM	53.0
PM	38.0

e. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

The above limitations were established in Permit 00090076, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

## 7.2.7 Testing Requirements

a. The affected turbines shall comply with the applicable testing requirements of 40 CFR 60.335.

# 7.2.8 Monitoring Requirements

- a. The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60 Subpart GG shall install and operate a continuous monitoring system to monitor and record the fuel consumption in the affected turbines [40 CFR 60.334(a)].
- b. The affected turbines shall comply with the applicable monitoring requirements of 40 CFR 60.334 except monitoring of fuel nitrogen content shall not be required while natural gas is the only fuel fired in the affected turbine, since there is no fuel-bound nitrogen and since the free nitrogen does not contribute appreciable to  $NO_{\rm x}$  emissions.
- c. i. The Permittee shall install, operate, and maintain a Continuous Emissions Monitoring (CEM) system on the affected turbines to measure emissions of NO<sub>x</sub>. The applicable procedures under 40 CFR 75.12 and 40 CFR 75, subpart H shall be followed for the installation, evaluation, and operation of this NO<sub>x</sub> CEM system.
  - ii. The Permittee shall install, operate, and maintain a CEM system on the affected turbine to measure emissions of SO<sub>2</sub> according to the applicable procedures under 40 CFR 75.11(d), or the Permittee shall conduct fuel monitoring for fuels fired in the affected turbines according to the procedures in 40 CFR 75, Appendix D.
- d. i. The owner or operator of an affected turbine subject to 35 IAC 217 Subpart V (Condition 7.2.3(e)) shall install, calibrate, maintain and operate continuous emissions monitoring systems (CEMS) for NO<sub>x</sub> that meet the requirements of 40 CFR 75, Subpart B [35 IAC 217.710(a)].
  - ii. Notwithstanding 35 IAC 217.710(a) above, the owner or operator of a gas-fired peaking unit or oil-fired peaking unit as defined in 40 CFR 72.2 may determine  $NO_x$  emissions in accordance with the emissions estimation protocol of 40 CFR 75, Subpart E [35 IAC 217.710(b)].
  - iii. Notwithstanding 35 IAC 217.710(a) above, the owner or operator of a combustion turbine that operates less than 350 hour per ozone control period may determine the heat input and  $NO_x$  emissions of the turbine as follows [35 IAC 217.710(c)]:
    - A. Heat input shall be determined from the metered fuel usage to the turbine or the

calculated heat input determined as the product of the turbine's maximum hourly heat input and hours of operation as recorded by operating instrumentation on the turbine [35 IAC 217.710(c)(1)].

- B.  $NO_x$  emissions shall be determined as the product of the heat input, as determined above, and the appropriate default  $NO_x$  emission factors below [35 IAC 217.710(c)(2)]:
  - 0.7 lbs/mmBtu Natural gas 1.2 lbs/mmBtu - Fuel oil

# 7.2.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected turbine to demonstrate compliance with Conditions 5.5.1, 7.2.5, and 7.2.6, pursuant to Section 39.5(7)(b) of the Act:

a. Records for Startup

The Permittee shall maintain the following records, pursuant to Section 39.5(7)(b) of the Act, for each affected turbine subject to Condition 7.2.3(f), which at a minimum shall include the following information for each startup:

- i. Date and duration of the startup, i.e., start time and time normal operation achieved.
- ii. If normal operation was not achieved within 1hour, an explanation why startup could not be achieved.
- iii. An explanation why established startup procedures could not be performed, if not performed.
- iv. The nature of opacity, i.e., severity and duration, during the startup and the nature of opacity at the conclusion of startup, if above normal.
- v. Whether exceedance of Condition 5.2.2 may have occurred during startup, with explanation and estimated duration (minutes).
- b. Records for Malfunctions and Breakdowns

The Permittee shall maintain records, pursuant to 35 IAC 201.263, of continued operation of an affected turbine during malfunctions and breakdown, which as a minimum, shall include:

- i. Date and duration of malfunction or breakdown.
- A detailed explanation of the malfunction or breakdown.
- iii. An explanation why the damaged feature(s) could not be repaired as soon as practicable or the affected turbine could not be removed from service without risk of injury to personnel or severe damage to equipment.
- iv. The measures used to reduce the quantity of emissions and the duration of the event.
- v. The steps taken to prevent similar malfunctions or breakdowns or reduce their frequency and severity.
- vi. The amount of release above typical emissions during malfunction/breakdown.
- c. The owner or operator of an affected turbine subject to the requirements of 35 IAC 217 Subpart V (Condition 7.2.3(e)) shall:
  - i. Comply with the recordkeeping and reporting requirements of 40 CFR 75 applicable to  $NO_{\rm x}$  emissions during the ozone control period, including, but not limited to, 40 CFR 75.54(b) and (d) [35 IAC 217.712(a)].
  - ii. Notwithstanding 35 IAC 217.712(a) above, the owner or operator of a combustion turbine for which heat input and NO<sub>x</sub> emissions are determined pursuant to 35 IAC 217.710(c) (Condition 7.2.8(d)(iii)) shall comply with the following recordkeeping and reporting requirements [35 IAC 217.712(b)]:
    - A. Maintain records of the heat input and NO<sub>x</sub> emissions of the turbine as determined in accordance with 35 IAC 217.710(c), and records of metered fuel use or operating hours used to determine heat input [35 IAC 217.712(b)(1)].
- d. A maintenance and repair log for each affected turbine, listing activities performed with date.
- e. The sulfur content of the fuels fired in the affected turbines.
- f. Fuel consumption for the affected turbines, scf/month and scf/year.
- g. Operating hours and for the affected turbines, hr/month and hr/year.

- h. Operating hours and fuel consumption for the affected turbines when operated at reduced load of equal to or less than 60% compiled on at least a monthly basis.
- Heat content of the fuel being fired in the affected turbines.
- j. Emissions of each pollutant from the affected turbines, including emissions from startups, with supporting calculations including documentation on the validity of the emission factors used, ton/month and ton/yr.
- k. The Permittee shall maintain the following if required:
  - i. Any periods during which a continuous monitoring system was not operational, with explanation.
  - ii. Any period when the affected turbine was in operation during which ice fog was deemed to be a traffic hazard, the ambient conditions existing during the periods, the date and time the water injection system was deactivated, and the date and time the system was reactivated.
  - iii. Any day in which emission and/or opacity exceeded an applicable standard or limit.

### 7.2.10 Reporting Requirements

a. Reporting of Malfunctions and Breakdowns

The Permittee shall provide the following notification and reports to the Illinois EPA, Compliance Section and Regional Field Office, pursuant to 35 IAC 201.263, concerning continued operation of an affected turbine subject to Condition 7.2.3(f) during malfunction or breakdown.

- i. The Permittee shall notify the Illinois EPA's regional office by telephone as soon as possible during normal working hours, but no later than three (3) days, upon the occurrence of noncompliance due to malfunction or breakdown.
- ii. Upon achievement of compliance, the Permittee shall give a written follow-up notice to the Illinois EPA, Compliance Section and Regional Field Office, providing a detailed explanation of the event, an explanation why continued operation of the affected turbine was necessary, the length of time during which operation continued under such conditions, the measures taken by the Permittee to minimize

and correct deficiencies with chronology, and when the repairs were completed or when the affected turbine was taken out of service.

- b. The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of an affected turbine with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:
  - i. Emissions from or operation of an affected turbine in excess of the limits specified in Conditions 7.2.3, 7.2.5, and 7.2.6 within 30 days of such occurrence.
- c. i. Annually report the heat input and  $NO_x$  emissions of the turbines as determined in accordance with 35 IAC 217.710(c) (Condition 7.2.8(d)(iii)), for each ozone control period, by November 30 of each year [35 IAC 217.712(b)(2)].
  - ii. Pursuant to 35 IAC 217.712(c) and (d), no later than November 30 of each year, the Permittee shall submit a report to the Illinois EPA that demonstrates that the affected turbines have complied with Condition 7.2.3(e). These reports shall be accompanied by a certification statement signed by a responsible official for the Permittee as specified by 35 IAC 217.712(c).
- 7.2.11 Operational Flexibility/Anticipated Operating Scenarios N/A

## 7.2.12 Compliance Procedures

- a. i. Compliance with Condition 7.2.3(c)(i) is considered to be assured by the use of natural gas because natural gas contains negligible fuel bound nitrogen.
  - ii. Compliance with Condition 7.2.3(c)(ii) is demonstrated by the monitoring requirements of 7.2.8 and by the recordkeeping requirements of 7.2.9.
- b. Compliance with Condition 7.2.3(d) is demonstrated by proper operating conditions of the affected turbine.
- c. Compliance with Condition 7.2.3(e) shall be demonstrated by the monitoring requirements of 7.2.8, the records required in Condition 7.2.9, and the reporting requirements of 7.2.10.

d. Compliance with the emission limits in Conditions 5.5 and 7.2.6 shall be determined by using published emission factors, Illinois EPA approved stack test data, Illinois EPA approved measured emission factors, or approved manufacturer's data and the recordkeeping requirements in Condition 7.2.9.

# 7.3 Reciprocating Engines (Start-Up Engines)

# 7.3.1 Description

The engines are process emission units used to start the turbines described in Sections 7.1 and 7.2. All engines are powered by distillate fuel oil.

## 7.3.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
D05	5.21 mmBtu/hr Natural Gas Fired Start-up Engine	None
D06	5.21 mmBtu/hr Natural Gas Fired Start-up Engine	None
D07	5.21 mmBtu/hr Natural Gas Fired Start-up Engine	None
D08	5.21 mmBtu/hr Natural Gas Fired Start-up Engine	None

# 7.3.3 Applicability Provisions and Applicable Regulations

- a. The "affected engines" for the purpose of these unitspecific conditions, are engines described in Conditions 7.3.1 and 7.3.2.
- b. The affected engines are subject to the emission limits identified in Condition 5.2.2.
- c. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to excess 2000 ppm [35 IAC 214.301].
- d. No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from any emission source, except as provided in 35 IAC 215.302, 215.303, 215.304 and the following exception: If no odor nuisance exists the limitation of 35 IAC 215 Subpart G shall apply only to photochemically reactive material [35 IAC 215.301].

# 7.3.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected engines not being subject to the requirements of 35 IAC 212.321 or 212.322, because due to the unique nature of these units, a process weight rate can not be set so that such rules can not reasonably be applied.
- b. The affected engines are not subject to 35 IAC 217.141, because the affected engines are not by definition a fuel combustion unit.
- c. The affected engines are not subject to 35 IAC 216.121, because the affected engines are not by definition a fuel combustion unit.

- 7.3.5 Operational and Production Limits and Work Practices
  - a. Distillate fuel oil shall be the only fuel fired in the affected engines.
  - b. Total operation of the affected engines shall not exceed 1,460 hours per year [T1]. The above limitations were established in Permit 00090076.
- 7.3.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected engines are subject to the following:

a. Hourly emissions from each affected engines shall not exceed the following limits:

Pollutant	(Lb/Hour)
NO <b></b> ↓	16.48
co	5.17
SO <sub>2</sub>	2.69
VOM	0.71

b. Total emissions from the affected engines shall not exceed the following limits:

Pollutant	(Ton/Year)
$NO_x$	12.03
CO	3.77
SO <sub>2</sub>	1.96
VOM	0.52

c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

The above limitations were established in Permit 00090076, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

# 7.3.7 Testing Requirements

None

7.3.8 Monitoring Requirements

None

### 7.3.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected engines to demonstrate compliance with Conditions 5.5.1, 7.3.5, and 7.3.6, pursuant to Section 39.5(7)(b) of the Act:

- a. Total operating hours of the affected engines, hr/month and hr/year.
- b. Emissions of each pollutant from the affected engines with supporting calculations including documentation on the validity of the emission factors used, ton/month and ton/year.

# 7.3.10 Reporting Requirements

- a. The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of an affected engine with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:
  - i. Emissions from or operation of an affected engine in excess of the limits specified in Conditions 7.3.3, 7.3.5, and 7.3.6 within 30 days of such occurrence.
- 7.3.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

# 7.3.12 Compliance Procedures

- a. Compliance with Conditions 7.3.3(c) and (d) is demonstrated by proper operating conditions of the affected engines.
- b. Compliance with the emission limits in Conditions 5.5 and 7.3.6 shall be determined by using published emission factors, Illinois EPA approved stack test data, Illinois EPA approved measured emission factors, or approved manufacturer's data and the recordkeeping requirements in Condition 7.3.9.

### 8.0 GENERAL PERMIT CONDITIONS

#### 8.1 Permit Shield

Pursuant to Section 39.5(7)(j) of the Act, the Permittee has requested and has been granted a permit shield. This permit shield provides that compliance with the conditions of this permit shall be deemed compliance with applicable requirements which were applicable as of the date the proposed permit for this source was issued, provided that either the applicable requirements are specifically identified within this permit, or the Illinois EPA, in acting on this permit application, has determined that other requirements specifically identified are not applicable to this source and this determination (or a concise summary thereof) is included in this permit.

This permit shield does not extend to applicable requirements which are promulgated after October 3, 2002 (the date of issuance of the draft permit) unless this permit has been modified to reflect such new requirements.

8.2 Applicability of Title IV Requirements (Acid Deposition Control)

This source is an affected source under Title IV of the CAA and is subject to requirements pursuant to Title IV of the CAA. To the extent that the federal regulations promulgated under Title IV of the CAA are inconsistent with the requirements of this permit, the federal regulations promulgated under Title IV of the CAA shall take precedence pursuant to Section 39.5(17)(j) of the Act.

8.3 Emissions Trading Programs

No permit revision shall be required for increases in emissions allowed under any USEPA approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for elsewhere in this permit and that are authorized by the applicable requirement [Section 39.5(7)(o)(vii) of the Act].

As of the date of issuance of this permit, there are no such economic incentive, marketable permit or emission trading programs that have been approved by USEPA.

- 8.4 Operational Flexibility/Anticipated Operating Scenarios
  - 8.4.1 Changes Specifically Addressed by Permit

Physical or operational changes specifically addressed by the Conditions of this permit that have been identified as not requiring Illinois EPA notification may be implemented without prior notice to the Illinois EPA.

8.4.2 Changes Requiring Prior Notification

The Permittee is authorized to make physical or operational changes that contravene express permit terms without applying for or obtaining an amendment to this

permit, provided that [Section 39.5(12)(a)(i) of the Actl:

- a. The changes do not violate applicable requirements;
- b. The changes do not contravene federally enforceable permit terms or conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements;
- c. The changes do not constitute a modification under Title I of the CAA;
- d. Emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change; and
- e. The Permittee provides written notice to the Illinois EPA, Division of Air Pollution Control, Permit Section, at least 7 days before commencement of the change. This notice shall:
  - i. Describe the physical or operational change;
  - ii. Identify the schedule for implementing the physical or operational change;
  - iii. Provide a statement of whether or not any New Source Performance Standard (NSPS) is applicable to the physical or operational change and the reason why the NSPS does or does not apply;
  - iv. Provide emission calculations which demonstrate that the physical or operational change will not result in a modification; and
  - v. Provide a certification that the physical or operational change will not result in emissions greater than authorized under the Conditions of this permit.

# 8.5 Testing Procedures

Tests conducted to measure composition of materials, efficiency of pollution control devices, emissions from process or control equipment, or other parameters shall be conducted using standard test methods. Documentation of the test date, conditions, methodologies, calculations, and test results shall be retained pursuant to the recordkeeping procedures of this permit. Reports of any tests conducted as required by this permit or as the result of a request by the Illinois EPA shall be submitted as specified in Condition 8.6.

# 8.6 Reporting Requirements

# 8.6.1 Monitoring Reports

If monitoring is required by any applicable requirements or conditions of this permit, a report summarizing the required monitoring results, as specified in the conditions of this permit, shall be submitted to the Air Compliance Section of the Illinois EPA every six months as follows [Section 39.5(7)(f) of the Act]:

## Monitoring Period

Report Due Date

January - June

September 1

July - December

March 1

All instances of deviations from permit requirements must be clearly identified in such reports. All such reports shall be certified in accordance with Condition 9.9.

### 8.6.2 Test Notifications

Unless otherwise specified elsewhere in this permit, a written test plan for any test required by this permit shall be submitted to the Illinois EPA for review at least 60 days prior to the testing pursuant to Section 39.5(7)(a) of the Act. The notification shall include at a minimum:

- a. The name and identification of the affected unit(s);
- The person(s) who will be performing sampling and analysis and their experience with similar tests;
- c. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined;
- d. The specific determination of emissions and operation which are intended to be made, including sampling and monitoring locations;
- e. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods;
- f. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification; and
- g. Any proposed use of an alternative test method, with detailed justification.

#### 8.6.3 Test Reports

Unless otherwise specified elsewhere in this permit, the results of any test required by this permit shall be submitted to the Illinois EPA within 60 days of completion of the testing. The test report shall include at a minimum [Section 39.5(7)(e)(i) of the Act]:

- a. The name and identification of the affected unit(s);
- b. The date and time of the sampling or measurements;
- c. The date any analyses were performed;
- d. The name of the company that performed the tests and/or analyses;
- e. The test and analytical methodologies used;
- f. The results of the tests including raw data, and/or analyses including sample calculations;
- g. The operating conditions at the time of the sampling or measurements; and
- h. The name of any relevant observers present including the testing company's representatives, any Illinois EPA or USEPA representatives, and the representatives of the source.

#### 8.6.4 Reporting Addresses

- a. The following addresses should be utilized for the submittal of reports, notifications, and renewals:
  - i. Illinois EPA Air Compliance Section
    Illinois Environmental Protection Agency Bureau of Air
    Compliance Section (#40)
    P.O. Box 19276
    Springfield, Illinois 62794-9276
  - ii. Illinois EPA Air Regional Field Office

Illinois Environmental Protection Agency Division of Air Pollution Control 2009 Mall Street Collinsville, Illinois 62234

iii. Illinois EPA - Air Permit Section (MC 11)

Illinois Environmental Protection Agency Division of Air Pollution Control Permit Section P.O. Box 19506 Springfield, Illinois 62794-9506 iv. USEPA Region 5 - Air Branch

USEPA (AE - 17J) Air & Radiation Division 77 West Jackson Boulevard Chicago, Illinois 60604

- b. Unless otherwise specified in the particular provision of this permit, reports shall be sent to the Illinois EPA - Air Compliance Section with a copy sent to the Illinois EPA - Air Regional Field Office.
- 8.7 Obligation to Comply with Title I Requirements

Any term, condition, or requirement identified in this permit by T1, T1R, or T1N is established or revised pursuant to 35 IAC Part 203 or 40 CFR 52.21 ("Title I provisions") and incorporated into this permit pursuant to both Section 39.5 and Title I provisions. Notwithstanding the expiration date on the first page of this permit, the Title I conditions remain in effect pursuant to Title I provisions until the Illinois EPA deletes or revises them in accordance with Title I procedures.

#### 9.0 STANDARD PERMIT CONDITIONS

#### 9.1 Effect of Permit

- 9.1.1 The issuance of this permit does not release the Permittee from compliance with State and Federal regulations which are part of the Illinois State Implementation Plan, as well as with other applicable statutes and regulations of the United States or the State of Illinois or applicable ordinances, except as specifically stated in this permit and as allowed by law and rule [Section 39.5(7)(j)(iv) of the Act].
- 9.1.2 In particular, this permit does not alter or affect the following:
  - a. The provisions of Section 303 (emergency powers) of the CAA, including USEPA's authority under that Section;
  - b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
  - c. The applicable requirements of the acid rain program consistent with Section 408(a) of the CAA; and
  - d. The ability of USEPA to obtain information from a source pursuant to Section 114 (inspections, monitoring, and entry) of the CAA.
- 9.1.3 Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

#### 9.2 General Obligations of Permittee

#### 9.2.1 Duty to Comply

The Permittee must comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the CAA and the Act, and is grounds for any or all of the following: enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application [Section 39.5(7)(o)(i) of the Act].

The Permittee shall meet applicable requirements that become effective during the permit term in a timely manner unless an alternate schedule for compliance with the applicable requirement is established.

#### 9.2.2 Duty to Maintain Equipment

The Permittee shall maintain all equipment covered under this permit in such a manner that the performance or

operation of such equipment shall not cause a violation of applicable requirements.

#### 9.2.3 Duty to Cease Operation

No person shall cause, threaten or allow the continued operation of any emission unit during malfunction or breakdown of the emission unit or related air pollution control equipment if such operation would cause a violation of an applicable emission standard, regulatory requirement, ambient air quality standard or permit limitation unless such malfunction or breakdown is allowed by a permit condition [Section 39.5(6)(c) of the Act].

#### 9.2.4 Disposal Operations

The source shall be operated in such a manner that the disposal of air contaminants collected by the equipment operations, or activities shall not cause a violation of the Act or regulations promulgated thereunder.

#### 9.2.5 Duty to Pay Fees

The Permittee must pay fees to the Illinois EPA consistent with the fee schedule approved pursuant to Section 39.5(18) of the Act, and submit any information relevant thereto [Section 39.5(7)(0)(vi) of the Act]. The check should be payable to "Treasurer, State of Illinois" and sent to: Fiscal Services Section, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, Illinois 62794-9276.

#### 9.3 Obligation to Allow Illinois EPA Surveillance

Upon presentation of proper credentials and other documents, the Permittee shall allow the Illinois EPA, or an authorized representative to perform the following [Section 39.5(7)(a) and (p)(ii) of the Act and 415 ILCS 5/4]:

- a. Enter upon the Permittee's premises where an actual or potential emission unit is located; where any regulated equipment, operation, or activity is located or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect during hours of operation any sources, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- d. Sample or monitor any substances or parameters at any location:
  - i. At reasonable times, for the purposes of assuring permit compliance; or

ii. As otherwise authorized by the CAA, or the Act.

- e. Obtain and remove samples of any discharge or emission of pollutants authorized by this permit; and
- f. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any activity, discharge or emission at the source authorized by this permit.
- 9.4 Obligation to Comply With Other Requirements

The issuance of this permit does not release the Permittee from applicable State and Federal laws and regulations, and applicable local ordinances addressing subjects other than air pollution control.

#### 9.5 Liability

#### 9.5.1 Title

This permit shall not be considered as in any manner affecting the title of the premises upon which the permitted source is located.

#### 9.5.2 Liability of Permittee

This permit does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the sources.

#### 9.5.3 Structural Stability

This permit does not take into consideration or attest to the structural stability of any unit or part of the source.

#### 9.5.4 Illinois EPA Liability

This permit in no manner implies or suggests that the Illinois EPA (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the source.

#### 9.5.5 Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege [Section 39.5(7)(o)(iv) of the Act].

#### 9.6 Recordkeeping

9.6.1 Control Equipment Maintenance Records

A maintenance record shall be kept on the premises for each item of air pollution control equipment. As a minimum, this record shall show the dates of performance and nature of preventative maintenance activities.

9.6.2 Records of Changes in Operation

A record shall be kept describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes [Section 39.5(12)(b)(iv) of the Act].

#### 9.6.3 Retention of Records

- a. Records of all monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit [Section 39.5(7)(e)(ii) of the Act].
- b. Other records required by this permit shall be retained for a period of at least 5 years from the date of entry unless a longer period is specified by a particular permit provision.

#### 9.7 Annual Emissions Report

The Permittee shall submit an annual emissions report to the Illinois EPA, Compliance Section no later than May 1 of the following year, as required by 35 IAC Part 254.

9.8 Requirements for Compliance Certification

Pursuant to Section 39.5(7)(p)(v) of the Act, the Permittee shall submit annual compliance certifications. The compliance certifications shall be submitted no later than May 1 or more frequently as specified in the applicable requirements or by permit condition. The compliance certifications shall be submitted to the Air Compliance Section, Air Regional Field Office, and USEPA Region 5 - Air Branch. The addresses for the submittal of the compliance certifications are provided in Condition 8.6.4 of this permit.

a. The certification shall include the identification of each term or condition of this permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, both

currently and over the reporting period consistent with the conditions of this permit.

- b. All compliance certifications shall be submitted to USEPA Region 5 in Chicago as well as to the Illinois EPA.
- c. All compliance reports required to be submitted shall include a certification in accordance with Condition 9.9.

#### 9.9 Certification

Any document (including reports) required to be submitted by this permit shall contain a certification by a responsible official of the Permittee that meets the requirements of Section 39.5(5) of the Act [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included as an attachment to this permit.

#### 9.10 Defense to Enforcement Actions

9.10.1 Need to Halt or Reduce Activity Not a Defense

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 [Section 39.5(7)(o)(ii) of the Act].

#### 9.10.2 Emergency Provision

- An emergency shall be an affirmative defense to an action brought for noncompliance with the technologybased emission limitations under this permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence:
  - i. An emergency occurred as provided in Section 39.5(7)(k) of the Act and the Permittee can identify the cause(s) of the emergency.
     Normally, an act of God such as lightning or flood is considered an emergency;
  - ii. The permitted source was at the time being properly operated;
  - iii. The Permittee submitted notice of the emergency to the Illinois EPA within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and
  - iv. During the period of the emergency the Permittee took all reasonable steps to

minimize levels of emissions that exceeded the emission limitations, standards, or regulations in this permit.

b. This provision is in addition to any emergency or upset provision contained in any applicable requirement. This provision does not relieve a Permittee of any reporting obligations under existing federal or state laws or regulations.

#### 9.11 Permanent Shutdown

This permit only covers emission units and control equipment while physically present at the indicated source location(s). Unless this permit specifically provides for equipment relocation, this permit is void for the operation or activity of any item of equipment on the date it is removed from the permitted location(s) or permanently shut down. This permit expires if all equipment is removed from the permitted location(s), notwithstanding the expiration date specified on this permit.

#### 9.12 Reopening and Reissuing Permit for Cause

#### 9.12.1 Permit Actions

This permit may be modified, reopened, and reissued, for cause pursuant to Section 39.5(15) of the Act. The filing of a request by the Permittee for a permit modification, revocation, and reissuance, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition [Section 39.5(7)(o)(iii) of the Act].

#### 9.12.2 Reopening and Revision

This permit must be reopened and revised if any of the following occur [Section 39.5(15)(a) of the Act]:

- Additional requirements become applicable to the equipment covered by this permit and three or more years remain before expiration of this permit;
- b. Additional requirements become applicable to an affected source for acid deposition under the acid rain program;
- c. The Illinois EPA or USEPA determines that this permit contains a material mistake or inaccurate statement when establishing the emission standards or limitations, or other terms or conditions of this permit; and
- d. The Illinois EPA or USEPA determines that this permit must be revised to ensure compliance with the applicable requirements of the Act.

#### 9.12.3 Inaccurate Application

The Illinois EPA has issued this permit based upon the information submitted by the Permittee in the permit application. Any misinformation, false statement or misrepresentation in the application shall be grounds for revocation under Section 39.5(15)(b) of the Act.

#### 9.12.4 Duty to Provide Information

The Permittee shall furnish to the Illinois EPA, within a reasonable time specified by the Illinois EPA any information that the Illinois EPA 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 the Illinois EPA copies of records required to be kept by this permit, or for information claimed to be confidential, the Permittee may furnish such records directly to USEPA along with a claim of confidentiality [Section 39.5(7)(o)(v) of the Act].

#### 9.13 Severability Clause

The provisions of this permit are severable, and should any one or more be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected. The rights and obligations of the Permittee shall be construed and enforced as if this permit did not contain the particular provisions held to be invalid and the applicable requirements underlying these provisions shall remain in force [Section 39.5(7)(i) of the Act].

#### 9.14 Permit Expiration and Renewal

The right to operate terminates on the expiration date unless the Permittee has submitted a timely and complete renewal application. For a renewal to be timely it must be submitted no later than 9 and no sooner than 12 months prior to expiration. The equipment may continue to operate during the renewal period until final action is taken by the Illinois EPA, in accordance with the original permit conditions [Section 39.5(5)(1), (n), and (o) of the Actl.

#### 10.0 ATTACHMENTS

10.1 Attachment 1 - Example Certification by a Responsible Official

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:	
Name:	
Official Title:	
Telephone No.:	
Date Signed:	

10.2 Attachment 2 - Acid Rain Permit

217-782-2113

ACID RAIN PROGRAM PHASE II PERMIT

Ameren Services

Attention: Mr. Paul A. Agathen, Designated Representative

One Ameren Plaza, 1901 Chouteau Ave.

P.O. Box 66149, MC 07 St. Louis, MO 63166-6149

Oris No.: 55202 IEPA I.D. No.: 145842AAA

Source/Unit: Pinckneyville Power Plant, Four GT's at Pinckneyville

<u>Date Received</u>: November 22, 1999 <u>Date Issued</u>: May 11, 2000

Effective Date: January 1, 2000
Expiration Date: December 31, 2004

#### STATEMENT OF BASIS:

In accordance with Section 39.5(17)(b), Title IV; Acid Rain Provisions, of the Illinois Environmental Protection Act [415 ILCS 5/1 et Seq.] and Titles IV and V of the Clean Air Act, the Illinois Environmental Protection Agency is issuing this Acid Rain Program Phase II permit for the Pinckneyville Power Plant.

SULFUR DIOXIDE (SO<sub>2</sub>) ALLOCATIONS AND NITROGEN OXIDE (NO $_{\rm x}$ ) REQUIREMENTS FOR EACH AFFECTED UNIT:

 	2000	2001	2002	2003	2004
SO <sub>2</sub> Allowances, under Tables 2, 3, or 4 of 40 CFR Part 73	N/A	N/A	N/A	N/A	N/A
NO <sub>x</sub> limit	These units are not subject a NO <sub>x</sub> emissions limitation under 40 CFR Part 76.		t to		

The construction permit # 99090035 issued by Illinois EPA contains provisions related to sulfur dioxide ( $SO_2$ ) emissions. The acid rain permit also contains provisions related to sulfur dioxide ( $SO_2$ ) emissions and requires the owners and operators to hold  $SO_2$  allowances to account for  $SO_2$  emissions beginning in the year 2000. An allowance is a limited authorization to emit up to one ton of  $SO_2$  during or after a specified calendar year. Although this plant was not eligible for an allowance allocated by USEPA, the owners or operators may obtain  $SO_2$  allowances to cover emissions from other sources under a marketable allowance program. The transfer of allowances to and from a unit account does not necessitate a revision to the unit  $SO_2$  allocations in the permit (See 40 CFR 72.84).

COMMENTS, NOTES AND JUSTIFICATIONS: This permit does not affect the Pinckneyville Power Plant's responsibility to meet all other applicable local, state, and federal requirements, including requirements addressing  $NO_{\rm x}$  emissions.

PERMIT APPLICATION: The  $SO_2$  allowance requirements and other standard requirements are attached and incorporated as part of this permit. The owners and operators of this source must comply with the standard requirements and special provisions set forth in the application.

If you have any questions regarding this permit, please contact Shashi Shah at 217-782-7395.

#### (ORIGINAL SIGNED BY DONALD E. SUTTON)

Donald E. Sutton, P.E. Manager, Permits Section Division of Air Pollution Control

cc: Cecilia Mijares, USEPA Region V
John Justice, IEPA Region 3

217-782-2113

### ACID RAIN PROGRAM PHASE II PERMIT

Ameren Energy Generating Company

Attention: Mr. Paul A. Agathen, Designated Representative

One Ameren Plaza, 1901 Chouteau Ave.

P.O. Box 66149, MC 07 St. Louis, MO 63166-6149

Oris No.:

55202

IEPA I.D. No.:

145842AAA

Source/Unit:

Pinckneyville Power Plant, Additional Four

CT's (CT05 through CT08) at Pinckneyville

Date Received:
Date Issued:
Effective Date:

January 12, 2001 March 26, 2001 January 1, 2000

Expiration Date: December 31, 2004

#### STATEMENT OF BASIS:

In accordance with Section 39.5(17)(b), Title IV; Acid Rain Provisions, of the Illinois Environmental Protection Act [415 ILCS 5/1 et Seq.] and Titles IV and V of the Clean Air Act, the Illinois Environmental Protection Agency is issuing this Acid Rain Program Phase II permit for the Pinckneyville Power Plant.

SULFUR DIOXIDE (SO2) ALLOCATIONS AND NITROGEN OXIDE (NOx) REQUIREMENTS FOR EACH AFFECTED UNIT:

		2000	2001	2002	2003	2004
UNITS CT-05 through CT-08	SO <sub>2</sub> Allowances, under Tables 2, 3, or 4 of 40 CFR Part 73	N/A	N/A	N/A	N/A	N/A
	NO <sub>x</sub> limit	NO <sub>x</sub> em		are not limita		

The construction permit # 00090076 issued by Illinois EPA contains provisions related to sulfur dioxide (SO<sub>2</sub>) emissions. The acid rain permit also contains provisions related to sulfur dioxide (SO<sub>2</sub>) emissions and requires the owners and operators to hold SO<sub>2</sub> allowances to account for SO<sub>2</sub> emissions beginning in the year 2000. An allowance is a limited authorization to emit up to one ton of SO<sub>2</sub> during or after a specified calendar year. Although this plant was not eligible for an allowance allocated by USEPA, the owners or operators may obtain SO<sub>2</sub> allowances to cover emissions from other sources under a marketable allowance program. The transfer of allowances to and from a unit account does not necessitate a revision to the unit SO<sub>2</sub> allocations in the permit (See 40 CFR 72.84).

COMMENTS, NOTES AND JUSTIFICATIONS: This permit does not affect the Pinckneyville Power Plant's responsibility to meet all other applicable local, state, and federal requirements, including requirements addressing  $\mathrm{NO}_{\mathrm{x}}$  emissions.

PERMIT APPLICATION: The  $SO_2$  allowance requirements and other standard requirements are attached and incorporated as part of this permit. The owners and operators of this source must comply with the standard requirements and special provisions set forth in the application.

If you have any questions regarding this permit, please contact Shashi Shah at 217-782-7395.

#### (ORIGINAL SIGNED BY DONALD E. SUTTON)

Donald E. Sutton, P.E. Manager, Permits Section Division of Air Pollution Control

DES:SRS

cc: Cecilia Mijares, USEPA Region V
John Justice, IEPA Region 3

United States Environmental Protection Agency Acid Rain Program

OMB No. 2000-0258

# **Phase II Permit Application**

For more Information, see Instructions and refer to 40 CFR 7230 and 7231

This submission is: XX Revised

STEP 1 Identify the source by plant name, State, and ORIS code.

55000 Pirckreyville Pawer Paril

Conglence Plan Unit Will Hota Alba-prices in Accordance with 40 CFR 72.9(c)(1) Unit ID# Naw Urits Monitor Certification Dazatna Commence Operation

whether a unit is being repowered and the repowering plan being renewed by entering "yes" or "no" at column c. For new units, enter the requested information in columns d and o.

CT01	Yos	No	5/29/00	B/29/00	
CT02	Yes	No	6/5/00	9/5/00	
CT03	Yes	₩o	6/20/00	9/20/00	
CT04	Yes	No	6/30/00	9/30/00	
CT05	Yen	No	5/1/01	8/1/01	
CTOS	Yes	Na	5.8.01	BB01	
CT07	Yes	No	5/15/01	#15/D1	
СТОВ	Yes	No	5,22,01	8/22/01	
	Yes				
	Ye				
	Y6a				
	Yes				

STEP 3 Check the box if the response in column c of Step 2 is "Yes" for any unit.

For each unit that its bulleg repowered, the Repowering Excension Plan form is included.

EPA Form 7618-16 (mv 4-95)

Phase @ Perni: - Page 2 Pinckreyville Power Plant

STEP 4
Read the standard requirements entocertification, entothe name of the 
designated representative, and sign 
and date

#### Standard Requirements

#### Pernt Recurrencits.

#### Moritoring Requirements.

(1) The correct and operators and, to the extent applicable, the type half representative of each effect of each effect of the source shall comply with the monitoring recurrences as provided in 40 CFR pain 75.

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### part 77; mm (i) Comply with the ferma of an exproved officel plan, as required by 40 CFR part 77.

#### Recombacting and Reporting Requirements.

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EPA Form 7610-18 (rev. 4-98)

	Phase II Permit - Page 1
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Paul A. Agaithes)-2	
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EPA Form 7513-15 (rev. 1-93)

10.3 Attachment 3 - Guidance on Revising This Permit

The Permittee must submit an application to the Illinois EPA using the appropriate revision classification in accordance with Sections 39.5(13) and (14) of the Act and 35 IAC 270.302. Specifically, there are currently three classifications for revisions to a CAAPP permit. These are:

- Administrative Permit Amendment;
- 2. Minor Permit Modification; and
- 3. Significant Permit Modification.

The Permittee must determine, request, and submit the necessary information to allow the Illinois EPA to use the appropriate procedure to revise the CAAPP permit. A brief explanation of each of these classifications follows.

#### 1. Administrative Permit Amendment

- Corrects typographical errors;
- Identifies a change in the name, address, or phone number of any person identified in the permit, or provides a similar minor administrative change at the source;
- Requires more frequent monitoring or reporting by the Permittee;
- Allows for a change in ownership or operational control of the source where no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new Permittees has been submitted to the Illinois EPA. This shall be handled by completing form 272-CAAPP, REQUEST FOR OWNERSHIP CHANGE FOR CAAPP PERMIT; or
- Incorporates into the CAAPP permit a construction permit, provided the conditions of the construction permit meet the requirements for the issuance of CAAPP permits.

#### 2. Minor Permit Modification

- Do not violate any applicable requirement;
- Do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit;
- Do not require a case-by-case determination of an emission limitation or other standard, or a

source-specific determination of ambient impacts, or a visibility or increment analysis;

- Do not seek to establish or change a permit term or condition for which there is no corresponding underlying requirement and which avoids an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
  - A federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the CAA; and
  - An alternative emissions limit approved pursuant to regulations promulgated under Section 112(i)(5) of the CAA.
- Are not modifications under any provision of Title I of the CAA;
- Are not required to be processed as a significant permit modification; and
- Modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches.

An application for a minor permit modification shall include the following:

- A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
- The source's suggested draft permit/conditions;
- Certification by a responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and
- Information as contained on form 271-CAAPP, MINOR PERMIT MODIFICATION FOR CAAPP PERMIT for the Illinois EPA to use to notify USEPA and affected States.

#### 3. Significant Permit Modification

- Applications that do not qualify as either minor permit modifications or as administrative permit amendments;
- Applications requesting a significant change in existing monitoring permit terms or conditions;
- Applications requesting a relaxation of reporting or recordkeeping requirements; and

 Cases in which, in the judgment of the Illinois EPA, action on an application for modification would require decisions to be made on technically complex issues.

An application for a significant permit modification shall include the following:

 A detailed description of the proposed change(s), including all physical changes to equipment, changes in the method of operation, changes in emissions of each pollutant, and any new applicable requirements which will apply as a result of the proposed change.
 Note that the Permittee need only submit revised forms for equipment and operations that will be modified.

The Illinois EPA requires the information on the following appropriate forms to be submitted in accordance with the proper classification:

- Form 273-CAAPP, REQUEST FOR ADMINISTRATIVE PERMIT AMENDMENT FOR CAAPP PERMIT; or
- Form 271-CAAPP, MINOR PERMIT MODIFICATION FOR CAAPP PERMIT; or
- Form 200-CAAPP, APPLICATION FOR CAAPP PERMIT (for significant modification).

Application forms can be obtained from the Illinois EPA website at http://www.epa.state.il.us/air/forms.

Note that the request to revise the permit must be certified for truth, accuracy, and completeness by a responsible official.

Note that failure to submit the required information may require the Illinois EPA to deny the application. The Illinois EPA reserves the right to require that additional information be submitted as needed to evaluate or take final action on applications pursuant to Section 39.5(5)(g) of the Act and 35 IAC 270.305.

10.4 Attachment 4

Form 199-CAAPP, Application For Construction Permit (For CAAPP Sources Only)



Illinois Environmental Protection Agency
Division Of Air Pollution Control -- Permit Section
P.O. Box 19506
Springfield, Illinois 62794-9506

		100000000000000000000000000000000000000	For Illinois EPA use only
Ι,	Application For Construction		I.D. number:
I	ermit (For CAAPP So		Permit number:
İ		Date received:	
			ion necessary to obtain a construction permit. Please attach other g this construction/modification project.
	and a more		Information
1.	Source name:		
2.	Source street address:		
3.	City:	<u> </u>	4. Zip code:
5.	Is the source located within	ı city limits?	☐ Yes ☐ No
6.	Township name:	7. County:	8. I.D. number:
		Owner I	nformation
9.	Name:		
10.	Address:		**************************************
11.	City:	12. State:	13. Zip code:
	Operato	r Information	(if different from owner)
14.	Name	P\$05300	
15.	Address:		
16.	City:	17. State:	18. Zip code:
		a company and a set a se	
	14/2- i- 4lli10		t Information
19.	Who is the applicant? ☐ Owner ☐ Operato	or [	All correspondence to: (check one)  Owner Operator Source
21.	Attention name and/or title	for written corresp	pondence:
22.	Technical contact person for	or application:	23. Contact person's telephone number:

This Agency is authorized to require and you must disclose this information under 415 ILCS 5/39. Failure to do so could result in the application being denied and penalties under 415 ILCS 5 et seq. It is not necessary to use this form in providing this information. This form has been approved by the forms management center.

		TATE AND THE TIME A LINE		
-	Summary Of Application Contents			and the second second second second
24.	Does the application address whether the proposed project would constitute a new major source or major modification under each of the following programs:		Yes	☐ No
	a) Non-attainment New Source Review – 35 IAC Part 203;			
	b) Prevention of Significant Deterioration (PSD) – 40 CFR 52.21;			
	c) Hazardous Air Pollutants: Regulations Governing Constructed or			
	Reconstructed Major Sources – 40 CFR Part 63?			
25.	Does the application identify and address all applicable emissions	П	Yes	□No
	standards, including those found in the following:	_		السفيا
i	<ul> <li>a) Board Emission Standards – 35 IAC Chapter I, Subtitle B;</li> <li>b) Federal New Source Performance Standards – 40 CFR Part 60;</li> </ul>			
	c) Federal Standards for Hazardous Air Pollutants – 40 CFR Parts 61			
	and 63?			
26.	Does the application include a process flow diagram(s) showing all emission units and control equipment, and their relationship, for which a permit is being sought?		Yes	□ No
27.	Does the application include a complete process description for the emission units and control equipment for which a permit is being sought?		Yes	☐ No
28.	Does the application include the information as contained in completed			
	CAAPP forms for all appropriate emission units and air pollution control	Ш	Yes	☐ No
	equipment, listing all applicable requirements and proposed exemptions			
	from otherwise applicable requirements, and identifying and describing			
İ	any outstanding legal actions by either the USEPA or the Illinois EPA?			
	Note: The use of "APC" application forms is not appropriate for applications for CAAPP sources. CAAPP forms should be used to			
	supply information.			
29.	If the application contains TRADE SECRET information, has such		\/	
	information been properly marked and claimed, and have two separate	ш	Yes	☐ No
	copies of the application suitable for public inspection and notice been			
	submitted, in accordance with applicable rules and regulations?	П	Not A	pplicable,
l		<b></b>		RADE
]			SECF	RET
				nation in
				pplication
Note	Answering "No" to any of the above may result in the application being decomposition.	eeme	d inco	mplete.
	Signature Block			
	This certification must be signed by a responsible official. Applications with certification will be returned as incomplete.			
30.	I certify under penalty of law that, based on information and belief formed a inquiry, the statements and information contained in this application are tru complete.			
	Authorized Signature:			
B)	f:			
	AUTHORIZED SIGNATURE TITLE OF S	IGNAT	ORY	
	,		,	
	TYPED OR PRINTED NAME OF SIGNATORY DA	TE		

Note 2: An operating permit for the construction/modification permitted in a construction permit must be obtained by applying for the appropriate revision to the source's CAAPP permit, if necessary

10.5 Attachment 5 - Guidance on Renewing This Permit

Timeliness - Pursuant to Section 39.5(5)(n) of the Act and 35 IAC 270.301(d), a source must submit to the Illinois EPA a complete CAAPP application for the renewal of a CAAPP permit not later than 9 months before the date of permit expiration of the existing CAAPP permit in order for the submittal to be deemed timely. Note that the Illinois EPA typically sends out renewal notices approximately 18 months prior to the expiration of the CAAPP permit.

The CAAPP application must provide all of the following information in order for the renewal CAAPP application to be deemed complete by the Illinois EPA:

- A completed form 200-CAAPP, APPLICATION FOR CAAPP PERMIT.
- A completed compliance certification for the source. For this purpose, the Illinois EPA will accept a copy of the most recent form 401-CAAPP, ANNUAL COMPLIANCE CERTIFICATION submitted to the Illinois EPA.
- If this is the first time this permit is being renewed and this source has not yet addressed CAM, the application should contain the information on form 464-CAAPP, COMPLIANCE ASSURANCE MONITORING (CAM) PLAN.
- 4. Information addressing any outstanding transfer agreement pursuant to the ERMS.
- 5. a. If operations of an emission unit or group of emission units remain unchanged and are accurately depicted in previous submittals, the application may contain a letter signed by a responsible official that requests incorporation by reference of existing information previously submitted and on file with the Illinois EPA. The boxes should be marked yes on form 200-CAAPP, APPLICATION FOR CAAPP PERMIT, as existing information is being incorporated by reference.
  - b. If portions of current operations are not as described in previous submittals, then in addition to the information above for operations that remain unchanged, the application must contain the necessary information on all changes, e.g., discussion of changes, new or revised CAAPP forms, and a revised fee form 292-CAAPP, FEE DETERMINATION FOR CAAPP PERMIT, if necessary.

The Illinois EPA will review all applications for completeness and timeliness. If the renewal application is deemed both timely and complete, the source shall continue to operate in accordance with the terms and conditions of its CAAPP permit until final action is taken on the renewal application.

Notwithstanding the completeness determination, the Illinois EPA may request additional information necessary to evaluate or take final action on the CAAPP renewal application. If such additional

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information affects your allowable emission limits, a revised form 292-CAAPP, FEE DETERMINATION FOR CAAPP PERMIT must be submitted with the requested information. The failure to submit to the Illinois EPA the requested information within the time frame specified by the Illinois EPA, may force the Illinois EPA to deny your CAAPP renewal application pursuant to Section 39.5 of the Act.

Application forms may be obtained from the Illinois EPA website at http://www.epa.state.il.us/air/forms.html.

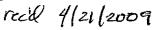
If you have any questions regarding this matter, please contact a permit analyst at 217/782-2113.

Mail renewal applications to:

Illinois Environmental Protection Agency Division of Air Pollution Control Permit Section (MC 11) P.O. Box 19506 Springfield, Illinois 62794-9506

JRC:ELK:psj

# EXHIBIT 2







File 3.1.2.1(

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19506, SPRINGFIELD, ILLINOIS 62794-9506 - (217) 782-2113

PAT QUINN, GOVERNOR

**DOUGLAS P. SCOTT. DIRECTOR** 

217/782-2113

### RENEWAL CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT

#### PERMITTEE:

Union Electric Company d/b/a Ameren U.E. Attn: Michael L. Menne 1901 Chouteau Avenue (MC 602) St. Louis, Missouri 63103

I.D. No.: 145842AAA

Application No.: 01050020

Date Received: February 16, 2007

<u>Date Issued</u>: April 14, 2010 Expiration Date<sup>1</sup>: April 14, 2015

Operation of: Pinckneyville Power Plant

Source Location: 4646 White Walnut Road, Pinckneyville, Perry County, 62274

Responsible Official: Michael L. Menne, Vice President

This permit is hereby granted to the above-designated Permittee to OPERATE an electric power generation plant, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

If you have any questions concerning this permit, please contact Kaushal Desai at 217/782-2113.

Edwin C. Bakowski, P.E.

Manager, Permit Section
Division of Air Pollution Control

Edwin C. Bakerpli, P.E.

ECB: KKD: psj

cc: Illinois EPA, FOS, Region 3

CES

Lotus Notes

Except as provided in Conditions 1.5 and 8.7 of this permit.

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#### 1.0 INTRODUCTION

#### 1.1 Source Identification

Pinckneyville Power Plant 4646 White Walnut Road Pinckneyville, Illinois 62274 314/554-2816

I.D. No.: 145842AAA

County: Perry

Standard Industrial Classification: 4911, Electric Power Generation

#### 1.2 Owner/Parent Company

Union Electric Company d/b/a Ameren U.E. 1901 Chouteau Avenue (MC 602) St. Louis, Missouri 63103

#### 1.3 Operator

Union Electric Company d/b/a Ameren U.E. 1901 Chouteau Avenue (MC 602) St. Louis, Missouri 63103

Steven C. Whitworth 314/554-4908

#### 1.4 Source Description

The power Plant is located at 4646 White Walnut Road, Pinckneyville. The source utilizes natural gas combustion turbines to generate electricity. In addition, the turbines control nitrogen oxide emissions with water injection systems and dry low  $NO_x$  combustors.

Note: This narrative description is for informational purposes only and is not enforceable.

#### 1.5 Conditions Arising from Construction or Modification of Emission Units

As generally identified below, this CAAPP permit may contain certain conditions that relate to requirements arising from the construction or modification of emission units at this source. These requirements derive from permitting programs authorized under Title I of the Clean Air Act (CAA) and regulations there under, and Title X of the Illinois Environmental Protection Act (Act) and regulations implementing the same. Such requirements, including the New Source Review programs for both major (i.e., PSD and nonattainment areas) and minor sources, are implemented by the Illinois EPA pursuant to Section 39(a) and 39.5 of the Act.

This permit may contain conditions that reflect requirements originally established in construction permits previously issued for this source. These conditions include requirements from preconstruction permits issued pursuant to regulations approved or promulgated by USEPA under Title I of the CAA, as well as requirements contained within construction permits issued pursuant to state law authority under Title X of the Act. Accordingly, all such conditions are incorporated into this CAAPP permit by virtue of being either an "applicable Clean Air Act requirement" or an "applicable requirement" in accordance with Section 39.5 of the Act. These conditions are identifiable herein by a designation to their origin of authority.

#### 2.0 LIST OF ABBREVIATIONS AND ACRONYMS COMMONLY USED

eq.]			
A			
Illinois Environmental Protection Agency			
Lowest Achievable Emission Rate			
Maximum Achievable Control Technology			
Major Stationary Sources Construction and Modification (35			
IAC 203, New Source Review for non-attainment areas)			
National Emission Standards for Hazardous Air Pollutants			
Nitrogen Oxides			
New Source Performance Standards			
Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test			
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#### 3.0 CONDITIONS FOR INSIGNIFICANT ACTIVITIES

#### 3.1 Identification of Insignificant Activities

The following activities at the source constitute insignificant activities as specified in 35 IAC 201.210:

3.1.1 Activities determined by the Illinois EPA to be insignificant activities, pursuant to 35 IAC 201.210(a)(1) and 201.211, as follows:

Cooling Towers
Natural Gas Indirect Fuel Heaters
Lube Oil Tank
Fuel Burning Heating Equipment

3.1.2 Activities that are insignificant activities based upon maximum emissions, pursuant to 35 IAC 201.210(a)(2) or (a)(3), as follows:

None

3.1.3 Activities that are insignificant activities based upon their type or character, pursuant to 35 IAC 201.210(a)(4) through (18), as follows:

None

3.1.4 Activities that are considered insignificant activities pursuant to 35 IAC 201.210(b). Note: These activities are not required to be individually listed.

#### 3.2 Compliance with Applicable Requirements

Insignificant activities are subject to applicable requirements notwithstanding status as insignificant activities. In particular, in addition to regulations of general applicability, such as 35 IAC 212.301 and 212.123 (Condition 5.3.2), the Permittee shall comply with the following requirements, as applicable:

- 3.2.1 For each particulate matter process emission unit, the Permittee shall comply with the applicable particulate matter emission limit of 35 IAC 212.321 or 212.322 (see Attachment 2) and 35 IAC Part 266. For example, the particulate matter emissions from a process emission unit shall not exceed 0.55 pounds per hour if the emission unit's process weight rate is 100 pounds per hour or less, pursuant to 35 IAC 266.110.
- 3.2.2 For each organic material emission unit that uses organic material, e.g., a mixer or printing line, the Permittee shall comply with the applicable VOM emission limit of 35 IAC 215.301, which requires that organic material emissions not exceed 8.0 pounds per hour or, if no odor nuisance exists, do not qualify

- as photochemically reactive material as defined in 35 IAC 211.4690.
- 3.2.3 For each open burning activity, the Permittee shall comply with 35 IAC Part 237, including the requirement to obtain a permit for open burning in accordance with 35 IAC 237.201, if necessary.
- 3.2.4 For each storage tank that has a storage capacity greater than 946 liters (250 gallons) and, if no odor nuisance exists, that stores an organic material with a vapor pressure exceeding 2.5 psia at 70°F, the Permittee shall comply with the applicable requirements of 35 IAC 215.122, which requires use of a permanent submerged loading pipe, submerged fill, or a vapor recovery system.

#### 3.3 Addition of Insignificant Activities

- 3.3.1 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type that is identified in Condition 3.1, until the renewal application for this permit is submitted, pursuant to 35 IAC 201.212(a).
- 3.3.2 The Permittee must notify the Illinois EPA of any proposed addition of a new insignificant activity of a type addressed by 35 IAC 201.210(a) and 201.211 other than those identified in Condition 3.1, pursuant to Section 39.5(12)(b) of the Act.
- 3.3.3 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type identified in 35 IAC 201.210(b).

### 4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE

Emission		Date	Emission Control
Unit	Description	Constructed	Equipment
CT01	444 mmBtu/hr Natural Gas	Nov 1999	Water Injection
	Fired Turbine		System
CT02	444 mmBtu/hr Natural Gas	Nov 1999	Water Injection
	Fired Turbine		System
CT03	444 mmBtu/hr Natural Gas	Nov 1999	Water Injection
	Fired Turbine		System
CT04	444 mmBtu/hr Natural Gas	Nov 1999	Water Injection
	Fired Turbine		System
CT05	552.5 mmBtu/hr Natural	Feb 2001	Dry Low NO <sub>x</sub>
	Gas Fired Turbine		Combustors
CT06	552.5 mmBtu/hr Natural	Feb 2001	Dry Low NO <sub>x</sub>
	Gas Fired Turbine		Combustors
CT07	552.5 mmBtu/hr Natural	Feb 2001	Dry Low NO <sub>x</sub>
	Gas Fired Turbine		Combustors
CT08	552.5 mmBtu/hr Natural	Feb 2001	Dry Low NO <sub>x</sub>
	Gas Fired Turbine		Combustors
D05	5.21 mmBtu/hr Diesel	Feb 2001	None
	Start-up Engine		
D06	5.21 mmBtu/hr Diesel	Feb 2001	None
	Start-up Engine		
D07	5.21 mmBtu/hr Diesel	Feb 2001	None
	Start-up Engine		
D08	5.21 mmBtu/hr Diesel	Feb 2001	None
	Start-up Engine		

#### 5.0 OVERALL SOURCE CONDITIONS

#### 5.1 Applicability of Clean Air Act Permit Program (CAAPP)

- 5.1.1 This permit is issued based on the source requiring a CAAPP permit as a major source of NO<sub>x</sub>, PM, SO<sub>2</sub>, and VOM emissions.
- 5.1.2 This permit is issued based on the source requiring a CAAPP permit as an "affected source" for the purposes of Acid Deposition Control, Title IV of the Clean Air Act, pursuant to 40 CFR 70.3(a)(4).
- 5.1.3 This permit is issued based on the source being a synthetic minor source of HAP emissions.

#### 5.2 Area Designation

This permit is issued based on the source being located in an area that, as of the date of permit issuance, is designated attainment or unclassifiable for the National Ambient Air Quality Standards for all criteria pollutants (CO, lead,  $NO_2$ , ozone,  $PM_{2.5}$ ,  $PM_{10}$ ,  $SO_2$ ).

#### 5.3 Source-Wide Applicable Provisions and Regulations

- 5.3.1 Specific emission units at this source are subject to particular regulations as set forth in Section 7 (Unit-Specific Conditions for Specific Emission Units) of this permit.
- 5.3.2 In addition, emission units at this source are subject to the following regulations of general applicability:
  - a. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 IAC 212.301 and 212.314.
  - b. Pursuant to 35 IAC 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, except as allowed by 35 IAC 212.123(b) and 212.124.

#### 5.3.3 Ozone Depleting Substances

The Permittee shall comply with the standards for recycling and emissions reduction of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

#### 5.3.4 Risk Management Plan (RMP)

Should this stationary source, as defined in 40 CFR 68.3, become subject to the federal regulations for Chemical Accident Prevention in 40 CFR Part 68, then the owner or operator shall submit the items below. This condition is imposed in this permit pursuant to 40 CFR 68.215(a)(2)(i) and (ii).

- a. A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR 68.10(a); or
- b. A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the RMP, as part of the annual compliance certification required by Condition 9.8.

## 5.3.5 Future Emission Standards

- a. Should this stationary source become subject to a new or revised regulation under 40 CFR Parts 60, 61, 62, or 63, or 35 IAC Subtitle B after the date issued of this permit, then the owner or operator shall, in accordance with the applicable regulation(s), comply with the applicable requirements by the date(s) specified and shall certify compliance with the applicable requirements of such regulation(s) as part of the annual compliance certification, as required by Condition 9.8. This permit may also have to be revised or reopened to address such new or revised regulations (see Condition 9.12.2).
- b. This permit and the terms and conditions herein do not affect the Permittee's past and/or continuing obligation with respect to statutory or regulatory requirements governing major source construction or modification under Title I of the CAA. Further, neither the issuance of this permit nor any of the terms or conditions of the permit shall alter or affect the liability of the Permittee for any violation of applicable requirements prior to or at the time of permit issuance.

### 5.3.6 Episode Action Plan

- a. Pursuant to 35 IAC 244.141, 244.142, and 244.143, the Permittee shall maintain at the source and have on file with the Illinois EPA a written episode action plan (plan) for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with safe operating procedures. The plan shall contain the information specified in 35 IAC 244.144 and is incorporated by reference into this permit.
- b. The Permittee shall immediately implement the appropriate steps described in this plan should an air pollution alert or emergency be declared by the Director of the Illinois EPA or his or her designated representative.
- c. If an operational change occurs at the source which invalidates the plan, a revised plan shall be submitted to the Illinois EPA for review within 30 days of the change, pursuant to 35 IAC 244.143(d). Such plans shall be further revised if disapproved by the Illinois EPA.

## 5.4 Source-Wide Non-Applicability of Regulations of Concern

Source-wide non-applicability of regulations of concern are not set for this source. However, there are terms for unit specific non-applicability of regulations of concern set forth in Section 7 of this permit.

### 5.5 Source-Wide Control Requirements and Work Practices

Source-wide control requirements and work practices are not set for this source. However, there are requirements for unit specific control requirements and work practices set forth in Section 7 of this permit.

### 5.6 Source-Wide Production and Emission Limitations

### 5.6.1 Permitted Emissions for Fees

The annual emissions from the source, not considering insignificant activities as addressed by Section 3.0 of this permit, shall not exceed the following limitations. The overall source emissions shall be determined by adding emissions from all emission units. Compliance with these limits shall be determined on a calendar year basis. These limitations (Condition 5.6.1) are set for the purpose of establishing fees and are not federally enforceable (see Section 39.5(18) of the Act).

### Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	94.0
Sulfur Dioxide (SO <sub>2</sub> )	20.0

Pollutant	Tons/Year
Particulate Matter (PM)	79.0
Nitrogen Oxides (NOx)	442.0
HAP, not included in VOM or PM	
Total	635.0

#### 5.6.2 Emissions of Hazardous Air Pollutants

a. Pursuant to Section 39.5(7)(a) of the Act, the emissions of HAPs from the source shall be less than 10 tons/year for each individual HAP and 25 tons/year for all HAPs combined.

Note: Emissions of HAP are maintained at less than major source thresholds as a result of the limitations in Section 7.1.6(a), 7.2.6(a) and 7.3.6(d).

5.6.3 Other Source-Wide Production and Emission Limitations

Other source-wide emission limitations are not set for this source pursuant to the federal rules for PSD, state rules for MSSCAM, or Section 502(b)(10) of the CAA. However, there may be unit specific emission limitations set forth in Section 7 of this permit pursuant to these rules.

### 5.7 Source-Wide Testing Requirements

- 5.7.1 Pursuant to 35 IAC 201.282 and Section 4(b) of the Act, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:
  - a. Testing by Owner or Operator: The Illinois EPA may require the owner or operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the Illinois EPA, at such reasonable times as may be specified by the Illinois EPA and at the expense of the owner or operator of the emission source or air pollution control equipment. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The Illinois EPA shall have the right to observe all aspects of such tests [35 IAC 201.282(a)].
  - b. Testing by the Illinois EPA: The Illinois EPA shall have the right to conduct such tests at any time at its own expense. Upon request of the Illinois EPA, the owner or operator of the emission source or air pollution control equipment shall provide, without charge to the Illinois EPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but

- excluding instruments and sensing devices, as may be necessary [35 IAC 201.282(b)].
- c. Any such tests are also subject to the Testing Procedures of Condition 8.5 set forth in the General Permit Conditions of Section 8.

## 5.7.2 HAP Testing to Verify Minor Source Status

Pursuant to Condition 5.7.1 and to verify compliance with the requirements of Condition 5.6.2, that is that this source is not a major source of HAPs, the following testing requirements are established:

- a. If in the previous calendar year, the source exceeded the production limitations in 7.1.6(a) 7.2.6(a) or 7.3.6(d), then testing for HAPs shall be conducted as follows:
  - i. Testing shall be conducted using methods that would be acceptable under the federal National Emissions Standards for Hazardous Air Pollutants for Stationary Combustion Turbines, 40 CFR 63 Subpart YYYY. Specifically, the testing procedures detailed at 40 CFR 63.6120 of the performance tests section shall be used. For multiple turbines, the source owner or operator shall test largest turbine which makes the largest contributions to individual and total HAP emissions.
- b. This testing shall be done within 180 days of the exceedance.
- c. Any such tests are also subject to the Testing Procedures of Condition 8.5 set forth in the General Permit Conditions of Section 8.

### 5.8 Source-Wide Monitoring Requirements

Source-wide monitoring requirements are not set for this source. However, there are provisions for unit specific monitoring set forth in Section 7 of this permit.

# 5.9 Source-Wide Recordkeeping Requirements

## 5.9.1 Annual Emission Records

The Permittee shall maintain records of total annual emissions on a calendar year basis for the emission units covered by Section 7 (Unit Specific Conditions for Specific Emission Units) of this permit to demonstrate compliance with Condition 5.6.1, pursuant to Section 39.5(7)(b) of the Act.

#### 5.9.2 Records for HAP Emissions

- a. The Permittee shall maintain records demonstrating how compliance with the production limits of 7.1.6(a), 7.2.6(a), and 7.3.6(d) results in compliance with Condition 5.6.2 or alternatively shall maintain records of individual and combined HAP emissions on a monthly and annual basis for the emission units covered by Section 7 (Unit Specific Conditions for Specific Emission Units) of this permit to demonstrate compliance with Condition 5.6.2, pursuant to Section 39.5(7)(b) of the Act.
- b. If testing is required by Condition 5.7.2, the Permittee shall keep records of the testing, including the test date, conditions, methodologies, calculations, test results, and any discrepancies between the test results and formulation specifications of Condition 5.9.2(c) below.
- c. The Permittee shall keep a record of the applicability determination for 40 CFR 63, Subpart YYYY, National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines, at the source for a period of five years after the determination. This determination shall include a detailed analysis that demonstrates why the Permittee believes the source is not subject to 40 CFR 63, Subpart YYYY [40 CFR 63.10(b)(3)].

### 5.9.3 Retention and Availability of Records

- a. All records and logs required by this permit shall be retained for at least five years from the date of entry (unless a longer retention period is specified by the particular recordkeeping provision herein), shall be kept at a location at the source that is readily accessible to the Illinois EPA or USEPA, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.
- b. The Permittee shall retrieve and provide copies (electronic or paper) during normal source office hours, any records retained in an electronic format (e.g., computer) in response to an Illinois EPA or USEPA request for records during the course of a source inspection.

## 5.10 Source-Wide Reporting Requirements

### 5.10.1 General Source-Wide Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the source with the permit requirements within 30 days, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures

taken. There are also reporting requirements for unit specific emission units set forth in Section 7 of this permit.

## 5.10.2 Annual Emissions Report

The annual emissions report required pursuant to Condition 9.7 shall contain emissions information, including HAP emissions, for the previous calendar year.

- 5.10.3 The Permittee shall fulfill the applicable reporting requirements of Conditions 7.1.10, 7.2.10, and 7.3.10.
- 5.11 Source-Wide Operational Flexibility/Anticipated Operating Scenarios
  Source-wide operational flexibility is not set for this source.

## 5.12 Source-Wide Compliance Procedures

# 5.12.1 Procedures for Calculating Emissions

Except as provided in Condition 9.1.3, compliance with the source-wide emission limits specified in Condition 5.6 shall be addressed by the recordkeeping and reporting requirements of Conditions 5.9 and 5.10, and compliance procedures in Section 7 (Unit Specific Conditions for Specific Emission Units) of this permit.

#### 6.0 CONDITIONS FOR EMISSIONS CONTROL PROGRAMS

# 6.1 Clean Air Interstate Rule (CAIR) Program

### 6.1.1 Applicability

This source is an affected source for purposes of the Clean Air Interstate Rule ("CAIR") Program and the following emission units at the source are affected CAIR units:

Eight Natural Gas Fired Turbines CT01 - CT08

Note: Under Section 110 of the Clean Air Act (CAA), the USEPA adopted the Clean Air Interstate Rule or CAIR, 40 CFR Part 96, to reduce and permanently cap emissions of sulfur dioxide ( $SO_2$ ), and nitrogen oxides ( $NO_x$ ) from electric power plants that significantly contribute to fine particulate and ozone in the ambient air in the Eastern United States. To implement CAIR in Illinois, the Illinois EPA adopted 35 IAC Part 225 Subparts A, C, D and E. For purposes of this permit, these requirements are referred to as CAIR provisions.

## 6.1.2 Applicable CAIR Requirements for SO<sub>2</sub> Emissions

The owners and operators of this source shall not violate applicable CAIR provisions, in 35 IAC Part 225, Subpart C.  $SO_2$  emissions from the affected CAIR units shall not exceed the equivalent number of allowances that the source lawfully holds under these CAIR provisions.

Note: CAIR affected sources must hold CAIR  $SO_2$  allowances to account for the emissions from the affected CAIR units. Each CAIR  $SO_2$  allowance is a limited authorization to emit during the respective CAIR  $SO_2$  annual period or subsequent period. The possession of  $SO_2$  allowances does not authorize exceedances of applicable emission standards or violations of ambient air quality standards.

#### 6.1.3 Applicable CAIR Requirements for NO. Emissions

The owners and operators of this source shall not violate applicable CAIR provisions, in 35 IAC Part 225, Subpart D.  $\rm NO_x$  emissions from the affected CAIR units shall not exceed the equivalent number of allowances that the source lawfully holds under these CAIR provisions.

Note: CAIR affected sources must hold CAIR  $\mathrm{NO}_x$  allowances to account for the emissions from the affected CAIR units. Each CAIR  $\mathrm{NO}_x$  allowance is a limited authorization to emit during the respective CAIR  $\mathrm{NO}_x$  annual period or subsequent period. The possession of  $\mathrm{NO}_x$  allowances does not authorize exceedances of applicable emission standards or violations of ambient air quality standards.

## 6.1.4 Applicable CAIR Requirements for NO<sub>x</sub> Ozone Season Emissions

The owners and operators of this source shall not violate applicable CAIR provisions, in 35 IAC Part 225, Subpart E. Seasonal  $NO_x$  emissions from the affected CAIR units shall not exceed the equivalent number of allowances that the source lawfully holds under these CAIR provisions.

Note: CAIR affected sources must hold CAIR  $NO_x$  ozone season allowances to account for the emissions from the affected CAIR units. Each CAIR  $NO_x$  ozone season allowance is a limited authorization to emit during the respective CAIR  $NO_x$  ozone season or subsequent season. The possession of  $NO_x$  allowances does not authorize exceedances of applicable emission standards or violations of ambient air quality standards.

#### 6.1.5 Monitoring, Recordkeeping and Reporting

The owners and operators of the source and, to the extent applicable, their designated representative, shall comply with applicable requirements for monitoring, recordkeeping and reporting specified by 35 IAC Part 225 Subparts C, D and E.

Note: As further addressed by Section 7 of this permit, the following emission determination methods are currently being used for the affected CAIR units.

#### 6.1.6 CAIR Permit

The owners and operators of the source shall comply with the terms and conditions of the source's CAIR permit (attached).

Note: This source is subject to a CAIR permit, which was issued pursuant to 35 IAC Part 225.320, 225.420 and 225.520. CAIR sources must be operated in compliance with their CAIR permits. This source's CAIR permit is incorporated into this CAAPP permit with a copy of the current CAIR permit included as an attachment to this permit. Revisions and modifications to the CAIR permit are governed by Section 39.5 of the Act. Accordingly, revision or renewal of the CAIR permit may be handled separately from this CAAPP permit and a copy of the new CAIR permit may be included in this permit by Administrative Amendment.

### 6.1.7 Coordination with other Requirements

a. This permit does not contain any conditions that are intended to interfere with or modify the requirements of 35 IAC Part 225 C, D, and E, 40 CFR Part 96; or Title IV of the CAA. In particular, this permit does not restrict the flexibility of the owners and operators of this source to comply with CAIR provisions, including the ability to obtain CAIR NO<sub>x</sub> allowances from Illinois' Clean Air Set Aside (CASA) for qualifying projects.

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b. Where another applicable requirement of the CAA is more stringent than an applicable requirement of 35 IAC Part 225, Subparts C, D, or E; 40 CFR Part 96; or Title IV of the CAA, all requirements are incorporated into this permit and are enforceable and the owners and operators of the source shall comply with both requirements.

#### 6.2 Acid Rain Program

### 6.2.1 Applicability

Under Title IV of the CAA, Acid Deposition Control, this source is an affected source and the following emission units at the source are affected units for acid deposition:

Eight Natural Gas Fired Turbines CT01 - CT08

Note: Title IV of the CAA, and other laws and regulations promulgated thereunder, establish requirements for affected sources related to control of emissions of pollutants that contribute to acid rain. For purposes of this permit, these requirements are referred to as Title IV provisions.

#### 6.2.2 Applicable Emission Requirements

The owners and operators of the source shall not violate applicable Title IV provisions.  $SO_2$  emissions of the affected units shall not exceed any allowances that the source lawfully holds under Title IV provisions [Section 39.5(7)(g) and (17)(1) of the Act].

Note: Affected sources must hold  $SO_2$  allowances to account for the  $SO_2$  emissions from affected units at the source that are subject to Title IV provisions. Each allowance is a limited authorization to emit up to one ton of  $SO_2$  emissions during or after a specified calendar year. The possession of allowances does not authorize exceedances of applicable emission standards or violations of ambient air quality standards.

## 6.2.3 Monitoring, Recordkeeping and Reporting

The owners and operators of the source and, to the extent applicable, their designated representative, shall comply with applicable requirements for monitoring, recordkeeping and reporting specified by Title IV provisions, including 40 CFR Part 75 [Section 39.5(7)(b) and 17(m) of the Act].

#### 6.2.4 Acid Rain Permit

The owners and operators of the source shall comply with the terms and conditions of the source's Acid Rain permit [Section 39.5(17)(1) of the Act].

Note: The source is subject to an Acid Rain permit, which was issued pursuant to Title IV provisions, including Section 39.5(17) of the Act. Affected sources must be operated in compliance with their Acid Rain permits. This source's Acid Rain permit is incorporated by reference into this permit and a copy of the current Acid Rain permit is included as Attachment 6 of this permit. Revisions and modifications of this Acid Rain permit, including administrative amendments and automatic

amendments (pursuant to Sections 408(b) and 403(d) of the CAA or regulations thereunder) are governed by Title IV provisions, as provided by Section 39.5(13)(e) of the Act. Accordingly, revision or renewal of the Acid Rain permit may be handled separately from this CAAPP permit and a copy of the new Acid Rain permit may be included in this permit by administrative amendment.

## 6.2.5 Coordination with Other Requirements

- a. This permit does not contain any conditions that are intended to interfere with or modify the requirements of Title IV provisions. In particular, this permit does not restrict the flexibility under Title IV provisions of the owners and operators of this source to amend their Acid Rain compliance plan [Section 39.5(17)(h) of the Act].
- b. Where another applicable requirement of the CAA is more stringent than an applicable requirement of Title IV provisions, both requirements are incorporated into this permit and are enforceable and the owners and operators of the source shall comply with both requirements [Section 39.5(7)(h) of the Act].

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#### 7.0 UNIT SPECIFIC CONDITIONS FOR SPECIFIC EMISSION UNITS

7.1 Natural Gas-Fired Turbines (Subject to NSPS - 40 CFR Subpart GG)

### 7.1.1 Description

The turbines are process emission units used to generate electricity. The turbines are powered by natural gas. NO emissions are controlled with a water injection system.

Note: This narrative description is for informational purposes only and is not enforceable.

### 7.1.2 List of Emission Units and Air Pollution Control Equipment

			Emission
Emission		Date	Control
Unit	Description	Constructed	Equipment
CT01 thru	444 mmBtu/hr	1999	Water
CT04	Natural Gas Fired		Injection
	Turbines		System

### 7.1.3 Applicable Provisions and Regulations

- a. The "affected turbines" for the purpose of these unitspecific conditions, are turbines described in Conditions 7.1.1 and 7.1.2.
- b. Pursuant to 35 IAC 212.123,
  - i. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit.
  - ii. The emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 1000 ft radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.
- c. Pursuant to 35 IAC 214.301, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to excess 2000 ppm.
- d. The affected turbines are subject to the NSPS for Stationary Gas Turbines, 40 CFR 60 Subparts A and GG,

because the heat input at peak load is equal to or greater than 10.7 gigajoules per hour (10 mmBtu/hr), based on the lower heating value of the fuel fired and the affected turbine commenced construction, modification, or reconstruction after October 3, 1977. The Illinois EPA administers the NSPS for subject sources in Illinois pursuant to a delegation agreement with the USEPA.

### i. Standard for Nitrogen Oxides:

Pursuant to 40 CFR 60.332(b), electric utility stationary gas turbines with a heat input at peak load greater than 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired shall comply with the provisions of 40 CFR 60.332(a)(1). Pursuant to 40 CFR 60.332(a)(1), no owner or operator of an affected turbine shall cause to be discharged into the atmosphere from such gas turbine, any gases which contain nitrogen oxides in excess of:

STD = 0.0075 
$$\frac{(14.4)}{Y}$$
 + F

#### Where:

- STD = Allowable  $NO_x$  emissions (percent by volume at 15 percent oxygen and on a dry basis).
- Y = Manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour.
- F = NO<sub>x</sub> emission allowance for fuel-bound nitrogen calculated from the nitrogen content of the fuel as follows:

Fuel-bound nitrogen (percent by weight)	(NO <sub>x</sub> percent by volume)
N < 0.015	0
$0.\overline{015} < N < 0.1$	0.04 (N)
0.1 < N < 0.25	0.04 + 0.0067(N - 0.1)
N > 0.25	0.005

#### Where:

N = The nitrogen content of the fuel (percent by weight) determined in according with Condition 7.1.8(b).

#### ii. Standard for Sulfur Dioxide:

Pursuant to 40 CFR 60.333, on and after the date on which the performance test required to be conducted by 40 CFR 60.8 is completed, every owner or operator subject to the provision of 40 CFR 60 Subpart GG shall comply with one or the other of the following conditions:

No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine any gases which contain sulfur dioxide in excess of 0.015 percent by volume at 15 percent oxygen and on a dry basis, pursuant to 40 CFR 60.333(a).

No owner or operator subject to the provisions of this subpart shall burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 percent by weight (8000 ppmw), pursuant to 40 CFR 60.333(b).

- e. i. No owner or operator shall cause or allow the emissions of NO<sub>x</sub> into the atmosphere from the affected turbine to exceed 0.25 lbs/mmBtu of actual heat input during each ozone control period from May 1 through September 30, based on a ozone control period average, for that unit [35 IAC 217.706(a)].
  - ii. Notwithstanding the above emission limitation of 35 IAC 217.706(a), the affected turbine subject to a more stringent  $NO_x$  emission limitation pursuant to any State or federal statute, including the Act, the Clean Air Act, or any regulations promulgated thereunder, shall comply with both the requirements of 35 IAC 217 Subpart V and that more stringent emission limitation [35 IAC 217.706(b)].

### f. Startup Provisions

Subject to the following terms and conditions, the Permittee is authorized to operate the affected turbines in violation of the applicable standards in Conditions 7.1.3(b) and 7.1.6(b) during startup. This authorization is provided pursuant to 35 IAC 201.149, 201.261 and 201.262, as the Permittee has applied for such authorization in its application, generally describing the efforts that will be used "...to minimize startup emissions, duration of individual starts, and frequency of startups."

i. This authorization does not relieve the Permittee from the continuing obligation to demonstrate that all reasonable efforts are made to minimize startup

- emissions, duration of individual startups and frequency of startups.
- ii. The Permittee shall conduct startup of the each affected turbine(s) in accordance with written procedures prepared by the Permittee and maintained at the facility, in the control room for the each affected turbine(s), that are specifically developed to minimize emissions from startups and that include, at a minimum, the following measures:
  - A. The Permittee shall operate in accordance with the manufacturer's written operating and startup procedures or other written procedures developed and maintained by the source owner or operator so as to minimize the duration of startups and the emissions associated with startups. These procedures should allow for a precheck of the unit prior to startup and review of operating parameters of the unit during startup.
  - B. The Permittee shall maintain the units in accordance with written procedures developed and maintained by the source owner or operator so as to minimize the duration of startups and the frequency of startups. These maintenance practices shall include maintenance activities before the unit is started up, when the unit is in operation, and when the unit is shut down.
- iii. The procedures described 7.1.3(f)(ii) above shall be reviewed at least annually to make necessary adjustments and shall be made available to the Illinois EPA upon request.
- iv. The Permittee shall fulfill applicable recordkeeping and reporting requirements of Condition 7.1.9(m) and 7.1.10(b).
- v. As provided by 35 IAC 201.265, an authorization in a permit for excess emissions during startup does not shield a Permittee from enforcement for any violation of applicable emission standard(s) that occurs during startup and only constitutes a prima facie defense to such an enforcement action provided that the Permittee has fully complied with all terms and conditions connected with such authorization.
- q. Malfunction and Breakdown Provisions

Subject to the following terms and conditions, the Permittee is authorized to continue operation of an affected turbine in violation of the applicable standards in Condition 7.1.3(b) in the event of a malfunction or breakdown of the affected turbines. This authorization is provided pursuant to 35 IAC 201.149, 201.261 and 201.262, as the Permittee has applied for such authorization in its application, generally explaining why such continued operation would be required to provide essential service or to prevent risk of injury to personnel or severe damage to equipment, and describing the measures that will be taken to minimize emissions from any malfunctions and breakdowns. This authorization supersedes the general prohibition in Condition 9.2.3 against continued operation in such circumstances.

- i. This authorization only allows such continued operation as necessary to provide essential service or prevent risk of injury to personnel or severe damage to equipment and does not extend to continued operation solely for the economic benefit of the Permittee.
- ii. Upon occurrence of excess emissions due to malfunction or breakdown, the Permittee shall as soon as practical repair the turbine, remove the affected turbine from service, or undertake other action so that excess emissions cease.
- iii. The Permittee shall fulfill the applicable recordkeeping and reporting requirements of Conditions 7.1.9(n) and 7.1.10(f). For these purposes, time shall be measured from the start of a particular incident. The absence of excess emissions for a short period shall not be considered to end the incident if excess emissions resume. In such circumstances, the incident shall be considered to continue until corrective actions are taken so that excess emissions cease or the Permittee takes the affected turbines out of service.
- iv. Following notification to the Illinois EPA of a malfunction or breakdown with excess emissions, the Permittee shall comply with all reasonable directives of the Illinois EPA with respect to such incident, pursuant to 35 IAC 201.263.
- v. This authorization does not relieve the Permittee from the continuing obligation to minimize excess emissions during malfunction or breakdown. As provided by 35 IAC 201.265, an authorization in a permit for continued operation with excess emissions during malfunction and breakdown does not shield the Permittee from enforcement for any such violation and only constitutes a prima facie defense to such an enforcement action provided that the Permittee has

fully complied with all terms and conditions connected with such authorization.

## 7.1.4 Non-Applicability of Regulations of Concern

a. The affected turbines are not subject to the New Source Performance Standards (NSPS) for Stationary Combustion Turbines, 40 CFR Part 60, Subpart KKKK, because the affected turbines did not commence construction, modification, or reconstruction after February 18, 2005 pursuant to 40 CFR 60.4305(a), and are therefore subject to 40 CFR Part 60, Subpart GG for Stationary Gas Turbines.

Note: To qualify for this non-applicability, the Permittee has certified that the turbines have not been modified or reconstructed after February 18, 2005.

- b. The affected turbines are not subject to the National Emissions Standards for Hazardous Air Pollutants for Stationary Combustion Turbines, 40 CFR Part 63, Subpart YYYY, because the affected turbines are not located at a major source of HAP emissions, pursuant to 40 CFR 63.6085.
- c. The affected turbines are not subject to 35 IAC 212.321 or 212.322, due to the unique nature of such units, a process weight rate cannot be set so that such rules are not reasonably applied, pursuant to 35 IAC 212.323.
- d. The affected turbines are not subject to 35 IAC 217.141 or 35 IAC 216.121 because the affected turbines are not fuel combustion units, as defined by 35 IAC 211.2470.
- e. The affected turbines are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources:
  - i. For  $NO_x$  and  $SO_2$ , because:
    - A. The affected turbines are subject to a NSPS proposed after November 15, 1990, pursuant to 40 CFR 64.2(b)(1)(i).
    - B. The affected turbines are subject to Acid Rain Program requirements, pursuant to 40 CFR 64.2(b)(1)(iii).
    - C. The affected turbines are subject to an emission limitation or standard for which this CAAPP permit specifies a continuous compliance determination method, pursuant to 40 CFR 64.2(b)(1)(vi).

ii. For PM, VOM, and CO because the affected turbines do not use an add-on control device to achieve compliance with an emission limitation or standard.

## 7.1.5 Control Requirements and Work Practices

- a. i. At all times, including periods of startup, shutdown, and malfunction, the source owner or operator shall, to the extent practicable, maintain and operate any affected turbine in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA or the USEPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source [40 CFR 60.11(d)].
  - ii. The source owner or operator shall operate the affected turbines in accordance with written operating procedures that shall include at a minimum the following measures:
    - A. Review of operating parameters of the unit during startup or shutdown as necessary for the proper operation of the affected turbine with appropriate adjustments to reduce emissions.
    - B. Implementation of inspection and repair procedures for a affected turbine prior to attempting startup following repeated trips.
  - iii. The source owner or operator shall maintain the affected turbines in accordance with written procedures that shall include at a minimum the following measures:
    - A. Unless specified on a more frequent basis by manufacturer's written instructions, a visual inspection of external emissions-related components shall be completed quarterly.
    - B. Repair and routine replacement of emissionsrelated components.
  - iv. The above procedures may incorporate the manufacturer's written instruction for operation and maintenance of the affected turbines and associated control systems. The source owner or operator shall review these procedures annually and shall revise or enhance them if necessary to be consistent with good air pollution control practice based on the actual operating experience and performance of the source.

- b. Natural gas shall be the only fuel fired in the affected turbines.
- c. The affected turbines shall be equipped, operated, and maintained with water injection to control  $NO_x$  emissions.

# 7.1.6 Production and Emission Limitations

In addition to Condition 5.3.2 and the source-wide emission limitations in Condition 5.6, the affected turbines are subject to the following:

- a. The affected turbines shall not fire more than 3,200 million scf of natural gas per year [T1].
- b. Hourly emissions from each affected turbine shall not exceed the following limits except during malfunction and breakdown, when ice fog is deemed a traffic hazard, or during startup:

Pollutant	(Lb/Hour)	
NO <sub>×</sub>	57.0	
CO	55.0	
SO <sub>2</sub>	11.4	
VOM	11.4	
PM	10.85	

Compliance with the hourly limits above shall be based on average emissions determined by emission testing in accordance with the construction permit (99090035) or Condition 7.1.7 of this permit or based on continuous emissions monitoring data (24-hour average).

c. Total emissions from the affected turbines shall not exceed the following limits:

<u>Pollutant</u>	(Ton/Year)	
$NO_x$	200.0	
CO	200.0	
$SO_2$	200.0	
VOM	200.0	
PM	190.0	

- d. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].
- e. The above limitations were established in Permit 99090035, pursuant to PSD. These limits ensure that the construction and/or modification addressed in the aforementioned permit

does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for PSD [T1].

### 7.1.7 Testing Requirements

- a. The nitrogen oxides  $(NO_x)$  emissions, and the oxygen  $(O_2)$  concentration and opacity of exhaust shall be measured for the affected turbines at the source owner or operator's expense by an independent testing service approved by the Illinois EPA as follows to determine compliance with applicable emission limits:
  - i. Within 120 days after a written request from the Illinois EPA, for such pollutants listed above as specified by the request.
  - ii. Any extension to these time periods that may be provided at its discretion by the Illinois EPA shall not alter the source owner or operator's obligation to perform emission testing for purposes of the NSPS in a timely manner as specified by 40 CFR 60.8.
- b. The following methods and procedures shall be used for testing of emissions:
  - i. The USEPA Reference Test Methods shall be used including the following:

Opacity USEPA Method 9
Nitrogen Oxides USEPA Method 20

ii. A. Pursuant to 40 CFR 60.335(b), the owner or operator shall determine compliance with the applicable nitrogen oxides emission limitation in 40 CFR 60.332 and shall meet the performance test requirements of 40 CFR 60.8 as follows:

For each run of the performance test, the mean nitrogen oxides emission concentration ( $NO_{Xo}$ ) corrected to 15 percent  $O_2$  shall be corrected to ISO standard conditions using the following equation. Notwithstanding this requirement, use of the ISO correction equation is optional for: Lean premix stationary combustion turbines; units used in association with heat recovery steam generators (HRSG) equipped with duct burners; and units equipped with add-on emission control devices, pursuant to 40 CFR 60.335(b)(1):

 $NO_x = (NO_{Xo}) (P_r/P_o) 0.5 e19 (H_o-0.00633)$ (288°K/Ta) 1.53

#### Where:

- $NO_x$  = emission concentration of  $NO_x$  at 15 percent  $O_2$  and ISO standard ambient conditions, ppm by volume, dry basis
- $NO_{XO}$  = mean observed  $NO_X$  concentration, ppm by volume, dry basis, at 15 percent  $O_2$
- $P_r$  = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg
- Po = observed combustor inlet absolute pressure at test, mm Hg
- $H_o$  = observed humidity of ambient air, g  $H_2$  O/g air
- e = transcendental constant, 2.718
- Ta = ambient temperature, °K

The 3-run performance test required by 40 CFR 60.8 must be performed within ± 5 percent at 30, 50, 75, and 90-to-100 percent of peak load or at four evenly-spaced load points in the normal operating range of the gas turbine, including the minimum point in the operating range and 90-to-100 percent of peak load, or at the highest achievable load point if 90-to-100 percent of peak load cannot be physically achieved in practice. If the turbine combusts both oil and gas as primary or backup fuels, separate performance testing is required for each fuel. Notwithstanding these requirements, performance testing is not required for any emergency fuel (as defined in 40 CFR 60.331), pursuant to 40 CFR 60.335(b)(2).

If water or steam injection is used to control  $\mathrm{NO}_{\mathrm{x}}$  with no additional post-combustion  $\mathrm{NO}_{\mathrm{x}}$  control and the owner or operator chooses to monitor the steam or water to fuel ratio in accordance with 40 CFR 60.334(a), then that monitoring system must be operated concurrently with each EPA Method 20, ASTM D6522-00 (incorporated by reference, see 40 CFR 60.17), or EPA Method 7E run and shall be used to determine the fuel consumption and the steam or water to fuel ratio necessary to comply with the applicable 40 CFR 60.332  $\mathrm{NO}_{\mathrm{x}}$  emission limit, pursuant to 40 CFR 60.335(b)(4).

If the owner or operator elects to install a CEMS, the performance evaluation of the CEMS may either be conducted separately (as described 40 CFR 60.335 (b) (7) of this section) or as part of the initial performance test of the affected unit, pursuant to 40 CFR 60.335(b) (6).

Pursuant to 40 CFR 60.335(b)(7), if the owner or operator elects to install and certify a  $NO_x$  CEMS under 40 CFR 60.334(e), then the initial performance test required under 40 CFR 60.8 may be done in the following alternative manner:

Perform a minimum of 9 reference method runs, with a minimum time per run of 21 minutes, at a single load level, between 90 and 100 percent of peak (or the highest physically achievable) load, pursuant to 40 CFR 60.335(b)(7)(i).

Use the test data both to demonstrate compliance with the applicable  $NO_x$  emission limit under 40 CFR 60.332 and to provide the required reference method data for the RATA of the CEMS described under 40 CFR 60.334(b) , pursuant to 40 CFR 60.335(b)(7)(ii).

The requirement to test at three additional load levels is waived, pursuant to 40 CFR 60.335(b)(7)(iii).

If the owner or operator elects under 40 CFR 60.334(f) to monitor combustion parameters or parameters indicative of proper operation of  $NO_x$  emission controls, the appropriate parameters shall be continuously monitored and recorded during each run of the initial performance test, to establish acceptable operating ranges, for purposes of the parameter monitoring plan for the affected unit, as specified in 40 CFR 60.334(g), pursuant to 40 CFR 60.335(b)(8).

Pursuant to 40 CFR 60.335(b)(10), if the owner or operator is required under 40 CFR 60.334(i)(1) or (3) to periodically determine the sulfur content of the fuel combusted in the turbine, a minimum of three fuel samples shall be collected during the performance test. Analyze the samples for the total sulfur content of the fuel using:

For gaseous fuels, ASTM D1072-80, 90 (Reapproved 1994); D3246-81, 92, 96; D4468-85 (Reapproved 2000); or D6667-01 (all of which

are incorporated by reference, see 40 CFR 60.17). The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the prior approval of the Administrator, pursuant to 40 CFR 60.335(b)(10)(ii).

The fuel analyses required in 40 CFR 60.335 may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency, pursuant to 40 CFR 60.335(b)(11).

B. Pursuant to 40 CFR 60.335(c), the owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

Instead of using the equation in 40 CFR 60.335(b)(1), manufacturers may develop ambient condition correction factors to adjust the nitrogen oxides emission level measured by the performance test as provided in 40 CFR 60.8 to ISO standard day conditions, pursuant to 40 CFR 60.335(c)(1).

- c. At least 60 days prior to the actual date of testing, a written test plan shall be submitted to the Illinois EPA for review. This plan shall describe the specific procedures for testing and shall include as a minimum:
  - i. The person(s) who will be performing sampling and analysis and their experience with similar tests.
  - ii. The specific conditions under which testing shall be performed including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the turbine will be tracked and recorded.
  - iii. The specific determinations of emissions that are intended to be made, including sampling and monitoring locations; the test method(s) that will be used, with the specific analysis method, if the method can be used with different analysis methods. The source owner or operator may also propose a plan for testing across the normal operating range of the affected turbines.

- d. The Illinois EPA shall be notified prior to these tests to enable the Illinois EPA to observe these tests. Notification of the expected date of testing shall be submitted a minimum of thirty (30) days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of five (5) working days prior to the actual date of the test. The Illinois EPA may, at its discretion, accept notifications with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe the testing.
- e. The Final Report for these tests shall be submitted to the Illinois EPA within 60 days after the date of the tests. The Final Report shall include as a minimum:
  - i. A summary of results.
  - ii. General information.
  - iii. Description of test method(s), including description of sampling points, sampling train, analysis equipment and test schedule.
  - iv. Detailed description of test conditions, including:
    - A. Fuel consumption (standard ft<sup>3</sup>).
    - B. Firing rate (million Btu/hr).
    - C. Turbine/Generator output rate (MW).
  - v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.
- f. i. Upon written request by the Illinois EPA, the source owner or operator shall have the opacity of the exhaust from the affected turbine(s) tested during representative operating conditions as determined by a qualified observer in accordance with USEPA Test Method 9, as further specified below, pursuant to Section 39.5(7)(d) of the Act.
  - ii. Such testing shall be conducted for specific turbine(s) within 90 calendar days of the request, or on the date turbine(s) next operates, or on the date agreed upon by the Illinois EPA, whichever is later.
  - iii. The duration of opacity observations for each test shall be at least 30 minutes (five 6-minute averages) unless the average opacities for the first 12 minutes

- of observations (two six-minute averages) are both less than 10.0 percent.
- iv. The source owner or operator shall notify the Illinois EPA at least 7 days in advance of the date and time of these tests, in order to allow the Illinois EPA to witness testing. This notification shall include the name and employer of the qualified observer(s).
- v. The source owner or operator shall promptly notify the Illinois EPA of any changes in the time or date for testing.
- vi. The source owner or operator shall provide a copy of its observer's readings to the Illinois EPA at the time of testing, if Illinois EPA personnel are present.
- vii. The source owner or operator shall submit a written report for this testing within 30 days of the date of testing. This report shall include:
  - A. Date and time of testing.
  - B. Name and employer of qualified observer.
  - C. Copy of current certification.
  - D. Description of observation conditions.
  - E. Description of turbine operating conditions.
  - F. Raw data
  - G. Opacity determinations.
  - H. Conclusions.

### 7.1.8 Monitoring Requirements

- a. i. If an affected turbine is routinely operated or exercised to confirm that the turbine will operate when needed, the operation and opacity of the affected turbine shall be formally observed by operating personnel for the affected turbine or a member of source owner or operator's environmental staff on a regular basis to assure that the affected turbine is operating properly, which observations shall be made at least every six months.
  - ii. If an affected turbine is not routinely operated or exercised, i.e., the time interval between operation of an affected turbine is typically greater than six

months, the operation and opacity of the affected turbine shall be formally observed as provided above each time the source owner or operator carries out a scheduled exercise of the affected turbine.

iii. The source owner or operator shall also conduct formal observations of operation and opacity of an affected turbine upon written request by the Illinois EPA. With the agreement of the Illinois EPA, the source owner or operator may schedule these observations to take place during periods when it would otherwise be operating the affected turbine.

Note: The formal observation required above is not intended to be a USEPA Test Method 9 opacity test, nor does the observation require a USEPA Test Method 9 certified observer. It is intended to be performed by personnel familiar with the operation of the affected turbine who would be able to make a determination based from the observed opacity as to whether or not the affected turbine was running properly, and subsequently initiate a corrective action if necessary.

b. The affected turbine shall comply with the applicable monitoring requirements of 40 CFR 60.334(h), below.

Monitoring of fuel nitrogen content shall not be required while the facility does not claim an allowance for fuel-bound nitrogen. Monitoring for sulfur content in fuel is not required while natural gas is the only fuel fired in the affected turbine and the requirements of 40 CFR 60.334(h)3(i) or (ii) are met.

Pursuant to 40 CFR 60.334(h), the owner or operator of any stationary gas turbine subject to the provisions of this subpart:

Shall monitor the total sulfur content of the fuel being fired in the turbine, except as provided in 40 CFR 60.334. The sulfur content of the fuel must be determined using total sulfur methods described in 40 CFR 60.335(b)(10). Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than 0.4 weight percent (4000 ppmw), ASTM D4084-82, 94, D5504-01, D6228-98, or Gas Processors Association Standard 2377-86 (all of which are incorporated by reference-see 40 CFR 60.17), which measure the major sulfur compounds may be used, pursuant to 40 CFR 60.334(h)(1); and

Shall monitor the nitrogen content of the fuel combusted in the turbine, if the owner or operator claims an allowance for fuel bound nitrogen (i.e., if an F-value greater than zero is being or will be used by the owner or operator to calculate STD in 40 CFR 60.332). The nitrogen content of the fuel shall be determined using methods described in 40

CFR 60.335(b)(9) or an approved alternative, pursuant to 40 CFR 60.334(h)(2).

Pursuant to 40 CFR 60.334(h)(3), notwithstanding the provisions of 40 CFR 60.334(h)(1) of this section, the owner or operator may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in 40 CFR 60.331(u), regardless of whether an existing custom schedule approved by the administrator for subpart GG requires such monitoring. The owner or operator shall use one of the following sources of information to make the required demonstration:

The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less, pursuant to 40 CFR 60.334(3)(i); or

Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of this chapter is required, pursuant to 40 CFR 60.334(h)(3)(ii).

- c. i. The owner or operator of an affected turbine subject to 35 IAC 217 Subpart V (Condition 7.1.3(e)) shall install, calibrate, maintain and operate continuous emissions monitoring systems (CEMS) for NO<sub>x</sub> that meet the requirements of 40 CFR 75, Subpart B [35 IAC 217.710(a)].
  - ii. Notwithstanding 35 IAC 217.710(a) above, the owner or operator of a gas-fired peaking unit or oil-fired peaking unit as defined in 40 CFR 72.2 may determine NO<sub>x</sub> emissions in accordance with the emissions estimation protocol of 40 CFR 75, Subpart E [35 IAC 217.710(b)].
  - iii. Notwithstanding 35 IAC 217.710(a) above, the owner or operator of a combustion turbine that operates less than 350 hour per ozone control period may determine the heat input and  $NO_x$  emissions of the turbine as follows [35 IAC 217.710(c)]:
    - A. Heat input shall be determined from the metered fuel usage to the turbine or the calculated heat input determined as the product of the turbine's maximum hourly heat input and hours of operation as recorded by operating instrumentation on the turbine [35 IAC 217.710(c)(1)].

- B.  $NO_x$  emissions shall be determined as the product of the heat input, as determined above, and the appropriate default  $NO_x$  emission factors below [35 IAC 217.710(c)(2)]:
  - 0.7 lbs/mmBtu Natural gas
  - 1.2 lbs/mmBtu Fuel oil
- d. i. The affected turbine shall be equipped, operated, and maintained with a continuous monitoring system to monitor and record the fuel consumption being fired.
  - ii. If a water injection system is used, the affected turbine shall be equipped, operated, and maintained with a continuous monitoring system to monitor and record the ratio of water to fuel being fired, pursuant to 40 CFR 60.334(a) or, as an alternative, shall install, certify, maintain, operate and quality assure a CEMS consisting of NO<sub>x</sub> and O<sub>2</sub> monitors pursuant to 40 CFR 60.334(b).

### 7.1.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the source owner or operator shall maintain records of the following items for the affected turbine(s) to demonstrate compliance with Conditions 5.6.1, 7.1.3, 7.1.5, and 7.1.6, pursuant to Section 39.5(7)(b) of the Act:

- a. The owner or operator of an affected turbine subject to the requirements of 35 IAC 217 Subpart V (Condition 7.1.3(e)) shall:
  - i. Comply with the recordkeeping and reporting requirements of 40 CFR 75 applicable to  $NO_x$  emissions during the ozone control period, including, but not limited to, 40 CFR 75.54(b) and (d) [35 IAC 217.712(a)].
  - ii. Notwithstanding 35 IAC 217.712(a) above, the owner or operator of a combustion turbine for which heat input and NO<sub>x</sub> emissions are determined pursuant to 35 IAC 217.710(c) (Condition 7.1.8(c)(iii)) shall comply with the following recordkeeping and reporting requirements [35 IAC 217.712(b)]:
    - A. Maintain records of the heat input and  $NO_x$  emissions of the turbine as determined in accordance with 35 IAC 217.710(c), and records of metered fuel use or operating hours used to determine heat input [35 IAC 217.712(b)(1)].

- b. The source owner or operator shall maintain records of the following items:
  - i. The sulfur content of the natural gas used to fire the turbines as determined in accordance with Condition 7.1.8(b).
  - ii. A copy of the Final Report(s) for emission testing conducted pursuant to Condition 7.1.7.
  - iii. Copies of opacity determinations taken for the source by qualified observer(s) using USEPA Method 9.
  - iv. Records documenting its periodic review of its operating procedures as required by Condition 7.1.5(a).
  - v. Information for the formal observations of opacity conducted pursuant to Condition 7.1.8(a). For each occasion on which observations are made, these records shall include the date, time, identity of the observer, a description of the various observations that were made, whether or not the affected engine was running properly, and whether or not corrective action is necessary and was subsequently initiated.
- c. A maintenance and repair log for the affected turbine, listing each activity performed with date.
- d. Reserved for future use.
- e. Fuel consumption for the affected turbine, scf/month and mmscf/year.
- f. Reserved for future use.
- g. Operating hours for the affected turbine, hr/month and hr/year.
- h. Heat content of the fuel being fired in the affected turbine.
- i. Emissions of each pollutant from the affected turbine, including emissions from startups, with supporting calculations including documentation on the validity of the emission factors used, ton/month and ton/year.
- j. The source owner or operator shall maintain records that identify:
  - i. Any periods during which a continuous monitoring system was not operational, with explanation.

- ii. If a water injection system is used and water to fuel ratio is monitored in accordance with 40 CFR 60.334(a), any 1-hour period during which the average water to fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined by test to be necessary to comply with requirements for NO<sub>x</sub> emissions, with the average water-to-fuel ratio, average fuel consumption, ambient conditions and turbine load.
- iii. If a water injection system is used and water to fuel ratio is monitored in accordance with 40 CFR 60.334(a), any period when the affected turbine was in operation during which ice fog was deemed to be a traffic hazard, the ambient conditions existing during the periods, the date and time the water injection system was deactivated, and the date and time the system was reactivated.
- iv. Any day in which emission and/or opacity exceeded an applicable standard or limit.
- k. The source owner or operator shall keep records of good operating practices for each turbine.
- The source owner or operator shall maintain the following records related to each startup of the turbines [40 CFR 60.7(b) and 35 IAC 201.262]:
  - i. The following information for each startup of a turbine:
    - A. Date, time and duration of startup.
    - B. A record of whether written operating procedures are followed or if significant problems occur during the startup, detailed explanation of the actions taken to minimize emissions.
- m. The following information for the turbines when above normal opacity, as defined in Condition 7.1.8, has been observed by source personnel:
  - Name of observer, position and reason for being at site.
  - ii. Date and duration of above normal opacity, including affected turbine, start time and time normal operation was achieved.
  - iii. If normal operation was not achieved within 30 minutes, an explanation why startup could not be achieved within this time.

- iv. A detailed description of the startup, including reason for operation.
- v. An explanation why established startup procedures could not be performed, if not performed.
- vi. The nature of opacity following the end of startup and duration of operation until achievement of normal opacity or shutdown.
- vii. Whether an exceedance of Condition 7.1.3(b), i.e., 30 percent opacity, may have occurred during startup, with explanation if qualified observer was on site.
- n. Records for Malfunctions and Breakdowns

The Permittee shall maintain records, pursuant to 35 IAC 201.263, of continued operation of an affected turbine subject to Condition 7.1.3(g) during malfunctions and breakdown, which as a minimum, shall include:

- i. Date and duration of malfunction or breakdown.
- ii. A detailed explanation of the malfunction or breakdown.
- iii. An explanation why the affected turbine continued to operate in accordance with Condition 7.1.3(g).
- iv. The measures used to reduce the quantity of emissions and the duration of the event.
- v. The steps taken to prevent similar malfunctions or breakdowns or reduce their frequency and severity.
- vi. The amount of release above typical emissions during malfunction/breakdown.

### 7.1.10 Reporting Requirements

a. Reporting of Deviations

The source owner or operator shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected turbine with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

i. Emissions from the affected turbine in excess of the limits specified in Conditions 7.1.3 and 7.1.6 within 30 days of such occurrence.

- ii. Operation of the affected turbine in excess of the limits specified in Conditions 7.1.5 and 7.1.6 within 30 days of such occurrence.
- b. In conjunction with the Annual Emission Report required by 35 IAC Part 254, the source owner or operator shall provide the operating hours for each affected turbine, the total number of startups for each affected turbine, and the total fuel consumption during the preceding calendar year.
- c. Pursuant to 40 CFR 60.7(c) and 40 CFR 60.334(j), the source owner or operator shall submit the required excess emissions and monitoring system downtime reports.
- d. i. Annually report the heat input and  $NO_x$  emissions of the turbine as determined in accordance with 35 IAC 217.710(c) (Condition 7.1.8(c)(iii)), for each ozone control period, by November 30 of each year [35 IAC 217.712(b)(2)].
  - ii. Pursuant to 35 IAC 217.712(c) and (d), no later than November 30 of each year, the source owner or operator shall submit a report to the Illinois EPA that demonstrates that the affected turbine has complied with Condition 7.1.3(e). These reports shall be accompanied by a certification statement signed by a responsible official for the source owner or operator as specified by 35 IAC 217.712(c).
- e. Reserved for Future Use.
- f. Reporting of Malfunctions and Breakdowns

The Permittee shall provide the following notification and reports to the Illinois EPA, Air Compliance Unit and Regional Field Office, pursuant to 35 IAC 201.263, concerning continued operation of an affected turbine subject to Condition 7.1.3(g) during malfunction or breakdown:

- i. A. The Permittee shall notify the Illinois EPA's regional office by telephone, fax, or email as soon as possible during normal working hours, but no later than three (3) days, upon the occurrence of noncompliance due to malfunction or breakdown.
  - B. Upon achievement of compliance, the Permittee shall give a written follow-up notice within 15 days to the Illinois EPA, Air Compliance Unit and Regional Field Office, providing a detailed explanation of the event, an explanation why continued operation of the affected turbines was necessary, the length of time during which

operation continued under such conditions, the measures taken by the Permittee to minimize and correct deficiencies with chronology, and when the repairs were completed or when the affected turbine was taken out of service.

- C. If compliance is not achieved within 5 working days of the occurrence, the Permittee shall submit interim status reports to the Illinois EPA, Air Compliance Unit and Regional Field Office, within 5 days of the occurrence and every 14 days thereafter, until compliance is achieved. These interim reports shall provide a brief explanation of the nature of the malfunction or breakdown, corrective actions accomplished to date, actions anticipated to occur with schedule, and the expected date on which repairs will be complete or the affected turbine will be taken out of service.
- ii. In accordance with the due dates in Condition 8.6.1, the Permittee shall submit semi-annual malfunction and breakdown reports to the Illinois EPA pursuant to Sections 39.5(7)(a) and (f) of the Act. These reports may be submitted along with other semi-annual reports and shall include the following information for malfunctions and breakdowns of the affected turbine during the reporting period:
  - A. A listing of malfunctions and breakdowns, in chronological order, that includes:
    - The date, time, and duration of each incident.
    - II. The identity of the affected operation(s) involved in the incident.
  - B. Dates of the notices and reports of Conditions 7.1.10(f)(i).
  - C. Any supplement information the Permittee wishes to provide to the notices and reports of Conditions 7.1.10(f)(i).
  - D. The aggregate duration of all incidents during the reporting period.
  - E. If there have been no such incidents during the reporting period, this shall be stated in the report.

7.1.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected turbines.

## 7.1.12 Compliance Procedures

- a. Compliance with the opacity limitations of Conditions 7.1.3(b) is addressed by the requirements of Condition 7.1.5, the testing requirements of 7.1.7, the monitoring requirements of 7.1.8, and the records required in Condition 7.1.9, and the reports required in Condition 7.1.10.
- b. Compliance with the SO<sub>2</sub> emission limitations of Conditions 7.1.3(c) is addressed by the requirements of Condition 7.1.5, the monitoring requirements of 7.1.8, the records required in Condition 7.1.9, and the reports required in Condition 7.1.10.
- c. i. Compliance with the  $\mathrm{NO}_{\mathrm{x}}$  emission limitations of Conditions 7.1.3(d)(i) is addressed by the requirements of Condition 7.1.5, the testing requirements of 7.1.7, the monitoring requirements of 7.1.8, and the records required in Condition 7.1.9, and the reports required in Condition 7.1.10(a).
  - ii. Compliance with the  $SO_2$  emission limitations of Conditions 7.1.3(d)(ii) is addressed by the requirements of Condition 7.1.5, the monitoring requirements of 7.1.8, the records required in Condition 7.1.9, and the reports required in Condition 7.1.10(a).
- d. i. Compliance with the  $NO_x$  emission limitations of Conditions 7.1.3(e) is addressed by the requirements of Condition 7.1.5, the testing requirements of 7.1.7, the monitoring requirements of 7.1.8, the records required in Condition 7.1.9, and the reports required in Condition 7.1.10(a).
  - ii. Notwithstanding 35 IAC 217.710(a), Condition 7.1.8(d), the owner or operator of a gas-fired peaking unit or oil-fired peaking unit as defined in 40 CFR 72.2 may determine NO<sub>x</sub> emissions in accordance with the emissions estimation protocol of 40 CFR 75, Subpart E [35 IAC 217.710(b)].
  - iii. Notwithstanding 35 IAC 217.710(a), Condition 7.1.8(d), the owner or operator of a combustion turbine that operates less than 350 hour per ozone control period may determine the heat input and NO<sub>x</sub> emissions of the turbine as follows [35 IAC 217.710(c)]:

- A. Heat input shall be determined from the metered fuel usage to the turbine or the calculated heat input determined as the product of the turbine's maximum hourly heat input and hours of operation as recorded by operating instrumentation on the turbine [35 IAC 217.710(c)(1)].
- B.  $NO_x$  emissions shall be determined as the product of the heat input, as determined above, and the appropriate default  $NO_x$  emission factors below [35 IAC 217.710(c)(2)]:
  - 0.7 lbs/mmBtu Natural gas 1.2 lbs/mmBtu - Fuel oil
- e. i. Compliance with the fuel limits in Condition 7.1.6(a) is addressed by the records and reports required in Conditions 7.1.9(d) and 7.1.10(b).
  - ii. Compliance with the emission limits in Conditions 5.6 and 7.1.6(b) and (c) is addressed by the records and reports required in Conditions 7.1.9(d) and 7.1.10(b) and continuous emissions monitoring data (24-hour average), or from emission factors developed from the most recent approved stack test in accordance with Construction Permit 99090035 or Condition 7.1.7(a), standard emission factors, and analysis of fuel sulfur content.

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7.2 Natural Gas-Fired Turbine (Subject to NSPS - 40 CFR Subpart GG)

### 7.2.1 Description

The turbines are process emission units used to generate electricity. The turbines are powered by natural gas.  $NO_x$  emissions are controlled with a dry low  $NO_x$  combustors.

Note: This narrative description is for informational purposes only and is not enforceable.

### 7.2.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
CT05 thru CT08	552.5 mmBtu/hr Natural Gas Fired	2001	Dry Low NO <sub>x</sub> Combustors
C108	Turbines		COMBUSCOIS

## 7.2.3 Applicable Provisions and Regulations

- a. The "affected turbines" for the purpose of these unitspecific conditions, are turbines described in Conditions 7.2.1 and 7.2.2.
- b. Pursuant to 35 IAC 212.123,
  - i. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit.
  - ii. The emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 1000 ft radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.
- c. Pursuant to 35 IAC 214.301, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to excess 2000 ppm.
- d. The affected turbines are subject to the NSPS for Stationary Gas Turbines, 40 CFR 60 Subparts A and GG, because the heat input at peak load is equal to or greater than 10.7 gigajoules per hour (10 mmBtu/hr), based on the

lower heating value of the fuel fired and the affected turbine commenced construction, modification, or reconstruction after October 3, 1977. The Illinois EPA administers the NSPS for subject sources in Illinois pursuant to a delegation agreement with the USEPA.

## i. Standard for Nitrogen Oxides:

Pursuant to 40 CFR 60.332(b), electric utility stationary gas turbines with a heat input at peak load greater than 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired shall comply with the provisions of 40 CFR 60.332(a)(1). Pursuant to 40 CFR 60.332(a)(1), no owner or operator of an affected turbine shall cause to be discharged into the atmosphere from such gas turbine, any gases which contain nitrogen oxides in excess of:

STD = 0.0075 
$$\frac{(14.4)}{Y}$$
 + F

#### Where:

- STD = Allowable  $NO_x$  emissions (percent by volume at 15 percent oxygen and on a dry basis).
- Y = Manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour.
- F = NO<sub>x</sub> emission allowance for fuel-bound nitrogen calculated from the nitrogen content of the fuel as follows:

Fuel-bound nitrogen (percent by weight)	(NO <sub>x</sub> percent by volume)
N < 0.015	0
$0.\overline{015} < N < 0.1$	0.04 (N)
0.1 < N < 0.25	0.04 + 0.0067(N - 0.1)
N > 0.25	0.005

#### Where:

N = The nitrogen content of the fuel (percent by weight) determined in according with Condition 7.2.8(b).

#### ii. Standard for Sulfur Dioxide:

Pursuant to 40 CFR 60.333, on and after the date on which the performance test required to be conducted by 40 CFR 60.8 is completed, every owner or operator subject to the provision of 40 CFR 60 Subpart GG shall comply with one or the other of the following conditions:

No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine any gases which contain sulfur dioxide in excess of 0.015 percent by volume at 15 percent oxygen and on a dry basis, pursuant to 40 CFR 60.333(a).

No owner or operator subject to the provisions of this subpart shall burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 percent by weight (8000 ppmw), pursuant to 40 CFR 60.333(b).

- e. i. No owner or operator shall cause or allow the emissions of  $NO_x$  into the atmosphere from the affected turbine to exceed 0.25 lbs/mmBtu of actual heat input during each ozone control period from May 1 through September 30, based on a ozone control period average, for that unit [35 IAC 217.706(a)].
  - ii. Notwithstanding the above emission limitation of 35 IAC 217.706(a), the affected turbine subject to a more stringent  $NO_x$  emission limitation pursuant to any State or federal statute, including the Act, the Clean Air Act, or any regulations promulgated thereunder, shall comply with both the requirements of 35 IAC 217 Subpart V and that more stringent emission limitation [35 IAC 217.706(b)].

## f. Startup Provisions

Subject to the following terms and conditions, the Permittee is authorized to operate the affected turbines in violation of the applicable standards in Condition 7.2.3(b) and the hourly limits of Condition 7.2.6 during startup. This authorization is provided pursuant to 35 IAC 201.149, 201.261 and 201.262, as the Permittee has applied for such authorization in its application, generally describing the efforts that will be used "...to minimize startup emissions, duration of individual starts, and frequency of startups."

i. This authorization does not relieve the Permittee from the continuing obligation to demonstrate that all reasonable efforts are made to minimize startup

- emissions, duration of individual startups and frequency of startups.
- ii. The Permittee shall conduct startup of the each affected turbine(s) in accordance with written procedures prepared by the Permittee and maintained at the facility, in the control room for the each affected turbine(s), that are specifically developed to minimize emissions from startups and that include, at a minimum, the following measures:
  - A. The Permittee shall operate in accordance with the manufacturer's written operating and startup procedures or other written procedures developed and maintained by the source owner or operator so as to minimize the duration of startups and the emissions associated with startups. These procedures should allow for a pre-check of the unit and review of operating parameters of the unit during startup.
  - B. The Permittee shall maintain units in accordance with written procedures developed and maintained by the source owner or operator so as to minimize the duration of startups and the frequency of startups. These maintenance practices shall include maintenance activities before the unit is started up, when the unit is in operation, and when the unit is shut down.
- iii. The procedures described above shall be reviewed at least annually to make necessary adjustments and shall be made available to the Illinois EPA upon request.
- iv. The Permittee shall fulfill applicable recordkeeping and reporting requirements of Condition 7.2.9(k) and 7.2.10(c).
- v. As provided by 35 IAC 201.265, an authorization in a permit for excess emissions during startup does not shield a Permittee from enforcement for any violation of applicable emission standard(s) that occurs during startup and only constitutes a prima facie defense to such an enforcement action provided that the Permittee has fully complied with all terms and conditions connected with such authorization.
- q. Malfunction and Breakdown Provisions

Subject to the following terms and conditions, the Permittee is authorized to continue operation of an affected turbine in violation of the applicable standards in Condition 7.2.3(b) and the hourly emission limits in

Condition 7.2.6 in the event of a malfunction or breakdown of the affected turbines. This authorization is provided pursuant to 35 IAC 201.149, 201.261 and 201.262, as the Permittee has applied for such authorization in its application, generally explaining why such continued operation would be required to provide essential service or to prevent risk of injury to personnel or severe damage to equipment, and describing the measures that will be taken to minimize emissions from any malfunctions and breakdowns. This authorization supersedes the general prohibition in Condition 9.2.3 against continued operation in such circumstances.

- i. This authorization only allows such continued operation as necessary to provide essential service or prevent risk of injury to personnel or severe damage to equipment and does not extend to continued operation solely for the economic benefit of the Permittee.
- ii. Upon occurrence of excess emissions due to malfunction or breakdown, the Permittee shall as soon as practical repair the turbine, remove the affected turbine from service, or undertake other action so that excess emissions cease.
- iii. The Permittee shall fulfill the applicable recordkeeping and reporting requirements of Conditions 7.2.9(1) and 7.2.10(d). For these purposes, time shall be measured from the start of a particular incident. The absence of excess emissions for a short period shall not be considered to end the incident if excess emissions resume. In such circumstances, the incident shall be considered to continue until corrective actions are taken so that excess emissions cease or the Permittee takes the affected turbines out of service.
- iv. Following notification to the Illinois EPA of a malfunction or breakdown with excess emissions, the Permittee shall comply with all reasonable directives of the Illinois EPA with respect to such incident, pursuant to 35 IAC 201.263.
- v. This authorization does not relieve the Permittee from the continuing obligation to minimize excess emissions during malfunction or breakdown. As provided by 35 IAC 201.265, an authorization in a permit for continued operation with excess emissions during malfunction and breakdown does not shield the Permittee from enforcement for any such violation and only constitutes a prima facie defense to such an enforcement action provided that the Permittee has

fully complied with all terms and conditions connected with such authorization.

## 7.2.4 Non-Applicability of Regulations of Concern

a. The affected turbines are not subject to the New Source Performance Standards (NSPS) for Stationary Combustion Turbines, 40 CFR Part 60, Subpart KKKK, because the affected turbines did not commence construction, modification, or reconstruction after February 18, 2005 pursuant to 40 CFR 60.4305(a), and are therefore subject to 40 CFR Part 60, Subpart GG for Stationary Gas Turbines.

Note: To qualify for this non-applicability, the Permittee has certified that the turbines have not been modified or reconstructed after February 18, 2005.

- b. The affected turbines are not subject to the National Emissions Standards for Hazardous Air Pollutants for Stationary Combustion Turbines, 40 CFR Part 63, Subpart YYYY, because the affected turbines are not located at a major source of HAP emissions, pursuant to 40 CFR 63.6085.
- c. The affected turbines are not subject to 35 IAC 212.321 or 212.322, due to the unique nature of such units, a process weight rate cannot be set so that such rules cannot reasonably be applied, pursuant to 35 IAC 212.323.
- d. The affected turbines are not subject to 35 IAC 217.141 or 35 IAC 216.121 because the affected turbines are not fuel combustion units, as defined by 35 IAC 211.2470.
- e. The affected turbines are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources:
  - i. For  $NO_x$  and  $SO_2$ , because:
    - A. The affected turbines are subject to a NSPS proposed after November 15, 1990, pursuant to 40 CFR 64.2(b)(1)(i).
    - B. The affected turbines are subject to Acid Rain Program requirements, pursuant to 40 CFR 64.2(b)(1)(iii).
    - C. The affected turbines are subject to an emission limitation or standard for which this CAAPP permit specifies a continuous compliance determination method, pursuant to 40 CFR 64.2(b)(1)(vi).

ii. For PM, VOM, and CO because the affected turbines do not use an add-on control device to achieve compliance with an emission limitation or standard.

## 7.2.5 Control Requirements and Work Practices

- a. i. At all times, including periods of startup, shutdown, and malfunction, the source owner or operator shall, to the extent practicable, maintain and operate any affected turbine in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA or the USEPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source [40 CFR 60.11(d)].
  - ii. The source owner or operator shall operate the affected turbines in accordance with written operating procedures that shall include at a minimum the following measures:
    - A. Review of operating parameters of the unit during startup or shutdown as necessary for the proper operation of the affected turbine with appropriate adjustments to reduce emissions.
    - B. Implementation of inspection and repair procedures for a affected turbine prior to attempting startup following repeated trips.
  - iii. The source owner or operator shall maintain the affected turbines in accordance with written procedures that shall include at a minimum the following measures:
    - A. Unless specified on a more frequent basis by manufacturer's written instructions, a visual inspection of external emissions-related components shall be completed quarterly.
    - B. Repair and routine replacement of emissionsrelated components.
  - iv. The above procedures may incorporate the manufacturer's written instruction for operation and maintenance of the affected turbines and associated control systems. The source owner or operator shall review these procedures every year and shall revise or enhance them if necessary to be consistent with good air pollution control practice based on the

actual operating experience and performance of the source.

- b. Natural gas shall be the only fuel in the affected turbines.
- c. The affected turbines shall be equipped, operated, and maintained with dry low  $NO_{\rm x}$  combustors to control  $NO_{\rm x}$  emissions.
- d. Except during startup or shutdown of an affected turbine or for the purpose of emission testing, the Permittee shall minimize operation of the affected turbines below 60 percent load and shall not operate turbines below such lower load at which emission testing has demonstrated compliance with the applicable hourly emission limits in Condition 7.2.6.

# 7.2.6 Production and Emission Limitations

In addition to Condition 5.3.2 and the source-wide emission limitations in Condition 5.6, the affected turbines are subject to the following:

- a. The affected turbines shall not fire more than 8,306 million scf of natural gas per year (including 872 million scf of natural gas usage considering approximately 10% of the total turbine operating time less than 60% turbine load).
- b. Hourly emissions from each affected turbine shall not exceed the following limits except during startup and shutdown and reduced load operation as addressed in 7.2.6(c) below. Compliance with these limits shall be based on emission testing in accordance with the Construction Permit (00090076) or Condition 7.2.7 of this permit or continuous emissions monitoring data (24-hour average).

Pollutant	(Lb/Hour)	
$NO_x$	30.0	
CO	17.0	
SO <sub>2</sub>	1.0	
MOV	5.0	
PM	5.0	

c. Hourly emissions from each affected turbine shall not exceed the following limits when operated at or below 60% load [T1].

Pollutant	(Lb/Hour)	
CO	77.0	
VOM	23.0	

d. Total emissions from the affected turbines shall not exceed the following limits:

Pollutant	(Ton/Year)	
ио×	230.0	
CO	178.0	
SO <sub>2</sub>	8.0	
MOV	53.0	
PM	38.0	

- f. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].
- g. The above limitations were established in Permit 00090076, pursuant to PSD. These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for PSD [T1].

#### 7.2.7 Testing Requirements

- a. The nitrogen oxides  $(NO_x)$  emissions, and the oxygen  $(O_2)$  concentration and opacity of exhaust shall be measured for the affected turbines at the source owner or operator's expense by an independent testing service approved by the Illinois EPA as follows to determine compliance with applicable emission limits:
  - Within 120 days after a written request from the Illinois EPA, for such pollutants listed above as specified by the request.
  - ii. Any extension to these time periods that may be provided at its discretion by the Illinois EPA shall not alter the source owner or operator's obligation to perform emission testing for purposes of the NSPS in a timely manner as specified by 40 CFR 60.8.
- b. The following methods and procedures shall be used for testing of emissions:
  - i. The USEPA Reference Test Methods shall be used including the following:

Opacity		USEPA	Method	9
Nitrogen	Oxides	USEPA	Method	20

ii. A. Pursuant to 40 CFR 60.335(b), the owner or operator shall determine compliance with the

applicable nitrogen oxides emission limitation in 40 CFR 60.332 and shall meet the performance test requirements of 40 CFR 60.8 as follows:

For each run of the performance test, the mean nitrogen oxides emission concentration ( $NO_{Xo}$ ) corrected to 15 percent  $O_2$  shall be corrected to ISO standard conditions using the following equation. Notwithstanding this requirement, use of the ISO correction equation is optional for: Lean premix stationary combustion turbines; units used in association with heat recovery steam generators (HRSG) equipped with duct burners; and units equipped with add-on emission control devices, pursuant to 40 CFR 60.335 (b) (1):

 $NO_x = (NO_{xo}) (P_r/P_o) 0.5 \text{ e19} (H_o-0.00633)$ (288°K/Ta) 1.53

#### Where:

- $NO_x$  = emission concentration of  $NO_x$  at 15 percent  $O_2$  and ISO standard ambient conditions, ppm by volume, dry basis
- $NO_{Xo}$  = mean observed  $NO_{X}$  concentration, ppm by volume, dry basis, at 15 percent  $O_2$
- P<sub>r</sub> = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg
- P<sub>o</sub> = observed combustor inlet absolute pressure at test, mm Hg
- $H_0$  = observed humidity of ambient air, g  $H_2$  O/g
- e = transcendental constant, 2.718
- T<sub>a</sub> = ambient temperature, °K

The 3-run performance test required by 40 CFR 60.8 must be performed within ± 5 percent at 30, 50, 75, and 90-to-100 percent of peak load or at four evenly-spaced load points in the normal operating range of the gas turbine, including the minimum point in the operating range and 90-to-100 percent of peak load, or at the highest achievable load point if 90-to-100 percent of peak load cannot be physically achieved in practice. If the turbine combusts both oil and gas as primary or backup fuels,

separate performance testing is required for each fuel. Notwithstanding these requirements, performance testing is not required for any emergency fuel (as defined in 40 CFR 60.331), pursuant to 40 CFR 60.335(b)(2).

If water or steam injection is used to control  $NO_x$  with no additional post-combustion  $NO_x$  control and the owner or operator chooses to monitor the steam or water to fuel ratio in accordance with 40 CFR 60.334(a), then that monitoring system must be operated concurrently with each EPA Method 20, ASTM D6522-00 (incorporated by reference, see 40 CFR 60.17), or EPA Method 7E run and shall be used to determine the fuel consumption and the steam or water to fuel ratio necessary to comply with the applicable 40 CFR 60.332  $NO_x$  emission limit, pursuant to 40 CFR 60.335(b)(4).

If the owner or operator elects to install a CEMS, the performance evaluation of the CEMS may either be conducted separately (as described in paragraph (b) (7) of this section) or as part of the initial performance test of the affected unit, pursuant to 40 CFR 60.335(b) (6).

Pursuant to 40 CFR 60.335(b)(7), if the owner or operator elects to install and certify a  $NO_x$  CEMS under 40 CFR 60.334(e), then the initial performance test required under 40 CFR 60.8 may be done in the following alternative manner:

Perform a minimum of 9 reference method runs, with a minimum time per run of 21 minutes, at a single load level, between 90 and 100 percent of peak (or the highest physically achievable) load, pursuant to 40 CFR 60.335(b)(7)(i).

Use the test data both to demonstrate compliance with the applicable  $NO_x$  emission limit under 40 CFR 60.332 and to provide the required reference method data for the RATA of the CEMS described under 40 CFR 60.334(b) , pursuant to 40 CFR 60.335(b)(7)(ii).

The requirement to test at three additional load levels is waived, pursuant to 40 CFR 60.335(b)(7)(iii).

If the owner or operator elects under 40 CFR 60.334(f) to monitor combustion parameters or parameters indicative of proper operation of  $NO_x$ 

emission controls, the appropriate parameters shall be continuously monitored and recorded during each run of the initial performance test, to establish acceptable operating ranges, for purposes of the parameter monitoring plan for the affected unit, as specified in 40 CFR 60.334(g), pursuant to 40 CFR 60.335(b)(8).

Pursuant to 40 CFR 60.335(b)(10), if the owner or operator is required under 40 CFR 60.334(i)(1) or (3) to periodically determine the sulfur content of the fuel combusted in the turbine, a minimum of three fuel samples shall be collected during the performance test. Analyze the samples for the total sulfur content of the fuel using:

For gaseous fuels, ASTM D1072-80, 90 (Reapproved 1994); D3246-81, 92, 96; D4468-85 (Reapproved 2000); or D6667-01 (all of which are incorporated by reference, see 40 CFR 60.17). The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the prior approval of the Administrator, pursuant to 40 CFR 60.335(b)(10)(ii).

The fuel analyses required in 40 CFR 60.335 (b)(9) and 40 CFR 60.335 (b)(10) may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency, pursuant to 40 CFR 60.335(b)(11).

B. Pursuant to 40 CFR 60.335(c), the owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

Instead of using the equation in 40 CFR 60.335 (b)(1), manufacturers may develop ambient condition correction factors to adjust the nitrogen oxides emission level measured by the performance test as provided in 40 CFR 60.8 to ISO standard day conditions, pursuant to 40 CFR 60.335(c)(1).

c. At least 60 days prior to the actual date of testing, a written test plan shall be submitted to the Illinois EPA for review. This plan shall describe the specific procedures for testing and shall include as a minimum:

- i. The person(s) who will be performing sampling and analysis and their experience with similar tests.
- ii. The specific conditions under which testing shall be performed including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the turbine will be tracked and recorded.
- iii. The specific determinations of emissions that are intended to be made, including sampling and monitoring locations; the test method(s) that will be used, with the specific analysis method, if the method can be used with different analysis methods. The source owner or operator may also propose a plan for testing across the normal operating range of the affected turbines.
- d. The Illinois EPA shall be notified prior to these tests to enable the Illinois EPA to observe these tests. Notification of the expected date of testing shall be submitted a minimum of thirty (30) days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of five (5) working days prior to the actual date of the test. The Illinois EPA may, at its discretion, accept notifications with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe the testing.
- e. The Final Report for these tests shall be submitted to the Illinois EPA within 60 days after the date of the tests. The Final Report shall include as a minimum:
  - i. A summary of results.
  - ii. General information.
  - iii. Description of test method(s), including description of sampling points, sampling train, analysis equipment and test schedule.
  - iv. Detailed description of test conditions, including:
    - A. Fuel consumption (standard ft<sup>3</sup>).
    - B. Firing rate (million Btu/hr).
    - C. Turbine/Generator output rate (MW).

- v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.
- f. i. Upon written request by the Illinois EPA, the source owner or operator shall have the opacity of the exhaust from the affected turbine(s) tested during representative operating conditions as determined by a qualified observer in accordance with USEPA Test Method 9, as further specified below, pursuant to Section 39.5(7)(d) of the Act.
  - ii. Such testing shall be conducted for specific turbine(s) within 90 calendar days of the request, or on the date turbine(s) next operates, or on the date agreed upon by the Illinois EPA, whichever is later.
  - iii. The duration of opacity observations for each test shall be at least 30 minutes (five 6-minute averages) unless the average opacities for the first 12 minutes of observations (two six-minute averages) are both less than 10.0 percent.
  - iv. The source owner or operator shall notify the Illinois EPA at least 7 days in advance of the date and time of these tests, in order to allow the Illinois EPA to witness testing. This notification shall include the name and employer of the qualified observer(s).
  - v. The source owner or operator shall promptly notify the Illinois EPA of any changes in the time or date for testing.
  - vi. The source owner or operator shall provide a copy of its observer's readings to the Illinois EPA at the time of testing, if Illinois EPA personnel are present.
  - vii. The source owner or operator shall submit a written report for this testing within 30 days of the date of testing. This report shall include:
    - A. Date and time of testing.
    - B. Name and employer of qualified observer.
    - C. Copy of current certification.
    - D. Description of observation conditions.
    - E. Description of turbine operating conditions.

- F. Raw data.
- G. Opacity determinations.
- H. Conclusions.

## 7.2.8 Monitoring Requirements

- a. i. If an affected turbine is routinely operated or exercised to confirm that the turbine will operate when needed, the operation and opacity of the affected turbine shall be formally observed by operating personnel for the affected turbine or a member of source owner or operator's environmental staff on a regular basis to assure that the affected turbine is operating properly, which observations shall be made at least every six months.
  - ii. If an affected turbine is not routinely operated or exercised, i.e., the time interval between operation of an affected turbine is typically greater than six months, the operation and opacity of the affected turbine shall be formally observed as provided above each time the source owner or operator carries out a scheduled exercise of the affected turbine.
  - iii. The source owner or operator shall also conduct formal observations of operation and opacity of an affected turbine upon written request by the Illinois EPA. With the agreement of the Illinois EPA, the source owner or operator may schedule these observations to take place during periods when it would otherwise be operating the affected turbine.

Note: The formal observation required above is not intended to be a USEPA Test Method 9 opacity test, nor does the observation require a USEPA Test Method 9 certified observer. It is intended to be performed by personnel familiar with the operation of the affected turbine who would be able to make a determination based from the observed opacity as to whether or not the affected turbine was running properly, and subsequently initiate a corrective action if necessary.

b. The affected turbine shall comply with the applicable monitoring requirements of 40 CFR 60.334(h), below. Monitoring of fuel nitrogen content shall not be required while the facility does not claim an allowance for fuel-bound nitrogen. Monitoring for sulfur content in fuel is not required while natural gas is the only fuel fired in the affected turbine and the requirements of 40 CFR 60.334(h)3(i) or (ii) are met.

Pursuant to 40 CFR 60.334(h), the owner or operator of any stationary gas turbine subject to the provisions of this subpart:

Shall monitor the total sulfur content of the fuel being fired in the turbine, except as provided in 40 CFR 60.334(h)(3). The sulfur content of the fuel must be determined using total sulfur methods described in 40 CFR 60.335(b)(10). Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than 0.4 weight percent (4000 ppmw), ASTM D4084-82, 94, D5504-01, D6228-98, or Gas Processors Association Standard 2377-86 (all of which are incorporated by reference-see 40 CFR 60.17), which measure the major sulfur compounds may be used, pursuant to 40 CFR 60.334(h)(1); and

Shall monitor the nitrogen content of the fuel combusted in the turbine, if the owner or operator claims an allowance for fuel bound nitrogen (i.e., if an F-value greater than zero is being or will be used by the owner or operator to calculate STD in 40 CFR 60.332). The nitrogen content of the fuel shall be determined using methods described in 40 CFR 60.335(b)(9) or an approved alternative, pursuant to 40 CFR 60.334(h)(2).

Pursuant to 40 CFR 60.334(h)(3), notwithstanding the provisions of 40 CFR 60.334(h)(1) of this section, the owner or operator may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in 40 CFR 60.331(u), regardless of whether an existing custom schedule approved by the administrator for subpart GG requires such monitoring. The owner or operator shall use one of the following sources of information to make the required demonstration:

The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less, pursuant to 40 CFR 60.334(3)(i); or

Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of this chapter is required, pursuant to 40 CFR 60.334(h)(3)(ii).

c. i. The owner or operator of an affected turbine subject to 35 IAC 217 Subpart V (Condition 7.2.3(e)) shall install, calibrate, maintain and operate continuous emissions monitoring systems (CEMS) for NO<sub>x</sub> that meet

- the requirements of 40 CFR 75, Subpart B [35 IAC 217.710(a)].
- ii. Notwithstanding 35 IAC 217.710(a) above, the owner or operator of a gas-fired peaking unit or oil-fired peaking unit as defined in 40 CFR 72.2 may determine NO<sub>x</sub> emissions in accordance with the emissions estimation protocol of 40 CFR 75, Subpart E [35 IAC 217.710(b)].
- iii. Notwithstanding 35 IAC 217.710(a) above, the owner or operator of a combustion turbine that operates less than 350 hour per ozone control period may determine the heat input and  $NO_x$  emissions of the turbine as follows [35 IAC 217.710(c)]:
  - A. Heat input shall be determined from the metered fuel usage to the turbine or the calculated heat input determined as the product of the turbine's maximum hourly heat input and hours of operation as recorded by operating instrumentation on the turbine [35 IAC 217.710(c)(1)].
  - B.  $NO_x$  emissions shall be determined as the product of the heat input, as determined above, and the appropriate default  $NO_x$  emission factors below [35 IAC 217.710(c)(2)]:
    - 0.7 lbs/mmBtu Natural gas
      1.2 lbs/mmBtu Fuel oil
- d. i. The affected turbine shall be equipped, operated, and maintained with a continuous monitoring system to monitor and record the fuel consumption being fired.

## 7.2.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the source owner or operator shall maintain records of the following items for the affected turbine(s) to demonstrate compliance with Conditions 5.6.1, 7.2.3, 7.2.5, and 7.2.6, pursuant to Section 39.5(7)(b) of the Act:

- a. The owner or operator of an affected turbine subject to the requirements of 35 IAC 217 Subpart V (Condition 7.2.3(e)) shall:
  - i. Comply with the recordkeeping and reporting requirements of 40 CFR 75 applicable to  $NO_x$  emissions during the ozone control period, including, but not limited to, 40 CFR 75.54(b) and (d) [35 IAC 217.712(a)].

- ii. Notwithstanding 35 IAC 217.712(a) above, the owner or operator of a combustion turbine for which heat input and NO<sub>x</sub> emissions are determined pursuant to 35 IAC 217.710(c) (Condition 7.2.8(c)(iii)) shall comply with the following recordkeeping and reporting requirements [35 IAC 217.712(b)]:
  - A. Maintain records of the heat input and  $NO_x$  emissions of the turbine as determined in accordance with 35 IAC 217.710(c), and records of metered fuel use or operating hours used to determine heat input [35 IAC 217.712(b)(1)].
- b. The source owner or operator shall maintain records of the following items:
  - i. The sulfur content of the natural gas used to fire the turbines as determined in accordance with Condition 7.2.8(b).
  - ii. A copy of the Final Report(s) for emission testing conducted pursuant to Condition 7.2.7.
  - iii. Copies of opacity determinations taken for the source by qualified observer(s) using USEPA Method 9.
  - iv. Records documenting its periodic review of its operating procedures as required by Condition 7.2.5(a).
  - v. Information for the formal observations of opacity conducted pursuant to Condition 7.2.8(a). For each occasion on which observations are made, these records shall include the date, time, identity of the observer, a description of the various observations that were made, whether or not the affected engine was running properly, and whether or not corrective action is necessary and was subsequently initiated.
- c. A maintenance and repair log for the affected turbine, listing each activity performed with date.
- d. Fuel consumption for the affected turbine, scf/month and mmscf/year.
- e. Operating hours for the affected turbine, hr/month and hr/year.
- f. Heat content of the fuel being fired in the affected turbine.
- g. Emissions of each pollutant from the affected turbine, including emissions from startups, with supporting

calculations including documentation on the validity of the emission factors used, ton/month and ton/year.

- h. The source owner or operator shall maintain records that identify:
  - i. Any periods during which a continuous monitoring system was not operational, with explanation.
  - ii. Reserved for Future Use
  - iii. Any day in which emission and/or opacity exceeded an applicable standard or limit.
- The source owner or operator shall keep records of good operating practices for each turbine.
- j. The source owner or operator shall maintain the following records related to each startup of the turbines [40 CFR 60.7(b) and 35 IAC 201.262]:
  - i. Date, time and duration of startup.
  - ii. A record of whether written operating procedures are followed or if significant problems occur during the startup, detailed explanation of the actions taken to minimize emissions.
- k. The following information for the turbines when above normal opacity has been observed by source personnel:
  - i. Name of observer, position and reason for being at site.
  - ii. Date and duration of above normal opacity, including affected turbine, start time and time normal operation was achieved.
  - iii. If normal operation was not achieved within 30 minutes, an explanation why startup could not be achieved within this time.
  - iv. A detailed description of the startup, including reason for operation.
  - v. An explanation why established startup procedures could not be performed, if not performed.
  - vi. The nature of opacity following the end of startup and duration of operation until achievement of normal opacity or shutdown.

- vii. Whether an exceedance of Condition 7.2.3(b), i.e., 30 percent opacity, may have occurred during startup, with explanation if qualified observer was on site.
- 1. Records for Malfunctions and Breakdowns

The Permittee shall maintain records, pursuant to 35 IAC 201.263, of continued operation of an affected turbine subject to Condition 7.2.3(g) during malfunctions and breakdown, which as a minimum, shall include:

- i. Date and duration of malfunction or breakdown.
- A detailed explanation of the malfunction or breakdown.
- iii. An explanation why the affected turbine continued to operate in accordance with Condition 7.2.3(g).
- iv. The measures used to reduce the quantity of emissions and the duration of the event.
- v. The steps taken to prevent similar malfunctions or breakdowns or reduce their frequency and severity.
- vi. The amount of release above typical emissions during malfunction/breakdown.

# 7.2.10 Reporting Requirements

a. Reporting of Deviations

The source owner or operator shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected turbine with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- i. Emissions from the affected turbine in excess of the limits specified in Conditions 7.2.3 and 7.2.6 within 30 days of such occurrence.
- ii. Operation of the affected turbine in excess of the limits specified in Conditions 7.2.5 and 7.2.6 within 30 days of such occurrence.
- b. i. Annually report the heat input and NO<sub>x</sub> emissions of the turbine as determined in accordance with 35 IAC 217.710(c) (Condition 7.2.8(c)(iii)), for each ozone control period, by November 30 of each year [35 IAC 217.712(b)(2)].

ii. Pursuant to 35 IAC 217.712(c) and (d), no later than November 30 of each year, the source owner or operator shall submit a report to the Illinois EPA that demonstrates that the affected turbine has complied with Condition 7.2.3(e). These reports shall be accompanied by a certification statement signed by a responsible official for the source owner or operator as specified by 35 IAC 217.712(c).

#### c. Reporting of Startups

In conjunction with the Annual Emission Report required by 35 IAC 254, the source owner or operator shall provide the operating hours for each affected turbine, the total number of startups for each affected turbine, and the total fuel consumption during the preceding calendar year.

d. Reporting of Malfunctions and Breakdowns

The Permittee shall provide the following notification and reports to the Illinois EPA, Air Compliance Unit and Regional Field Office, pursuant to 35 IAC 201.263, concerning continued operation of an affected turbine subject to Condition 7.2.3(g) during malfunction or breakdown:

- regional office by telephone, fax, or email as soon as possible during normal working hours, but no later than three (3) days, upon the occurrence of noncompliance due to malfunction or breakdown.
  - B. Upon achievement of compliance, the Permittee shall give a written follow-up notice within 15 days to the Illinois EPA, Air Compliance Unit and Regional Field Office, providing a detailed explanation of the event, an explanation why continued operation of the affected turbines was necessary, the length of time during which operation continued under such conditions, the measures taken by the Permittee to minimize and correct deficiencies with chronology, and when the repairs were completed or when the affected turbine was taken out of service.
  - C. If compliance is not achieved within 5 working days of the occurrence, the Permittee shall submit interim status reports to the Illinois EPA, Air Compliance Unit and Regional Field Office, within 5 days of the occurrence and every 14 days thereafter, until compliance is achieved. These interim reports shall provide a brief explanation of the nature of the

malfunction or breakdown, corrective actions accomplished to date, actions anticipated to occur with schedule, and the expected date on which repairs will be complete or the affected turbine will be taken out of service.

- ii. In accordance with the due dates in Condition 8.6.1, the Permittee shall submit semi-annual malfunction and breakdown reports to the Illinois EPA pursuant to Sections 39.5(7)(a) and (f) of the Act. These reports may be submitted along with other semi-annual reports and shall include the following information for malfunctions and breakdowns of the affected turbine during the reporting period:
  - A. A listing of malfunctions and breakdowns, in chronological order, that includes:
    - The date, time, and duration of each incident.
    - II. The identity of the affected operation(s) involved in the incident.
  - B. Dates of the notices and reports of Conditions 7.2.10(d)(i).
  - C. Any supplement information the Permittee wishes to provide to the notices and reports of Conditions 7.2.10(d)(i).
  - D. The aggregate duration of all incidents during the reporting period.
  - E. If there have been no such incidents during the reporting period, this shall be stated in the report.
- e. Pursuant to 40 CFR 60.7(c) and 40 CFR 60.334(j), a report shall be submitted on a semi-annual basis. This report shall contain information on excess emissions and monitoring system downtime reports in accordance with 40 CFR 60.7(c) and 40 CFR 60.334(j).
- 7.2.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected turbines.

# 7.2.12 Compliance Procedures

a. Compliance with the PM emission limitations of Conditions 7.2.3(b) is addressed by the requirements of Condition 7.2.5, and the records required in Condition 7.2.9, and the reports required in Condition 7.2.10.

- compliance with the SO<sub>2</sub> emission limitations of Conditions 7.2.3(c) is addressed by the requirements of Condition 7.2.5, and the records required in Condition 7.2.9, and the reports required in Condition 7.2.10.
- c. i. Compliance with the  $NO_x$  emission limitations of Conditions 7.2.3(d)(i) is addressed by the requirements of Condition 7.2.5, the testing requirements of 7.2.7, the monitoring requirements of 7.2.8, and the records required in Condition 7.2.9, and the reports required in Condition 7.2.10(a).
  - ii. Compliance with the  $SO_2$  emission limitations of Conditions 7.2.3(d)(ii) is addressed by the requirements of Condition 7.2.5, the records required in Condition 7.2.9, and the reports required in Condition 7.2.10(a).
- d. i. Compliance with the  $NO_x$  emission limitations of Conditions 7.2.3(e) is addressed by the requirements of Condition 7.2.5, the testing requirements of 7.2.7, the monitoring requirements of 7.2.8, the records required in Condition 7.2.9, and the reports required in Condition 7.2.10(a).
  - ii. Notwithstanding 35 TAC 217.710(a), Condition 7.2.8(d), the owner or operator of a gas-fired peaking unit or oil-fired peaking unit as defined in 40 CFR 72.2 may determine NO<sub>x</sub> emissions in accordance with the emissions estimation protocol of 40 CFR 75, Subpart E [35 TAC 217.710(b)].
  - iii. Notwithstanding 35 IAC 217.710(a), Condition 7.2.8(d), the owner or operator of a combustion turbine that operates less than 350 hour per ozone control period may determine the heat input and  $NO_x$  emissions of the turbine as follows [35 IAC 217.710(c)]:
    - A. Heat input shall be determined from the metered fuel usage to the turbine or the calculated heat input determined as the product of the turbin's maximum hourly heat input and hours of operation as recorded by operating instrumentation on the turbine [35 IAC 217.710(c)(1)].
    - B.  $NO_x$  emissions shall be determined as the product of the heat input, as determined above, and the appropriate default  $NO_x$  emission factors below [35 IAC 217.710(c)(2)]:
      - 0.7 lbs/mmBtu Natural gas

#### 1.2 lbs/mmBtu - Fuel oil

- e. i. Compliance with the fuel limits in Condition 7.2.6(a) is addressed by the records and reports required in Conditions 7.2.9 and 7.2.10.
  - ii. Compliance with the emission limits in Conditions 5.6 and 7.2.6 is addressed by the records and reports required in Conditions 7.2.9 and 7.2.10, continuous emission monitoring data (24-hour average) or from emission factors developed from the most recent approved stack test in accordance with Construction Permit 00090076, or Condition 7.2.7, standard emission factors and analysis of fuel sulfur content.

## 7.3 Reciprocating Engines (Start-Up Engines)

## 7.3.1 Description

The engines are process emission units used to start the turbines described in Sections 7.1 and 7.2. All engines are powered by distillate fuel oil.

#### 7.3.2 List of Emission Units and Air Pollution Control Equipment

Emission		Emission Control
Unit	Description	Equipment
D05	5.21 mmBtu/hr Diesel Start-	None
	up Engine	
D06	5.21 mmBtu/hr Diesel Start-	None
	up Engine	
D07	5.21 mmBtu/hr Diesel Start-	None
	up Engine	
D08	5.21 mmBtu/hr Diesel Start-	None
	up Engine	

# 7.3.3 Applicable Provisions and Regulations

- a. The "affected engines" for the purpose of these unitspecific conditions, are engines described in Conditions 7.3.1 and 7.3.2.
- b. Pursuant to 35 IAC 212.123,
  - i. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit.
  - ii. The emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 1000 ft radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.
- c. i. Pursuant to 35 IAC 214.301, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to excess 2000 ppm.

# 7.3.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected engines not being subject to the requirements of 35 IAC 212.321 or 212.322, because due to the unique nature of these units, a process weight rate cannot be set so that such rules are not reasonably applied.
- b. The affected engines are not subject to 35 IAC 217.141, because the affected engines are not by definition a fuel combustion unit.
- c. The affected engines are not subject to 35 IAC 216.121, because the affected engines are not by definition a fuel combustion unit.
- d. The affected engines are not subject to the New Source Performance Standards (NSPS) for Compression Ignition Internal Combustion Engines, 40 CFR Part 60, Subpart IIII, because the Permittee did not commence construction (date that construction commences is the date the engine is ordered by the Permittee) of the affected engines after July 11, 2005.

Note: To qualify for this non-applicability, the Permittee has certified that the diesel engines have not modified or reconstructed their diesel engines after July 11, 2005.

- e. The affected engines are excluded from certain requirements of the National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines 40 CFR Part 63, Subpart ZZZZ, because the affected engines are existing compression ignition (CI) stationary RICE, pursuant to 40 CFR 63.6590(b)(3), and do not have to meet the requirements of that Subpart or Subpart A, additionally no initial notification is necessary. Requirements necessary to maintain the exclusion, and therefore compliance with that Part, are found within this Section. Specifically, those requirements are not becoming an affected source pursuant to 40 CFR 63.6590.
- f. The affected engines (used as diesel generators) are not subject to the Acid Rain Program, 40 CFR 72, because the affected engines are non-utility units, as defined by 40 CFR 72.6(b)(8). Pursuant to 40 CFR 72.2, "utility unit" is defined as a unit owned or operated by a utility that serves a generator in any State that produces electricity for sale.
- g. i. The affected engines are not subject to 35 IAC Part 217, Subpart Q: Stationary Reciprocating Internal Combustion Engines and Turbines, because the affected engines are not stationary reciprocating internal

combustion engines listed in Appendix G of that Part, pursuant to 35 IAC 217.386.

h. The affected engines are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected engines does not use an addon control device to achieve compliance with an emission limitation or standard.

## 7.3.5 Control Requirements and Work Practices

- a. Distillate fuel oil shall be the only fuel fired in the affected engines.
- b. The Illinois EPA shall be allowed to sample all fuels stored at the source.
- c. The Permittee shall follow good operating practices for the affected engines, including periodic inspection, routine maintenance and prompt repair of defects.

## 7.3.6 Production and Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected engines are subject to the following:

a. Hourly emissions from each affected engines shall not exceed the following limits:

<u>Pollutant</u>	(Lb/Hour)	
$NO_x$	16.48	
CO	5.17	
SO <sub>2</sub>	2.69	
VOM	0.71	

b. Total emissions from the affected engines shall not exceed the following limits:

Pollutant	(Ton/Year)	
$NO_x$	12.03	
CO	3.77	
SO <sub>2</sub>	1.96	
VOM	0.52	

c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

The above limitations were established in Permit 00090076, pursuant to 40 CFR 52.21, Prevention of Significant

Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

d. Total operation of the affected engines shall not exceed 1,460 hours per year [T1]. The above limitations were established in Permit 00090076.

## 7.3.7 Testing Requirements

- a. i. Upon written request by the Illinois EPA, the
  Permittee shall have the opacity of the exhaust from
  the affected engine(s) tested during representative
  operating conditions as determined by a qualified
  observer in accordance with USEPA Test Method 9, as
  further specified below, pursuant to Section
  39.5(7)(d) of the Act.
  - ii. Such testing shall be conducted for specific diesel engine(s) within 70 calendar days of the request, or on the date diesel engine(s) next operates, or on the date agreed upon by the Illinois EPA, whichever is later.
  - iii. The duration of opacity observations for each test shall be at least 30 minutes (five 6-minute averages) unless the average opacities for the first 12 minutes of observations (two six-minute averages) are both less than 10.0 percent.
  - iv. The Permittee shall notify the Illinois EPA at least 7 days in advance of the date and time of these tests, in order to allow the Illinois EPA to witness testing. This notification shall include the name and employer of the qualified observer(s).
  - v. The Permittee shall promptly notify the Illinois EPA of any changes in the time or date for testing.
  - vi. The Permittee shall provide a copy of its observer's readings to the Illinois EPA at the time of testing, if Illinois EPA personnel are present.
  - vii. The Permittee shall submit a written report for this testing within 15 days of the date of testing. This report shall include:
    - A. Date and time of testing.
    - B. Name and employer of qualified observer.

- C. Copy of current certification.
- D. Description of observation conditions.
- E. Description of diesel engine operating conditions.
- F. Raw data.
- G. Opacity determinations.
- H. Conclusions.
- b. i. In the event that the fuel oil supplier is unable to provide the sulfur content of the fuel oil supply for the affected engines, the Permittee shall have the sulfur content of the oil supply to the affected engines, in lbs/mmBtu, determined from an analysis of representative sample of the oil supply, as follows, pursuant to Section 39.5(7)(d) of the Act:
  - A. From a sample taken no later than 90 days after first operating the affected engines pursuant to this permit, provided, however, that if such sample is taken following operation of the affected engines, the sample shall be taken prior to adding more oil to the storage tank.
  - B. From a sample taken no later than 30 days after acceptance of a shipment of fuel whose sulfur content would not meet Condition 7.3.3(c) based upon supplier data, provided however, that if the affected engines are operated following acceptance of such a shipment, the sample shall be taken prior to adding a subsequent shipment of oil to the relevant storage tank.
  - C. From a sample taken no later than 30 days after a request for such a sample is made by the Illinois EPA, provided, however, that such sample shall be taken prior to adding more oil to the relevant storage tank.
  - ii. Sampling and analysis, including that which forms the basis for the suppliers' data, shall be conducted using methods that would be acceptable under the federal New Source Performance Standards for Stationary Gas Turbines, 40 CFR 60.335(b)(2) and (c) or the federal Acid Rain Program, 40 CFR 75, Appendix D, Optional SO<sub>2</sub> Emissions Data Protocol for Gas-Fired and Oil-Fired Units e.g., ASTM D4057-88 and ASTM D129-91.

Note: Condition 7.3.7(b)(ii) is for fuel testing methodology only, and is in no way intended to subject the source to those provisions.

# 7.3.8 Monitoring Requirements

- a. i. If an affected engine is routinely operated or exercised to confirm that the affected engine will operate when needed, the operation and opacity of the affected engine shall be formally observed by operating personnel for the affected engine or a member of Permittee's environmental staff on a regular basis to assure that the affected engine is operating properly, which observations shall be made at least every six months.
  - ii. If an affected engine is not routinely operated or exercised, i.e., the time interval between operation of an affected engine is typically greater than six months, the operation and opacity of the affected engine shall be formally observed as provided above each time the Permittee carries out a scheduled exercise of the affected engine.
  - iii. The Permittee shall also conduct formal observations of operation and opacity of an affected engine upon written request by the Illinois EPA. With the agreement of the Illinois EPA, the Permittee may schedule these observations to take place during periods when it would otherwise be operating the affected engine.

Note: The "formal observation" required above is not intended to be a USEPA Test Method 9 opacity test, nor does the observation require a USEPA Test Method 9 certified observer. It is intended to be performed by personnel familiar with the operation of the affected engines who would be able to make a determination based from the observed opacity as to whether of not the affected engine was running properly, and subsequently initiate a corrective action if necessary.

## 7.3.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for each affected engine to demonstrate compliance with Conditions 5.6.1 and 7.3.3, pursuant to Section 39.5(7)(b) of the Act:

- a. i. An operating log for each affected engine, which shall include the following information:
  - A. Information for each time the affected engine is operated, with date, time, duration, and

- purpose (i.e., turbine startup or readiness testing). Monthly and annual records of hours of operation of each engine and total hours of operation.
- B. Information for the observations conducted pursuant to Condition 7.3.8(a) or 7.3.7(a), with date, time, personnel, and findings.
  - I. The Permittee shall keep records for all opacity measurements made in accordance with USEPA Method 9 for an affected engine that it conducts or that are conducted on its behalf by individuals who are qualified to make such observations for Condition 7.3.7(a). For each occasion on which such observations are made, these records shall include the identity of the observer, a description of the various observations that were made, the observed opacity, and copies of the raw data sheets for the observations.
  - II. The Permittee shall keep records for all formal observations of opacity conducted pursuant to Condition 7.3.8(a). For each occasion on which observations are made, these records shall include the date, time, identity of the observer, a description of the various observations that were made, whether or not the affected engine was running properly, and whether or not corrective action is necessary and was subsequently initiated.
- C. Information identifying any deviation from Condition 7.3.5(b).
- ii. A maintenance and repair log for each affected engine and associated equipment, listing activities performed with date.
- iii. The Permittee shall keep records of good operating practices for each affected engine, as defined in Condition 7.3.5(c).
- b. Fuel usage for the affected engines:
  - i. Total annual usage of fuel oil for the affected engines in gallons/year.
- c. The following records related to the sulfur content of the oil fuel supply and  $SO_2$  emissions of the affected engines:

- i. Records for each shipment of fuel for the affected engines, including date, supplier, quantity (in gallons), sulfur content, and whether the  $SO_2$  emissions from the burning of such fuel would meet the standard in Condition 7.3.3(c).
- ii. The Permittee shall maintain records of the sulfur content of the fuel oil supply to the affected engines, based on the weighted average of material in the storage tank, or the sulfur content of the supply shall be assumed to be the highest sulfur content in any shipment in the tank.
- d. Emissions from each affected engine (i.e.,  $NO_x$ , CO,  $SO_2$ , VOM, and PM) in tons/month and tons/year with supporting calculations and data as required by Condition 7.3.9.

#### 7.3.10 Reporting Requirements

a. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of an affected engines with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- i. Emissions of opacity,  $SO_2$ , from the affected engines in excess of the limits specified in Conditions 7.3.3 within 30 days of such occurrence.
- ii. Operation of the affected engines in noncompliance with the requirements specified in Condition 7.3.5 within 30 days of such occurrence.
- iii. Operation of the affected engines in excess of the limits specified in Condition 7.3.6 within 30 days of such occurrence.

# 7.3.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected engines.

#### 7.3.12 Compliance Procedures

a. Compliance with the PM emission limitations of Conditions 7.3.3(b) is addressed by the requirements of Condition 7.3.5(a), the testing requirements in Condition 7.3.7(a), the monitoring requirements of Condition 7.3.8(a), the records required in Condition 7.3.9(a), and the reports required in Condition 7.3.10(a).

- b. i. Compliance with the SO<sub>2</sub> emission limitation of Condition 7.3.3(c)(i) is addressed by the requirements of Condition 7.3.5, the testing requirements in Condition 7.3.7(b), and the records and reports required in Conditions 7.3.9(b) and (c) and 7.3.10(a).
  - ii. For this purpose, complete conversion of sulfur into SO<sub>2</sub> shall be assumed, e.g., SO<sub>2</sub> emissions in lb/mmBtu are twice the sulfur content of the fuel supply, in lb/mmBtu, using the following equation:

## SO<sub>2</sub> ppm = Fuel sulfur content (lb/mmBtu) x 2 x 1/64 x 385.2 x 1,000,000Engine exhaust rate factor (scf/mmBtu)

Note: Stoichiometric combustion of distillate oil with the maximum available sulfur content, i.e., 1.0 percent, would result in an  $SO_2$  concentration in the exhaust that is well below the 2000 ppm limit in Condition 7.3.3(c)(i), i.e., only about 500 ppm, based on 10,320 scf/mmBtu, the F-factor for oil in USEPA's Reference Method 19.

- c. Compliance with the emission limits in Conditions 7.3.6 are addressed by the records and reports required in Conditions 7.3.9 and 7.3.10 and the emission factors and formulas listed below if suitable manufacture's emission rate data is not available:
  - i. Emission factors for the affected engines greater than 600 horsepower:

	Emission Factors	I
Pollutant	(lb/mmBtu)	(1b/hp-hr)
	Fuel Input	Power Output
MOV	0.35	$2.46 \times 10^{-03}$
PM	0.31	$2.20 \times 10^{-03}$
SO <sub>2</sub>	0.29	$2.05 \times 10^{-03}$
$NO_x$	4.41	0.031
CO	0.95	$6.68 \times 10^{-03}$

The heat content of distillate fuel oil shall be assumed to be 137,030 Btu/gal as per AP-42.

Emissions = Distillate Fuel Oil Usage x Heat Content of Fuel Oil x Emission Factor

The emission factors are for Large Stationary Diesel And All Stationary Dual-fuel Engines from AP-42 Section 3.4 (dated 10/96).

#### 8.0 GENERAL PERMIT CONDITIONS

#### 8.1 Permit Shield

Pursuant to Section 39.5(7)(j) of the Act, the Permittee has requested and has been granted a permit shield. This permit shield provides that compliance with the conditions of this permit shall be deemed compliance with applicable requirements which were applicable as of the date the proposed permit for this source was issued, provided that either the applicable requirements are specifically identified within this permit, or the Illinois EPA, in acting on this permit application, has determined that other requirements specifically identified are not applicable to this source and this determination (or a concise summary thereof) is included in this permit.

This permit shield does not extend to applicable requirements which are promulgated after December 30, 2009 (the date of issuance of the proposed permit) unless this permit has been modified to reflect such new requirements.

## 8.2 Applicability of Title IV Requirements (Acid Deposition Control)

This source is an affected source under Title IV of the CAA and is subject to requirements pursuant to Title IV of the CAA as specified in Section 6.2. To the extent that the federal regulations promulgated under Title IV of the CAA, are inconsistent with the requirements of this permit, the federal regulations promulgated under Title IV of the CAA shall take precedence pursuant to Section 39.5(17)(j) of the Act.

#### 8.3 Emissions Trading Programs

No permit revision shall be required for increases in emissions allowed under any USEPA approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for elsewhere in this permit and that are authorized by the applicable requirement [Section 39.5(7)(o)(vii) of the Act].

# 8.4 Operational Flexibility/Anticipated Operating Scenarios

#### 8.4.1 Changes Specifically Addressed by Permit

Physical or operational changes specifically addressed by the Conditions of this permit that have been identified as not requiring Illinois EPA notification may be implemented without prior notice to the Illinois EPA.

## 8.4.2 Changes Requiring Prior Notification

The Permittee is authorized to make physical or operational changes that contravene express permit terms without applying for or obtaining an amendment to this permit, provided that [Section 39.5(12)(a)(i) of the Act]:

a. The changes do not violate applicable requirements;

- b. The changes do not contravene federally enforceable permit terms or conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements;
- c. The changes do not constitute a modification under Title I of the CAA;
- d. Emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change; and
- e. The Permittee provides written notice to the Illinois EPA, Division of Air Pollution Control, Permit Section, at least 7 days before commencement of the change. This notice shall:
  - i. Describe the physical or operational change;
  - ii. Identify the schedule for implementing the physical or operational change;
  - iii. Provide a statement of whether or not any New Source Performance Standard (NSPS) is applicable to the physical or operational change and the reason why the NSPS does or does not apply;
  - iv. Provide emission calculations which demonstrate that the physical or operational change will not result in a modification; and
  - v. Provide a certification that the physical or operational change will not result in emissions greater than authorized under the Conditions of this permit.

#### 8.5 Testing Procedures

Tests conducted to measure composition of materials, efficiency of pollution control devices, emissions from process or control equipment, or other parameters shall be conducted using standard test methods if applicable test methods are not specified by the applicable regulations or otherwise identified in the conditions of this permit.

Documentation of the test date, conditions, methodologies, calculations, and test results shall be retained pursuant to the recordkeeping procedures of this permit. Reports of any tests conducted as required by this permit or as the result of a request by the Illinois EPA shall be submitted as specified in Conditions 8.6.3 and 8.6.4.

Electronic Filing - Received, Clerk's Office: 03/17/2015

## 8.6 Reporting Requirements

#### 8.6.1 Monitoring Reports

Reports summarizing required monitoring as specified in the conditions of this permit shall be submitted to the Illinois EPA every six months as follows, unless more frequent submittal of such reports is required in Sections 5 or 7 of this permit [Section 39.5(7)(f) of the Act]:

Monitoring Period

Report Due Date

January - June

September 1

July - December

March 1

All instances of deviations from permit requirements must be clearly identified in such reports. All such reports shall be certified in accordance with Condition 9.9.

#### 8.6.2 Test Notifications

Unless otherwise specified elsewhere in this permit, a written test plan for any test required by this permit shall be submitted to the Illinois EPA for review at least 60 days prior to the testing pursuant to Section 39.5(7)(a) of the Act. The notification shall include at a minimum:

- a. The name and identification of the affected unit(s);
- b. The person(s) who will be performing sampling and analysis and their experience with similar tests;
- c. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined;
- d. The specific determinations of emissions and operation that are intended to be made, including sampling and monitoring locations;
- e. The test method(s) that will be used, with the specific analysis method, if the method can be used with different analysis methods;
- f. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification; and
- g. Any proposed use of an alternative test method, with detailed justification.

## 8.6.3 Test Reports

Unless otherwise specified elsewhere in this permit, the results of any test required by this permit shall be submitted to the Illinois EPA within 60 days of completion of the testing. The test report shall include at a minimum [Section 39.5(7)(e)(i) of the Act]:

- a. The name and identification of the affected unit(s);
- b. The date and time of the sampling or measurements;
- c. The date any analyses were performed;
- d. The name of the company that performed the tests and/or analyses;
- e. The test and analytical methodologies used;
- f. The results of the tests including raw data, and/or analyses including sample calculations;
- g. The operating conditions at the time of the sampling or measurements; and
- h. The name of any relevant observers present including the testing company's representatives, any Illinois EPA or USEPA representatives, and the representatives of the source.

## 8.6.4 Reporting Addresses

- a. Unless otherwise specified in the particular provision of this permit or in the written instructions distributed by the Illinois EPA for particular reports, reports and notifications shall be sent to the Illinois EPA - Air Compliance Unit with a copy sent to the Illinois EPA - Air Regional Field Office.
- b. As of the date of issuance of this permit, the addresses of the offices that should generally be utilized for the submittal of reports and notifications are as follows:
  - i. Illinois EPA Air Compliance Unit

Illinois Environmental Protection Agency Bureau of Air Compliance & Enforcement Section (MC 40) P.O. Box 19276 Springfield, Illinois 62794-9276 ii. Illinois EPA - Air Quality Planning Section

Illinois Environmental Protection Agency Bureau of Air Air Quality Planning Section (MC 39) P.O. Box 19276 Springfield, Illinois 62794-9276

iii. Illinois EPA - Air Regional Field Office

Illinois Environmental Protection Agency Division of Air Pollution Control 2009 Mall Street Collinsville, Illinois 62234

iv. USEPA Region 5 - Air Branch

USEPA (AR - 17J) Air & Radiation Division 77 West Jackson Boulevard Chicago, Illinois 60604

c. Permit applications should be addressed to the Air Permit Section. As of the date of issuance of this permit, the address of the Air Permit Section is as follows:

> Illinois Environmental Protection Agency Division of Air Pollution Control Permit Section (MC 11) P.O. Box 19506 Springfield, Illinois 62794-9506

## 8.7 Title I Conditions

Notwithstanding the expiration date on the first page of this CAAPP permit, Title I conditions in this permit, which are identified by a T1, T1N, or T1R designation, remain in effect until such time as the Illinois EPA takes action to revise or terminate them in accordance with applicable procedures for action on Title I conditions. This is because these conditions either: (a) incorporate conditions of earlier permits that were issued by the Illinois EPA pursuant to authority that includes authority found in Title I of the CAA (T1 conditions), (b) were newly established in this CAAPP permit pursuant to authority that includes such Title I authority (T1N conditions), or (c) reflect a revision or combination of conditions established in this CAAPP permit (T1R conditions). (See also Condition 1.5.)

## 9.0 STANDARD PERMIT CONDITIONS

#### 9.1 Effect of Permit

- 9.1.1 The issuance of this permit does not release the Permittee from compliance with State and Federal regulations which are part of the Illinois State Implementation Plan, as well as with other applicable statutes and regulations of the United States or the State of Illinois or applicable ordinances, except as specifically stated in this permit and as allowed by law and rule.
- 9.1.2 In particular, this permit does not alter or affect the following [Section 39.5(7)(j)(iv) of the Act]:
  - a. The provisions of Section 303 (emergency powers) of the CAA, including USEPA's authority under that Section;
  - b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
  - c. The applicable requirements of the acid rain program consistent with Section 408(a) of the CAA; and
  - d. The ability of USEPA to obtain information from a source pursuant to Section 114 (inspections, monitoring, and entry) of the CAA.
- 9.1.3 Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, pursuant to Section 39.5(7)(j) and (p) of the Act, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

## 9.2 General Obligations of Permittee

#### 9.2.1 Duty to Comply

The Permittee must comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the CAA and the Act, and is grounds for any or all of the following: enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application [Section 39.5(7)(o)(i) of the Act].

The Permittee shall meet applicable requirements that become effective during the permit term in a timely manner unless an alternate schedule for compliance with the applicable requirement is established.

#### 9.2.2 Duty to Maintain Equipment

The Permittee shall maintain all equipment covered under this permit in such a manner that the performance or operation of such equipment shall not cause a violation of applicable requirements.

## 9.2.3 Duty to Cease Operation

No person shall cause, threaten or allow the continued operation of any emission unit during malfunction or breakdown of the emission unit or related air pollution control equipment if such operation would cause a violation of an applicable emission standard, regulatory requirement, ambient air quality standard or permit limitation unless this permit provides for such continued operation consistent with the Act and applicable Illinois Pollution Control Board regulations [Section 39.5(6)(c) of the Act].

## 9.2.4 Disposal Operations

The source shall be operated in such a manner that the disposal of air contaminants collected by the equipment operations, or activities shall not cause a violation of the Act or regulations promulgated there under.

## 9.2.5 Duty to Pay Fees

The Permittee must pay fees to the Illinois EPA consistent with the fee schedule approved pursuant to Section 39.5(18) of the Act, and submit any information relevant thereto [Section 39.5(7)(o)(vi) of the Act]. The check should be payable to "Treasurer, State of Illinois" and sent to: Fiscal Services Section, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, Illinois 62794-9276.

## 9.3 Obligation to Allow Illinois EPA Surveillance

Upon presentation of proper credentials and other documents as may be required by law and in accordance with constitutional limitations, the Permittee shall allow the Illinois EPA, or an authorized representative to perform the following [Sections 4 and 39.5(7)(a) and (p)(ii) of the Act]:

- a. Enter upon the Permittee's premises where an actual or potential emission unit is located; where any regulated equipment, operation, or activity is located or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect during hours of operation any sources, equipment (including monitoring and air pollution control equipment),

practices, or operations regulated or required under this permit;

- d. Sample or monitor any substances or parameters at any location:
  - At reasonable times, for the purposes of assuring permit compliance or applicable requirements; or
  - ii. As otherwise authorized by the CAA, or the Act.
- e. Obtain and remove samples of any discharge or emission of pollutants authorized by this permit; and
- f. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any regulated activity, discharge or emission at the source authorized by this permit.

## 9.4 Obligation to Comply with Other Requirements

The issuance of this permit does not release the Permittee from applicable State and Federal laws and regulations, and applicable local ordinances addressing subjects other than air pollution control.

## 9.5 Liability

#### 9.5.1 Title

This permit shall not be considered as in any manner affecting the title of the premises upon which the permitted source is located.

## 9.5.2 Liability of Permittee

This permit does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the sources.

## 9.5.3 Structural Stability

This permit does not take into consideration or attest to the structural stability of any unit or part of the source.

## 9.5.4 Illinois EPA Liability

This permit in no manner implies or suggests that the Illinois EPA (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the source.

## 9.5.5 Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege [Section 39.5(7)(o)(iv) of the Act].

## 9.6 Recordkeeping

## 9.6.1 Control Equipment Maintenance Records

A maintenance record shall be kept on the premises for each item of air pollution control equipment. At a minimum, this record shall show the dates of performance and nature of preventative maintenance activities.

## 9.6.2 Records of Changes in Operation

A record shall be kept describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes [Section 39.5(12)(b)(iv) of the Act].

#### 9.6.3 Retention of Records

- a. Records of all monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit [Section 39.5(7)(e)(ii) of the Act].
- b. Other records required by this permit including any logs, plans, procedures, or instructions required to be kept by this permit shall be retained for a period of at least 5 years from the date of entry unless a longer period is specified by a particular permit provision.

## 9.7 Annual Emissions Report

The Permittee shall submit an annual emissions report to the Illinois EPA, Air Quality Planning Section no later than May 1 of the following year, as required by 35 IAC Part 254.

## 9.8 Requirements for Compliance Certification

Pursuant to Section 39.5(7)(p)(v) of the Act, the Permittee shall submit annual compliance certifications. The compliance certifications shall be submitted no later than May 1 or more frequently as specified in the applicable requirements or by permit condition. The compliance certifications shall be submitted to the Air Compliance Unit, Air Regional Field Office, and USEPA Region 5 - Air Branch. The addresses for the submittal of the compliance certifications are provided in Condition 8.6.4 of this permit.

a. The certification shall include the identification of each term or condition of this permit that is the basis of the

certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, both currently and over the reporting period consistent with the conditions of this permit.

- All compliance certifications shall be submitted to USEPA Region
   in Chicago as well as to the Illinois EPA.
- c. All compliance reports required to be submitted shall include a certification in accordance with Condition 9.9.

## 9.9 Certification

Any document (including reports) required to be submitted by this permit shall contain a certification by a responsible official of the Permittee that meets the requirements of Section 39.5(5) of the Act and applicable regulations [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included as Attachment 1 to this permit.

## 9.10 Defense to Enforcement Actions

9.10.1 Need to Halt or Reduce Activity Not a Defense

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 [Section 39.5(7)(o)(ii) of the Act].

#### 9.10.2 Emergency Provision

- a. An emergency shall be an affirmative defense to an action brought for noncompliance with the technology-based emission limitations under this permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence [Section 39.5(7)(k) of the Act]:
  - i. An emergency occurred as provided in Section 39.5(7)(k) of the Act and the Permittee can identify the cause(s) of the emergency.

Note: For this purpose, emergency means a situation arising from sudden and reasonably unforeseeable events beyond the control of the source, as further defined by Section 39.5(7)(k)(iv) of the Act.

- ii. The permitted source was at the time being properly operated;
- iii. The Permittee submitted notice of the emergency to the Illinois EPA within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a detailed

description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and

- iv. During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission limitations, standards, or regulations in this permit.
- b. This provision is in addition to any emergency or upset provision contained in any applicable requirement. This provision does not relieve a Permittee of any reporting obligations under existing federal or state laws or regulations [Section 39.5(7)(k)(iv) of the Act].

## 9.11 Permanent Shutdown

This permit only covers emission units and control equipment while physically present at the indicated source location(s). Unless this permit specifically provides for equipment relocation, this permit is void for the operation or activity of any item of equipment on the date it is removed from the permitted location(s) or permanently shut down. This permit expires if all equipment is removed from the permitted location(s), notwithstanding the expiration date specified on this permit.

## 9.12 Reopening and Reissuing Permit for Cause

#### 9.12.1 Permit Actions

This permit may be modified, revoked, reopened and reissued, or terminated for cause in accordance with applicable provisions of Section 39.5 of the Act. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition [Section 39.5(7)(o)(iii) of the Act].

## 9.12.2 Reopening and Revision

This permit must be reopened and revised if any of the following occur [Section 39.5(15)(a) of the Act]:

- a. Additional requirements become applicable to the equipment covered by this permit and three or more years remain before expiration of this permit.
- b. Additional requirements become applicable to an affected source for acid deposition under the acid rain program.
- c. The Illinois EPA or USEPA determines that this permit contains a material mistake or that inaccurate statement were made in establishing the emission standards or limitations, or other terms or conditions of this permit.

d. The Illinois EPA or USEPA determines that this permit must be revised or revoked to ensure compliance with the applicable requirements.

## 9.12.3 Inaccurate Application

The Illinois EPA has issued this permit based upon the information submitted by the Permittee in the permit application. Any misinformation, false statement or misrepresentation in the application shall be grounds for revocation and reissuance under Section 39.5(15) of the Act, pursuant to Sections 39.5(5)(e) and (i) of the Act.

## 9.12.4 Duty to Provide Information

The Permittee shall furnish to the Illinois EPA, within a reasonable time specified by the Illinois EPA any information that the Illinois EPA 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 the Illinois EPA copies of records required to be kept by this permit, or for information claimed to be confidential, the Permittee may furnish such records directly to USEPA along with a claim of confidentiality [Section 39.5(7)(o)(v) of the Act].

## 9.13 Severability Clause

The provisions of this permit are severable. In the event of a challenge to any portion of the permit, other portions of the permit may continue to be in effect. Should any portion of this permit be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected and the rights and obligations of the Permittee shall be construed and enforced as if this permit did not contain the particular provisions held to be invalid and the applicable requirements underlying these provisions shall remain in force [Section 39.5(7)(i) of the Act].

## 9.14 Permit Expiration and Renewal

Upon the expiration of this permit, if the source is operated, it shall be deemed to be operating without a permit unless a timely and complete CAAPP application has been submitted for renewal of this permit. However, if a timely and complete application to renew this CAAPP permit has been submitted, the terms and all conditions of this CAAPP permit will remain in effect until the issuance of a renewal permit [Section 39.5(5)(1) and (o) of the Act].

Note: Pursuant to Sections 39.5(5)(h) and (n) of the Act, upon submittal of a timely and complete renewal application, the permitted source may continue to operate until final action is taken by the Illinois EPA on the renewal application, provided, however, that this protection shall cease if the applicant fails to submit any additional information necessary to evaluate or take final action on the renewal

application as requested by the Illinois EPA in writing. For a renewal application to be timely, it must be submitted no later than 9 months prior to the date of permit expiration.

## 9.15 General Authority for the Terms and Conditions of this Permit

The authority for terms and conditions of this permit that do not include a citation for their authority is Section 39.5(7)(a) of the Act, which provides that the Illinois EPA shall include such provisions in a CAAPP permit as are necessary to accomplish the purposes of the Act and to assure compliance with all applicable requirements. Section 39.5(7)(a) of the Act is also another basis of authority for terms and conditions of this permit that do include a specific citation for their authority.

Note: This condition is included in this permit pursuant to Section 39.5(7)(n) of the Act.

#### 10.0 ATTACHMENTS

## Attachment 1 Example Certification by a Responsible Official

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:	
Name:	
Official Title:	
Telephone No.:	
Date Signed:	

## Attachment 2 Emissions of Particulate Matter from Process Emission Units

- a. New Process Emission Units for Which Construction or Modification Commenced On or After April 14, 1972 [35 IAC 212.321].
  - i. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 [35 IAC 212.321(a)].
  - ii. Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321 shall be determined by using the equation [35 IAC 212.321(b)]:

$$E = A(P)^B$$

#### where:

P = Process weight rate; and

E = Allowable emission rate; and,

A. Up to process weight rates of 408 Mg/hr (450 T/hr):

	Metric	English
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	1.214	2.54
В	0.534	0.534

B. For process weight rate greater than or equal to 408 Mg/hr (450 T/hr):

	Metric	English
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	11.42	24.8
В	0.16	0.16

iii. Limits for Process Emission Units For Which Construction or Modification Commenced On or After April 19, 1972 [35 IAC 212.321(c)]:

Metric		English	
P .	E	P	E
Mg/hr	kg/hr	<u>T/hr</u>	<u>lb/hr</u>
0.05	0.25	0.05	0.55
0.1	0.29	0.10	0.77
0.2	0.42	0.2	1.10
0.3	0.64	0.30	1.35
0.4	0.74	0.40	1.58
0.5	0.84	0.50	1.75
0.7	1.00	0.75	2.40
0.9	1.15	1.00	2.60
1.8	1.66	2.00	3.70
2.7	2.1	3.00	4.60
3.6	2.4	4.00	5.35
4.5	2.7	5.00	6.00
9.0	3.9	10.00	8.70
13.0	4.8	15.00	10.80
18.0	5.7	20.00	12.50
23.0	6.5	25.00	14.00
27.0	7.1	30.00	15.60
32.0	7.7	35.00	17.00
36.0	8.2	40.00	18.20
41.0	8.8	45.00	19.20
45.0	9.3	50.00	20.50
90.0	13.4	100.00	29.50
140.0	17.0	150.00	37.00
180.0	19.4	200.00	43.00
230.0	22.0	250.00	48.50
270.0	24.0	300.00	53.00
320.0	26.0	350.00	58.00
360.0	28.0	400.00	62.00
408.0	30.1	450.00	66.00
454.0	30.4	500.00	67.00

iv. For process weight rates of less than 100 pounds per hour, the allowable rate is 0.5 pounds per hour [35 IAC 266.110].

- b. Existing Process Emission Units for Which Construction or Modification Prior to April 14, 1972 [35 IAC 212.322].
  - i. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission units at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 [35 IAC 212.322(a)].
  - ii. Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321 shall be determined by using the equation [35 IAC 212.322(b)]:

$$E = C + A(P)^{B}$$

#### where:

P = Process weight rate; and

E = Allowable emission rate; and,

A. Up to process weight rates up to 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	English	
p	Mg/hr	T/hr	
E	kg/hr	lb/hr	
A	1.985	4.10	
B	0.67	0.67	
C	0	0	

B. For process weight rate in excess of 27.2 Mg/hr (30 T/hr):

	Metric	English
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	25.21	55.0
В	0.11	0.11
C	- 18.4	- 40.0

iii. Limits for Process Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972 [35 IAC 212.322(c)]:

Metric		English	
P	E	P	E
Mg/hr	kg/hr	<u>T/hr</u>	<u>lb/hr</u>
0.05	0.27	0.05	0.55
0.1	0.42	0.10	0.87
0.2	0.68	0.2	1.40
0.3	0.89	0.30	1.83
0.4	1.07	0.40	2.22
0.5	1.25	0.50	2.58
0.7	1.56	0.75	3.38
0.9	1.85	1.00	4.10
1.8	2.9	2.00	6.52
2.7	3.9	3.00	8.56
3.6	4.7	4.00	10.40
4.5	5.4	5.00	12.00
9.0	8.7	10.00	19.20
13.0	11.1	15.00	25.20
18.0	13.8	20.00	30.50
23.0	16.2	25.00	35.40
27.2	18.15	30.00	40.00
32.0	18.8	35.00	41.30
36.0	19.3	40.00	42.50
41.0	19.8	45.00	43.60
45.0	20.2	50.00	44.60
90.0	23.2	100.00	51.20
140.0	25.3	150.00	55.40
180.0	26.5	200.00	58.60
230.0	27.7	250.00	61.00
270.0	28.5	300.00	63.10
320.0	29.4	350.00	64.90
360.0	30.0	400.00	66.20
400.0	30.6	450.00	67.70
454.0	31.3	500.00	69.00

iv. For process weight rates of less than 100 pounds per hour,
 the allowable rate is 0.5 pounds per hour [35 IAC
 266.110].

## Attachment 3 Compliance Assurance Monitoring (CAM) Plan

There are no specific emission units that require a CAM plan as identified in the Monitoring Requirements of Subsection 8 for each Section 7, Unit Specific Conditions for Specific Emission Units.

## Attachment 4 Guidance

The Illinois has prepared guidance for sources on the Clean Air Act Permit Program (CAAPP) that is available on the Internet site maintained by the Illinois EPA, www.epa.state.il.us. This guidance includes instructions on applying for a revision or renewal of the CAAPP permit.

## Guidance On Revising A CAAPP Permit:

www.epa.state.il.us/air/caapp/caapp-revising.pdf

## Guidance On Renewing A CAAPP Permit:

www.epa.state.il.us/air/caapp/caapp-renewing.pdf

The application forms prepared by the Illinois EPA for the CAAPP are also available from the Illinois EPA's Internet site:

www.epa.state.il.us/air/caapp/index.html

These CAAPP application forms should also be used by a CAAPP source when it applies for a construction permit. For this purpose, the appropriate CAAPP application forms and other supporting information, should be accompanied by a completed Application For A Construction Permit form (199-CAAPP) and Fee Determination for Construction Permit Application form (197-FEE):

www.epa.state.il.us/air/caapp/199-caapp.pdf www.epa.state.il.us/air/permits/197-fee.pdf

## Attachment 5 Clean Air Interstate Rule (CAIR) Permit

217-782-2113

#### CAIR PERMIT

DRAFT

Union Electric Company d/b/a Ameren U.E.

Attn: Michael L. Menne, Designated Representative

1901 Chouteau Avenue (MC 602) St. Louis, Missouri 63103

Oris No.: 55202 IEPA I.D. No.: 145842AAA

Source/Unit: Union Electric Company d/b/a Ameren U.E. CT01-08

Date Received: December 24 2007
Date Issued: March 20, 2009
Expiration Date: March 20, 2014

#### STATEMENT OF BASIS:

In accordance with the Clean Air Act Interstate Rule (CAIR)  $SO_2$  Trading Program, the CAIR  $NO_x$  Annual Trading Program and the CAIR  $NO_x$  Ozone Season Trading Program, and 35 IAC Part 225, Subparts C, D, and E, respectively, the Illinois Environmental Protection Agency is issuing this CAIR permit to Union Electric Company d/b/a Ameren U.E. for the affected units at its Pinckneyville electric power generation , i.e., CT01-08.

# ALLOCATION OF SULFUR DIOXIDE ( $SO_2$ ) ALLOWANCES, NITROGEN OXIDE ( $NO_x$ ) ALLOWANCES, AND $NO_x$ OZONE SEASON ALLOWANCES FOR THE AFFECTED UNITS:

Program	Allocation of Allowances	
CAIR SO₂ Allowances	These units are not entitled to an allocation of CAIR SO <sub>2</sub> allowances pursuant to 40 CFR Part 96.	
CAIR NO <sub>x</sub> Annual Allowances	These units are eligible to an allocation of CAIR $NO_x$ Annual Allowances pursuant to 35 IAC 225.430, 225.435 and 225.440.	
CAIR NO <sub>x</sub> Ozone Season Allowances	These units are eligible to an allocation of CAIR $NO_x$ Ozone Season Allowances pursuant to 35 IAC 225.530, 225.535 and 225.540.	

**PERMIT APPLICATION:** The permit application, which includes CAIR  $SO_2$  Trading Program requirements, CAIR  $NO_x$  Annual Trading Program requirements, CAIR  $NO_x$  Ozone Season Trading Program requirements, and other standard requirements, is attached and incorporated as part of this permit. The owners and operators, and designated representative of this source must comply with the standard requirements and special provisions set forth in the application.

COMMENTS, NOTES AND JUSTIFICATIONS: This permit contains provisions related to  $SO_2$  emissions and  $NO_x$  emissions and requires the owners and operators to hold CAIR  $SO_2$  allowances to account for  $SO_2$  emissions, CAIR  $NO_x$  annual allowances to account for annual  $NO_x$  emissions, and CAIR  $NO_x$  ozone season allowances to account for ozone season  $NO_x$  emissions from the CAIR units. An allowance is a limited authorization to emit  $SO_2$  or  $NO_x$  emissions during or

after a specified control period. The transfer of allowances to and from the applicable compliance or general account does not necessitate a revision to this permit.

As related to seasonal emissions of  $NO_x$ , CAIR  $NO_x$  Ozone Season Trading Program supersedes the  $NO_x$  Trading Budget, beginning on the effective date of this permit. Accordingly, effective January 1, 2009, the provisions of this permit effectively supersede Section 6.1 of the CAAPP permit, which relate to compliance with  $NO_x$  Trading Program for Electric Generating Units (EGU).

This permit does not affect the source's responsibility to meet all other applicable local, state and federal requirements.

If you have any questions regarding this permit, please contact Kaushal Desai at 217-782-2113.

Edwin C.	Bakowski, P.E.	Date Issued:	
Manager,	Permit Section		
Division	of Air Pollution Control		

ECB: KKD:

cc: Cecilia Mijares, USEPA Region V
FOS - Region 3, Illinois EPA



#### ILLINOIS ENVIRONMENTAL PROTECTION AGENCY DIVISION OF AIR POLLUTION CONTROL PERMIT SECTION P.O. BOX 1959B SPRINGFIELD, ILLINOIS 62794-9556

FOR APPLICANT'S USE			
Peril	ion #		
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Application For CAIR	ID NUMB
Permit For	PERMIT
Electrical Generating Units (EGU)	DATF:

FOR AGENCY USE ONLY
ID NUMBER:
PERMIT No..
DATF:

This agail cabon forms to be used to respect the Claus Avi Act Procedure Rule (LARK) seems required by the CAIR SO, mading program, CAIR NOs seems to be provided in 25 the Port 226, Subport CID, and b. respectively. RECEIVED SECTION 1: SOURCE AND EGU INFORMATION STATE OF ILLINOIS 1) COMPANY NAME: Union Electric Company dibia AmerenUE 2) PLANT OR FACILITY NAME DEC Pinckneyville Power Plant \$ 42007 3) SOURCE ID NO 4) ORIS FACILITY CODE Environmental Actación Agency 145842AAA 55202 TUREAU OF AIR 51 CONTACT NAME. 6) PHONE NO ZIE-MAN ADDRESS Ken Anderson 314-554-2089 kanderson@ameren.com 8) ELECTRICAL GENERATING UNITS GENERATING UNIT / APPLICABILITY ECU DESCRIPTION **EGUIDESIGNATION** (Mark all applicable boxes) Existing EGU
New EGU CAIR SO, trading program SMLCT01 Simple cycle natural gas combustion turbine CAIR NOx annual trading program CAIR NOx ascare season trading program CAIR SO, truiting program Eximung EGU Unit CT02 Simple cycle entural cats New EGI CAIR NOx annual tracing program combustion (article) CAIR NOv excee scason trading program CAIR SO, midhig priigram
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APPLICATION PAGE

FOR APPLICANT'S USE

Printer on Recycled Paper 670-CAAPP

Page 1 of 8

9) DETERMINATION OF SO, EMISSIONS			
List each EGU that is not currently equip-	ned with a "Part 75 Approved" continuous em	icskins manitoring system (CEMS) for SO;	
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(c) ) EGUs for which SO, emissions vi be	determined by the intermitve protectal for po	raker arita	
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2. CT02 (40 CFR 75 Appendix D)	5 CT05 (40 CFR 75 Appendix D)	8 CT08 (40 CFR 75 Appendix D)	
3. C103 (40 CFR 75 Appendix D)	8. CT05 (40 CFR 75 Appendix D)	9.	
10) DETERMINATION OF NO, EMISSIONS	S: sed with a "Part 75 Approved" continuous eer	resions monitoring system (*CMC) for NO	
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3	6	9	
11) GERTIFICATION:			
		or the source been submitted to USEPA, with	
a copy provided to the Illinois EPA?	ON 20Y	- and a state of the state of t	
(b) Fam 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 that I have personally examined, and am familiar with, the statements and information submitted in this document and will to statements. Based on my inquiry of those incliviously with primary responsibility for obtaining the information, I neetily 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 including the possibility of fine or impresonment.			
NAME (Designated Representative). Mich	nael L. Menne (Alternate Designated	1 Representative)	
SIGNATURE (Designated Representative)	DATE //	119/01	
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## Attachment 6 Acid Rain Permit

# ACID RAIN PROGRAM PERMIT

217-782-2113

Union Electric Company d/b/a Ameren U.E.

Attn: Michael L. Menne, Designated Representative

1901 Chouteau Avenue (MC 602) St. Louis, Missouri 63103

<u>Oris No.:</u> 55202 IEPA I.D. No.: 145842AAA

Source/Unit: Union Electric Company d/b/a Ameren U.E., CT01-08

Date Received: February 16, 2007
Date Issued: March 20, 2009
Effective Date: January 1, 2010
Expiration Date: December 31, 2014

#### STATEMENT OF BASIS:

In accordance with Section 39.5(17)(b) of Illinois Environmental Protection Act and Titles IV and V of the Clean Air Act, the Illinois Environmental Protection Agency is issuing this Acid Rain Program permit to Union Electric Company d/b/a Ameren U.E for Pinckneyville location.

# SULFUR DIOXIDE ( $\mathrm{SO}_2$ ) ALLOCATIONS AND NITROGEN OXIDE ( $\mathrm{NO}_x$ ) REQUIREMENTS FOR EACH AFFECTED UNIT:

CT01-08	SO <sub>2</sub> Allowances	These units are not entitled to an allocation of SO <sub>2</sub> allowances pursuant to 40 CFR Part 73.
	$\mathrm{NO}_{x}$ limit	These units are not subject to a $NO_x$ emissions limitation pursuant to 40 CFR Part 76.

**PERMIT APPLICATION:** The permit application, which includes  $SO_2$  allowance requirements and other standard requirements, is attached and incorporated as part of this permit. The owners and operators of this source must comply with the standard requirements and special provisions set forth in the application

COMMENTS, NOTES AND JUSTIFICATIONS: This permit contains provisions related to  $SO_2$  emissions and requires the owners and operators to hold  $SO_2$  allowances to account for  $SO_2$  emissions from the affected units. An allowance is a limited authorization to emit up to one ton of  $SO_2$  during or after a specified calendar year. Although this plant is not eligible for an allowance allocated by USEPA, the owners or operators may obtain  $SO_2$  allowances to cover emissions from other sources under a marketable allowance program. The transfer of allowances to and from a unit account does not necessitate a revision to the unit  $SO_2$  allocations denoted in this permit (See 40 CFR 72.84).

This permit contains provisions related to  $NO_x$  emissions and requires the owners and operators to monitor  $NO_x$  emissions from affected units in accordance with applicable provisions of 40 CFR Part 75. These units are not subject to a  $NO_x$  emission limitation because USEPA has not adopted such limitation for combined cycle turbines.

This Acid Rain Program permit does not authorize the construction and operation of the affected units as such matters are addressed by Titles I and V of the Clean Air Act. This permit also does not affect the source's responsibility to meet all other applicable local, state and federal requirements, including 35 IAC Part 225, Subparts C, D, and E.

If you have any questions regarding this permit, please contact Kaushal Desai at 217/782-2113.

Edwin C. Bakowski, P.E. Manager, Permit Section Division of Air Pollution Control

DES: KKD:

cc: Beth Valenziano, USEPA Region V
Illinois EPA Region 3

United States Environmental Protection Agency Acid Rain Program

OMB No. 2960-0259

# **Acid Rain Permit Application**

For more information, see instr	uctions and refer to 40 CFR 72.30 and 72.31
Thra submission is. 🛩 New	Revised

STEP 1

Identify the source by plant name, State, and ORIS code.

	Pinckneyville Power Plant	II.	55202
Plant Name		State	ORIS Code

STEP 2

Enter the unit ID# for every affected unit at the affected source in column "a." For new units, enter the requested information in columns "c" and "d."

а	Þ	ç	ú
Unit ID#	Unit Will Hold Allowances in Accordance With 40 CFR 72 R(eXT)	New Units Commence Operation Date	New Unita Monitor Certification Deadline
CT01	Yes		
CT02	Yes		
СТОЗ	Yes		
CT04	Yas		
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EPA Form /810-15 (rev. 12-03)

Acid Rain - Page 2

Plant Name (from Step 1)

Pinckneyville Power Plant

## **Permit Requirements**

#### STEP 3

Read the standard requirements

- (1) The designated representative of each affected source and each affected unit at the source shall:
  - (i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
  - (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;
- (2) The owners and operators of each affected source and each affected unit at the source shall:
  - (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and (ii) Have an Acid Rain Permit.

## Monitoring Requirements

- (1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

#### Sulfur Dioxide Requirements

- (1) The owners and operators of each source and each affected unit at the source shall; (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)), or in the compliance subaccount of another affected unit at the same source to the extent provided in 40 CFR 73.35(b)(3), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
- (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide. (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
  - (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
  - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sultur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Plant Name (from Step 1) Pinckneyville Power Plant

Acid Rain - Page 3

#### STEP 3, Cont'd.

Nitrogen Oxides Requirements The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

## **Excess Emissions Requirements**

- (1) The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an affected unit that has excess emissions in any calendar year shall:
  - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
  - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

## Recordkeeping and Reporting Requirements

- (1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
  - (I) The certificate of representation for the designated representative for the source and each affected unit at the source 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;
  - (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
  - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
  - (IV) 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.
- (2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

## Liability

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an 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 pursuant to section 113(c) of the Act.
- (2) 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 Act and 18 U.S.C. 1001.
- (3) 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.
- (4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.

EPA Formi 7610-15 (mv 12-03)

Pinckneyville Power Plant Plant Name (from Step 1)

Acid Rain - Page 4

#### Step 3 Cont'd.

## Liability, Cont'd

(5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source. apply to the owners and operators of such source and of the affected units at the source.

(8) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO<sub>x</sub> averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators 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 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.

(7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative

of such source or unit, shall be a separate violation of the Act.

## Effect on Other Authorities

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72,7 or 72.8 shall be construed as:
(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners

and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;

(2) 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 Act;

(3) 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;

(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy

Regulatory Commission under the Federal Power Act, or, (5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

#### STEP 4

## Certification

Read the certification statement. sign, and date

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. 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.

Name	Daniel F. Cole		
Signatu	re Doniel 7. Ce	Date	5/29/08

EPA Form 76:10-16 (rev. 12-03)

# EXHIBIT 3

## Bureau of Air Permit Section

## File Organization Cover Sheet

,		
Source Name:	Ameren Missouri	
	Pinckneyville Energy Center	
ID No.:	145842AAA	
Application No.:	01050020	
Category:	03L Air Permit - Operating	
Item Date:	Click Bro-Degree 200 / 4	
Keyword:	FINAL	×
Comment:	·	*
Part:	1 of 7	*
, a.c.	1 0, ,	

\* If applicable

IEPA-DIVISION OF RECORDS MANAGEMENT RELEASABLE

> JAN 0 8 2014 REVIEWER: JKS



#### ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST. P.O. BOX 19506, SPRINGFIELD, ILLINOIS 62794-9506-(217) 782-2113

PAT QUINN, GOVERNOR LISA BONNETT, DIRECTOR

217/785-1705

RENEWAL
CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT

#### PERMITTEE:

Ameren Missouri Attn: Michael L. Menne 1901 Chouteau Avenue; PO Box 66149 (MC 602) St. Louis, Missouri 63166-6149

<u>I.D. No.</u>: 145842AAA <u>Application No.</u>: 01050020 Date Received: July 11, 2014
Date Issued: December 23, 2014
Expiration Date¹: April 15, 2020

Permit Effective Date<sup>2</sup>: April 15, 2015

Operation of: Ameren Missouri Pinckneyville Energy Center

Source Location: 4646 White Walnut Road, Pinckneyville, Perry County, 62274

Responsible Official: Michael L. Menne, Vice President Environmental Services

This permit is hereby granted to the above-designated Permittee to OPERATE an electric power generation plant, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.  $\Box$ 

If you have any questions concerning this permit, please contact Melissa Nutt at 217/785-1705.

Raymond E. Whiply

Raymond E. Pilapil Acting Manager, Permit Section Division of Air Pollution Control

REP:MKN:psj

cc: Illinois EPA, FOS, Region 3
CES
Lotus Notes

Except as provided in Conditions 1.5 and 8.7 of this permit.

This permit renewal is being issued prior to the expiration date of the existing CAAPP permit currently in effect for the source. Terms and conditions of each CAAPP permit remain in effect for the full five-year term of the permit. For this reason, the renewed permit will become effective on the first day following the expiration date of the existing permit, as denoted above, unless this permitting action is appealed and subsequently stayed by the Pollution Control Board.

PRINTED ON RECYCLED PAPER

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#### 1.0 INTRODUCTION

#### 1.1 Source Identification

Ameren Missouri Pinckneyville Energy Center 4646 White Walnut Road Pinckneyville, Illinois 62274 618-357-6360

I.D. No.: 145842AAA

County: Perry

Standard Industrial Classification: 4911, Electric Power Generation

#### 1.2 Owner/Parent Company

Ameren Missouri 1901 Chouteau Avenue, PO Box 66149 (MC 602) St. Louis, Missouri 63166-6149

#### 1.3 Operator

Ameren Missouri 1901 Chouteau Avenue; PO Box 66149 (MC 602) St. Louis, Missouri 63166-6149

Larry E. Jones 618-357-6360

#### 1.4 Source Description

The Ameren Missouri Pinckneyville Energy Center is located at 4646 White Walnut Road, Pinckneyville. The source utilizes natural gas combustion turbines to generate electricity. In addition, the turbines control nitrogen oxide emissions with water injection systems and dry low  $\mathrm{NO}_{\mathbf{x}}$  combustors.

Note: This narrative description is for informational purposes only and is not enforceable.

### 1.5 <u>Conditions Arising from Construction or Modification of Emission Units</u>

As generally identified below, this CAAPP permit may contain certain conditions that relate to requirements arising from the construction or modification of emission units at this source. These requirements derive from permitting programs authorized under Title I of the Clean Air Act (CAA) and regulations there under, and Title X of the Illinois Environmental Protection Act (Act) and regulations implementing the same. Such requirements, including the New Source Review programs for both major (i.e., PSD and nonattainment areas) and minor sources, are implemented by the Illinois EPA pursuant to Section 39(a) and 39.5 of the Act.

This permit may contain conditions that reflect requirements originally established in construction permits previously issued for this source.

These conditions include requirements from preconstruction permits issued pursuant to regulations approved or promulgated by USEPA under Title I of the CAA, as well as requirements contained within construction permits issued pursuant to state law authority under Title X of the Act. Accordingly, all such conditions are incorporated into this CAAPP permit by virtue of being either an "applicable Clean Air Act requirement" or an "applicable requirement" in accordance with Section 39.5 of the Act. These conditions are identifiable herein by a designation to their origin of authority.

#### 2 0 LIST OF ARRESTATIONS AND ACRONYMS COMMONLY USED

ACMA	Alternative Compliance Market Account	
Act	Illinois Environmental Protection Act [415 ILCS 5/1 et seq.]	
AP-42	Compilation of Air Pollutant Emission Factors, Volume 1,	
	Stationary Point and Other Sources (and Supplements A	
	through F), USEPA, Office of Air Quality Planning and	
3.001	Standards, Research Triangle Park, NC 27711	
ATU	Allotment Trading Unit	
BAT	Best Available Control Technology	
CAA	Best Available Technology	
CAAPP	Clean Air Act [42 U.S.C. Section 7401 et seq.] Clean Air Act Permit Program	
CAM	Compliance Assurance Monitoring	
·CEMS	Continuous Emission Monitoring System	
CFR	Code of Federal Regulations	
CO	Carbon Monoxide	
ERMS	Emissions Reduction Market System	
HAP	Hazardous Air Pollutant	
IAC	Illinois Administrative Code	
I.D. No.	Identification Number of Source, assigned by Illinois EPA	
ILCS	Illinois Compiled Statutes	
Illinois EPA	Illinois Environmental Protection Agency	
LAER	Lowest Achievable Emission Rate	
MACT Maximum Achievable Control Technology		
MSSCAM	Major Stationary Sources Construction and Modification (35	
	IAC 203, New Source Review for non-attainment areas)	
NESHAP	National Emission Standards for Hazardous Air Pollutants	
NO <sub>x</sub>	Nitrogen Oxides	
NSPS	New Source Performance Standards	
PM	Particulate Matter	
PM <sub>10</sub>	Particulate matter with an aerodynamic diameter less than or	
	equal to a nominal 10 microns as measured by applicable test	
	or monitoring methods	
PM <sub>2.5</sub>	Particulate matter with an aerodynamic diameter less than or	
	equal to a nominal 2.5 microns as measured by applicable	
PSD	test or monitoring methods	
PSD	Prevention of Significant Deterioration (40 CFR 52.21, New Source Review for attainment areas)	
RMP		
SO <sub>2</sub>	Risk Management Plan Sulfur Dioxide	
T1	Title I - identifies Title I conditions that have been	
11	carried over from an existing permit	
TIN	Title I New - identifies Title I conditions that are being	
	established in this permit	
T1R	Title I Revised - identifies Title I conditions that have	
*	been carried over from an existing permit and subsequently	
	revised in this permit	
USEPA	United States Environmental Protection Agency	
VOM	Volatile Organic Material	

#### 3.0 CONDITIONS FOR INSIGNIFICANT ACTIVITIES

#### 3.1 Identification of Insignificant Activities

The following activities at the source constitute insignificant activities as specified in  $35\ \text{IAC}\ 201.210$ :

3.1.1 Activities determined by the Illinois EPA to be insignificant activities, pursuant to 35 IAC 201.210(a)(1) and 201.211, as follows:

Cooling Towers

3.1.2 Activities that are insignificant activities based upon maximum emissions, pursuant to 35 IAC 201.210(a)(2) or (a)(3), as follows:

None

3.1.3 Activities that are insignificant activities based upon their type or character, pursuant to 35 IAC 201.210(a)(4) through (18), as follows:

Storage tanks of any size containing virgin or re-refined distillate oil, hydrocarbon condensate from natural gas pipeline or storage systems, lubricating oil, or residual fuel oils [35 IAC 201.210(a)(l1)].

3.1.4 Activities that are considered insignificant activities pursuant to 35 IAC 201.210(b). Note: These activities are not required to be individually listed.

#### 3.2 Compliance with Applicable Requirements

Insignificant activities are subject to applicable requirements notwithstanding status as insignificant activities. In particular, in addition to regulations of general applicability, such as 35 IAC 212.301 and 212.123 (Condition 5.3.2), the Permittee shall comply with the following requirements, as applicable:

- 3.2.1 For each particulate matter process emission unit, the Permittee shall comply with the applicable particulate matter emission limit of 35 IAC 212.321 or 212.322 (see Attachment 2) and 35 IAC Part 266. For example, the particulate matter emissions from a process emission unit shall not exceed 0.55 pounds per hour if the emission unit's process weight rate is 100 pounds per hour or less, pursuant to 35 IAC 266.110.
- 3.2.2 For each organic material emission unit that uses organic material, e.g., a mixer or printing line, the Permittee shall comply with the applicable VOM emission limit of 35 IAC 215.301, which requires that organic material emissions not exceed 8.0 pounds per hour or, if no odor nuisance exists, do not qualify

- as photochemically reactive material as defined in  $35\ \text{IAC}\ 211.4690.$
- 3.2.3 For each open burning activity, the Permittee shall comply with 35 IAC Part 237, including the requirement to obtain a permit for open burning in accordance with 35 IAC 237.201, if necessary.
- 3.2.4 For each storage tank that has a storage capacity greater than 946 liters (250 gallons) and, if no odor nuisance exists, that stores an organic material with a vapor pressure exceeding 2.5 psia at  $70\,^\circ\mathrm{F}$ , the Permittee shall comply with the applicable requirements of 35 IAC 215.122, which requires use of a permanent submerged loading pipe, submerged fill, or a vapor recovery system.

#### 3.3 Addition of Insignificant Activities

- 3.3.1 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type that is identified in Condition 3.1, until the renewal application for this permit is submitted, pursuant to 35 IAC 201.212(a).
- 3.3.2 The Permittee must notify the Illinois EPA of any proposed addition of a new insignificant activity of a type addressed by 35 IAC 201.210(a) and 201.211 other than those identified in Condition 3.1, pursuant to Section 39.5(12)(b) of the Act.
- 3.3.3 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type identified in 35 IAC 201.210(b).

#### A O STONIETCANT EMISSION INITES AT THIS SOURCE

Emission		Date	Emission Control
Unit	Description	Constructed	Equipment.
CT01	444 mmBtu/hr Natural Gas	Nov 1999	Water Injection
	Fired Turbine		System
CT02	444 mmBtu/hr Natural Gas ·	Nov 1999	Water Injection
	Fired Turbine		System
CT03	444 mmBtu/hr Natural Gas	Nov 1999 ·	Water Injection
	Fired Turbine		System
CT04	444 mmBtu/hr Natural Gas	Nov 1999	Water Injection
	Fired Turbine		System
CT05	552.5 mmBtu/hr Natural	Feb 2001	Dry Low NOx
	Gas Fired Turbine		Combustors
CT06	552.5 mmBtu/hr Natural	Feb 2001	Dry Low NO <sub>x</sub>
	Gas Fired Turbine		Combustors
CT07	552.5 mmBtu/hr Natural	Feb 2001	Dry Low NO <sub>x</sub>
	Gas Fired Turbine		Combustors
CT08	552.5 mmBtu/hr Natural	Feb 2001	Dry Low NO <sub>x</sub>
	Gas Fired Turbine		Combustors
D05	5.21 mmBtu/hr Diesel	Feb 2001	None
	Start-up Engine		
D06	5.21 mmBtu/hr Diesel	Feb 2001	None
	Start-up Engine		
D07	5.21 mmBtu/hr Diesel	Feb 2001	·None
	Start-up Engine		
D08	5.21 mmBtu/hr Diesel	Feb 2001	None
	Start-up Engine		
IH-1	3.71 mmBtu/hr Natural Gas	Feb 2001	None
	Indirect Heater		
IH-2	3.71 mmBtu/hr Natural Gas	Feb 2001	None
	Indirect Heater	1	

#### 5.0 OVERALL SOURCE CONDITIONS

### 5.1 Applicability of Clean Air Act Permit Program (CAAPP)

- 5.1.1 This permit is issued based on the source requiring a CAAPP permit as a major source of  $NO_x$ , PM,  $SO_2$ , greenhouse gas (GHG), and VOM emissions.
- 5.1.2 This permit is issued based on the source requiring a CAAPP permit as an "affected source" for the purposes of Acid Deposition Control, Title IV of the Clean Air Act, pursuant to 40 CFR 70.3(a)(4).
- 5.1.3 This permit is issued based on the source being a synthetic minor source of HAP emissions.

#### 5.2 Area Designation

This permit is issued based on the source being located in an area that, as of the date of permit issuance, is designated attainment or unclassifiable for the National Ambient Air Quality Standards for all criteria pollutants (CO, lead,  $NO_2$ , ozone,  $PM_{2.5}$ ,  $PM_{10}$ ,  $SO_2$ ).

### 5.3 Source-Wide Applicable Provisions and Regulations

- 5.3.1 Specific emission units at this source are subject to particular regulations as set forth in Section 7 (Unit-Specific Conditions for Specific Emission Units) of this permit.
- 5.3.2 In addition, emission units at this source are subject to the following regulations of general applicability:
  - a. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 IAC 212.301 and 212.314.
  - b. Pursuant to 35 IAC 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, except as allowed by 35 IAC 212.123(b) and 212.124.

### 5.3.3 Ozone Depleting Substances

The Permittee shall comply with the standards for recycling and emissions reduction of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

#### 5.3.4 Risk Management Plan (RMP)

Should this stationary source, as defined in 40 CFR 68.3, become subject to the federal regulations for Chemical Accident Prevention in 40 CFR Part 68, then the owner or operator shall submit the items below. This condition is imposed in this permit pursuant to 40 CFR 68.215(a)(2)(i) and (ii).

- a. A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR 68.10(a); or
- b. A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the RMP, as part of the annual compliance certification required by Condition 9.8.

#### 5.3.5 Future Emission Standards

- a. Should this stationary source become subject to a new or revised regulation under 40 CFR Parts 60, 61, 62, or 63, or 35 IAC Subtitle B after the date issued of this permit, then the owner or operator shall, in accordance with the applicable regulation(s), comply with the applicable requirements by the date(s) specified and shall certify compliance with the applicable requirements of such regulation(s) as part of the annual compliance certification, as required by Condition 9.8. This permit may also have to be revised or reopened to address such new or revised regulations (see Condition 9.12.2).
- b. This permit and the terms and conditions herein do not affect the Permittee's past and/or continuing obligation with respect to statutory or regulatory requirements governing major source construction or modification under Title I of the CAA. Further, neither the issuance of this permit nor any of the terms or conditions of the permit shall alter or affect the liability of the Permittee for any violation of applicable requirements prior to or at the time of permit issuance.

#### 5.3.6 Episode Action Plan

- a. Pursuant to 35 IAC 244.141, the Permittee shall have on file with the IEPA an Episode Action Plan for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with safe operating procedures. The Episode Action Plan shall contain the information specified in 35 IAC 244.144.
- b. The Permittee shall immediately implement the appropriate steps described in the Episode Action Plan should an air pollution alert or emergency be declared, as required by 35 IAC 244.169, or as may otherwise be required under 35 IAC 244, Appendix D.
- c. Pursuant to 35 IAC 244.143(d), if an operational change occurs at the source which invalidates the Episode Action Plan, a revised Episode Action Plan shall be submitted to the IEPA for review within 30 days of the change and is automatically incorporated by reference provided the revision is not expressly disapproved, in writing, by the IEPA within 30 days of receipt of the revision. In the event that the IEPA notifies the Permittee of a deficiency with any revision to the Episode Action Plan, the Permittee shall be required to revise and resubmit the Episode Action Plan within 30 days of receipt of notification to address the deficiency pursuant to Section 39.5(7)(a) of the Act.
- d. The Episode Action Plan, as submitted by the Permittee on August 13, 2014, is incorporated herein by reference. The document constitutes the formal Episode Action Plan required by 35 IAC 244.142, addressing the actions that will be implemented to reduce SO<sub>2</sub>, PM<sub>10</sub>, NO<sub>2</sub>, CO and VOM emissions from various emissions units in the event of a yellow alert, red alert or emergency issued under 35 IAC 244.161 through 244.165.
- e. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall keep a copy of the Episode Action Plan, any amendments or revisions to the Episode Action Plan (as required by Condition 3.2(c)), and the Permittee shall also keep a record of activities completed according to the Episode Action Plan.

#### 5.4 Source-Wide Non-Applicability of Regulations of Concern

Source-wide non-applicability of regulations of concern are not set for this source. However, there are terms for unit specific non-applicability of regulations of concern set forth in Section 7 of this permit.

#### 5.5 Source-Wide Control Requirements and Work Practices

Source-wide control requirements and work practices are not set for this source. However, there are requirements for unit specific control requirements and work practices set forth in Section 7 of this permit.

#### 5.6 Source-Wide Production and Emission Limitations

#### 5.6.1 Permitted Emissions for Fees

The annual emissions from the source, not considering insignificant activities as addressed by Section 3.0 of this permit, shall not exceed the following limitations. The overall source emissions shall be determined by adding emissions from all emission units. Compliance with these limits shall be determined on a calendar year basis. These limitations (Condition 5.6.1) are set for the purpose of establishing fees and are not federally enforceable (see Section 39.5(18) of the Act).

#### Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	94.0
Sulfur Dioxide (SO <sub>2</sub> )	20.0
Particulate Matter (PM)	79.0
Nitrogen Oxides (NO <sub>x</sub> )	442.0
HAP, not included in VOM or PM	
Total	635.0

#### 5.6.2 Emissions of Hazardous Air Pollutants

a. Pursuant to Section 39.5(7)(a) of the Act, the emissions of HAPs from the source shall be less than 10 tons/year for each individual HAP and 25 tons/year for all HAPs combined.

Note: Emissions of HAP are maintained at less than major source thresholds as a result of the limitations in Section 7.1.6(a) and 7.2.6(a).

5.6.3 Other Source-Wide Production and Emission Limitations

Other source-wide emission limitations are not set for this source pursuant to the federal rules for PSD, state rules for MSSCAM, or Section  $502\,(b)\,(10)$  of the CAA. However, there may be unit specific emission limitations set forth in Section 7 of this permit pursuant to these rules.

#### 5.7 Source-Wide Testing Requirements

5.7.1 Pursuant to 35 IAC 201.282 and Section 4(b) of the Act, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air

contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:

- a. Testing by Owner or Operator: The Illinois EPA may require the owner or operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the Illinois EPA, at such reasonable times as may be specified by the Illinois EPA and at the expense of the owner or operator of the emission source or air pollution control equipment. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The Illinois EPA shall have the right to observe all aspects of such tests [35 IAC 201.282(a)].
- b. Testing by the Illinois EPA: The Illinois EPA shall have the right to conduct such tests at any time at its own expense. Upon request of the Illinois EPA, the owner or operator of the emission source or air pollution control equipment shall provide, without charge to the Illinois EPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary [35 IAC 201.282(b)].
- c. Any such tests are also subject to the Testing Procedures of Condition 8.5 set forth in the General Permit Conditions of Section 8.
- 5.7.2 HAP Testing to Verify Minor Source Status

Pursuant to Condition 5.7.1 and to verify compliance with the requirements of Condition 5.6.2, that is that this source is not a major source of HAPs, the following testing requirements are established:

- a. If in the previous calendar year, the source exceeded the production limitations in 7.1.6(a) or 7.2.6(a), then testing for HAPs shall be conducted as follows:
  - i. Testing shall be conducted using methods that would be acceptable under the federal National Emissions Standards for Hazardous Air Pollutants for Stationary Combustion Turbines, 40 CFR 63 Subpart YYYY. Specifically, the testing procedures detailed at 40 CFR 63.6120 of the performance tests section shall be used. For multiple turbines, the source owner or operator shall test largest turbine which makes the largest contributions to individual and total HAP emissions.
- b. This testing shall be done within 180 days of the exceedance.

c. Any such tests are also subject to the Testing Procedures of Condition 8.5 set forth in the General Permit Conditions of Section 8.

### 5.8 Source-Wide Monitoring Requirements

Source-wide monitoring requirements are not set for this source. However, there are provisions for unit specific monitoring set forth in Section 7 of this permit.

#### 5.9 Source-Wide Recordkeeping Requirements

#### 5.9.1 Annual Emission Records

The Permittee shall maintain records of total annual emissions on a calendar year basis for the emission units covered by Section 7 (Unit Specific Conditions for Specific Emission Units) of this permit to demonstrate compliance with Condition 5.6.1, pursuant to Section 39.5(7)(b) of the Act.

#### 5.9.2 Records for HAP Emissions

- a. The Permittee shall maintain records demonstrating how compliance with the production limits of 7.1.6(a), and 7.2.6(a) results in compliance with Condition 5.6.2 or alternatively shall maintain records of individual and combined HAP emissions on a monthly and annual basis for the emission units covered by Section 7 (Unit Specific Conditions for Specific Emission Units) of this permit to demonstrate compliance with Condition 5.6.2, pursuant to Section 39.5(7)(b) of the Act.
- b. If testing is required by Condition 5.7.2, the Permittee shall keep records of the testing, including the test date, conditions, methodologies, calculations, test results, and any discrepancies between the test results and formulation specifications of Condition 5.9.2(c) below.
- c. The Permittee shall keep a record of the applicability determination for 40 CFR 63, Subpart YYYY, National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines, at the source for a period of five years after the determination. This determination shall include a detailed analysis that demonstrates why the Permittee believes the source is not subject to 40 CFR 63, Subpart YYYY [40 CFR 63.10(b)(3)].

### 5.9.3 Retention and Availability of Records

a. All records and logs required by this permit shall be retained for at least five years from the date of entry (unless a longer retention period is specified by the particular recordkeeping provision herein), shall be kept at a location at the source that is readily accessible to the Illinois EPA or USEPA, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.

b. The Permittee shall retrieve and provide copies (electronic or paper) during normal source office hours, any records retained in an electronic format (e.g., computer) in response to an Illinois EPA or USEPA request for records during the course of a source inspection.

#### 5.10 Source-Wide Reporting Requirements

5.10.1 General Source-Wide Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the source with the permit requirements within 30 days, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken. There are also reporting requirements for unit specific emission units set forth in Section 7 of this permit.

5.10.2 Annual Emissions Report

The annual emissions report required pursuant to Condition 9.7 shall contain emissions information, including HAP emissions, for the previous calendar year.

- 5.10.3 The Permittee shall fulfill the applicable reporting requirements of Conditions 7.1.10, 7.2.10, and 7.3.10.
- 5.11 Source-Wide Operational Flexibility/Anticipated Operating Scenarios

Source-wide operational flexibility is not set for this source.

- 5.12 Source-Wide Compliance Procedures
  - 5.12.1 Procedures for Calculating Emissions

Except as provided in Condition 9.1.3, compliance with the source-wide emission limits specified in Condition 5.6 shall be addressed by the recordkeeping and reporting requirements of Conditions 5.9 and 5.10, and compliance procedures in Section 7 (Unit Specific Conditions for Specific Emission Units) of this permit.

#### 6.0 CONDITIONS FOR EMISSIONS CONTROL PROGRAMS

#### 6.1 Clean Air Interstate Rule (CAIR) Program

#### 6.1.1 Applicability

This source is an affected source for purposes of the Clean Air-Interstate Rule ("CAIR") Program and the following emission units at the source are affected CAIR units:

Eight Natural Gas Fired Turbines CT01 - CT08

Note: Under Section 110 of the Clean Air Act (CAA), the USEPA adopted the Clean Air Interstate Rule or CAIR, 40 CFR Part 96, to reduce and permanently cap emissions of sulfur dioxide (SO<sub>2</sub>), and nitrogen oxides (NO<sub>x</sub>) from electric power plants that significantly contribute to fine particulate and ozone in the ambient air in the Eastern United States. To implement CAIR in Illinois, the Illinois EPA adopted 35 IAC Part 225 Subparts A, C, D and E. For purposes of this permit, these requirements are referred to as CAIR provisions.

#### 6.1.2 Applicable CAIR Requirements for SO<sub>2</sub> Emissions

The owners and operators of this source shall not violate applicable CAIR provisions, in 35 IAC Part 225, Subpart C.  $\rm SO_2$  emissions from the affected CAIR units shall not exceed the equivalent number of allowances that the source lawfully holds under these CAIR provisions.

Note: CAIR affected sources must hold CAIR  $SO_2$  allowances to account for the emissions from the affected CAIR units. Each CAIR  $SO_2$  allowance is a limited authorization to emit during the respective CAIR  $SO_2$  annual period or subsequent period. The possession of  $SO_2$  allowances does not authorize exceedances of applicable emission standards or violations of ambient air quality standards.

#### 6.1.3 Applicable CAIR Requirements for $NO_{\mathsf{x}}$ Emissions

The owners and operators of this source shall not violate applicable CAIR provisions, in 35 IAC Part 225, Subpart D. NO, emissions from the affected CAIR units shall not exceed the equivalent number of allowances that the source lawfully holds under these CAIR provisions.

Note: CAIR affected sources must hold CAIR  $NO_x$  allowances to account for the emissions from the affected CAIR units. Each CAIR  $NO_x$  allowance is a limited authorization to emit during the respective CAIR  $NO_x$  annual period or subsequent period. The possession of  $NO_x$  allowances does not authorize exceedances of applicable emission standards or violations of ambient air quality standards.

6.1.4 Applicable CAIR Requirements for NO<sub>x</sub> Ozone Season Emissions

The owners and operators of this source shall not violate applicable CAIR provisions, in 35 IAC Part 225, Subpart E. Seasonal  $NO_{\rm x}$  emissions from the affected CAIR units shall not exceed the equivalent number of allowances that the source lawfully holds under these CAIR provisions.

Note: CAIR affected sources must hold CAIR  $NO_x$  ozone season allowances to account for the emissions from the affected CAIR units. Each CAIR  $NO_x$  ozone season allowance is a limited authorization to emit during the respective CAIR  $NO_x$  ozone season or subsequent season. The possession of  $NO_x$  allowances does not authorize exceedances of applicable emission standards or violations of ambient air quality standards.

6.1.5 Monitoring, Recordkeeping and Reporting

The owners and operators of the source and, to the extent applicable, their designated representative, shall comply with applicable requirements for monitoring, recordkeeping and reporting specified by 35 IAC Part 225 Subparts C, D and E.

#### 6.1.6 CAIR Permit

The owners and operators of the source shall comply with the terms and conditions of the source's CAIR permit (attached).

Note: This source is subject to a CAIR permit, which was issued pursuant to 35 IAC Part 225.320, 225.420 and 225.520. CAIR sources must be operated in compliance with their CAIR permits. This source's CAIR permit is incorporated into this CAAPP permit with a copy of the current CAIR permit included as an attachment to this permit. Revisions and modifications to the CAIR permit are governed by Section 39.5 of the Act. Accordingly, revision or renewal of the CAIR permit may be handled separately from this CAAPP permit and a copy of the new CAIR permit may be included in this permit by Administrative Amendment.

#### 6.1.7 Coordination with other Requirements

- a. This permit does not contain any conditions that are intended to interfere with or modify the requirements of 35 IAC Part 225 C, D, and E, 40 CFR Part 96; or Title IV of the CAA. In particular, this permit does not restrict the flexibility of the owners and operators of this source to comply with CAIR provisions, including the ability to obtain CAIR  $NO_x$  allowances from Illinois' Clean Air Set Aside (CASA) for qualifying projects.
- b. Where another applicable requirement of the CAA is more stringent than an applicable requirement of 35 IAC Part 225, Subparts C, D, or E; 40 CFR Part 96; or Title IV of

the CAA, all requirements are incorporated into this permit and are enforceable and the owners and operators of the source shall comply with both requirements.

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#### 6.2 Acid Rain Program

#### 6.2.1 Applicability

Under Title IV of the CAA, Acid Deposition Control, this source is an affected source and the following emission units at the source are affected units for acid deposition:

Eight Natural Gas Fired Turbines CT01 - CT08

Note: Title IV of the CAA, and other laws and regulations promulgated thereunder, establish requirements for affected sources related to control of emissions of pollutants that contribute to acid rain. For purposes of this permit, these requirements are referred to as Title IV provisions.

#### 6.2.2 Applicable Emission Requirements

The owners and operators of the source shall not violate applicable Title IV provisions.  $SO_2$  emissions of the affected units shall not exceed any allowances that the source lawfully holds under Title IV provisions [Section 39.5(7)(g) and (17)(l) of the Act).

Note: Affected sources must hold  $SO_2$  allowances to account for the  $SO_2$  emissions from affected units at the source that are subject to Title IV provisions. Each allowance is a limited authorization to emit up to one ton of  $SO_2$  emissions during or after a specified calendar year. The possession of allowances does not authorize exceedances of applicable emission standards or violations of ambient air quality standards.

### 6.2.3 Monitoring, Recordkeeping and Reporting

The owners and operators of the source and, to the extent applicable, their designated representative, shall comply with applicable requirements for monitoring, recordkeeping and reporting specified by Title IV provisions, including 40 CFR Part 75 [Section 39.5(7)(b) and 17(m) of the Act].

#### 6.2.4 Acid Rain Permit

The owners and operators of the source shall comply with the terms and conditions of the source's Acid Rain permit [Section 39.5(17)(1) of the Act].

Note: The source is subject to an Acid Rain permit, which was issued pursuant to Title IV provisions, including Section 39.5(17) of the Act. Affected sources must be operated in compliance with their Acid Rain permits. This source's Acid Rain permit is incorporated by reference into this permit and a copy of the current Acid Rain permit is included as Attachment 6 of this permit. Revisions and modifications of this Acid Rain permit, including administrative amendments and automatic

amendments (pursuant to Sections 408(b) and 403(d) of the CAA or regulations thereunder) are governed by Title IV provisions, as provided by Section 39.5(13)(e) of the Act. Accordingly, revision or renewal of the Acid Rain permit may be handled separately from this CAAPP permit and a copy of the new Acid Rain permit may be included in this permit by administrative amendment.

### 6.2.5 Coordination with Other Requirements

- a. This permit does not contain any conditions that are intended to interfere with or modify the requirements of Title IV provisions. In particular, this permit does not restrict the flexibility under Title IV provisions of the owners and operators of this source to amend their Acid Rain compliance plan [Section 39.5(17)(h) of the Act].
- b. Where another applicable requirement of the CAA is more stringent than an applicable requirement of Title IV provisions, both requirements are incorporated into this permit and are enforceable and the owners and operators of the source shall comply with both requirements [Section 39.5(7)(h) of the Act].

#### 7.0 UNIT SPECIFIC CONDITIONS FOR SPECIFIC EMISSION UNITS

7.1 Natural Gas-Fired Turbines (Subject to NSPS - 40 CFR Subpart GG)

### 7.1.1 <u>Description</u>

The turbines are process emission units used to generate electricity. The turbines are powered by natural gas.  $\rm NO_{x}$  emissions are controlled with a water injection system.

Note: This narrative description is for informational purposes only and is not enforceable.

### 7.1.2 List of Emission Units and Air Pollution Control Equipment

Γ		1.		Emission
١	Emission		Date	Control
	Unit	Description	Constructed	Equipment
r	CT01 thru	444 mmBtu/hr	1999	Water
	CT04	Natural Gas Fired		Injection
		Turbines		System

### 7.1.3 Applicable Provisions and Regulations

- a. The "affected turbines" for the purpose of these unitspecific conditions, are turbines described in Conditions 7.1.1 and 7.1.2.
- b. Pursuant to 35 IAC 212.123,
  - No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit.
  - ii. The emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 1000 ft radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.
- c. Pursuant to 35 IAC 214.301, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to excess 2000 ppm.
- d. The affected turbines are subject to the NSPS for Stationary Gas Turbines, 40 CFR 60 Subparts A and GG,

because the heat input at peak load is equal to or greater than 10.7 gigajoules per hour (10 mmBtu/hr), based on the lower heating value of the fuel fired and the affected turbine commenced construction, modification, or reconstruction after October 3, 1977. The Illinois EPA administers the NSPS for subject sources in Illinois pursuant to a delegation agreement with the USEPA.

i. Standard for Nitrogen Oxides:

Pursuant to 40 CFR 60.332(b), electric utility stationary gas turbines with a heat input at peak load greater than 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired shall comply with the provisions of 40 CFR 60.332(a)(1). Pursuant to 40 CFR 60.332(a)(1), no owner or operator of an affected turbine shall cause to be discharged into the atmosphere from such gas turbine, any gases which contain nitrogen oxides in excess of:

$$STD = 0.0075 \frac{(14.4)}{Y} + F$$

#### Where:

- STD = Allowable  $NO_{\rm x}$  emissions (percent by volume at 15 percent oxygen and on a dry basis).
- Y = Manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour.
- $F = NO_{\kappa}$  emission allowance for fuel-bound nitrogen calculated from the nitrogen content of the fuel as follows:

Fuel-bound nitrogen (percent by weight)	F (NO <sub>x</sub> percent by volume)
$\begin{array}{l} N \leq 0.015 \\ 0.015 < N \leq 0.1 \\ 0.1 < N \leq 0.25 \\ N > 0.25 \end{array}$	0.04 (N) 0.004 + 0.0067(N - 0.1)

#### Whore

N = The nitrogen content of the fuel (percent by weight) determined in according with Condition 7.1.8(b).

#### ii. Standard for Sulfur Dioxide:

Pursuant to 40 CFR 60.333, on and after the date on which the performance test required to be conducted by 40 CFR 60.8 is completed, every owner or operator subject to the provision of 40 CFR 60 Subpart GG shall comply with one or the other of the following conditions:

No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine any gases which contain sulfur dioxide in excess of 0.015 percent by volume at 15 percent oxygen and on a dry basis, pursuant to 40 CFR 60.333(a).

No owner or operator subject to the provisions of this subpart shall burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 percent by weight (8000 ppmw), pursuant to 40 CFR 60.333(b).

- e. i. No owner or operator shall cause or allow the emissions of  $NO_x$  into the atmosphere from the affected turbine to exceed 0.25 lbs/mmBtu of actual heat input during each ozone control period from May 1 through September 30, based on a ozone control period average, for that unit [35 IAC 217.706(a)].
  - ii. Notwithstanding the above emission limitation of 35 IAC 217.706(a), the affected turbine subject to a more stringent  $NO_x$  emission limitation pursuant to any State or federal statute, including the Act, the Clean Air Act, or any regulations promulgated thereunder, shall comply with both the requirements of 35 IAC 217 Subpart V and that more stringent emission limitation. [35 IAC 217.706(b)]

#### f. Startup Provisions

Subject to the following terms and conditions, the Permittee is authorized to operate the affected turbines in violation of the applicable standards in Conditions 7.1.3(b) during startup. This authorization is provided pursuant to 35 IAC 201.149, 201.261 and 201.262, as the Permittee has applied for such authorization in its application, generally describing the efforts that will be used "...to minimize startup emissions, duration of individual starts, and frequency of startups."

i. This authorization does not relieve the Permittee from the continuing obligation to demonstrate that all reasonable efforts are made to minimize startup emissions, duration of individual startups and frequency of startups.

- ii. The Permittee shall conduct startup of the each affected turbine(s) in accordance with written procedures prepared by the Permittee and maintained at the facility, in the control room for the each affected turbine(s), that are specifically developed to minimize emissions from startups and that include, at a minimum, the following measures:
  - A. The Permittee shall operate in accordance with the manufacturer's written operating and startup procedures or other written procedures developed and maintained by the source owner or operator so as to minimize the duration of startups and the emissions associated with startups. These procedures should allow for a precheck of the unit prior to startup and review of operating parameters of the unit during startup.
  - B. The Permittee shall maintain the units in accordance with written procedures developed and maintained by the source owner or operator so as to minimize the duration of startups and the frequency of startups. These maintenance practices shall include maintenance activities before the unit is started up, when the unit is in operation, and when the unit is shut down.
- iii. The procedures described 7.1.3(f)(ii) above shall be reviewed at least annually to make necessary adjustments and shall be made available to the Illinois EPA upon request.
- iv. The Permittee shall fulfill applicable recordkeeping and reporting requirements of Condition 7.1.9(m) and 7.1.10(b).
- v. As provided by 35 IAC 201.265, an authorization in a permit for excess emissions during startup does not shield a Permittee from enforcement for any violation of applicable emission standard(s) that occurs during startup and only constitutes a prima facie defense to such an enforcement action provided that the Permittee has fully complied with all terms and conditions connected with such authorization.
- g. Malfunction and Breakdown Provisions

Subject to the following terms and conditions, the Permittee is authorized to continue operation of an affected turbine in violation of the applicable standards

in Condition 7.1.3(b) in the event of a malfunction or breakdown of the affected turbines. This authorization is provided pursuant to 35 IAC 201.149, 201.261 and 201.262, as the Permittee has applied for such authorization in its application, generally explaining why such continued operation would be required to provide essential service or to prevent risk of injury to personnel or severe damage to equipment, and describing the measures that will be taken to minimize emissions from any malfunctions and breakdowns. This authorization supersedes the general prohibition in Condition 9.2.3 against continued operation in such circumstances.

- i. This authorization only allows such continued operation as necessary to provide essential service or prevent risk of injury to personnel or severe damage to equipment and does not extend to continued operation solely for the economic benefit of the Permittee.
- ii. Upon occurrence of excess emissions due to malfunction or breakdown, the Permittee shall as soon as practical repair the turbine, remove the affected turbine from service, or undertake other action so that excess emissions cease.
- iii. The Permittee shall fulfill the applicable recordkeeping and reporting requirements of Conditions 7.1.9(n) and 7.1.10(f). For these purposes, time shall be measured from the start of a particular incident. The absence of excess emissions for a short period shall not be considered to end the incident if excess emissions resume. In such circumstances, the incident shall be considered to continue until corrective actions are taken so that excess emissions cease or the Permittee takes the affected turbines out of service.
- iv. Following notification to the Illinois EPA of a malfunction or breakdown with excess emissions, the Permittee shall comply with all reasonable directives of the Illinois EPA with respect to such incident, pursuant to 35 IAC 201.263.
- v. This authorization does not relieve the Permittee from the continuing obligation to minimize excess emissions during malfunction or breakdown. As provided by 35 IAC 201.265, an authorization in a permit for continued operation with excess emissions during malfunction and breakdown does not shield the Permittee from enforcement for any such violation and only constitutes a prima facie defense to such an enforcement action provided that the Permittee has

fully complied with all terms and conditions connected with such authorization.

#### 7.1.4 Non-Applicability of Regulations of Concern

a. The affected turbines are not subject to the New Source Performance Standards (NSPS) for Stationary Combustion Turbines, 40 CFR Part 60, Subpart KKKK, because the affected turbines did not commence construction, modification, or reconstruction after February 18, 2005 pursuant to 40 CFR 60.4305(a), and are therefore subject to 40 CFR Part 60, Subpart GG for Stationary Gas Turbines.

Note: To qualify for this non-applicability, the Permittee has certified that the turbines have not been modified or reconstructed after February 18, 2005.

- b. The affected turbines are not subject to the National Emissions Standards for Hazardous Air Pollutants for Stationary Combustion Turbines, 40 CFR Part 63, Subpart YYYY, because the affected turbines are not located at a major source of HAP emissions, pursuant to 40 CFR 63.6085.
- c. The affected turbines are not subject to 35 IAC 212.321 or 212.322, due to the unique nature of such units, a process weight rate cannot be set so that such rules are not reasonably applied, pursuant to 35 IAC 212.323.
- d. The affected turbines are not subject to 35 IAC 217.141 or 35 IAC 216.121 because the affected turbines are not fuel combustion units, as defined by 35 IAC 211.2470.
- e. The affected turbines are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources:
  - i. For  $NO_x$  and  $SO_2$ , because:
    - A. The affected turbines are subject to a NSPS proposed after November 15, 1990, pursuant to 40 CFR 64.2(b)(1)(i).
    - B. The affected turbines are subject to Acid Rain Program requirements, pursuant to 40 CFR 64.2(b)(1)(iii).
    - C. The affected turbines are subject to an emission limitation or standard for which this CAAPP permit specifies a continuous compliance determination method, pursuant to 40 CFR 64.2(b)(1)(vi).

- ii. For PM, VOM, and CO because the affected turbines do not use an add-on control device to achieve compliance with an emission limitation or standard.
- f. The affected turbines are not subject to 35 IAC 217 Subpart Q: Stationary Reciprocating Internal Combustion Engines And Turbines, because the affected turbines are not located at sources located in areas identified in 35 IAC 217.386(a)(2).

Note: 35 IAC 217.386(a)(2) requires that affected sources are located in either one of the following areas and that emit or have the potential to emit NO $_{\rm x}$  in an amount equal to or greater than 100 tons per year:

- i. The area composed of the Chicago area counties of Cook, DuPage, Kane, Lake, McHenry, and Will, the Townships of Aux Sable and Goose Lake in Grundy County, and the Township of Oswego in Kendall County; or
- ii. The area composed of the Metro East area counties of Jersey, Madison, Monroe, and St. Clair, and the Township of Baldwin in Randolph County.
- g. The affected turbines are not subject to the National Emission Standards for Hazardous Air Pollution (NESHAP) for Coal- and Oil-Fired Electric Utility Steam Generating Units, 40 CFR Part 63 Subpart UUUUU, because the turbines are not electric utility steam generating units by definition, pursuant to 40 CFR 63.10042.

#### 7.1.5 Control Requirements and Work Practices

- a. i. At all times, including periods of startup, shutdown, and malfunction, the source owner or operator shall, to the extent practicable, maintain and operate any affected turbine in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA or the USEPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source [40 CFR 60.11(d)].
  - ii. The source owner or operator shall operate the affected turbines in accordance with written operating procedures that shall include at a minimum the following measures:
    - A. Review of operating parameters of the unit during startup or shutdown as necessary for the

- proper operation of the affected turbine with appropriate adjustments to reduce emissions.
- B. Implementation of inspection and repair procedures for an affected turbine prior to attempting startup following repeated trips.
- iii. The source owner or operator shall maintain the affected turbines in accordance with written procedures that shall include at a minimum the following measures:
  - A. Unless specified on a more frequent basis by manufacturer's written instructions, a visual inspection of external emissions-related components shall be completed quarterly.
  - B. Repair and routine replacement of emissionsrelated components.
- iv. The above procedures may incorporate the manufacturer's written instruction for operation and maintenance of the affected turbines and associated control systems. The source owner or operator shall review these procedures annually and shall revise or enhance them if necessary to be consistent with good air pollution control practice based on the actual operating experience and performance of the source.
- b. Pursuant to Construction Permit #99090035, natural gas shall be the only fuel fired in the affected turbines [T1].
- c. Pursuant to Construction Permit #99090035, the affected turbines shall be equipped, operated, and maintained with water injection to control  $NO_x$  emissions {T1}.

#### 7.1.6 Production and Emission Limitations

In addition to Condition 5.3.2 and the source-wide emission limitations in Condition 5.6, the affected turbines are subject to the following:

- a. Pursuant to Construction Permit #99090035, the affected turbines, in total, shall not fire more than 3,200 million scf of natural gas per year [T1].
- b. i. Pursuant to Construction permit #99090035, hourly emissions from each affected turbine shall not exceed the following limits except, when ice fog is deemed a traffic hazard by the Permittee and during startup pursuant to 35 IAC 201.262, provided that all reasonable efforts are made to minimize startup emissions. This authorization only extends for a

period of up to 20 minutes following initial firing of fuel during each startup event:

<u>Pollutant</u>	(Lbs/Hour)	
$NO_x$	57.0	
CO	55.0	
SO <sub>2</sub>	11.4	
VOM	11.4	
PM	10.85	

Compliance with these limits above shall be based on average emissions determined by emission testing in accordance with the construction permit (#99090035) or Condition 7.1.7 of this permit or based on continuous emissions monitoring data (24-hour average) [T1].

- ii. Pursuant to Construction permit #99090035, the Permittee is authorized to operate in excess of the limits in Condition 7.1.6(b)(i) during malfunction/breakdown pursuant to 35 IAC 201.262 as need to protect personnel, protect equipment or provide essential service, provided that all reasonable efforts are made to minimize malfunction/breakdown emissions including the following [T1]:
  - A. Operation in accordance with the manufactures written instructions or other written instruction developed by the Permittee;
  - B. Review of operating parameters of an affected turbine during malfunction/breakdown as necessary to make adjustments to reduce or eliminate excess emission; and
  - C. Upon malfunction/breakdown of an affected turbine that will result in excess emissions, the Permittee shall as soon as practicable cease excess emissions by repairing the affected turbine or removing it from service.
- c. i. Total emissions from the affected turbines shall not exceed the following limits:

<u>Pollutant</u>	(Tons/Year)
NO.	200.0
CO	200.0
SO <sub>2</sub>	200.0
MOV	200.0
DM	190 0

- ii. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].
- d. The above limitations were established in Construction Permit #99090035, pursuant to PSD. These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for PSD [T1].

#### 7.1.7 Testing Requirements

- a. The nitrogen oxides  $(NO_x)$  emissions, and the oxygen  $(O_2)$  concentration and opacity of exhaust shall be measured for the affected turbines at the source owner or operator's expense by an independent testing service approved by the Illinois EPA as follows to determine compliance with applicable emission limits:
  - i. Within 120 days after a written request from the Illinois EPA, for such pollutants listed above as specified by the request.
  - ii. Any extension to these time periods that may be provided at its discretion by the Illinois EPA shall not alter the source owner or operator's obligation to perform emission testing for purposes of the NSPS in a timely manner as specified by 40 CFR 60.8.
- b. The following methods and procedures shall be used for testing of emissions:
  - i. The USEPA Reference Test Methods shall be used including the following:

Opacity Nitrogen Oxides USEPA Method 9 USEPA Method 20

ii. A. Pursuant to 40 CFR 60.335(b), the owner or operator shall determine compliance with the applicable nitrogen oxides emission limitation in 40 CFR 60.332 and shall meet the performance test requirements of 40 CFR 60.8 as follows:

For each run of the performance test, the mean nitrogen oxides emission concentration  $(NO_{Xo})$  corrected to 15 percent  $O_2$  shall be corrected to ISO standard conditions using the following equation. Notwithstanding this requirement, use of the ISO correction equation is optional for: Lean premix stationary combustion turbines; units used in association with heat

recovery steam generators (HRSG) equipped with duct burners; and units equipped with add-on emission control devices, pursuant to 40 CFR 60.335(b)(1):

 $NO_x = (NO_{XO}) (P_r/P_o) 0.5 e19 (H_o-0.00633) (288°K/Ta) 1.53$ 

#### Where:

- ${
  m NO_x}$  =emission concentration of  ${
  m NO_x}$  at 15 percent  ${
  m O_2}$  and ISO standard ambient conditions, ppm by volume, dry basis
- $NO_{Xo}$  = mean observed  $NO_{x}$  concentration, ppm by volume, dry basis, at 15 percent  $O_{2}$
- $P_r$  = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg
- Po = observed combustor inlet absolute pressure at test, mm Hg
- $H_0$  = observed humidity of ambient air, g  $H_2$  O/g air
- e = transcendental constant, 2.718
- $T_a$  = ambient temperature,  ${}^{\circ}K$

The 3-run performance test required by 40 CFR 60.8 must be performed within  $\pm$  5 percent at 30, 50, 75, and 90-to-100 percent of peak load or at four evenly-spaced load points in the normal operating range of the gas turbine, including the minimum point in the operating range and 90-to-100 percent of peak load, or at the highest achievable load point if 90-to-100 percent of peak load cannot be physically achieved in practice. If the turbine combusts both oil and gas as primary or backup fuels, separate performance testing is required for each fuel. Notwithstanding these requirements, performance testing is not required for any emergency fuel (as defined in 40 CFR 60.331), pursuant to 40 CFR 60.335(b)(2).

If water or steam injection is used to control  $NO_x$  with no additional post-combustion  $NO_x$  control and the owner or operator chooses to monitor the steam or water to fuel ratio in accordance with 40 CFR 60.334(a), then that monitoring system must be operated concurrently

with each EPA Method 20, ASTM D6522-00 (incorporated by reference, see 40 CFR 60.17), or EPA Method 7E run and shall be used to determine the fuel consumption and the steam or water to fuel ratio necessary to comply with the applicable 40 CFR 60.332  $\mathrm{NO_x}$  emission limit, pursuant to 40 CFR 60.335(b)(4).

If the owner or operator elects to install a CEMS, the performance evaluation of the CEMS may either be conducted separately (as described 40 CFR 60.335 (b) (7) of this section) or as part of the initial performance test of the affected unit, pursuant to 40 CFR 60.335(b)(6).

Fursuant to 40 CFR 60.335(b)(7), if the owner or operator elects to install and certify a  $\rm NO_{x}$  CEMS under 40 CFR 60.334(e), then the initial performance test required under 40 CFR 60.8 may be done in the following alternative manner:

Perform a minimum of 9 reference method runs, with a minimum time per run of 21 minutes, at a single load level, between 90 and 100 percent of peak (or the highest physically achievable) load, pursuant to 40 CFR 60.335(b)(7)(i).

Use the test data both to demonstrate compliance with the applicable  $NO_x$  emission limit under 40 CFR 60.332 and to provide the required reference method data for the RATA of the CEMS described under 40 CFR 60.334(b) , pursuant to 40 CFR 60.335(b)(7)(ii).

The requirement to test at three additional load levels is waived, pursuant to 40 CFR 60.335(b)(7)(iii).

If the owner or operator elects under 40 CFR 60.334(f) to monitor combustion parameters or parameters indicative of proper operation of  $\mathrm{NO}_x$  emission controls, the appropriate parameters shall be continuously monitored and recorded during each run of the initial performance test, to establish acceptable operating ranges, for purposes of the parameter monitoring plan for the affected unit, as specified in 40 CFR 60.334(g), pursuant to 40 CFR 60.335(b)(8).

Pursuant to 40 CFR 60.335(b)(10), if the owner or operator is required under 40 CFR 60.334(i)(1) or (3) to periodically determine the sulfur content of the fuel combusted in the

turbine, a minimum of three fuel samples shall be collected during the performance test. Analyze the samples for the total sulfur content of the fuel using:

For gaseous fuels, ASTM D1072-80, 90 (Reapproved 1994); D3246-81, 92, 96; D4468-85 (Reapproved 2000); or D6667-01 (all of which are incorporated by reference, see 40 CFR 60.17). The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the prior approval of the Administrator, pursuant to 40 CFR 60.335(b)(10)(ii).

The fuel analyses required in 40 CFR 60.335 may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency, pursuant to 40 CFR 60.335(b)(11).

B. Pursuant to 40 CFR 60.335(c), the owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

Instead of using the equation in 40 CFR 60.335(b)(1), manufacturers may develop ambient condition correction factors to adjust the nitrogen oxides emission level measured by the performance test as provided in 40 CFR 60.8 to ISO standard day conditions, pursuant to 40 CFR 60.335(c)(1).

- c. At least 60 days prior to the actual date of testing, a written test plan shall be submitted to the Illinois EPA for review. This plan shall describe the specific procedures for testing and shall include as a minimum:
  - i. The person(s) who will be performing sampling and analysis and their experience with similar tests.
  - ii. The specific conditions under which testing shall be performed including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the turbine will be tracked and recorded.



- iii. The specific determinations of emissions that are intended to be made, including sampling and monitoring locations; the test method(s) that will be used, with the specific analysis method, if the method can be used with different analysis methods. The source owner or operator may also propose a plan for testing across the normal operating range of the affected turbines.
- d. The Illinois EPA shall be notified prior to these tests to enable the Illinois EPA to observe these tests.

  Notification of the expected date of testing shall be submitted a minimum of thirty (30) days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of five (5) working days prior to the actual date of the test. The Illinois EPA may, at its discretion, accept notifications with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe the testing.
- e. The Final Report for these tests shall be submitted to the Illinois EPA within 60 days after the date of the tests. The Final Report shall include as a minimum:
  - i. A summary of results.
  - ii. General information.
  - iii. Description of test method(s), including description of sampling points, sampling train, analysis equipment and test schedule.
  - iv. Detailed description of test conditions, including:
    - A. Fuel consumption (standard  $ft^3$ ).
    - B. Firing rate (million Btu/hr).
    - C. Turbine/Generator output rate (MW).
  - v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.
- f. i. Upon written request by the Illinois EPA, the source owner or operator shall have the opacity of the exhaust from the affected turbine(s) tested during representative operating conditions as determined by a qualified observer in accordance with USEPA Test Method 9, as further specified below, pursuant to Section 39.5(7)(d) of the Act.

- ii. Such testing shall be conducted for specific turbine(s) within 90 calendar days of the request, or on the date turbine(s) next operates, or on the date agreed upon by the Illinois EPA, whichever is later.
- iii. The duration of opacity observations for each test shall be at least 30 minutes (five 6-minute averages) unless the average opacities for the first 12 minutes of observations (two six-minute averages) are both less than 10.0 percent.
- iv. The source owner or operator shall notify the Illinois EPA at least 7 days in advance of the date and time of these tests, in order to allow the Illinois EPA to witness testing. This notification shall include the name and employer of the qualified observer(s).
- v. The source owner or operator shall promptly notify the Illinois EPA of any changes in the time or date for testing.
- vi. The source owner or operator shall provide a copy of its observer's readings to the Illinois EPA at the time of testing, if Illinois EPA personnel are present.
- vii. The source owner or operator shall submit a written report for this testing within 30 days of the date of testing. This report shall include:
  - A. Date and time of testing.
  - B. Name and employer of qualified observer.
  - C. Copy of current certification.
  - D. Description of observation conditions.
  - E. Description of turbine operating conditions.
  - F. Raw data
  - G. Opacity determinations.
  - H. Conclusions.

#### 7.1.8 Monitoring Requirements

a. i. If an affected turbine is routinely operated or exercised to confirm that the turbine will operate when needed, the operation and opacity of the affected turbine shall be formally observed by operating personnel for the affected turbine or a member of source owner or operator's environmental staff on a regular basis to assure that the affected turbine is operating properly, which observations shall be made at least every six months.

- ii. If an affected turbine is not routinely operated or exercised, i.e., the time interval between operation of an affected turbine is typically greater than six months, the operation and opacity of the affected turbine shall be formally observed as provided above each time the source owner or operator carries out a scheduled exercise of the affected turbine.
- iii. The source owner or operator shall also conduct formal observations of operation and opacity of an affected turbine upon written request by the Illinois EPA. With the agreement of the Illinois EPA, the source owner or operator may schedule these observations to take place during periods when it would otherwise be operating the affected turbine.

Note: The formal observation required above is not intended to be a USEPA Test Method 9 opacity test, nor does the observation require a USEPA Test Method 9 certified observer. It is intended to be performed by personnel familiar with the operation of the affected turbine who would be able to make a determination based from the observed opacity as to whether or not the affected turbine was running properly, and subsequently initiate a corrective action if necessary.

b. The affected turbine shall comply with the applicable monitoring requirements of 40 CFR 60.334(h), below. Monitoring of fuel nitrogen content shall not be required while the facility does not claim an allowance for fuel-bound nitrogen. Monitoring for sulfur content in fuel is not required while natural gas is the only fuel fired in the affected turbine and the requirements of 40 CFR 60.334(h)3(i) or (ii) are met.

Pursuant to 40 CFR 60.334(h), the owner or operator of any stationary gas turbine subject to the provisions of this subpart:

Shall monitor the total sulfur content of the fuel being fired in the turbine, except as provided in 40 CFR 60.334. The sulfur content of the fuel must be determined using total sulfur methods described in 40 CFR 60.335(b)(10). Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than 0.4 weight percent (4000 ppmw), ASTM D4084-82, 94, D5504-01, D6228-98, or Gas Processors Association Standard 2377-86 (all of which are incorporated by reference-see 40 CFR

60.17), which measure the major sulfur compounds may be used, pursuant to 40 CFR 60.334(h)(1); and

Shall monitor the nitrogen content of the fuel combusted in the turbine, if the owner or operator claims an allowance for fuel bound nitrogen (i.e., if an F-value greater than zero is being or will be used by the owner or operator to calculate STD in 40 CFR 60.332). The nitrogen content of the fuel shall be determined using methods described in 40 CFR 60.335(b)(9) or an approved alternative, pursuant to 40 CFR 60.334(h)(2).

Pursuant to 40 CFR 60.334(h)(3), notwithstanding the provisions of 40 CFR 60.334(h)(1) of this section, the owner or operator may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in 40 CFR 60.331(u), regardless of whether an existing custom schedule approved by the administrator for subpart GG requires such monitoring. The owner or operator shall use one of the following sources of information to make the required demonstration:

The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less, pursuant to 40 CFR 60.334(3)(i); or

Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of this chapter is required, pursuant to 40 CFR  $60.334\,(h)\,(3)\,(ii)$ .

- c. i. The owner or operator of an affected turbine subject to 35 IAC 217 Subpart V (Condition 7.1.3(e)) shall install, calibrate, maintain and operate continuous emissions monitoring systems (CEMS) for NO<sub>x</sub> that meet the requirements of 40 CFR 75, Subpart B [35 IAC 217.710(a)].
  - ii. Notwithstanding 35 IAC 217.710(a) above, the owner or operator of a gas-fired peaking unit or oil-fired peaking unit as defined in 40 CFR 72.2 may determine NO $_{\rm x}$  emissions in accordance with the emissions estimation protocol of 40 CFR 75, Subpart E [35 IAC 217.710(b)].
  - iii. Notwithstanding 35 IAC 217.710(a) above, the owner or operator of a combustion turbine that operates less than 350 hour per ozone control period may determine

the heat input and  $NO_x$  emissions of the turbine as follows [35 IAC 217.710(c)]:

- A. Heat input shall be determined from the metered fuel usage to the turbine or the calculated heat input determined as the product of the turbine's maximum hourly heat input and hours of operation as recorded by operating instrumentation on the turbine [35 IAC 217.710(c)(1)].
- B.  $NO_x$  emissions shall be determined as the product of the heat input, as determined above, and the appropriate default  $NO_x$  emission factors below [35 IAC 217.710(c)(2)]:
  - 0.7 lbs/mmBtu Natural gas 1.2 lbs/mmBtu - Fuel oil
- d. i. The affected turbine shall be equipped, operated, and maintained with a continuous monitoring system to monitor and record the fuel consumption being fired.
  - ii. If a water injection system is used, the affected turbine shall be equipped, operated, and maintained with a continuous monitoring system to monitor and record the ratio of water to fuel being fired, pursuant to 40 CFR 60.334(a) or, as an alternative, shall install, certify, maintain, operate and quality assure a CEMS consisting of  $NO_x$  and  $O_2$  monitors pursuant to 40 CFR 60.334(b).

#### 7.1.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the source owner or operator shall maintain records of the following items for the affected turbine(s) to demonstrate compliance with Conditions 5.6.1, 7.1.3, 7.1.5, and 7.1.6, pursuant to Section 39.5(7)(b) of the Act:

- a. The owner or operator of an affected turbine subject to the requirements of 35 IAC 217 Subpart V (Condition 7.1.3(e)) shall:
  - i. Comply with the recordkeeping and reporting requirements of 40 CFR 75 applicable to  $NO_{\times}$  emissions during the ozone control period, including, but not limited to, 40 CFR 75.54(b) and (d) [35 IAC 217.712(a)].
  - ii. Notwithstanding 35 IAC 217.712(a) above, the owner or operator of a combustion turbine for which heat input and  $NO_x$  emissions are determined pursuant to 35 IAC 217.710(c) (Condition 7.1.8(c)(iii)) shall comply

with the following recordkeeping and reporting requirements [35 IAC 217.712(b)]:

- A. Maintain records of the heat input and  $NO_x$  emissions of the turbine as determined in accordance with 35 IAC 217.710(c), and records of metered fuel use or operating hours used to determine heat input [35 IAC 217.712(b)(1)].
- b. The source owner or operator shall maintain records of the following items:
  - i. The sulfur content of the natural gas used to fire the turbines as determined in accordance with Condition 7.1.8(b).
  - ii. A copy of the Final Report(s) for emission testing conducted pursuant to Condition 7.1.7.
  - iii. Copies of opacity determinations taken for the source by qualified observer(s) using USEPA Method 9.
  - iv. Records documenting its periodic review of its operating procedures as required by Condition 7.1.5(a).
  - v. Information for the formal observations of opacity conducted pursuant to Condition 7.1.8(a). For each occasion on which observations are made, these records shall include the date, time, identity of the observer, a description of the various observations that were made, whether or not the affected engine was running properly, and whether or not corrective action is necessary and was subsequently initiated.
- c. A maintenance and repair log for the affected turbine, listing each activity performed with date.
- d. Reserved for future use.
- Fuel consumption for the affected turbine, scf/month and mmscf/year.
- f. Reserved for future use.
- g. Operating hours for the affected turbine, hr/month and hr/year.
- h. Heat content of the fuel being fired in the affected
- Emissions of each pollutant from the affected turbine, including emissions from startups, with supporting

calculations including documentation on the validity of the emission factors used, ton/month and ton/year.

- j. The source owner or operator shall maintain records that identify:
  - Any periods during which a continuous monitoring system was not operational, with explanation.
  - ii. If a water injection system is used and water to fuel ratio is monitored in accordance with 40 CFR 60.334(a), any 1-hour period during which the average water to fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined by test to be necessary to comply with requirements for NO<sub>x</sub> emissions, with the average water-to-fuel ratio, average fuel consumption, ambient conditions and turbine load.
  - iii. If a water injection system is used and water to fuel ratio is monitored in accordance with 40 CFR 60.334(a), any period when the affected turbine was in operation during which ice fog was deemed to be a traffic hazard, the ambient conditions existing during the periods, the date and time the water injection system was deactivated, and the date and time the system was reactivated.
  - iv. Any day in which emission and/or opacity exceeded an applicable standard or limit.
- k. The source owner or operator shall keep records of good operating practices for each turbine.
- The source owner or operator shall maintain the following records related to each startup of the turbines [40 CFR 60.7(b) and 35 IAC 201.262]:
  - i. The following information for each startup of a  $\,^{\cdot}$  turbine:
    - A. Date, time and duration of startup.
    - B. A record of whether written operating procedures are followed or if significant problems occur during the startup, detailed explanation of the actions taken to minimize emissions.
- m. The following information for the turbines when above normal opacity, as defined in Condition 7.1.8, has been observed by source personnel:

- Name of observer, position and reason for being at site.
- ii. Date and duration of above normal opacity, including affected turbine, start time and time normal operation was achieved.
- iii. If normal operation was not achieved within 30 minutes, an explanation why startup could not be achieved within this time.
- iv. A detailed description of the startup, including reason for operation.
- v. An explanation why established startup procedures could not be performed, if not performed.
- vi. The nature of opacity following the end of startup and duration of operation until achievement of normal opacity or shutdown.
- vii. Whether an exceedance of Condition 7.1.3(b), i.e., 30 percent opacity, may have occurred during startup, with explanation if qualified observer was on site.
- n. Records for Malfunctions and Breakdowns

The Permittee shall maintain records, pursuant to 35 IAC 201.263, of continued operation of an affected turbine subject to Condition 7.1.3(g) during malfunctions and breakdown, which as a minimum, shall include:

- i. Date and duration of malfunction or breakdown.
- A detailed explanation of the malfunction or breakdown.
- iii. An explanation why the affected turbine continued to operate in accordance with Condition 7.1.3(g).
- iv. The measures used to reduce the quantity of emissions and the duration of the event.
- v. The steps taken to prevent similar malfunctions or breakdowns or reduce their frequency and severity.
- vi. The amount of release above typical emissions during malfunction/breakdown.

## 7.1.10 Reporting Requirements

a. Reporting of Deviations

The source owner or operator shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected turbine with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- i. Emissions from the affected turbine in excess of the limits specified in Conditions 7.1.3 and 7.1.6 within 30 days of such occurrence.
- ii. Operation of the affected turbine in excess of the limits specified in Conditions 7.1.5 and 7.1.6 within 30 days of such occurrence.
- b. In conjunction with the Annual Emission Report required by 35 IAC Part 254, the source owner or operator shall provide the operating hours for each affected turbine, the total number of startups for each affected turbine, and the total fuel consumption during the preceding calendar year.
- c. Pursuant to 40 CFR 60.7(c) and 40 CFR 60.334(j), the source owner or operator shall submit the required excess emissions and monitoring system downtime reports.
- d. i. Annually report the heat input and  $NO_x$  emissions of the turbine as determined in accordance with 35 IAC 217.710(c) (Condition 7.1.8(c)(iii)), for each ozone control period, by November 30 of each year [35 IAC 217.712(b)(2)].
  - ii. Pursuant to 35 IAC 217.712(c) and (d), no later than November 30 of each year, the source owner or operator shall submit a report to the Illinois EPA that demonstrates that the affected turbine has complied with Condition 7.1.3(e). These reports shall be accompanied by a certification statement signed by a responsible official for the source owner or operator as specified by 35 IAC 217.712(c).
- e. Reserved for Future Use.
- f. Reporting of Malfunctions and Breakdowns

The Permittee shall provide the following notification and reports to the Illinois EPA, Air Compliance Unit and Regional Field Office, pursuant to 35 IAC 201.263, concerning continued operation of an affected turbine subject to Condition 7.1.3(g) during malfunction or breakdown:

- i. A. The Permittee shall notify the Illinois EPA's regional office by telephone, fax, or email as soon as possible during normal working hours, but no later than three (3) days, upon the occurrence of noncompliance due to malfunction
  - B. Upon achievement of compliance, the Permittee shall give a written follow-up notice within 15 days to the Illinois EPA, Air Compliance Unit and Regional Field Office, providing a detailed explanation of the event, an explanation why continued operation of the affected turbines was necessary, the length of time during which operation continued under such conditions, the measures taken by the Permittee to minimize and correct deficiencies with chronology, and when the repairs were completed or when the affected turbine was taken out of service.
  - C. If compliance is not achieved within 5 working days of the occurrence, the Permittee shall submit interim status reports to the Illinois EPA, Air Compliance Unit and Regional Field Office, within 5 days of the occurrence and every 14 days thereafter, until compliance is achieved. These interim reports shall provide a brief explanation of the nature of the malfunction or breakdown, corrective actions accomplished to date, actions anticipated to occur with schedule, and the expected date on which repairs will be complete or the affected turbine will be taken out of service.
- ii. In accordance with the due dates in Condition 8.6.1, the Permittee shall submit semi-annual malfunction and breakdown reports to the Illinois EPA pursuant to Sections 39.5(7)(a) and (f) of the Act. These reports may be submitted along with other semi-annual reports and shall include the following information for malfunctions and breakdowns of the affected turbine during the reporting period:
  - A. A listing of malfunctions and breakdowns, in chronological order, that includes:
    - The date, time, and duration of each incident.
    - II. The identity of the affected operation(s) involved in the incident.

- B. Dates of the notices and reports of Conditions 7.1.10(f) (i).
- C. Any supplement information the Permittee wishes to provide to the notices and reports of Conditions 7.1.10(f)(i).
- D. The aggregate duration of all incidents during the reporting period.
- E. If there have been no such incidents during the reporting period, this shall be stated in the report.

#### 7.1.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected turbines.

## 7.1.12 Compliance Procedures

- a. Compliance with the opacity limitations of Conditions 7.1.3(b) is addressed by the requirements of Condition 7.1.5, the testing requirements of 7.1.7, the monitoring requirements of 7.1.8, and the records required in Condition 7.1.9, and the reports required in Condition 7.1.10.
- b. Compliance with the  $SO_2$  emission limitations of Conditions 7.1.3(c) is addressed by the requirements of Condition 7.1.5, the monitoring requirements of 7.1.8, the records required in Condition 7.1.9, and the reports required in Condition 7.1.10.
- c. i. Compliance with the  $NO_x$  emission limitations of Conditions 7.1.3(d)(i) is addressed by the requirements of Condition 7.1.5, the testing requirements of 7.1.7, the monitoring requirements of 7.1.8, and the records required in Condition 7.1.9, and the reports required in Condition 7.1.10(a).
  - ii. Compliance with the  $SO_2$  emission limitations of Conditions 7.1.3(d)(ii) is addressed by the requirements of Condition 7.1.5, the monitoring requirements of 7.1.8, the records required in Condition 7.1.9, and the reports required in Condition 7.1.10(a).
- d. i. Compliance with the  $NO_x$  emission limitations of Conditions 7.1.3(e) is addressed by the requirements of Condition 7.1.5, the testing requirements of 7.1.7, the monitoring requirements of 7.1.8, the records required in Condition 7.1.9, and the reports required in Condition 7.1.10(a).

- ii. Notwithstanding 35 IAC 217.710(a), Condition 7.1.8(d), the owner or operator of a gas-fired peaking unit or oil-fired peaking unit as defined in 40 CFR 72.2 may determine NO<sub>x</sub> emissions in accordance with the emissions estimation protocol of 40 CFR 75, Subpart E [35 IAC 217.710(b)].
- iii. Notwithstanding 35 IAC 217.710(a), Condition 7.1.8(d), the owner or operator of a combustion turbine that operates less than 350 hour per ozone control period may determine the heat input and NO $_{\rm x}$  emissions of the turbine as follows [35 IAC 217.710(c)]:
  - A. Heat input shall be determined from the metered fuel usage to the turbine or the calculated heat input determined as the product of the turbine's maximum hourly heat input and hours of operation as recorded by operating instrumentation on the turbine [35 IAC 217.710(c)(1)].
  - B.  $NO_x$  emissions shall be determined as the product of the heat input, as determined above, and the appropriate default  $NO_x$  emission factors below [35 IAC 217.710(c)(2)]:
    - 0.7 lbs/mmBtu Natural gas 1.2 lbs/mmBtu - Fuel oil
- e. i. Compliance with the fuel limits in Condition 7.1.6(a) is addressed by the records and reports required in Conditions 7.1.9(d) and 7.1.10(b).
  - ii. Compliance with the emission limits in Conditions 5.6 and 7.1.6(b) and (c) is addressed by the records and reports required in Conditions 7.1.9(d) and 7.1.10(b) and continuous emissions monitoring data (24-hour average), or from emission factors developed from the most recent approved stack test in accordance with Construction Permit 99090035 or Condition 7.1.7(a), standard emission factors, and analysis of fuel sulfur content.

7.2 Natural Gas-Fired Turbine (Subject to NSPS - 40 CFR Subpart GG)

## 7.2.1 Description

The turbines are process emission units used to generate electricity. The turbines are powered by natural gas.  $NO_{\rm x}$  emissions are controlled with dry low  $NO_{\rm x}$  combustors.

Note: This narrative description is for informational purposes only and is not enforceable.

## 7.2.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
CT05 thru CT08	552.5 mmBtu/hr Natural Gas Fired Turbines	2001	Dry Low NO <sub>x</sub> Combustors

## 7.2.3 Applicable Provisions and Regulations

- a. The "affected turbines" for the purpose of these unitspecific conditions, are turbines described in Conditions 7.2.1 and 7.2.2.
- b. Pursuant to 35 IAC 212.123,
  - i. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit.
  - ii. The emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 1000 ft radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.
- c. Pursuant to 35 IAC 214.301, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to excess 2000 ppm.
- d. The affected turbines are subject to the NSPS for Stationary Gas Turbines, 40 CFR 60 Subparts A and GG, because the heat input at peak load is equal to or greater than 10.7 gigajoules per hour (10 mmBtu/hr), based on the

lower heating value of the fuel fired and the affected turbine commenced construction, modification, or reconstruction after October 3, 1977. The Illinois EPA administers the NSPS for subject sources in Illinois pursuant to a delegation agreement with the USEPA.

i. Standard for Nitrogen Oxides:

Pursuant to 40 CFR 60.332(b), electric utility stationary gas turbines with a heat input at peak load greater than 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired shall comply with the provisions of 40 CFR 60.332(a)(1). Pursuant to 40 CFR 60.332(a)(1), no owner or operator of an affected turbine shall cause to be discharged into the atmosphere from such gas turbine, any gases which contain nitrogen oxides in excess of:

STD = 0.0075 
$$\frac{(14.4)}{Y}$$
 + F

#### Where:

- STD = Allowable  $NO_x$  emissions (percent by volume at 15 percent oxygen and on a dry basis).
- Y = Manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour.
- $F = NO_x$  emission allowance for fuel-bound nitrogen calculated from the nitrogen content of the fuel as follows:

Fuel-bound nitrogen	F
(percent by weight)	(NO <sub>x</sub> percent by volume)
$N \leq 0.015$	0
$0.\overline{0}15 < N < 0.1$	0.04 (N)
$0.1 < N \le \overline{0.25}$	0.004 + 0.0067(N - 0.1)
N > 0.25	0.005

#### Where:

N = The nitrogen content of the fuel (percent by weight) determined in according with Condition 7,2.8(b).

#### ii. Standard for Sulfur Dioxide:

Pursuant to 40 CFR 60.333, on and after the date on which the performance test required to be conducted by 40 CFR 60.8 is completed, every owner or operator subject to the provision of 40 CFR 60 Subpart GG shall comply with one or the other of the following conditions:

No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine any gases which contain sulfur dioxide in excess of 0.015 percent by volume at 15 percent oxygen and on a dry basis, pursuant to 40 CFR 60.333(a).

No owner or operator subject to the provisions of this subpart shall burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 percent by weight (8000 ppmw), pursuant to 40 CFR 60.333(b).

- e. i. No owner or operator shall cause or allow the emissions of  $NO_x$  into the atmosphere from the affected turbine to exceed 0.25 lbs/mmBtu of actual heat input during each ozone control period from May 1 through September 30, based on a ozone control period average, for that unit [35 IAC 217.706(a)].
  - ii. Notwithstanding the above emission limitation of 35 IAC 217.706(a), the affected turbine subject to a more stringent NO<sub>x</sub> emission limitation pursuant to any State or federal statute, including the Act, the Clean Air Act, or any regulations promulgated thereunder, shall comply with both the requirements of 35 IAC 217 Subpart V and that more stringent emission limitation [35 IAC 217.706(b)].

#### f. Startup Provisions

Subject to the following terms and conditions, the Permittee is authorized to operate the affected turbines in violation of the applicable standards in Condition 7.2.3(b) and the hourly limits of Condition 7.2.6 during startup. This authorization is provided pursuant to 35 IAC 201.149, 201.261 and 201.262, as the Permittee has applied for such authorization in its application, generally describing the efforts that will be used "...to minimize startup emissions, duration of individual starts, and frequency of startups."

i. This authorization does not relieve the Permittee from the continuing obligation to demonstrate that all reasonable efforts are made to minimize startup emissions, duration of individual startups and frequency of startups.

- ii. The Permittee shall conduct startup of the each affected turbine(s) in accordance with written procedures prepared by the Permittee and maintained at the facility, in the control room for the each affected turbine(s), that are specifically developed to minimize emissions from startups and that include, at a minimum, the following measures:
  - A. The Permittee shall operate in accordance with the manufacturer's written operating and startup procedures or other written procedures developed and maintained by the source owner or operator so as to minimize the duration of startups and the emissions associated with startups. These procedures should allow for a pre-check of the unit and review of operating parameters of the unit during startup.
  - B. The Permittee shall maintain units in accordance with written procedures developed and maintained by the source owner or operator so as to minimize the duration of startups and the frequency of startups. These maintenance practices shall include maintenance activities before the unit is started up, when the unit is in operation, and when the unit is shut down.
- iii. The procedures described above shall be reviewed at least annually to make necessary adjustments and shall be made available to the Illinois EPA upon request.
- iv. The Permittee shall fulfill applicable recordkeeping and reporting requirements of Condition 7.2.9(k) and 7.2.10(c).
- v. As provided by 35 IAC 201.265, an authorization in a permit for excess emissions during startup does not shield a Permittee from enforcement for any violation of applicable emission standard(s) that occurs during startup and only constitutes a prima facie defense to such an enforcement action provided that the Permittee has fully complied with all terms and conditions connected with such authorization.
- g. Malfunction and Breakdown Provisions

Subject to the following terms and conditions, the Permittee is authorized to continue operation of an affected turbine in violation of the applicable standards in Condition 7.2.3(b) and the hourly emission limits in

Condition 7.2.6 in the event of a malfunction or breakdown of the affected turbines. This authorization is provided pursuant to 35 IAC 201.149, 201.261 and 201.262, as the Permittee has applied for such authorization in its application, generally explaining why such continued operation would be required to provide essential service or to prevent risk of injury to personnel or severe damage to equipment, and describing the measures that will be taken to minimize emissions from any malfunctions and breakdowns. This authorization supersedes the general prohibition in Condition 9.2.3 against continued operation in such circumstances.

- i. This authorization only allows such continued operation as necessary to provide essential service or prevent risk of injury to personnel or severe damage to equipment and does not extend to continued operation solely for the economic benefit of the Permittee.
- ii. Upon occurrence of excess emissions due to malfunction or breakdown, the Permittee shall as soon as practical repair the turbine, remove the affected turbine from service, or undertake other action so that excess emissions cease.
- iii. The Permittee shall fulfill the applicable recordkeeping and reporting requirements of Conditions 7.2.9(1) and 7.2.10(d). For these purposes, time shall be measured from the start of a particular incident. The absence of excess emissions for a short period shall not be considered to end the incident if excess emissions resume. In such circumstances, the incident shall be considered to continue until corrective actions are taken so that excess emissions cease or the Permittee takes the affected turbines out of service.
- iv. Following notification to the Illinois EPA of a malfunction or breakdown with excess emissions, the Permittee shall comply with all reasonable directives of the Illinois EPA with respect to such incident, pursuant to 35 IAC 201.263.
- v. This authorization does not relieve the Permittee from the continuing obligation to minimize excess emissions during malfunction or breakdown. As provided by 35 IAC 201.265, an authorization in a permit for continued operation with excess emissions during malfunction and breakdown does not shield the Permittee from enforcement for any such violation and only constitutes a prima facie defense to such an enforcement action provided that the Permittee has

fully complied with all terms and conditions connected with such authorization.

## 7.2.4 Non-Applicability of Regulations of Concern

a. The affected turbines are not subject to the New Source Performance Standards (NSPS) for Stationary Combustion Turbines, 40 CFR Part 60, Subpart KKKK, because the affected turbines did not commence construction, modification, or reconstruction after February 18, 2005 pursuant to 40 CFR 60.4305(a), and are therefore subject to 40 CFR Part 60, Subpart GG for Stationary Gas Turbines.

Note: To qualify for this non-applicability, the Permittee has certified that the turbines have not been modified or reconstructed after February 18, 2005.

- b. The affected turbines are not subject to the National Emissions Standards for Hazardous Air Pollutants for Stationary Combustion Turbines, 40 CFR Part 63, Subpart YYYY, because the affected turbines are not located at a major source of HAP emissions, pursuant to 40 CFR 63.6085.
- c. The affected turbines are not subject to 35 IAC 212.321 or 212.322, due to the unique nature of such units, a process weight rate cannot be set so that such rules cannot reasonably be applied, pursuant to 35 IAC 212.323.
- d. The affected turbines are not subject to 35 IAC 217.141 or 35 IAC 216.121 because the affected turbines are not fuel combustion units, as defined by 35 IAC 211.2470.
- e. The affected turbines are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources:
  - i. For  $NO_x$  and  $SO_2$ , because:
    - A. The affected turbines are subject to a NSPS proposed after November 15, 1990, pursuant to 40 CFR 64.2(b)(1)(i).
    - B. The affected turbines are subject to Acid Rain Program requirements, pursuant to 40 CFR 64.2(b)(1)(iii).
    - C. The affected turbines are subject to an emission limitation or standard for which this CAAPP permit specifies a continuous compliance determination method, pursuant to 40 CFR 64.2(b)(1)(vi).

- ii. For PM, VOM, and CO because the affected turbines do not use an add-on control device to achieve compliance with an emission limitation or standard.
- f. The affected turbines are not subject to 35 IAC 217 Subpart Q: Stationary Reciprocating Internal Combustion Engines And Turbines, because the affected turbines are not located at sources located in areas identified in 35 IAC 217.386(a)(2).

Note: 35 IAC 217.386(a)(2) requires that affected sources are located in either one of the following areas and that emit or have the potential to emit  $NO_x$  in an amount equal to or greater than 100 tons per year:

- The area composed of the Chicago area counties of Cook, DuPage, Kane, Lake, McHenry, and Will, the Townships of Aux Sable and Goose Lake in Grundy County, and the Township of Oswego in Kendall County; or
- ii. The area composed of the Metro East area counties of Jersey, Madison, Monroe, and St. Clair, and the Township of Baldwin in Randolph County.
- g. The affected turbines are not subject to the National Emission Standards for Hazardous Air Pollution (NESHAP) for Coal- and Oil-Fired Electric Utility Steam Generating Units, 40 CFR Part 63 Subpart UUUUU, because the turbines are not electric utility steam generating units by definition, pursuant to 40 CFR 63.10042.

#### 7.2.5 Control Requirements and Work Practices

- a. i. At all times, including periods of startup, shutdown, and malfunction, the source owner or operator shall, to the extent practicable, maintain and operate any affected turbine in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA or the USEPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source [40 CFR 60.11(d)].
  - ii. The source owner or operator shall operate the affected turbines in accordance with written operating procedures that shall include at a minimum the following measures:
    - A. Review of operating parameters of the unit during startup or shutdown as necessary for the

- proper operation of the affected turbine with appropriate adjustments to reduce emissions.
- B. Implementation of inspection and repair procedures for a affected turbine prior to attempting startup following repeated trips.
- iii. The source owner or operator shall maintain the affected turbines in accordance with written procedures that shall include at a minimum the following measures:
  - A. Unless specified on a more frequent basis by manufacturer's written instructions, a visual inspection of external emissions-related components shall be completed quarterly.
  - B. Repair and routine replacement of emissionsrelated components.
- iv. The above procedures may incorporate the manufacturer's written instruction for operation and maintenance of the affected turbines and associated control systems. The source owner or operator shall review these procedures every year and shall revise or enhance them if necessary to be consistent with good air pollution control practice based on the actual operating experience and performance of the source.
- b. Pursuant to Construction Permit #00090076, natural gas shall be the only fuel fired in the affected turbines [T1].
- c. Pursuant to Construction Permit #00090076, the affected turbines shall be equipped, operated, and maintained with dry low NO $_{\rm x}$  combustors to control NO $_{\rm x}$  emissions [T1].
- d. Except during startup or shutdown of an affected turbine or for the purpose of emission testing, the Permittee shall minimize operation of the affected turbines below 60 percent load and shall not operate turbines below such lower load at which emission testing has demonstrated compliance with the applicable hourly emission limits in Condition 7.2.6.

## 7.2.6 Production and Emission Limitations

In addition to Condition 5.3.2 and the source-wide emission limitations in Condition 5.6, the affected turbine are subject to the following:

a. Pursuant to Construction Permit #00090076, the affected turbine, in total, shall not fire more than 8,306 million

scf of natural gas per year (including 872 million scf of natural gas usage considering approximately 10% of the total turbine operating time less than 60% turbine load) [T1].

b. Pursuant to Construction Permit #00090076, hourly emissions from each affected turbine shall not exceed the following limits except during startup and shutdown. Unless an alternative factor is established for the pollutant or emissions monitoring is performed for the pollutant, emissions of  $NO_x$ , CO and VOM during an hour that includes a startup shall be presumed to be 125, 400 and 250 percent respectively of the below limits; and reduced load operation . Compliance with these limits shall be based on emission testing in accordance with the Construction Permit (#00090076) or Condition 7.2.7 of this permit or continuous emissions monitoring data (24-hour average) [T1].

Pollutant	(Lbs/Hour	
NO <sub>x</sub>	30.0	
CO	17.0	
SO <sub>2</sub>	1.0	
VOM	5.0	
PM	5.0	

c. Pursuant to Construction Permit #00090076, hourly emissions from each affected turbine shall not exceed the following limits when operated at or below 60% load [T1].

Pollutant	(Lbs/Hour)	
*		
CO	77.0	
VOM	23.0	

d. Pursuant to Construction Permit #00090076, total emissions from the affected turbine shall not exceed the following limits:

<u>Pollutant</u>	(Tons/Year)	
NO <sub>×</sub>	230.0	
CO	178.0	
SO <sub>2</sub>	8.0	
VOM	53.0	
PM	38.0	

- f. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].
- g. The above limitations were established in Permit 00090076, pursuant to PSD. These limits ensure that the construction and/or modification addressed in the aforementioned permit

does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for PSD [T1].

#### 7.2.7 Testing Requirements

- a. The nitrogen oxides  $(NO_x)$  emissions, and the oxygen  $(O_2)$  concentration and opacity of exhaust shall be measured for the affected turbines at the source owner or operator's expense by an independent testing service approved by the Illinois EPA as follows to determine compliance with applicable emission limits:
  - i. Within 120 days after a written request from the Illinois EPA, for such pollutants listed above as specified by the request.
  - ii. Any extension to these time periods that may be provided at its discretion by the Illinois EPA shall not alter the source owner or operator's obligation to perform emission testing for purposes of the NSPS in a timely manner as specified by 40 CFR 60.8.
- b. The following methods and procedures shall be used for testing of emissions:
  - i. The USEPA Reference Test Methods shall be used including the following:

Opacity Nitrogen Oxides USEPA Method 9 USEPA Method 20

ii. A. Pursuant to 40 CFR 60.335(b), the owner or operator shall determine compliance with the applicable nitrogen oxides emission limitation in 40 CFR 60.332 and shall meet the performance test requirements of 40 CFR 60.8 as follows:

For each run of the performance test, the mean nitrogen oxides emission concentration ( $NO_{Xo}$ ) corrected to 15 percent  $O_2$  shall be corrected to ISO standard conditions using the following equation. Notwithstanding this requirement, use of the ISO correction equation is optional for: Lean premix stationary combustion turbines; units used in association with heat recovery steam generators (HRSG) equipped with duct burners; and units equipped with add-on emission control devices, pursuant to 40 CFR 60.335(b)(1):

 $NO_x = (NO_{XO}) (P_r/P_o) 0.5 \text{ elg} (H_o-0.00633)$ (288°K/Ta)1.53

#### Where:

- ${
  m NO_x}$  = emission concentration of  ${
  m NO_x}$  at 15 percent  ${
  m O_2}$  and ISO standard ambient conditions, ppm by volume, dry basis
- $NO_{Xo}$  = mean observed  $NO_{X}$  concentration, ppm by volume, dry basis, at 15 percent  $O_2$
- $P_r$  = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg
- $P_{o}$  = observed combustor inlet absolute pressure at test, mm Hg
- $H_o$  = observed humidity of ambient air, g  $H_2$  O/g air
- e = transcendental constant, 2.718
- T<sub>a</sub> = ambient temperature, °K

The 3-run performance test required by 40 CFR 60.8 must be performed within  $\pm$  5 percent at 30, 50, 75, and 90-to-100 percent of peak load or at four evenly-spaced load points in the normal operating range of the gas turbine, including the minimum point in the operating range and 90-to-100 percent of peak load, or at. the highest achievable load point if 90-to-100 percent of peak load cannot be physically achieved in practice. If the turbine combusts both oil and gas as primary or backup fuels, separate performance testing is required for each fuel. Notwithstanding these requirements, performance testing is not required for any emergency fuel (as defined in 40 CFR 60.331), pursuant to 40 CFR 60.335(b)(2).

If water or steam injection is used to control  $\mathrm{NO}_x$  with no additional post-combustion  $\mathrm{NO}_x$  control and the owner or operator chooses to monitor the steam or water to fuel ratio in accordance with 40 CFR 60.334(a), then that monitoring system must be operated concurrently with each EPA Method 20, ASTM D6522-00 (incorporated by reference, see 40 CFR 60.17), or EPA Method 7E run and shall be used to determine the fuel consumption and the steam or water to fuel ratio necessary to comply with the applicable 40 CFR 60.332  $\mathrm{NO}_x$  emission limit, pursuant to 40 CFR 60.335(b)(4).

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If the owner or operator elects to install a CEMS, the performance evaluation of the CEMS may either be conducted separately (as described in paragraph (b) (7) of this section) or as part of the initial performance test of the affected unit, pursuant to 40 CFR 60.335 (b) (6).

Pursuant to 40 CFR 60.335(b)(7), if the owner or operator elects to install and certify a  $NO_x$  CEMS under 40 CFR 60.334(e), then the initial performance test required under 40 CFR 60.8 may be done in the following alternative manner:

Perform a minimum of 9 reference method runs, with a minimum time per run of 21 minutes, at a single load level, between 90 and 100 percent of peak (or the highest physically achievable) load, pursuant to 40 CFR 60.335(b)(7)(i).

Use the test data both to demonstrate compliance with the applicable  $NO_{\rm x}$  emission limit under 40 CFR 60.332 and to provide the required reference method data for the RATA of the CEMS described under 40 CFR 60.334(b) , pursuant to 40 CFR 60.335(b)(7)(ii).

The requirement to test at three additional load levels is waived, pursuant to 40 CFR 60.335(b)(7)(iii).

If the owner or operator elects under 40 CFR  $60.334\,(f)$  to monitor combustion parameters or parameters indicative of proper operation of  $NO_x$  emission controls, the appropriate parameters shall be continuously monitored and recorded during each run of the initial performance test, to establish acceptable operating ranges, for purposes of the parameter monitoring plan for the affected unit, as specified in 40 CFR  $60.334\,(g)$ , pursuant to 40 CFR  $60.335\,(b)\,(8)$ .

Pursuant to 40 CFR 60.335(b)(10), if the owner or operator is required under 40 CFR 60.334(i)(1) or (3) to periodically determine the sulfur content of the fuel combusted in the turbine, a minimum of three fuel samples shall be collected during the performance test. Analyze the samples for the total sulfur content of the fuel using:

For gaseous fuels, ASTM D1072-80, 90 (Reapproved 1994); D3246-81, 92, 96; D4468-85 (Reapproved 2000); or D6667-01 (all of which

are incorporated by reference, see 40 CFR 60.17). The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the prior approval of the Administrator, pursuant to 40 CFR 60.335(b)(10)(ii).

The fuel analyses required in 40 CFR 60.335 (b) (9) and 40 CFR 60.335 (b) (10) may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency, pursuant to 40 CFR 60.335(b) (11).

B. Pursuant to 40 CFR 60.335(c), the owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

Instead of using the equation in 40 CFR 60.335 (b)(1), manufacturers may develop ambient condition correction factors to adjust the nitrogen oxides emission level measured by the performance test as provided in 40 CFR 60.8 to ISO standard day conditions, pursuant to 40 CFR 60.335 (c)(1).

- c. At least 60 days prior to the actual date of testing, a written test plan shall be submitted to the Illinois EPA for review. This plan shall describe the specific procedures for testing and shall include as a minimum:
  - i. The person(s) who will be performing sampling and analysis and their experience with similar tests.
  - ii. The specific conditions under which testing shall be performed including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the turbine will be tracked and recorded.
  - iii. The specific determinations of emissions that are intended to be made, including sampling and monitoring locations; the test method(s) that will be used, with the specific analysis method, if the method can be used with different analysis methods. The source owner or operator may also propose a plan for testing across the normal operating range of the affected turbines.

- d. The Illinois EPA shall be notified prior to these tests to enable the Illinois EPA to observe these tests. Notification of the expected date of testing shall be submitted a minimum of thirty (30) days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of five (5) working days prior to the actual date of the test. The Illinois EPA may, at its discretion, accept notifications with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe the testing.
- e. The Final Report for these tests shall be submitted to the Illinois EPA within 60 days after the date of the tests. The Final Report shall include as a minimum:
  - i. A summary of results.
  - ii. General information.
  - iii. Description of test method(s), including description of sampling points, sampling train, analysis equipment and test schedule.
  - iv. Detailed description of test conditions, including:
    - A. Fuel consumption (standard ft<sup>3</sup>).
    - B. Firing rate (million Btu/hr).
    - C. Turbine/Generator output rate (MW).
  - v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.
- f. i. Upon written request by the Illinois EPA, the source owner or operator shall have the opacity of the exhaust from the affected turbine(s) tested during representative operating conditions as determined by a qualified observer in accordance with USEPA Test Method 9, as further specified below, pursuant to Section 39.5(7)(d) of the Act.
  - ii. Such testing shall be conducted for specific turbine(s) within 90 calendar days of the request, or on the date turbine(s) next operates, or on the date agreed upon by the Illinois EPA, whichever is later.
  - iii. The duration of opacity observations for each test shall be at least 30 minutes (five 6-minute averages) unless the average opacities for the first 12 minutes

- of observations (two six-minute averages) are both less than 10.0 percent.
- iv. The source owner or operator shall notify the Illinois EPA at least 7 days in advance of the date and time of these tests, in order to allow the Illinois EPA to witness testing. This notification shall include the name and employer of the qualified observer(s).
- v. The source owner or operator shall promptly notify the Illinois EPA of any changes in the time or date for testing.
- vi. The source owner or operator shall provide a copy of its observer's readings to the Illinois EPA at the time of testing, if Illinois EPA personnel are present.
- vii. The source owner or operator shall submit a written report for this testing within 30 days of the date of testing. This report shall include:
  - A. Date and time of testing.
  - B. Name and employer of qualified observer.
  - C. Copy of current certification.
  - D. Description of observation conditions.
  - E. Description of turbine operating conditions.
  - F. Raw data.
  - G. Opacity determinations.
  - H. Conclusions.

## 7.2.8 Monitoring Requirements

- a. i. If an affected turbine is routinely operated or exercised to confirm that the turbine will operate when needed, the operation and opacity of the affected turbine shall be formally observed by operating personnel for the affected turbine or a member of source owner or operator's environmental staff on a regular basis to assure that the affected turbine is operating properly, which observations shall be made at least every six months.
  - ii. If an affected turbine is not routinely operated or exercised, i.e., the time interval between operation of an affected turbine is typically greater than six

months, the operation and opacity of the affected turbine shall be formally observed as provided above each time the source owner or operator carries out a scheduled exercise of the affected turbine.

iii. The source owner or operator shall also conduct formal observations of operation and opacity of an affected turbine upon written request by the Illinois EPA. With the agreement of the Illinois EPA, the source owner or operator may schedule these observations to take place during periods when it would otherwise be operating the affected turbine.

Note: The formal observation required above is not intended to be a USEPA Test Method 9 opacity test, nor does the observation require a USEPA Test Method 9 certified observer. It is intended to be performed by personnel familiar with the operation of the affected turbine who would be able to make a determination based from the observed opacity as to whether or not the affected turbine was running properly, and subsequently initiate a corrective action if necessary.

b. The affected turbine shall comply with the applicable monitoring requirements of 40 CFR 60.334(h), below.

Monitoring of fuel nitrogen content shall not be required while the facility does not claim an allowance for fuel-bound nitrogen. Monitoring for sulfur content in fuel is not required while natural gas is the only fuel fired in the affected turbine and the requirements of 40 CFR 60.334(h)3(i) or (ii) are met.

Pursuant to 40 CFR 60.334(h), the owner or operator of any stationary gas turbine subject to the provisions of this subpart:

Shall monitor the total sulfur content of the fuel being fired in the turbine, except as provided in 40 CFR 60.334(h)(3). The sulfur content of the fuel must be determined using total sulfur methods described in 40 CFR 60.335(b)(10). Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than 0.4 weight percent (4000 ppmw), ASTM D4084-82, 94, D5504-01, D6228-98, or Gas Processors Association Standard 2377-86 (all of which are incorporated by reference-see 40 CFR 60.17), which measure the major sulfur compounds may be used, pursuant to 40 CFR 60.334(h)(1); and

Shall monitor the nitrogen content of the fuel combusted in the turbine, if the owner or operator claims an allowance for fuel bound nitrogen (i.e., if an F-value greater than zero is being or will be used by the owner or operator to calculate STD in 40 CFR 60.332). The nitrogen content of the fuel shall be determined using methods described in 40

CFR 60.335(b)(9) or an approved alternative, pursuant to 40 CFR 60.334(h)(2).

Pursuant to 40 CFR 60.334(h)(3), notwithstanding the provisions of 40 CFR 60.334(h)(1) of this section, the owner or operator may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in 40 CFR 60.331(u), regardless of whether an existing custom schedule approved by the administrator for subpart GG requires such monitoring. The owner or operator shall use one of the following sources of information to make the required demonstration:

The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less, pursuant to 40 CFR 60.334(3)(i); or

Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of this chapter is required, pursuant to 40 CFR  $60.334\,(h)\,(3)\,(ii)$ .

- c. i. The owner or operator of an affected turbine subject to 35 IAC 217 Subpart V (Condition 7.2.3(e)) shall install, calibrate, maintain and operate continuous emissions monitoring systems (CEMS) for NO<sub>x</sub> that meet the requirements of 40 CFR 75, Subpart B [35 IAC 217.710(a)].
  - ii. Notwithstanding 35 IAC 217.710(a) above, the owner or operator of a gas-fired peaking unit or oil-fired peaking unit as defined in 40 CFR 72.2 may determine  $NO_x$  emissions in accordance with the emissions estimation protocol of 40 CFR 75, Subpart E [35 IAC 217.710(b)].
  - iii. Notwithstanding 35 IAC 217.710(a) above, the owner or operator of a combustion turbine that operates less than 350 hour per ozone control period may determine the heat input and  $NO_x$  emissions of the turbine as follows [35 IAC 217.710(c)]:
    - A. Heat input shall be determined from the metered fuel usage to the turbine or the calculated heat input determined as the product of the turbine's maximum hourly heat input and hours of operation as recorded by operating instrumentation on the turbine [35 IAC 217.710(c)(1)].

- B.  $NO_x$  emissions shall be determined as the product of the heat input, as determined above, and the appropriate default  $NO_x$  emission factors below [35 IAC 217.710(c)(2)]:
  - 0.7 lbs/mmBtu Natural gas 1.2 lbs/mmBtu - Fuel oil
- d. i. The affected turbine shall be equipped, operated, and maintained with a continuous monitoring system to monitor and record the fuel consumption being fired.

#### 7.2.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the source owner or operator shall maintain records of the following items for the affected turbine(s) to demonstrate compliance with Conditions 5.6.1, 7.2.3, 7.2.5, and 7.2.6, pursuant to Section 39.5(7)(b) of the Act:

- .a. The owner or operator of an affected turbine subject to the requirements of 35 IAC 217 Subpart V (Condition 7.2.3(e)) shall:
  - i. Comply with the recordkeeping and reporting requirements of 40 CFR 75 applicable to  $NO_x$  emissions during the ozone control period, including, but not limited to, 40 CFR 75.54(b) and (d) [35 IAC 217.712(a)].
  - ii. Notwithstanding 35 IAC 217.712(a) above, the owner or operator of a combustion turbine for which heat input and  $NO_x$  emissions are determined pursuant to 35 IAC 217.710(c) (Condition 7.2.8(c)(iii)) shall comply with the following recordkeeping and reporting requirements [35 IAC 217.712(b)]:
    - A. Maintain records of the heat input and  $NO_x$  emissions of the turbine as determined in accordance with 35 IAC 217.710(c), and records of metered fuel use or operating hours used to determine heat input [35 IAC 217.712(b)(1)].
- b. The source owner or operator shall maintain records of the following items:
  - i. The sulfur content of the natural gas used to fire the turbines as determined in accordance with Condition 7.2.8(b).
  - A copy of the Final Report(s) for emission testing conducted pursuant to Condition 7.2.7.

- iii. Copies of opacity determinations taken for the source by qualified observer(s) using USEPA Method 9.
- iv. Records documenting its periodic review of its operating procedures as required by Condition 7.2.5(a).
- v. Information for the formal observations of opacity conducted pursuant to Condition 7.2.8(a). For each occasion on which observations are made, these records shall include the date, time, identity of the observer, a description of the various observations that were made, whether or not the affected engine was running properly, and whether or not corrective action is necessary and was subsequently initiated.
- c. A maintenance and repair log for the affected turbine, listing each activity performed with date.
- d. Fuel consumption for the affected turbine, scf/month and mmscf/year.
- e. Operating hours for the affected turbine, hours/month and hours/year.
- f. Heat content of the fuel being fired in the affected turbine.
- g. Emissions of each pollutant from the affected turbine, including emissions from startups, with supporting calculations including documentation on the validity of the emission factors used, tons/month and tons/year.
- h. The source owner or operator shall maintain records that identify:
  - Any periods during which a continuous monitoring system was not operational, with explanation.
  - ii. Reserved for Future Use
  - iii. Any day in which emission and/or opacity exceeded an applicable standard or limit.
- i. The source owner or operator shall keep records of good operating practices for each turbine.
- j. The source owner or operator shall maintain the following records related to each startup of the turbines [40 CFR 60.7(b) and 35 IAC 201.262]:
  - i. Date, time and duration of startup.

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- ii. A record of whether written operating procedures are followed or if significant problems occur during the startup, detailed explanation of the actions taken to minimize emissions.
- k. The following information for the turbines when above normal opacity has been observed by source personnel:
  - Name of observer, position and reason for being at site.
  - ii. Date and duration of above normal opacity, including affected turbine, start time and time normal operation was achieved.
  - iii. If normal operation was not achieved within 30 minutes, an explanation why startup could not be achieved within this time.
  - iv. A detailed description of the startup, including reason for operation.
  - v. An explanation why established startup procedures could not be performed, if not performed.
  - vi. The nature of opacity following the end of startup and duration of operation until achievement of normal opacity or shutdown.
  - vii. Whether an exceedance of Condition 7.2.3(b), i.e., 30 percent opacity, may have occurred during startup, with explanation if qualified observer was on site.
- 1. Records for Malfunctions and Breakdowns

The Permittee shall maintain records, pursuant to 35 IAC 201.263, of continued operation of an affected turbine subject to Condition 7.2.3(g) during malfunctions and breakdown, which as a minimum, shall include:

- i. Date and duration of malfunction or breakdown.
- A detailed explanation of the malfunction or breakdown.
- iii. An explanation why the affected turbine continued to operate in accordance with Condition 7.2.3(g).
- iv. The measures used to reduce the quantity of emissions and the duration of the event.  $\begin{tabular}{ll} \hline \end{tabular} .$
- v. The steps taken to prevent similar malfunctions or breakdowns or reduce their frequency and severity.

vi. The amount of release above typical emissions during malfunction/breakdown.

#### 7.2.10 Reporting Requirements

a. Reporting of Deviations

The source owner or operator shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected turbine with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- i. Emissions from the affected turbine in excess of the limits specified in Conditions 7.2.3 and 7.2.6 within 30 days of such occurrence.
- ii. Operation of the affected turbine in excess of the limits specified in Conditions 7.2.5 and 7.2.6 within 30 days of such occurrence.
- b. i. Annually report the heat input and NO<sub>x</sub> emissions of the turbine as determined in accordance with 35 IAC 217.710(c) (Condition 7.2.8(c)(iii)), for each ozone control period, by November 30 of each year [35 IAC 217.712(b)(2)].
  - ii. Pursuant to 35 IAC 217.712(c) and (d), no later than November 30 of each year, the source owner or operator shall submit a report to the Illinois EPA that demonstrates that the affected turbine has complied with Condition 7.2.3(e). These reports shall be accompanied by a certification statement signed by a responsible official for the source owner or operator as specified by 35 IAC 217.712(c).
- c. Reporting of Startups

In conjunction with the Annual Emission Report required by 35 IAC 254, the source owner or operator shall provide the operating hours for each affected turbine, the total number of startups for each affected turbine, and the total fuel consumption during the preceding calendar year.

d. Reporting of Malfunctions and Breakdowns

The Permittee shall provide the following notification and reports to the Illinois EPA, Air Compliance Unit and Regional Field Office, pursuant to 35 IAC 201.263, concerning continued operation of an affected turbine subject to Condition 7.2.3(g) during malfunction or breakdown:

- i. A. The Permittee shall notify the Illinois EPA's regional office by telephone, fax, or email as soon as possible during normal working hours, but no later than three (3) days, upon the occurrence of noncompliance due to malfunction or breakdown.
  - B. Upon achievement of compliance, the Permittee shall give a written follow-up notice within 15 days to the Illinois EPA, Air Compliance Unit and Regional Field Office, providing a detailed explanation of the event, an explanation why continued operation of the affected turbines was necessary, the length of time during which operation continued under such conditions, the measures taken by the Permittee to minimize and correct deficiencies with chronology, and when the repairs were completed or when the affected turbine was taken out of service.
  - C. If compliance is not achieved within 5 working days of the occurrence, the Permittee shall submit interim status reports to the Illinois EPA, Air Compliance Unit and Regional Field Office, within 5 days of the occurrence and every 14 days thereafter, until compliance is achieved. These interim reports shall provide a brief explanation of the nature of the malfunction or breakdown, corrective actions accomplished to date, actions anticipated to occur with schedule, and the expected date on which repairs will be complete or the affected turbine will be taken out of service.
- ii. In accordance with the due dates in Condition 8.6.1, the Permittee shall submit semi-annual malfunction and breakdown reports to the Illinois EPA pursuant to Sections 39.5(7)(a) and (f) of the Act. These reports may be submitted along with other semi-annual reports and shall include the following information for malfunctions and breakdowns of the affected turbine during the reporting period:
  - A. A listing of malfunctions and breakdowns, in chronological order, that includes:
    - The date, time, and duration of each incident.
    - II. The identity of the affected operation(s) involved in the incident.
  - B. Dates of the notices and reports of Conditions 7.2.10(d)(i).

- C. Any supplement information the Permittee wishes to provide to the notices and reports of Conditions 7.2.10(d)(i).
- D. The aggregate duration of all incidents during the reporting period.
- E. If there have been no such incidents during the reporting period, this shall be stated in the report.
- e. Pursuant to 40 CFR 60.7(c) and 40 CFR 60.334(j), a report shall be submitted on a semi-annual basis. This report shall contain information on excess emissions and monitoring system downtime reports in accordance with 40 CFR 60.7(c) and 40 CFR 60.334(j).
- 7.2.11 Operational Flexibility/Anticipated Operating Scenarios

  Operational flexibility is not set for the affected turbines.

## 7.2.12 Compliance Procedures

- a. Compliance with the PM emission limitations of Conditions 7.2.3(b) is addressed by the requirements of Condition 7.2.5, and the records required in Condition 7.2.9, and the reports required in Condition 7.2.10.
- b. Compliance with the  $SO_2$  emission limitations of Conditions 7.2.3(c) is addressed by the requirements of Condition 7.2.5, and the records required in Condition 7.2.9, and the reports required in Condition 7.2.10.
- c. i. Compliance with the  $NO_x$  emission limitations of Conditions 7.2.3(d)(i) is addressed by the requirements of Condition 7.2.5, the testing requirements of 7.2.7, the monitoring requirements of 7.2.8, and the records required in Condition 7.2.9, and the reports required in Condition 7.2.10(a).
  - ii. Compliance with the  $SO_2$  emission limitations of Conditions 7.2.3(d)(ii) is addressed by the requirements of Condition 7.2.5, the records required in Condition 7.2.9, and the reports required in Condition 7.2.10(a).
- d. i. Compliance with the  $NO_x$  emission limitations of Conditions 7.2.3(e) is addressed by the requirements of Condition 7.2.5, the testing requirements of 7.2.7, the monitoring requirements of 7.2.8, the records required in Condition 7.2.9, and the reports required in Condition 7.2.10(a).

- ii. Notwithstanding 35 IAC 217.710(a), Condition 7.2.8(d), the owner or operator of a gas-fired peaking unit or oil-fired peaking unit as defined in 40 CFR 72.2 may determine  $NO_x$  emissions in accordance with the emissions estimation protocol of 40 CFR 75, Subpart E [35 IAC 217.710(b)].
- iii. Notwithstanding 35 IAC 217.710(a), Condition 7.2.8(d), the owner or operator of a combustion turbine that operates less than 350 hour per ozone control period may determine the heat input and  $\rm NO_x$  emissions of the turbine as follows [35 IAC 217.710(c)]:
  - A. Heat input shall be determined from the metered fuel usage to the turbine or the calculated heat input determined as the product of the turbin's maximum hourly heat input and hours of operation as recorded by operating instrumentation on the turbine [35 IAC 217.710(c)(1)].
  - B.  $NO_x$  emissions shall be determined as the product of the heat input, as determined above, and the appropriate default  $NO_x$  emission factors below [35 IAC 217.710(c)(2)]:
    - 0.7 lbs/mmBtu Natural gas 1.2 lbs/mmBtu - Fuel oil
- e. i. Compliance with the fuel limits in Condition 7.2.6(a) is addressed by the records and reports required in Conditions 7.2.9 and 7.2.10.
  - ii. Compliance with the emission limits in Conditions 5.6 and 7.2.6 is addressed by the records and reports required in Conditions 7.2.9 and 7.2.10, continuous emission monitoring data (24-hour average) or from emission factors developed from the most recent approved stack test in accordance with Construction Permit 00090076, or Condition 7.2.7, standard emission factors and analysis of fuel sulfur content.

### 7.3 Reciprocating Engines (Start-Up Engines)

#### 7.3.1 Description

The engines are process emission units used to start the turbines described in Sections 7.1 and 7.2.

## 7.3.2 List of Emission Units and Air Pollution Control Equipment

Emission		Emission Control
Unit	Description	Equipment
D05	5.21 mmBtu/hr Diesel Start-	None
	up Engine	
D06	5.21 mmBtu/hr Diesel Start-	None
	up Engine	
D07	5.21 mmBtu/hr Diesel Start-	None
	up Engine	
D08	5.21 mmBtu/hr Diesel Start-	None
	up Engine	

## 7.3.3 Applicable Provisions and Regulations

- a. The "affected engines" for the purpose of these unitspecific conditions, are engines described in Conditions 7.3.1 and 7.3.2.
- b. Pursuant to 35 IAC 212.123,
  - No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit.
  - ii. The emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 1000 ft radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.
- c. i. Pursuant to 35 IAC 214.301, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to excess 2000 ppm.
- d. Pursuant to 40 CFR 63.6858, the Permittee is subject to 40 CFR 63 Subpart ZZZZ Stationary Reciprocating Internal

Combustion Engines as an owner or operate a stationary RICE at a major or area source of HAP emissions.

- For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006, pursuant to 40 CFR 63.6590(iii).
- ii. Pursuant to 40 CFR 63.6605(a), the Permittee must be in compliance with the emission limitations, operating limitations, and other requirements in this subpart that apply to you at all times.
- Pursuant to 40 CFR 63.6605(b), at all times the Permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

#### 7.3.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected engines not being subject to the requirements of 35 IAC 212.321 or 212.322, because due to the unique nature of these units, a process weight rate cannot be set so that such rules are not reasonably applied.
- b. The affected engines are not subject to 35 IAC 217.141, because the affected engines are not by definition a fuel combustion unit.
- c. The affected engines are not subject to 35 IAC 216.121, because the affected engines are not by definition a fuel combustion unit.
- d. The affected engines are not subject to the New Source Performance Standards (NSPS) for Compression Ignition Internal Combustion Engines, 40 CFR Part 60, Subpart IIII, because the Permittee did not commence construction (date that construction commences is the date the engine is ordered by the Permittee) of the affected engines after July 11, 2005.

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- Manufactured after April 1, 2006 and are not fire pump engines, pursuant to 40 CFR 60.4200(a)(2)(i).
- ii. Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006, pursuant to 40 CFR 60.4200(a)(2)(ii).

Note: To qualify for this non-applicability, the Permittee has certified that the diesel engines have not modified or reconstructed their diesel engines after July 11, 2005.

- e. Intentionally left blank.
- f. The affected engines (used as diesel generators) are not subject to the Acid Rain Program, 40 CFR 72, because the affected engines are non-utility units, as defined by 40 CFR 72.6(b)(8). Pursuant to 40 CFR 72.2, "utility unit" is defined as a unit owned or operated by a utility that serves a generator in any State that produces electricity for sale.
- g. i. The affected engines are not subject to 35 IAC 217 Subpart Q: Stationary Reciprocating Internal Combustion Engines And Turbines, because the affected engines are used as an emergency or standby unit as defined by 35 IAC 211.1920, pursuant to 35 IAC 217.386(b)(1).
- h. The affected engines are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected engines does not use an addon control device to achieve compliance with an emission limitation or standard.

### 7.3.5 Control Requirements and Work Practices

- a. The only fuel fired in the reciprocating engines shall be diesel or natural gas [T1].
- b. The Illinois EPA shall be allowed to sample all fuels stored at the source.
- c. The Permittee shall follow good operating practices for the affected engines, including periodic inspection, routine maintenance and prompt repair of defects.
- d. Pursuant to Construction Permit #00090076, total operation of the affected engines shall not exceed 1,460 hours per year [T1].
- e. Pursuant to 40 63.6603(a), if you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table

2d of 40 CFR 63 Subpart ZZZZ and the operating limitations in Table 2b of 40 CFR 63 Subpart ZZZZ that apply to you.

- i. Table 2b has no applicable requirements as the source consists of existing emergency stationary or black start RICE which are not subject to a emission limit. Option #2 is limited to existing CI stationary RICE >500 HP complying with the requirement to limit or reduce the concentration of CO in the stationary RICE exhaust and using an oxidation catalyst.
- ii. Table 2d has the following applicable requirements for emergency stationary CI RICE and black start stationary CI RICE<sup>2</sup> (option #4):
  - A. Change oil and filter every 500 hours of operation or annually, whichever comes first;<sup>1</sup>
  - B. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
  - C. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
    - Sources have the option to utilize an oil analysis program as described in 40 CFR 63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2d of 40 CFR 63 Subpart ZZZZ.
- iii. Pursuant to 40 63.6625(i), the Permittee, who owns or operates a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of Table 2c of 40 CFR 63 ZZZZ or in items 1 or 4 of Table 2d of 40 CFR 63 ZZZZ, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of 40 CFR 63 ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d of 40 CFR 63 ZZZZ. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or

operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

- f. Intentionally left blank.
- g. Pursuant 40 CFR 63.6625(e)(3), the Permittee, who owns and operates an existing emergency or black start stationary RICE located at an area source of HAP emissions, must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
- h. Pursuant 40 CFR 63.6625(h), the Permittee who owns and operates an existing stationary engine, must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

## 7.3.6 Production and Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected engines are subject to the following:

a. Hourly emissions from each affected engines shall not exceed the following limits:

<u>Pollutant</u>	(Lbs/Hour)
$NO_x$	16.48
CO	5.17
SO <sub>2</sub>	2.69
MOV	0.71

b. Total emissions from the affected engines shall not exceed the following limits:

<u>Pollutant</u>	(Tons/Year)
$NO_x$	12.03
co	3.77
SO <sub>2</sub>	1.96
· VOM	0.52

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

The above limitations were established in Permit 00090076, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

## 7.3.7 <u>Testing Requirements</u>

- a. i. Upon written request by the Illinois EPA, the Permittee shall have the opacity of the exhaust from the affected engine(s) tested during representative operating conditions as determined by a qualified observer in accordance with USEPA Test Method 9, as further specified below, pursuant to Section 39.5(7)(d) of the Act.
  - ii. Such testing shall be conducted for specific diesel engine(s) within 70 calendar days of the request, or on the date diesel engine(s) next operates, or on the date agreed upon by the Illinois EPA, whichever is later.
  - iii. The duration of opacity observations for each test shall be at least 30 minutes (five 6-minute averages) unless the average opacities for the first 12 minutes of observations (two six-minute averages) are both less than 10.0 percent.
  - iv. The Permittee shall notify the Illinois EPA at least 7 days in advance of the date and time of these tests, in order to allow the Illinois EPA to witness testing. This notification shall include the name and employer of the qualified observer(s).
  - v. The Permittee shall promptly notify the Illinois EPA of any changes in the time or date for testing.

- vi. The Permittee shall provide a copy of its observer's readings to the Illinois EPA at the time of testing, if Illinois EPA personnel are present.
- vii. The Permittee shall submit a written report for this testing within 15 days of the date of testing. This report shall include:
  - A. Date and time of testing.
  - B. Name and employer of qualified observer.
  - C. Copy of current certification.
  - D. Description of observation conditions.
  - E. Description of diesel engine operating conditions.
  - F. Raw data.
  - G. Opacity determinations.
  - H. Conclusions.
- b. i. In the event that the fuel oil supplier is unable to provide the sulfur content of the fuel oil supply for the affected engines, the Permittee shall have the sulfur content of the oil supply to the affected engines, in lbs/mmBtu, determined from an analysis of representative sample of the oil supply, as follows, pursuant to Section 39.5(7)(d) of the Act:
  - A. From a sample taken no later than 90 days after first operating the affected engines pursuant to this permit, provided, however, that if such sample is taken following operation of the affected engines, the sample shall be taken prior to adding more oil to the storage tank.
  - B. From a sample taken no later than 30 days after acceptance of a shipment of fuel whose sulfur content would not meet Condition 7.3.3(c) based upon supplier data, provided however, that if the affected engines are operated following acceptance of such a shipment, the sample shall be taken prior to adding a subsequent shipment of oil to the relevant storage tank.
  - C. From a sample taken no later than 30 days after a request for such a sample is made by the Illinois EPA, provided, however, that such sample shall be taken prior to adding more oil to the relevant storage tank.

ii. Sampling and analysis, including that which forms the basis for the suppliers' data, shall be conducted using methods that would be acceptable under the federal New Source Performance Standards for Stationary Gas Turbines, 40 CFR 60.335(b)(2) and (c) or the federal Acid Rain Program, 40 CFR 75, Appendix D, Optional SO<sub>2</sub> Emissions Data Protocol for Gas-Fired and Oil-Fired Units e.g., ASTM D4057-88 and ASTM D129-91.

Note: Condition 7.3.7(b) (ii) is for fuel testing methodology only, and is in no way intended to subject the source to those provisions.

#### 7.3.8 Monitoring Requirements

- a. i. If an affected engine is routinely operated or exercised to confirm that the affected engine will operate when needed, the operation and opacity of the affected engine shall be formally observed by operating personnel for the affected engine or a member of Permittee's environmental staff on a regular basis to assure that the affected engine is operating properly, which observations shall be made at least every six months.
  - ii. If an affected engine is not routinely operated or exercised, i.e., the time interval between operation of an affected engine is typically greater than six months, the operation and opacity of the affected engine shall be formally observed as provided above each time the Permittee carries out a scheduled exercise of the affected engine.
  - iii. The Permittee shall also conduct formal observations of operation and opacity of an affected engine upon written request by the Illinois EPA. With the agreement of the Illinois EPA, the Permittee may schedule these observations to take place during periods when it would otherwise be operating the affected engine.

Note: The "formal observation" required above is not intended to be a USEPA Test Method 9 opacity test, nor does the observation require a USEPA Test Method 9 certified observer. It is intended to be performed by personnel familiar with the operation of the affected engines who would be able to make a determination based from the observed opacity as to whether of not the affected engine was running properly, and subsequently initiate a corrective action if necessary.

b. Pursuant to 40 CFR 63.6625(f), the Permittee, who owns and operates an existing emergency stationary RICE located at an area source of HAP emissions, must install a nonresettable hour meter if one is not already installed.

#### 7.3.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for each affected engine to demonstrate compliance with Conditions 5.6.1 and 7.3.3, pursuant to Section 39.5(7)(b) of the Act:

- a. i. An operating log for each affected engine, which shall include the following information:
  - A. Information for each time the affected engine is operated, with date, time, duration, and purpose (i.e., turbine startup or readiness testing). Monthly and annual records of hours of operation of each engine and total hours of operation.
  - B. Information for the observations conducted pursuant to Condition 7.3.8(a) or 7.3.7(a), with date, time, personnel, and findings.
    - I. The Permittee shall keep records for all opacity measurements made in accordance with USEPA Method 9 for an affected engine that it conducts or that are conducted on its behalf by individuals who are qualified to make such observations for Condition 7.3.7(a). For each occasion on which such observations are made, these records shall include the identity of the observer, a description of the various observations that were made, the observed opacity, and copies of the raw data sheets for the observations.
    - II. The Permittee shall keep records for all formal observations of opacity conducted pursuant to Condition 7.3.8(a). For each occasion on which observations are made, these records shall include the date, time, identity of the observer, a description of the various observations that were made, whether or not the affected engine was running properly, and whether or not corrective action is necessary and was subsequently initiated.
  - C. Information identifying any deviation from Condition 7.3.5(b).

- ii. A maintenance and repair log for each affected engine and associated equipment, listing activities performed with date.
- iii. The Permittee shall keep records of good operating practices for each affected engine, as defined in Condition 7.3.5(c).
- b. Fuel usage for the affected engines:
  - i. Total annual usage of fuel oil for the affected engines in gallons/year.
- c. The following records related to the sulfur content of the oil fuel supply and  $SO_2$  emissions of the affected engines:
  - i. Records for each shipment of fuel for the affected engines, including date, supplier, quantity (in gallons), sulfur content, and whether the  $SO_2$  emissions from the burning of such fuel would meet the standard in Condition 7.3.3(c).
  - ii. The Permittee shall maintain records of the sulfur content of the fuel oil supply to the affected engines, based on the weighted average of material in the storage tank, or the sulfur content of the supply shall be assumed to be the highest sulfur content in any shipment in the tank.
- d. Emissions from each affected engine (i.e.,  $NO_x$ , CO,  $SO_2$ , VOM, and PM) in tons/month and tons/year with supporting calculations and data as required by Condition 7.3.9.
- e. Pursuant to 40 CFR 63.6655(d), the Permittee must keep the records required in Table 6 of 40 CFR 63 Subpart ZZZZ to show continuous compliance with each emission or operating limitation that applies to you.
  - i. Table 6 has the following applicable requirements when complying with the requirement for Work or Management practices for existing emergency and black start stationary RICE located at an area source of HAP (option #9):
    - A. Operating and maintaining the stationary RICE according to the manufacturer's emissionrelated operation and maintenance instructions; or
    - B. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine

in a manner consistent with good air pollution control practice for minimizing emissions

f. Pursuant to 40 CFR 63.6655(e), the Permittee must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE.

## 7.3.10 Reporting Requirements

a. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of an affected engines with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- i. Emissions of opacity,  $SO_2$ , from the affected engines in excess of the limits specified in Conditions 7.3.3 within 30 days of such occurrence.
- ii. Operation of the affected engines in noncompliance with the requirements specified in Condition 7.3.5 within 30 days of such occurrence.
- iii. Operation of the affected engines in excess of the limits specified in Condition 7.3.6 within 30 days of such occurrence.
- b. Pursuant to 40 CFR 63.6654(a)(2), the Permittee must submit all of the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate an existing stationary RICE located at an area source of HAP emissions.
  - i. Pursuant to 40 CFR 63.6654(a)(5), 40 CFR 63.6654(a)(2) does not apply if you own or operate an existing stationary emergency RICE.
- c. The Permittee shall submit reports for 40 CFR 63 ZZZZ in accordance with the requirements of 40 CFR 63.6650.

## 7.3.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected engines.

#### 7.3.12 Compliance Procedures

- a. Compliance with the PM emission limitations of Conditions 7.3.3(b) is addressed by the requirements of Condition 7.3.5(a), the testing requirements in Condition 7.3.7(a), the monitoring requirements of Condition 7.3.8(a), the records required in Condition 7.3.9(a), and the reports required in Condition 7.3.10(a).
- b. i. Compliance with the  $SO_2$  emission limitation of Condition 7.3.3(c)(i) is addressed by the requirements of Condition 7.3.5, the testing requirements in Condition 7.3.7(b), and the records and reports required in Conditions 7.3.9(b) and (c) and 7.3.10(a).
  - ii. For this purpose, complete conversion of sulfur into  $SO_2$  shall be assumed, e.g.,  $SO_2$  emissions in lb/mmBtu are twice the sulfur content of the fuel supply, in lb/mmBtu, using the following equation:

 $SO_2$  ppm = Fuel sulfur content (lb/mmBtu) x 2 x 1/64 x 385.2 x 1,000,000 Engine exhaust rate factor (scf/mmBtu)

Note: Stoichiometric combustion of distillate oil with the maximum available sulfur content, i.e., 1.0 percent, would result in an SO\_2 concentration in the exhaust that is well below the 2000 ppm limit in Condition 7.3.3(c)(i), i.e., only about 500 ppm, based on 10,320 scf/mmBtu, the F-factor for oil in USEPA's Reference Method 19.

- c. Compliance with the emission limits in Conditions 7.3.6 are addressed by the records and reports required in Conditions 7.3.9 and 7.3.10 and the emission factors and formulas listed below if suitable manufacture's emission rate data is not available:
  - i. Emission factors for the affected engines greater than 600 horsepower:

	Emission Factors	
Pollutant	(lb/mmBtu)	(lb/hp-hr)
	Fuel Input	Power Output
VOM .	0.35	$2.46 \times 10^{-03}$
PM	0.31	$2.20 \times 10^{-03}$
SO <sub>2</sub>	0.29	$2.05 \times 10^{-03}$
NO <sub>x</sub>	4.41	0.031
CO	0.95	$6.68 \times 10^{-03}$

The heat content of distillate fuel oil shall be assumed to be 137,030 Btu/gal as per AP-42.

Emissions = Distillate Fuel Oil Usage x Heat Content of Fuel Oil x Emission Factor

The emission factors are for Large Stationary Diesel And All Stationary Dual-fuel Engines from AP-42 Section 3.4 (dated 10/96).

#### 7.4 Natural Gas Fired Heaters

#### 7.4.1 Description

Two 3.71 mmBtu/hr natural gas fired heaters. The heaters are used for indirect heat.

Note: This narrative description is for informational purposes only and is not enforceable.

#### 7.4.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
IH-1	3.71 mmBtu/hr Natural Gas Fired Heater	Feb 2001	None
IH-2	3.71 mmBtu/hr Natural Gas Fired Heater	Feb 2001	None

#### 7.4.3 Applicable Provisions and Regulations

- a. The "affected heater" for the purpose of these unitspecific conditions, is the heater described in Conditions 7.4.1 and 7.4.2.
- b. Pursuant to 35 IAC 212.123,
  - i. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit.
  - ii. The emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 1000 ft radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.

## 7.4.4 Non-Applicability of Regulations of Concern

a. The affected heater is not subject to the NSPS for Small Industrial-Commercial Institutional Steam Generating Units, 40 CFR 60 Subparts Dc, because the heaters have a maximum

- design heat input capacity of less than 10 million Btu/hr, pursuant to 40 CFR 60.40c.
- b. The affected heaters are not subject to the National Emission Standards for Hazardous Air Pollution (NESHAP) for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR Part 63 Subpart DDDDD, because the affected heaters are not industrial, commercial, or institutional boilers or process heaters as defined in 40 CFR 63.7575 that are located at, or is part of, a major source of HAP, pursuant to 40 CFR 63.7485.
- c. The affected heaters are not subject to the National Emission Standards for Hazardous Air Pollution (NESHAP) for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR Part 63 Subpart JJJJJJ, because the affected heaters are excluded from the definition of boiler as defined in 40 CFR 63.11237, and are therefore not an affected source pursuant to 40 CFR 63.11194(a).
- d. The affected heaters are not subject to 35 IAC 212.321 or 212.322, due to the unique nature of such units, a process weight rate cannot be set so that such rules cannot reasonably be applied, pursuant to 35 IAC 212.323.
- e. The affected heaters are not subject to 35 IAC 35 IAC 215.301 and 302, Use of Organic Material, because pursuant to 35 IAC 215.303, the provisions of 35 IAC 215.301 and 35 IAC 215.302 shall not apply to fuel combustion emission units [35 IAC 215.303].
- f. The affected heaters are not subject to 35 IAC 216.121, because the affected heaters do not have an actual heat input equal to or greater than 10 mmBtu/hr.
- g. i. The affected heaters are not subject to 35 IAC 217.121, because the affected heaters do not have an actual heat input equal to or greater than 250 mmBtu/hr.
  - ii. The affected heaters are not subject to 35 IAC 217.454, because the affected heaters do not have a maximum design heat input greater than 250 mmBtu/hr.
  - iii. The affected heaters are not subject to 35 IAC 217 Subpart F: Process Heaters, because the affected heaters are not located in areas identified in pursuant to 35 IAC 217.150, pursuant to 35 IAC 217.180 and 35 IAC 217.150.

Note: 35 IAC 217.150(a)(1)(A) requires that affected sources are located in either one of the following areas and that emit or have the potential to emit  $NO_x$  in an amount equal to or greater than 100 tons per year:

- i. The area composed of the Chicago area counties of Cook, DuPage, Kane, Lake, McHenry, and Will, the Townships of Aux Sable and Goose Lake in Grundy County, and the Township of Oswego in Kendall County; or
- ii. The area composed of the Metro East area counties of Jersey, Madison, Monroe, and St. Clair, and the Township of Baldwin in Randolph County.
- h. The affected heaters are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources:
  - i. For  $NO_x$ , PM, VOM, CO, and  $SO_2$  because the affected heater does not use an add-on control device to achieve compliance with an emission limitation or standard.
- i. The affected heater is not subject to the Acid Rain Program, 40 CFR 72, because the affected heater is a non-utility unit, as defined by 40 CFR 72.6(b)(8). Pursuant to 40 CFR 72.2, "utility unit" is defined as a unit owned or operated by a utility that serves a generator in any State that produces electricity for sale.

## 7.4.5 Control Requirements and Work Practices

- a. At all times, the Permittee shall maintain and operate the heaters in a manner consistent with good air pollution control practice for minimizing emissions.
- b. The heaters shall only be fired with natural gas.

#### 7.4.6 Production and Emission Limitations

Production and emission limitations are not set for the affected heaters. However, there are source-wide production and emission limitations set forth in Condition 5.6.

#### 7.4.7 Testing Requirements

- a. i. Upon written request by the Illinois EPA, the Permittee shall have the opacity of the exhaust from the affected heater(s) tested during representative operating conditions as determined by a qualified observer in accordance with USEPA Test Method 9, as further specified below, pursuant to Section 39.5(7)(d) of the Act.
  - ii. Such testing shall be conducted for specific heaters(s) within 70 calendar days of the request, or

- on the date heaters(s) next operates, or on the date agreed upon by the Illinois EPA, whichever is later.
- iii. The duration of opacity observations for each test shall be at least 30 minutes (five 6-minute averages) unless the average opacities for the first 12 minutes of observations (two six-minute averages) are both less than 10.0 percent.
- iv. The Permittee shall notify the Illinois EPA at least 7 days in advance of the date and time of these tests, in order to allow the Illinois EPA to witness testing. This notification shall include the name and employer of the qualified observer(s).
- v. The Permittee shall promptly notify the Illinois EPA of any changes in the time or date for testing.
- vi. The Permittee shall provide a copy of its observer's readings to the Illinois EPA at the time of testing, if Illinois EPA personnel are present.
- vii. The Permittee shall submit a written report for this testing within 15 days of the date of testing. This report shall include:
  - A. Date and time of testing.
  - B. Name and employer of qualified observer.
  - C. Copy of current certification.
  - D. Description of observation conditions.
  - E. Description of heater operating conditions.
  - F. Raw data.
  - G. Opacity determinations.
  - H. Conclusions.

## 7.4.8 Monitoring Requirements

a. i. If an affected heater is routinely operated or exercised to confirm that the affected will operate when needed, the operation and opacity of the affected heater shall be formally observed by operating personnel for the affected heater or a member of Permittee's environmental staff on a regular basis to assure that the affected heater is operating properly, which observations shall be made at least every six months.

- ii. If an affected heater is not routinely operated or exercised, i.e., the time interval between operation of an affected heater is typically greater than six months, the operation and opacity of the affected heater shall be formally observed as provided above each time the Permittee carries out a scheduled exercise of the affected heater.
- iii. The Permittee shall also conduct formal observations of operation and opacity of an affected heater upon written request by the Illinois EPA. With the agreement of the Illinois EPA, the Permittee may schedule these observations to take place during periods when it would otherwise be operating the affected heater.

Note: The "formally observation" required above is not intended to be a USEPA Test Method 9 opacity test, nor does the observation require a USEPA Test Method 9 certified observer. It is intended to be performed by personnel familiar with the operation of the affected heater who would be able to make a determination based from the observed opacity as to whether or not the affected heater was running properly, and subsequently initiate a corrective action if necessary.

## 7.4.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected heater to demonstrate compliance with Conditions 5.6.1, 7.4.3, pursuant to Section 39.5(7)(b) of the Act:

- a. A maintenance and repair log for the affected heater, listing activities performed with date.
- b. The sulfur content of the fuel fired in the affected heater.
- c. Heat content of the fuel being fired in the affected heater.
- d. Fuel consumption for the affected heater, scf/month and scf/year.
- e. Operating hours for the affected heater, hr/month and hr/year.
- f. Emissions of each pollutant from the affected heater, including emissions from startups, with supporting calculations including documentation on the validity of the emission factors used, ton/month and ton/yr.
- g. The Permittee shall maintain the following if required:

- Any day in which emission and/or opacity exceeded an applicable standard or limit.
- h. The design heat input of the affected heater.

## 7.4.10 Reporting Requirements

a. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected heater with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- i. Emissions from the affected heater in excess of the limits specified in Conditions 7.4.3 within 30 days of such occurrence.
- ii. Operation of the affected heater in excess of the limits specified in Condition 7.4.5 within 30 days of such occurrence.

#### 7.4.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected heater.

#### 7.4.12 Compliance Procedures

- a. Compliance with the PM emission limitations of Conditions 7.4.3(b) is addressed by the requirements of Condition 7.4.5(a), the testing requirements in Condition 7.4.7(a), the monitoring requirements of Condition 7.4.8(a), the records required in Condition 7.4.9, and the reports required in Condition 7.4.10.
- b. Compliance with the emission limits in Conditions 5.6 are addressed by the records and reports required in Conditions 7.4.9 and 7.4.10 and the emission factors and formulas listed below if suitable manufacture's emission rate data or Illinois EPA approved stack test data is not available:
  - i. Emission factors for natural gas combustion for the affected heaters up to 100 mmBtu/hr heat input:

	Emission Factors	
		Low NO <sub>x</sub> Burner
	Uncontrolled	Controlled
	Fuel Input	Fuel Input
Pollutant	(lb/mmscf)	(lb/mmscf)
VOM	5.5	5.5

#### Emission Factors

	Diminositor Luctors	
	Uncontrolled Fuel Input	Low NO <sub>x</sub> Burner · Controlled Fuel Input
Pollutant	(lb/mmscf)	(lb/mmscf)
РМ	7.6	7.6
SO <sub>2</sub>	0.6	0.6
NO <sub>*</sub>	100	50
CO	84	84

Emissions = Natural Gas Usage x Emission Factor

The emission factors are for Natural Gas Combustion from AP-42 Section 1.4 (dated 07/98). .

#### 8.0 GENERAL PERMIT CONDITIONS

#### 8.1 Permit Shield

Pursuant to Section 39.5(7)(j) of the Act, the Permittee has requested and has been granted a permit shield. This permit shield provides that compliance with the conditions of this permit shall be deemed compliance with applicable requirements which were applicable as of the date the proposed permit for this source was issued, provided that either the applicable requirements are specifically identified within this permit, or the Illinois EPA, in acting on this permit application, has determined that other requirements specifically identified are not applicable to this source and this determination (or a concise summary thereof) is included in this permit.

This permit shield does not extend to applicable requirements which are promulgated after October 8, 2014(the date of issuance of the proposed permit) unless this permit has been modified to reflect such new requirements.

## 8.2 Applicability of Title IV Requirements (Acid Deposition Control)

This source is an affected source under Title IV of the CAA and is subject to requirements pursuant to Title IV of the CAA as specified in Section 6.2. To the extent that the federal regulations promulgated under Title IV of the CAA, are inconsistent with the requirements of this permit, the federal regulations promulgated under Title IV of the CAA shall take precedence pursuant to Section 39.5(17)(j) of the Act.

## 8.3 Emissions Trading Programs

No permit revision shall be required for increases in emissions allowed under any USEPA approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for elsewhere in this permit and that are authorized by the applicable requirement [Section 39.5(7)(o)(vii) of the Act].

#### 8.4 Operational Flexibility/Anticipated Operating Scenarios

## 8:4.1 Changes Specifically Addressed by Permit

Physical or operational changes specifically addressed by the Conditions of this permit that have been identified as not requiring Illinois EPA notification may be implemented without prior notice to the Illinois EPA.

## 8.4.2 Changes Requiring Prior Notification

The Permittee is authorized to make physical or operational changes that contravene express permit terms without applying for or obtaining an amendment to this permit, provided that [Section 39.5(12)(a)(i) of the Act]:

a. The changes do not violate applicable requirements;

- b. The changes do not contravene federally enforceable permit terms or conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements;
- The changes do not constitute a modification under Title I
   of the CAA;
- d. Emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change; and
- e. The Permittee provides written notice to the Illinois EPA, Division of Air Pollution Control, Permit Section, at least 7 days before commencement of the change. This notice shall:
  - i. Describe the physical or operational change;
  - ii. Identify the schedule for implementing the physical or operational change;
  - iii. Provide a statement of whether or not any New Source Performance Standard (NSPS) is applicable to the physical or operational change and the reason why the NSPS does or does not apply;
  - iv. Provide emission calculations which demonstrate that the physical or operational change will not result in a modification; and
  - v. Provide a certification that the physical or operational change will not result in emissions greater than authorized under the Conditions of this permit.

#### 8.5 <u>Testing Procedures</u>

Tests conducted to measure composition of materials, efficiency of pollution control devices, emissions from process or control equipment, or other parameters shall be conducted using standard test methods if applicable test methods are not specified by the applicable regulations or otherwise identified in the conditions of this permit. Documentation of the test date, conditions, methodologies, calculations, and test results shall be retained pursuant to the recordkeeping procedures of this permit. Reports of any tests conducted as required by this permit or as the result of a request by the Illinois EPA shall be submitted as specified in Conditions 8.6.3 and 8.6.4.

## 8.6 Reporting Requirements

#### 8.6.1 Monitoring Reports

Reports summarizing required monitoring as specified in the conditions of this permit shall be submitted to the Illinois EPA every six months as follows, unless more frequent submittal of such reports is required in Sections 5 or 7 of this permit [Section 39.5(7)(f) of the Act]:

## Monitoring Period

Report Due Date

January - June

September 1

July - December

March 1

All instances of deviations from permit requirements must be clearly identified in such reports. All such reports shall be certified in accordance with Condition 9.9.

#### 8.6.2 Test Notifications

Unless otherwise specified elsewhere in this permit, a written test plan for any test required by this permit shall be submitted to the Illinois EPA for review at least 60 days prior to the testing pursuant to Section 39.5(7)(a) of the Act. The notification shall include at a minimum:

- a. The name and identification of the affected unit(s);
- b. The person(s) who will be performing sampling and analysis and their experience with similar tests;
- c. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined;
- d. The specific determinations of emissions and operation that are intended to be made, including sampling and monitoring locations;
- e. The test method(s) that will be used, with the specific analysis method, if the method can be used with different analysis methods;
- f. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification; and
- g. Any proposed use of an alternative test method, with detailed justification.

#### 8.6.3 Test Reports

Unless otherwise specified elsewhere in this permit, the results of any test required by this permit shall be submitted to the Illinois EPA within 60 days of completion of the testing. The test report shall include at a minimum [Section 39.5(7)(e)(i) of the Act]:

- a. The name and identification of the affected unit(s);
- b. The date and time of the sampling or measurements;
- c. The date any analyses were performed;
- d. The name of the company that performed the tests and/or analyses;
- e. . The test and analytical methodologies used;
- f. The results of the tests including raw data, and/or analyses including sample calculations;
- g. The operating conditions at the time of the sampling or measurements; and
- h. The name of any relevant observers present including the testing company's representatives, any Illinois EPA or USEPA representatives, and the representatives of the source.

#### 8.6.4 Reporting Addresses

- a. Unless otherwise specified in the particular provision of this permit or in the written instructions distributed by the Illinois EPA for particular reports, reports and notifications shall be sent to the Illinois EPA Air Compliance Unit with a copy sent to the Illinois EPA Air Regional Field Office.
- b. As of the date of issuance of this permit, the addresses of the offices that should generally be utilized for the submittal of reports and notifications are as follows:
  - i. Illinois EPA Air Compliance Unit

Illinois Environmental Protection Agency Bureau of Air Compliance & Enforcement Section (MC 40) P.O. Box 19276 Springfield, Illinois 62794-9276

Phone No.: 217/782-2113

ii. Illinois EPA - Air Quality Planning Section

Illinois Environmental Protection Agency Bureau of Air Air Quality Planning Section (MC 39) P.O. Box 19276 Springfield, Illinois 62794-9276

Phone No.: 217/782-2113

iii. Illinois EPA - Air Regional Field Office

Illinois Environmental Protection Agency Division of Air Pollution Control 2009 Mall Street Collinsville, Illinois 62234

Phone No.: 618/346-5120

iv. USEPA Region 5 - Air Branch

USEPA (AR - 17J) Air & Radiation Division 77 West Jackson Boulevard Chicago, Illinois 60604

Phone No.: 312/353-2000

c. Permit applications should be addressed to the Air Permit Section. As of the date of issuance of this permit, the address of the Air Permit Section is as follows:

> Illinois Environmental Protection Agency Division of Air Pollution Control Permit Section (MC 11) P.O. Box 19506 Springfield, Illinois 62794-9506

Phone No.: 217/785-1705

## 8.7 <u>Title I Conditions</u>

Notwithstanding the expiration date on the first page of this CAAPP permit, Title I conditions in this permit, which are identified by a T1, T1N, or T1R designation, remain in effect until such time as the Illinois EPA takes action to revise or terminate them in accordance with applicable procedures for action on Title I conditions. This is because these conditions either: (a) incorporate conditions of earlier permits that were issued by the Illinois EPA pursuant to authority that includes authority found in Title I of the CAA (T1 conditions), (b) were newly established in this CAAPP permits pursuant to authority that includes such Title I authority (T1N conditions), or (c) reflect a revision or combination of conditions established in this CAAPP permit (T1R conditions). (See also Condition 1.5.)

#### 9.0 STANDARD PERMIT CONDITIONS

#### 9.1 Effect of Permit

- 9.1.1 The issuance of this permit does not release the Permittee from compliance with State and Federal regulations which are part of the Illinois State Implementation Plan, as well as with other applicable statutes and regulations of the United States or the State of Illinois or applicable ordinances, except as specifically stated in this permit and as allowed by law and rule.
- 9.1.2 In particular, this permit does not alter or affect the following [Section 39.5(7)(j)(iv) of the Act]:
  - a. The provisions of Section 303 (emergency powers) of the CAA, including USEPA's authority under that Section;
  - b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
  - c. The applicable requirements of the acid rain program consistent with Section 408(a) of the CAA; and
  - d. The ability of USEPA to obtain information from a source pursuant to Section 114 (inspections, monitoring, and entry) of the CAA.
- 9.1.3 Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, pursuant to Section 39.5(7)(j) and (p) of the Act, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

#### 9.2 General Obligations of Permittee

## 9.2.1 Duty to Comply

The Permittee must comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the CAA and the Act, and is grounds for any or all of the following: enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application [Section 39.5(7)(o)(i) of the Act].

The Permittee shall meet applicable requirements that become effective during the permit term in a timely manner unless an alternate schedule for compliance with the applicable requirement is established.

#### 9.2.2 Duty to Maintain Equipment

The Permittee shall maintain all equipment covered under this permit in such a manner that the performance or operation of such equipment shall not cause a violation of applicable requirements.

#### 9.2.3 Duty to Cease Operation

No person shall cause, threaten or allow the continued operation of any emission unit during malfunction or breakdown of the emission unit or related air pollution control equipment if such operation would cause a violation of an applicable emission standard, regulatory requirement, ambient air quality standard or permit limitation unless this permit provides for such continued operation consistent with the Act and applicable Illinois Pollution Control Board regulations [Section 39.5(6)(c) of the Act].

#### 9.2.4 Disposal Operations

The source shall be operated in such a manner that the disposal of air contaminants collected by the equipment operations, or activities shall not cause a violation of the Act or regulations promulgated there under.

#### 9.2.5 Duty to Pay Fees

The Permittee must pay fees to the Illinois EPA consistent with the fee schedule approved pursuant to Section 39.5(18) of the Act, and submit any information relevant thereto [Section 39.5(7)(0)(vi) of the Act]. The check should be payable to "Treasurer, State of Illinois" and sent to: Fiscal Services Section, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, Illinois 62794-9276.

## 9.3 Obligation to Allow Illinois EPA Surveillance

Upon presentation of proper credentials and other documents as may be required by law and in accordance with constitutional limitations, the Permittee shall allow the Illinois EPA, or an authorized representative to perform the following [Sections 4 and 39.5(7)(a) and (p)(ii) of the Act]:

- Enter upon the Permittee's premises where an actual or potential emission unit is located; where any regulated equipment, operation, or activity is located or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect during hours of operation any sources, equipment (including monitoring and air pollution control equipment),

practices, or operations regulated or required under this permit;

- d. Sample or monitor any substances or parameters at any location:
  - i. At reasonable times, for the purposes of assuring permit compliance or applicable requirements; or
  - ii. As otherwise authorized by the CAA, or the Act.
- Obtain and remove samples of any discharge or emission of pollutants authorized by this permit; and
- f. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any regulated activity, discharge or emission at the source authorized by this permit.

#### 9.4 Obligation to Comply with Other Requirements

The issuance of this permit does not release the Permittee from applicable State and Federal laws and regulations, and applicable local ordinances addressing subjects other than air pollution control.

#### 9.5 Liability

#### 9.5.1 Title

This permit shall not be considered as in any manner affecting the title of the premises upon which the permitted source is located.

9.5.2 Liability of Permittee

This permit does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the sources.

9.5.3 Structural Stability

This permit does not take into consideration or attest to the structural stability of any unit or part of the source.

9.5.4 Illinois EPA Liability

This permit in no manner implies or suggests that the Illinois EPA (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the source.

9.5.5 Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege [Section 39.5(7)(0)(iv) of the Act].

#### 9.6 Recordkeeping

9.6.1 Control Equipment Maintenance Records

A maintenance record shall be kept on the premises for each item of air pollution control equipment. At a minimum, this record shall show the dates of performance and nature of preventative maintenance activities.

9.6.2 Records of Changes in Operation

A record shall be kept describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes [Section 39.5(12)(b)(iv) of the Act].

#### 9.6.3 Retention of Records

- a. Records of all monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit [Section 39.5(7)(e)(ii) of the Act].
- b. Other records required by this permit including any logs, plans, procedures, or instructions required to be kept by this permit shall be retained for a period of at least 5 years from the date of entry unless a longer period is specified by a particular permit provision.

#### 9.7 Annual Emissions Report

The Permittee shall submit an annual emissions report to the Illinois EPA, Air Quality Planning Section no later than May 1 of the following year, as required by 35 IAC Part 254.

9.8 Requirements for Compliance Certification

Pursuant to Section 39.5(7)(p)(v) of the Act, the Permittee shall submit annual compliance certifications. The compliance certifications shall be submitted no later than May 1 or more frequently as specified in the applicable requirements or by permit condition. The compliance certifications shall be submitted to the Air Compliance Unit, Air Regional Field Office, and USEPA Region 5 - Air Branch. The addresses for the submittal of the compliance certifications are provided in Condition 8.6.4 of this permit.

a. The certification shall include the identification of each term or condition of this permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, both currently and over the reporting period consistent with the conditions of this permit.

- b. All compliance certifications shall be submitted to USEPA Region 5 in Chicago as well as to the Illinois EPA.
- c. All compliance reports required to be submitted shall include a certification in accordance with Condition 9.9.

#### 9.9 Certification

Any document (including reports) required to be submitted by this permit shall contain a certification by a responsible official of the Permittee that meets the requirements of Section 39.5(5) of the Act and applicable regulations [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included as Attachment 1 to this permit.

#### 9.10 Defense to Enforcement Actions

9.10.1 Need to Halt or Reduce Activity Not a Defense

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 [Section 39.5(7)(o)(ii) of the Act].

#### 9.10.2 Emergency Provision

- a. An emergency shall be an affirmative defense to an action brought for noncompliance with the technology-based emission limitations under this permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence [Section 39.5(7)(k) of the Act]:
  - An emergency occurred as provided in Section 39.5(7)(k) of the Act and the Permittee can identify the cause(s) of the emergency.

Note: For this purpose, emergency means a situation arising from sudden and reasonably unforeseeable events beyond the control of the source, as further defined by Section 39.5(7)(k)(iv) of the Act.

- ii. The permitted source was at the time being properly operated:
- iii. The Permittee submitted notice of the emergency to the Illinois EPA within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a detailed

description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and

- iv. During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission limitations, standards, or regulations in this permit.
- b. This provision is in addition to any emergency or upset provision contained in any applicable requirement. This provision does not relieve a Permittee of any reporting obligations under existing federal or state laws or regulations [Section 39.5(7)(k)(iv) of the Act].

## 9.11 Permanent Shutdown

This permit only covers emission units and control equipment while physically present at the indicated source location(s). Unless this permit specifically provides for equipment relocation, this permit is void for the operation or activity of any item of equipment on the date it is removed from the permitted location(s) or permanently shut down. This permit expires if all equipment is removed from the permitted location(s), notwithstanding the expiration date specified on this permit.

#### 9.12 Reopening and Reissuing Permit for Cause

## 9.12.1 Permit Actions

This permit may be modified, revoked, reopened and reissued, or terminated for cause in accordance with applicable provisions of Section 39.5 of the Act. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition [Section 39.5(7)(o)(iii) of the Act].

## 9.12.2 Reopening and Revision

This permit must be reopened and revised if any of the following occur [Section 39.5(15)(a) of the Act]:

- a. Additional requirements become applicable to the equipment covered by this permit and three or more years remain before expiration of this permit.
- b. Additional requirements become applicable to an affected source for acid deposition under the acid rain program.
- c. The Illinois EPA or USEPA determines that this permit contains a material mistake or that inaccurate statement were made in establishing the emission standards or limitations, or other terms or conditions of this permit.

d. The Illinois EPA or USEPA determines that this permit must be revised or revoked to ensure compliance with the applicable requirements.

#### 9.12.3 Inaccurate Application

The Illinois EPA has issued this permit based upon the information submitted by the Permittee in the permit application. Any misinformation, false statement or misrepresentation in the application shall be grounds for revocation and reissuance under Section 39.5(15) of the Act, pursuant to Sections 39.5(5)(e) and (i) of the Act.

## 9.12.4 Duty to Provide Information

The Permittee shall furnish to the Illinois EPA, within a reasonable time specified by the Illinois EPA any information that the Illinois EPA 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 the Illinois EPA copies of records required to be kept by this permit, or for information claimed to be confidential, the Permittee may furnish such records directly to USEPA along with a claim of confidentiality [Section 39.5(7)(0) (v) of the Act].

#### 9.13 Severability Clause

The provisions of this permit are severable. In the event of a challenge to any portion of the permit, other portions of the permit may continue to be in effect. Should any portion of this permit be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected and the rights and obligations of the Permittee shall be construed and enforced as if this permit did not contain the particular provisions held to be invalid and the applicable requirements underlying these provisions shall remain in force [Section 39.5(7)(i) of the Act].

#### 9.14 Permit Expiration and Renewal

Upon the expiration of this permit, if the source is operated, it shall be deemed to be operating without a permit unless a timely and complete CAAPP application has been submitted for renewal of this permit. However, if a timely and complete application to renew this CAAPP permit has been submitted, the terms and all conditions of this CAAPP permit will remain in effect until the issuance of a renewal permit [Section 39.5(5)(1) and (o) of the Act].

Note: Pursuant to Sections 39.5(5)(h) and (n) of the Act, upon submittal of a timely and complete renewal application, the permitted source may continue to operate until final action is taken by the Illinois EPA on the renewal application, provided, however, that this protection shall cease if the applicant fails to submit any additional information necessary to evaluate or take final action on the renewal

application as requested by the Illinois EPA in writing. For a renewal application to be timely, it must be submitted no later than 9 months prior to the date of permit expiration.

#### 9.15 General Authority for the Terms and Conditions of this Permit

The authority for terms and conditions of this permit that do not include a citation for their authority is Section 39.5(7)(a) of the Act, which provides that the Illinois EPA shall include such provisions in a CAAPP permit as are necessary to accomplish the purposes of the Act and to assure compliance with all applicable requirements. Section 39.5(7)(a) of the Act is also another basis of authority for terms and conditions of this permit that do include a specific citation for their authority.

Note: This condition is included in this permit pursuant to Section  $39.5(7)\,(n)$  of the Act.

#### 10.0 ATTACHMENTS

Attachment 1 Example Certification by a Responsible Official

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:				 	
		, .			
Name:				 	
•					
Official Title:				 	
	•		•		
Telephone No.:	***************************************				
				•	
Date Signed:					

#### Attachment 2 Emissions of Particulate Matter from Process Emission Units

- a. New Process Emission Units for Which Construction or Modification Commenced On or After April 14, 1972 [35 IAC 212.321].
  - i. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 [35 IAC 212.321(a)].
  - ii. Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321 shall be determined by using the equation [35 IAC 212.321(b)]:

$$E = A(P)^B$$

#### where:

P = Process weight rate; and E = Allowable emission rate; and,

A. Up to process weight rates of 408 Mg/hr (450 T/hr):

	Metric	English
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	1.214	2.54
В	0.534	0.534

B. For process weight rate greater than or equal to 408 Mg/hr (450 T/hr):

	Metric	English	
P	Mg/hr	T/hr	
E	kg/hr	lb/hr	
A	11.42	24.8	
В.	0.16	0.16	

iii. Limits for Process Emission Units For Which Construction or Modification Commenced On or After April 19, 1972 [35 IAC 212.321(c)]:

Metric P Mg/hr	E kg/hr	English P <u>T/hr</u>	E <u>lb/hr</u>
0.05 0.1 0.2 0.3 0.4 0.5 0.7 0.9 1.8 2.7 3.6 4.5 9.0 13.0 18.0 23.0 27.0 32.0 36.0 41.0 45.0 90.0 140.0 180.0 230.0 270.0 320.0 360.0 270.0 320.0 360.0	0.25 0.29 0.42 0.64 0.74 0.84 1.00 1.15 1.66 2.1 2.4 2.7 3.9 4.8 5.7 6.5 7.1 7.7 8.2 8.8 9.3 13.4 17.0 19.4 22.0 24.0 26.0 28.0	0.05 0.10 0.2 0.30 0.40 0.50 0.75 1.00 2.00 3.00 4.00 5.00 10.00 15.00 20.00 25.00 30.00 45.00 40.00 45.00 50.00 10.00 15.00 10.00 25.00 30.00 35.00 40.00 4	0.55 0.77 1.10 1.35 1.58 1.75 2.40 2.60 3.70 4.60 5.35 6.00 8.70 10.80 12.50 14.00 15.60 17.00 18.20 19.20 20.50 29.50 37.00 48.50 53.00 53.00 62.00
408.0 454.0	30.1	450.00 500.00	66.00 67.00

iv. For process weight rates of less than 100 pounds per hour, the allowable rate is 0.5 pounds per hour [35 IAC 266.110].

- b. Existing Process Emission Units for Which Construction or Modification Prior to April 14, 1972 [35 IAC 212.322].
  - i. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission units at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 [35 IAC 212.322(a)].
  - ii. Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321 shall be determined by using the equation [35 IAC 212.322(b)]:

$$E = C + A(P)^B$$

#### where:

P = Process weight rate; and E = Allowable emission rate; and,

A. Up to process weight rates up to 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lb/hr
Α	1.985	4.10
В	0.67	0.67
С	0	0

B. For process weight rate in excess of 27.2 Mg/hr (30 T/hr):

	Metric	English
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	25.21	55.0
В	0.11	0.11
С	- 18.4	~ 40.0

iii. Limits for Process Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972 [35 IAC 212.322(c)]:

Metric P Mg/hr	E kg/hr	English P T/hr	E <u>lb/hr</u>
0.05 0.1 0.2 0.3 0.4 0.5 0.7 0.9 1.8 2.7 3.6 4.5 9.0 13.0 18.0 23.0 27.2 32.0 36.0 41.0 45.0 90.0 140.0 180.0 230.0 270.0 320.0 360.0	0.27 0.42 0.68 0.89 1.07 1.25 1.56 1.85 2.9 3.9 4.7 5.4 8.7 11.1 13.8 16.2 18.15 18.8 19.3 19.8 20.2 23.2 25.3 26.5 27.7 28.5 29.4 30.0	0.05 0.10 0.2 0.30 0.40 0.50 0.75 1.00 2.00 3.00 4.00 5.00 10.00 15.00 20.00 25.00 30.00 45.00 50.00 100.00 150.00 200.00 250.00 300.00 350.00 400.00	0.55 0.87 1.40 1.83 2.22 2.58 3.38 4.10 6.52 8.56 10.40 12.00 19.20 25.20 30.50 35.40 40.00 41.30 42.50 43.60 44.60 51.20 55.40 58.60 61.00 63.10 64.90 66.20
400.0 454.0	30.6 31.3	450.00 500.00	67.70 69.00

iv. For process weight rates of less than 100 pounds per hour, the allowable rate is 0.5 pounds per hour [35 IAC 266.110].

## Attachment 3 Compliance Assurance Monitoring (CAM) Plan

There are no specific emission units that require a CAM plan as identified in the Monitoring Requirements of Subsection 8 for each Section 7, Unit Specific Conditions for Specific Emission Units.

### Attachment 4 Guidance

The Illinois has prepared guidance for sources on the Clean Air Act Permit Program (CAAPP) that is available on the Internet site maintained by the Illinois EPA, www.epa.state.il.us. This guidance includes instructions on applying for a revision or renewal of the CAAPP permit.

### Guidance On Revising A CAAPP Permit:

www.epa.state.il.us/air/caapp/caapp-revising.pdf

### Guidance On Renewing A CAAPP Permit:

www.epa.state.il.us/air/caapp/caapp-renewing.pdf

The application forms prepared by the Illinois EPA for the CAAPP are also available from the Illinois EPA's Internet site:

www.epa.state.il.us/air/caapp/index.html

These CAAPP application forms should also be used by a CAAPP source when it applies for a construction permit. For this purpose, the appropriate CAAPP application forms and other supporting information, should be accompanied by a completed Application For A Construction Permit form (199-CAAPP) and Fee Determination for Construction Permit Application form (197-FEE):

www.epa.state.il.us/air/caapp/199-caapp.pdf www.epa.state.il.us/air/permits/197-fee.pdf

### Attachment 5 Clean Air Interstate Rule (CAIR) Permit

217/785-1705

### CAIR PERMIT

Union Electric Company d/b/a Ameren Missouri, Pinckneyville Energy Center Attn: Michael L. Menne, Designated Representative 1901 Chouteau Avenue (MC 602) St. Louis, Missouri 63103

Oris No.: 55202 IEPA I.D. No.: 145842AAA

Source/Unit: Union Electric Company d/b/a Ameren Missouri, Pinckneyville

Energy Center CT01-08

Date Received: June 26, 2014

### STATEMENT OF BASIS:

In accordance with the Clean Air Act Interstate Rule (CAIR)  $SO_2$  Trading Program, the CAIR  $NO_x$  Annual Trading Program and the CAIR  $NO_x$  Ozone Season Trading Program, and 35 IAC Part 225, Subparts C, D, and E, respectively, the Illinois Environmental Protection Agency is issuing this CAIR permit to Union Electric Company d/b/a Ameren Missouri, Pinckneyville Energy Center for the affected units at its Pinckneyville electric power generation, i.e., CT01-08.

## ALLOCATION OF SULFUR DIOXIDE ( $SO_2$ ) ALLOWANCES, NITROGEN OXIDE ( $NO_x$ ) ALLOWANCES, AND $NO_x$ OZONE SEASON ALLOWANCES FOR THE AFFECTED UNITS:

Program	Allocation of Allowances
CAIR SO <sub>2</sub> Allowances	These units are not entitled to an allocation of CAIR $SO_2$ allowances pursuant to 40 CFR Part 96.
CAIR NO <sub>x</sub> Annual Allowances	These units are eligible to an allocation of CAIR $NO_x$ Annual Allowances pursuant to 35 IAC 225.430, 225.435 and 225.440.
CAIR NO <sub>x</sub> Ozone Season Allowances	These units are eligible to an allocation of CAIR $NO_x$ Ozone Season Allowances pursuant to 35 IAC 225.530, 225.535 and 225.540.

**PERMIT APPLICATION:** The permit application, which includes CAIR  $\rm SO_2$  Trading Program requirements, CAIR  $\rm NO_x$  Annual Trading Program requirements, CAIR  $\rm NO_x$  Ozone Season Trading Program requirements, and other standard requirements, is attached and incorporated as part of this permit. The owners and operators, and designated representative of this source must comply with the standard requirements and special provisions set forth in the application.

COMMENTS, NOTES AND JUSTIFICATIONS: This permit contains provisions related to  $SO_2$  emissions and  $NO_x$  emissions and requires the owners and operators to hold CAIR  $SO_2$  allowances to account for  $SO_2$  emissions, CAIR  $NO_x$  annual allowances to account for annual  $NO_x$  emissions, and CAIR  $NO_x$  ozone season allowances to account for ozone season  $NO_x$  emissions from the CAIR units. An allowance is a limited authorization to emit  $SO_2$  or  $NO_x$  emissions during or after a specified control period. The transfer of allowances to and from the

applicable compliance or general account does not necessitate a revision to this permit.

As related to seasonal emissions of  $NO_x$ , CAIR  $NO_x$  Ozone Season Trading Program supersedes the  $NO_x$  Trading Budget, beginning on the effective date of this permit. Accordingly, effective January 1, 2009, the provisions of this permit effectively supersede Section 6.1 of the CAAPP permit, which relate to compliance with  $NO_x$  Trading Program for Electric Generating Units (EGU).

This permit does not affect the source's responsibility to meet all other applicable local, state and federal requirements.

If you have any questions regarding this permit, please contact Melissa Nutt at 217/785-1705

Raymond E. Pilapil Acting Manager, Permit Section Division of Air Pollution Control

REP:MKN:psj

cc: Beth Valènziano, USEPA Region V FOS - Region 3, Illinois EPA

	ILLINOIS ENVIRONMENTAL PROTECTION AGENCY DIVISION OF AIR POLLUTION CONTROL – PERMIT SECTION P.O. BOX 19508 SPRINGFIELD, ILLINOIS 52794-9506  TOTAL PROTECTION AGENCY POR APPLICANT'S USE Revision #:  Cale:					
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				Γ	FOR AGENCY USE ONLY	
Ann	lication For	CAIR		ID NUN	ID NUMBER:	
744	Permit For	0,,,,,		PERMI	PERMIT No.:	
			/=a.	DATE:		
	Generating L					
This application form is to trading program, CAIR NO	the used to request the Clean Ox ozone season trading progr	Air Act Irrerel am for EGU s	ate Rule (CAIR) p ubject to the prov	permit requisions of 3	ired by the CAIR SO, trucking program, CAIR NOx are 5 IAC Parl 225, Subdia C50 and E, respectively.	
			E AND EGU II		TION STATE TO	
1) COMPANY NAME:	Union Electric Compa	ny d/b/a A	vmeren Miss	ouri	ILLINO	
2) PLANT OR FACILITY	Y NAME: Pinckneyville	<u></u>			JUN 24 7014	
	Pinckneyville	Energy C	enter		Environ	
3) SOURCE ID NO.:	15842AAA	4) ORIS F.	ACILITY CODE	5520	Environmental Froieclich Agen  2 BUREAU OF AIR	
5) CONTACT NAME:		6) PHONE	NO.: 54-2089		7) E-MAIL ADDRESS:	
Ken Anderson		314-5	34-2089		kjanderson@ameren.com	
8) ELECTRICAL GENE	RATING UNITS:		,			
GENERATING UNIT / EGU DESIGNATION	EGU DESCRIPT	ION		e!	APPLICABILITY  Hark all applicable boxes)	
Unit CT01	Simple-cycle natura	l gas	X Existing E	GU (	X CAIR SO <sub>2</sub> trading program -	
	combustion turbine	Now EGU			CAIR NOx annual trading program	
					X CAIR NOx ozone season trading program X CAIR SO <sub>x</sub> trading program	
Unit CT02	Unit CT02 Simple-cycle natural gas		New EGU		X CAIR NOx annual trading program	
	Combositori turbine				CAIR NOx ozone season trading program	
Unit CT03	Simple-cycle natural	gas	X Existing E		CAIR SO <sub>2</sub> trading program	
-	combustion turbine				X CAIR NOx annual trading program X CAIR NOx ozone season trading program	
Unit CT04	Simple-cycle natural	nas	Existing EGU X C		CAIR SO <sub>2</sub> trading program	
0	combustion turbine	gos			CAIR NOx annual trading program	
					CAIR NOx ozone season trading program  K CAIR SO <sub>2</sub> trading program	
Unit CT05	Simple-cycle natural combustion turbine	gas			CAIR NOx annual trading program	
	compusion turbine		_		CAIR NOx ozone season trading program	
Unit CT06	Simple-cycle natural	gas	Existing E		CAIR SO, trading program	
	combustion turbine	_	New EGU		CAIR NOx annual trading program. CAIR NOx ozone season trading program	
Unit CT07	0:		X Existing E		CAIR SO <sub>2</sub> trading program	
Onit C107	Simple-cycle natural combustion turbine	gas	New EGU	[2	CAIR NOx annual trading program	
			631		CAIR NOx ozone season trading program	
Unit CT08	Simple-cycle natural	gas	X Existing E		CAIR SO <sub>2</sub> trading program CAIR NOx annual trading program	
combustion turbine		□ Naw EGU		CAIR NOx ozone season trading program		
			Existing E		CAIR SO, trading program	
	New EGU				CAIR NOx annual trading program	
		\			CAIR NOx ozone season trading program	
Environmental Protection Addiscretion, Failure to disclore	2 ("Ad") 415 ILC3 5/39 5 The	information i your applicat	shed be provided bon being denied	using ethi	orm pursuant to Section 39.5 of the er this form or in an alternative manner at your nakies as provided for in the Act, 415 ILCS	
ė.	APPLIC	ATION	PAGE _		FOR APPLICANT'S USE	
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9) DETERMINATION OF SO, EMISSIONS					
List each EGU that is not currently equip (a) EGUs for which SO, CEMS installed	ped with a "Part 75 Approved" continuous em but not certified:	issions manitoring system (CEMS) for SO <sub>2</sub>			
		I _			
1	4.	7			
2	5.	8.			
3	6.	9.			
(b) ) EGUs for which SO2 CEMS yet to b	ø installed:	T			
1	4	7			
2	5	8			
3	6	9			
(c) ) EGUs for which SO2 emissions to be	determined by the alternative protocol for pe	aker units: -			
1 CT01 (40 CFR 75 Appendix D)	4. CT04 (40 CFR 75 Appendix D)	7. CT07 (40 CFR 75 Appendix D)			
2. CT02 (40 CFR 75 Appendix D)	5. CT05 (40 CFR 75 Appendix D)	g. CT08 (40 CFR 75 Appendix D)			
3 CT03 (40 CFR 75 Appendix D)	6. CT06 (40 CFR 75 Appendix D)	V			
3. C103 (40 CFR 73 Appendix b)	6. CTOO (40 CFR 7374panaix D)	9			
10) DETERMINATION OF NO EMISSIONS	S:				
List each EGU that is not currently equipp (a) EGUs for which NO <sub>x</sub> CEMS installed	ped with a "Part 75 Approved" continuous emi	ssions monitoring system (CEMS) for NO.			
(a) EGOS IOT WHICH NO, CEMS INSTALLED	but not certilled.				
1	4	7			
2	5	8			
3.	6	9			
(b) EGUs for which NO, CEMS yet to be	installed;				
1,	4	7			
2	5	8			
3	6	9			
(c) EGUs for which NO <sub>x</sub> emissions to be o	l determined by the atternative protocol for peal	ser units:			
1 CT05 (40 CFR 75 Appendix E)	4 CT08 (40 CFR 75 Appendix E)	7,			
2 CT08 (40 CFR 75 Appendix E)					
3 CT07 (40 CFR 75 Appendix E)	5.	8			
3. C107 (40 C) (473 Appendix 2)	· · · · · · · · · · · · · · · · · · ·	9.			
11) CERTIFICATION:					
	ntation for the designated representatives for	the source been submitted to USEPA, with			
a copy provided to the tilinois EPA?	✓ Yes  No				
(b) 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 faw 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, including the possibility of fine or imprisonment.					
NAME (Oesignated Representative): Michael L. Menne (Alternate Designated Representative)					
SIGNATURE (Designated Representative): DATE: 06-19-14					
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### SECTION 2: CAIR SO, TRADING PROGRAM COMPLIANCE REQUIREMENTS AS SET FORTH IN 35 IAC 225.310

### APPLICABLE REGULATIONS:

The requirements of 35 IAC Part 225, Subpart C and 40 CFR 96, subpart AAA (excluding 40 CFR 96 204, and 96.206). subpart BBB, subpart FFF, subpart GGG and subpart HHH as incorporated by reference in 35 IAC 225.140.

### CAIR PERMIT REQUIREMENTS:

- The owner or operator of each source with one or more CAIR SO<sub>2</sub> units at the source subject to 35 IAC Part 225, Subpart C must apply for a permit issued by the Agency with federally enforceable conditions covering the CAIR SO<sub>2</sub> Trading Program ("CAIR permit") that complies with the requirements of 35 IAC 225,320.
- The owner or operator of each CAIR SO; source and each CAIR SO; unit at the source subject to 35 IAC Part 225. Subpart C must operate the CAIR SO<sub>2</sub> unit in compliance with such CAIR permit.

### MONITORING REQUIREMENTS:

- The owner or operator of each CAIR SO, source and each CAIR SO, unit at the source must comply with the monitoring, reporting and recordkeeping requirements of 40 CFR 98, Subpart HHH. The CAIR designated representative of each CAIR SO, source and each CAIR SO, unit at the CAIR SO, source must comply with those sections of the monitoring, reporting and recordkeeping requirements of 40 CFR 98, Subpart HHH, applicable to the
- The compliance of each CAIR SO<sub>2</sub> source with the emissions limitation pursuant to 35 IAC 225.310(d) will be determined by the emissions measurements recorded and reported in accordance with 40 CFR 98, subpart HHH and 40 CFR 75.

#### (d) EMISSION REQUIREMENTS:

- By the allowance transfer deadline, midnight of March 1, 2011, and by midnight of March 1 of each subsequent year if March 1 is a business day, the owner or operator of each CAIR SO, source and each CAIR SO, unit at the source must hold a tonnage equivalent in CAIR SO, allowances available for compliance deductions pursuant to 40 CFR 98, 254(a) and (b) in the CAIR SO, source's CAIR SO, compliance account. If March 1 is not a business day, the allowance transfer deadline means by midnight of the first business day thereafter. The number of allowance held on the allowance transfer deadline may not be less than the total tonnage equivalent of the tons of SO, emissions for the control period from all CAIR SO, units at the CAIR SO, source, as determined in accordance with 40 CFR 98, subpart HHH.
- Each ton of excess emissions of SO<sub>2</sub> emitted by a CAIR SO<sub>2</sub> source for each day of control period, starting in 2010 will constitute a separate violation of 35 tAC Part 225, Subpart C, the Clean Air Act, and the Act.
- Each CAIR SO<sub>2</sub> unit will be subject to the requirements of 35 IAC 225.310(d)(1) for the control period starting on the later of January 1, 2010 or the deadline for meeting the unit's monitoring certification requirements pursuant to 40 CFR 96 270(b)(1) or (2) and for each control period thereafter.
- CAIR SO<sub>2</sub> allowances must be held in, deducted from, or transferred into or among allowance accounts in accordance with 35 IAC Part 225, Subpart C, and 40.CFR 96, subparts FFF and GGG.
- In order to comply with the requirements of 35 IAC 225.310(d)(1), a CAIR SO<sub>2</sub> allowance may not be deducted for compliance according to 35 IAC 225.310(d)(1) for a control period in a calendar year before the year for which the allowance is allocated.
- A CAIR SO<sub>2</sub> allowance is a limited authorization to smit SO<sub>2</sub> in accordance with the CAIR SO<sub>2</sub> Trading Program. No provision of the CAIR SO<sub>2</sub> Trading Program, the CAIR permit application, the CAIR permit, or a retired unit exemption pursuant to 40 CFR 98.205, and no provision of faw, will be construed to limit the authority of the United States or the State to terminate or limit this authorization.
- 7) A CAIR SO<sub>2</sub> allowance does not constitute a property right.
- Upon recordation by USEPA pursuant to 40 CFR 98, subpart FFF or subpart GGG, every allocation, transfer, or deduction of a CAIR SO<sub>2</sub> allowance to or from a CAIR SO<sub>2</sub> source's compliance account is deemed to amend automatically, and become a part of, any CAIR permit of the CAIR SO<sub>2</sub> source. This automatic amendment of the CAIR permit will be deemed an operation of law and will not require any further review.

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### e) RECORDKEEPING AND REPORTING REQUIREMENTS:

- 1) Unless otherwise provided, the owner or operator of the CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source must keep on site at the source each of the documents tisted in subsections (o)(1)(A) through (e)(1)(D) of 35 tAC 225,310 for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years in writing by the Agency or USEPA.
  - A) The cortificate of representation for the CAIR designated representative for the source and each CAIR SO<sub>2</sub> unit at the source, all documents that demonstrate the truth of the statements in the certificate of representation, provided that the certificate and documents must be retained on site at the source beyond such five-year period until the documents are superseded because of the submission of a new certificate of representation, pursuant to 40 CFR 98.213, changing the CAIR designated representative.
  - B) All emissions monitoring information, in accordance with 40 CFR 98, subpart HHH.
  - C) Copies of all reports, compliance certifications, and other submissions and all records made or required pursuant to the CAIR SO, Trading Program or documents necessary to demonstrate compliance with the requirements of the CAIR SO, Trading Program or with the requirements of 35 IAC Part 225, Subpart C.
  - Copies of all documents used to complete a CAIR permit application and any other submission or documents used to demonstrate compliance pursuant to the CAIR SO<sub>2</sub> Trading Program.
- 2) The CAIR designated representative of a CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source must submit to the Agency and USEPA the reports and compliance certifications required pursuant to the CAIR SO<sub>2</sub> Trading Program, including those pursuant to 40 CFR 98, subpart HHH.

### 9 LIABILITY:

- No revision of a permit for a CAIR SO<sub>2</sub> unit may excuse any violation of the requirements of 35 IAC Part 225, Subpart C or the requirements of the CAIR SO<sub>2</sub> Trading Program.
- 2) Each CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit must meet the requirements of the CAIR SO<sub>2</sub> Trading Program.
- 3) Any provision of the CAIR SO<sub>2</sub> Trading Program that applies to a CAIR SO<sub>2</sub> source (including any provision applicable to the CAIR designated representative of a CAIR SO<sub>2</sub> source) will also apply to the owner and operator of the CAIR SO<sub>2</sub> source and to the owner and operator of each CAIR SO<sub>2</sub> unit at the source.
- Any provision of the CAIR SO<sub>2</sub> Trading Program that applies to a CAIR SO<sub>2</sub> unit (including any provision applicable
  to the CAIR designated representative of a CAIR SO<sub>2</sub> unit) will also apply to the owner and operator of the CAIR SO<sub>2</sub>
  unit.
- The CAIR designated representative of a CAIR SO, unit that has excess SO<sub>2</sub> emissions in any control period must surrender the allowances as required for deduction pursuant to 40 CFR 98.254(d)(1).
- The owner or operator of a CAIR SO<sub>2</sub> unit that has excess SO<sub>2</sub> emissions in any control period must pay any fine, penalty, or assessment or comply with any other remedy imposed pursuant to the Act and 40 CFR 98.254(d)(2).

### g) EFFECT ON OTHER AUTHORITIES:

No provision of the CAIR SO<sub>2</sub> Trading Program, a CAIR permit application, a CAIR permit, or a retired unit exemption pursuant to 40 CFR 96.205 will be construed as exempting or excluding the owner and operator and, to the extent applicable, the CAIR designated representative of a CAIR SO<sub>2</sub> source or a CAIR SO<sub>2</sub> unit from compilance with any other regulation promulgated pursuant to the CAA, the Act, any State regulation or permit, or a federally enforceable permit.

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### SECTION 3: CAIR NO. ANNUAL TRADING PROGRAM COMPLIANCE REQUIREMENTS AS SET FORTH IN 35 IAC 225.410

### (a) APPLICABLE REGULATIONS:

The requirements of 35 IAC Part 225, Subpart D and 40 CFR 98, subpart AA (excluding 40 CFR 98, 104, 96,105(b)(2), and 98,106), subpart BB, subpart FF, subpart GG and subpart HH as incorporated by reference in 35 IAC 225,140.

### (b) CAIR PERMIT REQUIREMENTS:

- The designated representative of each source with one or more CAIR NO, units at the source subject to 35 IAC Part 225, Subpart D must apply for a permit issued by the Agency with federally enforceable conditions covering the CAIR NO, Annual Trading Program ("CAIR permit) that complies with the requirements of 35 IAC 253-420.
- The owner or operator of each CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source must operate the CAIR NO<sub>x</sub> unit in compliance with its CAIR permit.

### (c) MONITORING REQUIREMENTS:

- 1) The owner or operator of each CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> until at the source must comply with the monitoring, reporting and recordkeeping requirements of 40 CFR 96. Subpart HH and 35 IAC 225.450. The CAIR designated representative of each CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> until at the CAIR NO<sub>x</sub> source must comply with those sections of the monitoring, reporting and recordkeeping requirements of 40 CFR 96. Subpart HH, applicable to a CAIR designated representative.
- The compliance of each CAIR NO. source with the emissions limitation pursuant to 35 IAC 225.410(d) will be determined by the emissions measurements recorded and reported in accordance with 40 CFR 96, subpart HH

### (d) EMISSION REQUIREMENTS:

- By the allowance transfer deadline, midnight of March 1, 2010, and by midnight of March 1 of oach subsequent year if March 1 is a business day, the owner or operator of each CAIR NO, source and each CAIR NO, until at the source must hold CAIR NO, allowances available for compliance deductions pursuant to 40 CFR 98.154(a) in the CAIR NO, source's CAIR NO, compliance account. If March 1 is not a business day, the allowance transfer deadline means by midnight of the first business day themsafetr. The number of allowances held on the allowance transfer deadline means by not be less than the tons of NO, emissions for the control period from all CAIR NO, units at the source, as determined in eccordance with 40 CFR 98, subpart HIV.
- Each ton of excess emissions of a CAIR NO<sub>2</sub> source for each day in a control period, starting in 2009 will constitute
  a second a violation of 25 IAC Part 225. Subpart D, the Act, and the CAA.
- Each CAIR NO<sub>a</sub> unit will be subject to the requirements 35 IAC 225.410(d)(1) for the control period starting on the later of January 1, 2009 or the deadline for meeting the unit's monitoring certification requirements pursuant to 40 CFR 90.170(b)(1) or (b)(2) and for each control period thereafter.
- CAIR NO<sub>3</sub> allowances must be held in, deducted from, or transferred into or among allowance accounts in accordance with 35 IAC Part 225, Subpart D, and 40 CFR 96, subparts FF and GG.
- 5) In order to comply with the requirements of 35 IAC 225.410(a)(1), a CAR NO, allowance may not be deducted for compliance according to 35 IAC 225.410(a)(1) for a control period in a year before the calendar year for which the allowance is allocated.
- 5) A CAIR NO, allowance is a limited authorization to emit one ton of NO, in accordance with the CAIR NO, Trading Program. No provision of the CAIR NO, Trading Program, the CAIR NO, permit application, the CAIR permit, or a relived unit exemption pursuant to 40 CFR 96.105, and or provision of law, will be construed to limit the authority of the United States or the State to terminate or limit this authorization.
- A CAIR NO<sub>x</sub> allowance does not constitute a property right.
- Upon recordation by USEPA pursuant to 40 CFR 96, subpart FF or subpart GG, overy allocation, transfer, or deduction of a CAIR NO, allowance to or from a CAIR NO, source's compliance account is deemed to amend subomaticiny, and become a part of, any CAIR NO, permit of the CAIR NO, source. This automatic amendment of the CAIR permit will be deemed an operation of faw and will not require any further review.

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### RECORDKEEPING AND REPORTING REQUIREMENTS:

- Unless otherwise provided, the owner or operator of the CAIR NO, source and each CAIR NO, unit at the source must keep on site at the source each of the documents istated in subsections (e)(1)(A) through (e)(1)(E) of 35 IAC 225.410 for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years in writing by the Agency or USEPA.
  - The criticate of representation for the CARR designated representative for the source and each CARR NO, unit at the source, all documents that demonstrate the truth of the statements in the certificate of representation, provided that the certificate and documents must be matismed on sile at the source beyond such five-year peri-duritf the documents are superreded because of the submission of a riew certificate of representation, pursuant to 40 CFR 05 113, changing the CARR designated representative.
  - B) All emissions monitoring information, in accordance with 40 CFR 96, subpart HH,
  - Copies of all reports, compliance certifications, and other submissions and all records made or required pursuant to the CAIR NO. Annual Trading Program or documents necessary to demonstrate compliance with the requirements of the CAIR NO. Annual Trading Program or with the requirements of 35 IAC Part 225, Subpart D.
  - Copies of all documents used to complete a CAIR NO<sub>4</sub> permit application and any other submission or documents used to demonstrate compliance pursuant to the CAIR NO<sub>4</sub> Annual Trading Program.
  - E) Copies of all records and logs for gross electrical output and useful thermal energy required by 35 IAC 225.450
- The CAIR designated representative of a CAIR NO, source and each CAIR NO, unit at the source must submit to the Agency and USERA the reports and compliance certifications required pursuant to the CAIR NO, Annual Tradin, Program, including mose pursuant to 40 CPR 86, subpart HH.

- No revision of a permit for a CAIR NO, unit may excuse any violation of the requirements of 35 IAC Part 225, Subpart D or the requirements of the CAIR NO, Annual Trading Program.
- Each CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit must meet the requirements of the CAIR NO<sub>x</sub> Annual Trading Program.
- Any provision of the CAIR NO. Annual Trading Program that applies to a CAIR NO. source (including any provision applicable to the CAIR designated representative of a CAIR NO, source) will also apply to the owner and operator of time CAIR NO. source and to the owner and operator of each CAIR NO, unit at the source.
- The CAIR designated representative of a CAIR NO $_{x}$  unit that has excess NO $_{x}$  emissions in any control presumender the allowances as required for deduction pursuant to 40 CFR 98.154(d)(1).
- The owner or operator of a CAIR NO<sub>2</sub> unit that has excess NO<sub>2</sub> emissions in any control period must pay any fine, penalty, or assessment or comply with any other remedy imposed pursuant to the Act and 40 CFR 98.154(d)(2).

### EFFECT ON OTHER AUTHORITIES:

No provision of the CAIR NO, Annual Trading Program, a CAIR permit application, a CAIR permit, or a retired unit exemption pursuant to 40 CFR 95.105 will be construed as exempting or excluding the owner and operator and, to the extent applicable, the CAIR designated representative of a CAIR NO, source or a CAIR NO, unit from compliance with an other regulation promulgated pursuant to the CAA, the Act, any State regulation or permit, or a federally enforceable permits.

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### SECTION 4: CAIR NO. OZONE SEASON TRADING PROGRAM COMPLIANCE REQUIREMENTS AS SET FORTH IN 35 IAC 225.510

#### APPLICABLE REGULATIONS:

The requirements of 35 IAC Part 225, Subpart E and 40 CFR 98, subpart AAAA (excluding 40 CFR 98,304, 96 305(b)(2), and 96.308), subpart BBBB, subpart FFFF, subpart GGGG and subpart HHHH as incorporated by reference in 35 IAI 225.140.

### CAIR PERMIT REQUIREMENTS:

- The designated representative of each source with one or more CAIR NO<sub>x</sub> Ozone Season units at the source subject to 35 IAC Part 225, Subpart E must apply for a permit Issued by the Agency with federally enforceable conditions covering the CAIR NO<sub>x</sub> Ozone Season Trading Program  $_{\rm t}$  CAIR permit\*) that complies with the requirements of 35 IAC 225 520.
- The owner or operator of each CAIR NO<sub>x</sub> Ozone Season source and each CAIR NO<sub>x</sub> Ozone Season unit at the source must operate the CAIR NO<sub>x</sub> Ozone Season unit in compliance with its CAIR permit.

### MONITORING REQUIREMENTS:

- The owner or operator of each CAIR NO. Ozone Season source and each CAIR NO. Ozone Season unit at the and each CAIR NO, Ozone Season source and each CAIR NO, Ozone Season source must comply with the monitoring, reporting and recordkeeping requirements of 40 CFR 98. Subpart HHHH, 40 CFR 75 and 35 IAC 225.550. The CAIR designated representative of each CAIR NO, Ozone Season source and each CAIR NO, Ozone Season unit at the source must comply with those sections of the monitoring, reporting and recordkeeping requirements of 40 CFR 98, Subpart HHHH, applicable to a CAIR designated representative.
- The compliance of each CAIR NO $_{\!x}$  Ozone Season source with the CAIR NO $_{\!x}$  Ozone Season emissions limitation pursuant to 35 IAC 225.510(d) will be determined by the emissions measurements recorded and reported in accordance with 40 CFR 96, subpart HHHH.

### **EMISSION REQUIREMENTS:**

- By the allowance transfer deadline, midnight of November 30, 2009, and by midnight of November 30 of each subsequent year if November 30 is a business day, the owner or operator of each CAIR NO<sub>2</sub>. Ozone Season source and each CAIR NO<sub>2</sub> ozone Season unit at the source must hold CAIR NO<sub>3</sub> allowances available for compilance deductions pursuant to 40 CFR 98.354(a) in the CAIR NO<sub>2</sub> Ozone Season source's compilance account. If November 30 is not a business day, the allowance transfer deadline means by midnight of the first business day thereafter. The number of allowances held may not be less than the tons of NO<sub>2</sub> ensisting the control period from all CAIR NO<sub>2</sub> Ozone Season units at the CAIR NO<sub>2</sub> Ozone Season source, as determined in accordance with 40 CCER 98, subpart HHHH 40 CFR 98, subpart HHHH.
- Each ton of excess emissions of a CAIR  $NO_x$  Ozone Season source for each day in a control period, starting in 2009 will constitute a separate violation of 35 IAC Part 225, Subpart E, the Act, and the CAA. 2)
- Each CAIR NO, Ozone Season unit will be subject to the requirements 35 IAC 225.510(d)(1) for the control period starting on the later of May 1, 2009 or the deadline for meeting the unit's monitoring certification requirements pursuant to 40 CFR 96.370(b)(1), (b)(2) or (b)(3) and for each control period thereafter.
- CAIR NO<sub>1</sub> Ozone Season allowances must be held in, deducted from, or transferred into or among all accounts in accordance with 35 IAC Part 225, Subpart E, and 40 CFR 96, subparts FFFF and GGGG.
- In order to comply with the requirements of 35 IAC 225.510(d)(1), a CAIR NO $_{\rm X}$  Ozona Season allowance may not be deducted for compliance according to 35 IAC 225.510(d)(1) for a control period in a calendar year before the year for which the CAIR NO $_{\rm X}$  Ozona Season allowance is allocated.
- A CAIR  $NO_x$  Ozone Season allowance is a limited authorization to emit one ton of  $NO_x$  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 a retirred unit exemption pursuant to 40 CFR 98.305, and no provision of law, will be construed to limit the authority of the United States or the State to terminate or limit this authorization.
- 7) A CAIR NO<sub>x</sub> Ozone Season allowance does not constitute a property right.

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8) Upon recordation by USEPA pursuant to 40 CFR 98, subpart FFFF or GGGG, every aflocation, transfer, or deduction of a CAIR NO, Ozone Season allowance to or from a CAIR NO, Ozone Season source compliance account is deemed to amend automaticatly, and become a part of, any CAIR permit of the CAIR NO, Ozone Season source. This automatic amendment of the CAIR permit will be deemed an operation of law and will not require any Auther review.

### e) RECORDKEEPING AND REPORTING REQUIREMENTS:

- Unless otherwise provided, the owner or operator of the CAIR NO, Ozone Season source and each CAIR NO, Ozone Season unit at the source must keep on sile at the source each of the documents listed in subsections (epi1)(a) through (e)(1)(B) of 35 NC 225.510 for a period of five years from the date the document is overled. This period may be extended for cause, at any time prior to the end of five years in writing by the Agency or USEPA.
  - A) The certificate of representation for the CAIR designated representative for the source and each CAIR NO. Ozone Season unit at the source, all documents that demonstrate the truth of the statements in the certificate of representation, provided that the certificate and documents must be retained on site at the source beyond such five-year portion until the documents are supersected because of the submission of a new certificate of representation, pursuant to 40 CFR 96.313, changing the CAIR designated representation of the certificate o
  - B) All emissions monitoring information, in accordance with 40 CFR 96, subpart HHHH.
  - C) Copies of all reports, compliance certifications, and other submissions and all records made or required pursuant to the CAIR NO, Ozone Sesson Yrading Program or documents necessary to demonstrate compliance with the requirements of the CAIR NO, Ozone Season Trading Program or with the requirements of 35 IAC Part 225, Subpart E.
  - D) Copies of all documents used to complete a CAIR permit application and any other submission or documents used to demonstrate compliance pursuant to the CAIR NO. Ozone Season Trading Program.
  - Copies of all records and logs for gross electrical output and useful thermal energy required by 35 IAC 225.550.
- The CAIR designated representative of a CAIR NO, Ozone Season source and each CAIR NO, Ozone Season
  unit at the source must submit to the Agency and USEPA the reports and compliance certifications required
  pursuant to the CAIR NO, Ozone Season Trading Program, including those pursuant to 49 CFR 96, subpart HHHH
  and 35 IAC 223-350.

### LIABILITY:

- No revision of a permit for a CAIR NO<sub>2</sub> Ozone Season unit may excuse any violation of the requirements of 35 IAC Part 225, Subpart E or the requirements of the CAIR NO<sub>2</sub> Ozone Season Trading Program.
- Each CAIR NO<sub>x</sub> Ozone Season source and each CAIR NO<sub>x</sub> Ozone Season unit must meet the requirements of the CAIR NO<sub>x</sub> Ozone Season Tradica Program
- Any provision of the CAIR NO, Ozone Season Trading Program that applies to a CAIR NO, Ozone Season source (including any provision applicable to the CAIR designated representative of a CAIR NO, Ozone Season source) will also apply to the enviror and operator of the CAIR NO, Ozone Season source and to the owner and operator of each CAIR NO, Ozone Season unit at the source.
- 4) Any provision of the CAIR NO<sub>2</sub> Ozone Season Trading Program that applies to a CAIR NO<sub>2</sub> Ozone Season until (Including any provision applicable to the CAIR Resignated representative of a CAIR NO<sub>3</sub> Ozone Season unit) will also apply to the owner and operator of the CAIR NO<sub>2</sub> Ozone Season unit.
- The CAIR designated representative of a CAIR NO<sub>2</sub> Ozone Season unit that has excess emissions in any control
  period must surrender the allowances as required for deduction pursuant to 40 CFR 98.354(d)(1).
- The owner or operator of a CAIR NO, Ozone Season until that has excoss NO, emissions in any control period
  must pay any fine, penalty, or assessment or comply with any other remedy Imposed pursuant to the Act and 40
  CFR 96.344(d)(2).

### EFFECT ON OTHER AUTHORITIES:

No provision of the CAIR NO, Ozone Season Trading Program, a CAIR permit application, a CAIR permit, or a retired unit exemption pursuant to 40 CFR 98.30° will be constuded as exempting or excluding the owner and operator and, to the seriest applicable, the CAIR designated representative of a CAIR NO, Ozone Season source or a CAIR NO. Ozone Season until from compliance with any other regulation promutigated pursuant to the CAA, the Act, any State regulation or parmit, or a federally endirecastle permit.

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### Attachment 6 Acid Rain Permit

## ACID RAIN PROGRAM PERMIT

217/785-1705

Pinckneyville Energy Center

Attn: Michael L. Menne, Alternate Designated Representative

1901 Chouteau Avenue (MC 602) St. Louis, Missouri 63103

<u>Oris No.</u>: 55202 IEPA I.D. No.: 145842AAA

Source/Unit: Pinckneyville Energy Center, CT01-08

Date Received: June 26, 2014

### STATEMENT OF BASIS:

In accordance with Section 39.5(17)(b) of Illinois Environmental Protection Act and Titles IV and V of the Clean Air Act, the Illinois Environmental Protection Agency is issuing this Acid Rain Program permit to Pinckneyville Energy Center.

## SULFUR DIOXIDE (SO2) ALLOCATIONS AND NITROGEN OXIDE (NO $_{\rm x}$ ) REQUIREMENTS FOR EACH AFFECTED UNIT:

CT01-08	SO <sub>2</sub> Allowances	These units are not entitled to an allocation of SO <sub>2</sub> allowances pursuant to 40 CFR Part 73.
0101 00	NO <sub>x</sub> limit	These units are not subject to a $NO_x$ emissions limitation pursuant to 40 CFR Part 76.

**PERMIT APPLICATION:** The permit application, which includes  $SO_2$  allowance requirements and other standard requirements, is attached and incorporated as part of this permit. The owners and operators of this source must comply with the standard requirements and special provisions set forth in the application

COMMENTS, NOTES AND JUSTIFICATIONS: This permit contains provisions related to  $SO_2$  emissions and requires the owners and operators to hold  $SO_2$  allowances to account for  $SO_2$  emissions from the affected units. An allowance is a limited authorization to emit up to one ton of  $SO_2$  during or after a specified calendar year. Although this plant is not eligible for an allowance allocated by USEPA, the owners or operators may obtain  $SO_2$  allowances to cover emissions from other sources under a marketable allowance program. The transfer of allowances to and from a unit account does not necessitate a revision to the unit  $SO_2$  allocations denoted in this permit (See 40 CFR 72.84).

This permit contains provisions related to  $NO_x$  emissions and requires the owners and operators to monitor  $NO_x$  emissions from affected units in accordance with applicable provisions of 40 CFR Part 75. These units are not

subject to a  $\text{NO}_{\kappa}$  emission limitation because USEPA has not adopted such limitation for combined cycle turbines.

This Acid Rain Program permit does not authorize the construction and operation of the affected units as such matters are addressed by Titles I and V of the Clean Air Act. This permit also does not affect the source's responsibility to meet all other applicable local, state and federal requirements, including 35 IAC Part 225, Subparts C, D, and E.

If you have any questions regarding this permit, please contact Melissa Nutt at 217/785-1705

Raymond E. Pilapil Acting Manager, Permit Section Division of Air Pollution Control

REP:MKN:psj

cc: Beth Valenziano, USEPA Region V Illinois EPA Region 3



United States Environmental Protection Agency Acid Rain Program

OMB No. 2060-025

## **Acid Rain Permit Application**

For more information,	saa instructions	and 40 CFR 72.	30 and 72.31.

This submission is: new revised for Acid Rain permit renewal

### STEP 1

Identify the facility name. State, and plant (ORIS) code. Pinckneyville Energy Center IL 55202
Facility (Source) Name IL 55202
Plant Code

### STEP 2

Enter the unit ID# for every affected unit at the affected source in column \*a.\*

Sec. D. S. Sold Control of Action Physics March 1997 A.

а	ь
Unit ID#	Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)
CT01	Yes
CT02	· Yes
CT03	Yes
. CT04	Yes
CT05	Yes
CT06	Yes
CT07	Yes
CT08	Yes
	Yes . ·
	Yes
	Yes
	, Yes
	Yes

EPA Form 7610-16 (Revised 12-2609)

Pinckneyville Energy Center Facility (Source) Name (from STEP 1)

Acid Rain - Page 2

### Permit Requirements

### STEP 3

Read the standard

- (1) The designated representative of each affected source and each affected unit at the source shall:

  (i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and

  (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;

  (2) The owners and operators of each affected source and each affected unit at the source shall:

  (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and

  (ii) Have an Acid Rain Permit.

### Monitoring Requirements

- (1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75. (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the source or unit, as appropriate, with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.

  (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

### Sulfur Dioxide Requirements

- (1) The owners and operators of each source and each affected unit at the source shall:
- (ii) Comply with the applicable Acid Rain emissions limitations for sulfurnitions.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act. (3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:

  Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
  Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).

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Pinckneyville Energy Center Facility (Source) Name (from STEP 1)

Acid Rain - Page 3

### Sulfur Dioxide Requirements, Cont'd.

### STEP 3, Cont'd.

- (4) Allowances shall be held in deducted from or transferred among Allowance Tracking System accounts in accordance with the Acid Rain
- Program.

  (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.

  (6) An allowance allocated by the Administrator 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, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.

  (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

### Nitrogen OxIdes Requirements

The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen

### **Excess Emissions Requirements**

- (1) The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.

  (2) The owners and operators of an affected source that has excess emissions in any calendar year shall:

  (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and

  (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

### Recordkeeping and Reporting Requirements

- (1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:

  (i) The certificate of representation for the designated representative for the source and each affected unit at the source 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;

EPA Farm 7610-16 (Revised 12-2009)

Pinckneyville Energy Center

Acid Rain - Page 4

### STEP 3, Cont'd.

### Recordkeeping and Reporting Requirements, Cont'd

(ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and, (iv) 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.

(2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

### Liability

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an 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 pursuant to section 113(c) of the Act. (2) 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 Act and 18 U.S.C. 1001.

- recininal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.

  (3) 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. (4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.

  (5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.

  (6) Any provision of the Acid Rain Program that applies to an affected unit (Including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit. (7) Each violation of a provision of 40 CFR pats 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

### **Effect on Other Authorities**

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating

EPA Form 7610-16 (Revised 12-2009)

Pinckneyville Energy Center Facility (Source) Name (from STEP 1)

Acid Rain - Page 5

## Effect on Other Authorities, Cont'd.

to applicable National Ambient Air Quality Standards or State Implementation

STEP 3, Cont'd.

to applicable National Amolent Air Quality Standards of State Implementation Plans;

(2) Limiting the number of allowances a source can hold; provided, that the number of allowances held by the source shall not affect the source's obligation to comply with any other provisions of the Act;

(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, including any prudence review requirements under such State law;

(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

### Certification

STEP 4 Read lhe certification statement, sign, and date.

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. 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.

Michael L. Menne - Alternate Designated Representative

### **PERMIT CALCULATION SHEET**

Facility:	Facility: Ameren Missouri – Pinckneyville Energy Center				
Analyst:			145842AAA 01050020		
Date:					
Contact Name:	Bob LaPlaca	Type of Application:	Renewal		
Phone:	314-554-3647				
Email:	RLaplaca@ameren.com				

### 1) <u>Technical Review Stage</u>

a. Date Technical Review began:

August 13, 2014

b. Date Technical Review ended:

October 8, 2014

c. Results of Technical Review:

i. Request(s) for Additional Information during Technical Review Stage: Yes

		Date Sent	Deadline Given to Source	Extension Provided	(if Yes, Extension Deadline)
	1.	08/13/2014	None	N/A	N/A
1	2.	08/15/2014	08/20/2014	N/A	N/A

ii. Emissions of Greenhouse Gases (GHG):

As explained in the Statement of Basis, this source is a major source for emissions of GHG, with potential GHG emissions of more than 100 tpy (mass) and 100,000 tpy (CO2e). This source is also not subject to any applicable requirements for emissions of GHG. The Agency is also not collecting permit fees from CAAPP sources for GHG emissions.

Actual GHG emissions less than 50% of 100,000 tpy of CO2e:

Yes

GHG PTE calculations relied on and determined:

Source Review of Preliminary DRAFT Permit(s)

a. Copy of Preliminary DRAFT Permit(s) in Permit Record

Yes

Date Sent	Deadline Given to Source	Extension Provided	(if Yes, Extension Deadline)
1. 08/18/2014	09/02/2014	No	N/A

Significant Source Comment(s) Received from Preliminary Draft:

Yes

### Date Comments Received: 09/02/2014

Summary of the Changes Requested by the Source	Kesponse						
Typographically errors	Fixed .						
Source wants Process heaters as insignificant activity	No, The units are greater than 2.5 therefore they can't be insig.						
Requested deletion of major for GHG	No, They ARE major						
Deletion of a non-appliciablity for turbines	Ok, it was just clarifying language						
Move language to another section	Ok						
Deletion of a work practice limit for total usage of recip. engines	No, this limit is really a work practice						
Deletion of work practive for black start and stationary RICE	No for black start, Ok for stationary RICE						
Deletion of record keeping for black start	No, that is what the rule says						
Deletion of record keeping for stationary RICE	Ok, no stationary RICE						
	Typographically errors Source wants Process heaters as insignificant activity Requested deletion of major for GHG Deletion of a non-appliciability for turbines Move language to another section Deletion of a work practice limit for total usage of recip. engines Deletion of work practice for black start and stationary RICE Deletion of record keeping for black start						

### 3) Preliminary Final Stage

Copy of Preliminary Final Permit in Permit Record: Yes
Source Requested a Copy of Final Permit to be Issued: No

c. Permit Engineer Recommendation:
i. Recommend Continuing with Final Issuance:

Yes

ii. Recommend Place on Hold for 60 days before issuance:

No

### Further Discussions:

Source requested process heater section be deleted and the heaters put back as insignificant activities. However, 35 IAC 201.210 states "units with a rated heat input capacity of less than 2.5 mmbtu/hr that fire only natural gas, propane or liquefied petroleum gas" and the source's heaters are greater than 2.5 mmbtu/hr.

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	4)	Ali Procedural Requirements Met:	Yes
	5)	Additional Information Critical to Supporting the Pe	
		Conclusion (Recommendation):	•
	6)	Conclusion (Recommendation):	Grant
		Permit Engineer Signature	Supervisor's Signature (12)
		·	
			•
		•	•
	· r		
		Page { PAGE	of { NUMPAGES }
		-	

### PERMIT REVIEW TRAVELER SHEET

I.D. # 145842AAA Source				ource Name Pinckneyville Power Plant						Da	Date Received 7-11-2014				
Application # 01050020 Location				Pincl	cneyville						Da	Date Opened 7-16-2014			
Program TITLE V Type OPERAT						ERATING	NG Title V Type				RENEWAL				
Flag	Date	Section			Contact						Expiration Date				
													***************************************		
Emissions(Tons/Year) CO			NOX				SOZ			Total HAP		Highest Single HAP			
Project/Total I			325.91	44	0.53	76.	.74	49.44		78.94	142.550116		96.78 - FORM		
· ·	Hittease	L													
Initial Compi			Analys			nit Mana			ate of Determination			App	pplication Complete?		
CAAPP Comp		N/A	Muse			MTR			7/24/14			Yes V Yes		□ No	
Fee Completer Technical Con		] N/A	WKC		<del>-   -</del>	/	Voto	5: /	7	8/201	14		Yes	□ No	
							010	Z-AIG	#	e riler	-				
Welcome P	Phone Call to Permit Ap	plicant ntact Na				Te	lephone	-#		Was Additio	nal life	ormation	Requested?		
Date						1									
For Incomple	te Applications											Number	of Items Requ	ested	
Type of Letter	Sent				Anal	yst Unit Manager			Date Issued (or Amor			or Amou	unt of Fee Requested)		
Notice of Add												S			
	mplctcness(NOI)								-						
	ddditional Information(R	(Al)													
	nformation Received? nt to Deny CAAPP					Ycs No			Date Received						
						1			Date Unit			de Mana	t Manager Date		
Permit Proce	d for Unit Manager Revi	cw &				Analyst			_	Date Onit W		HI MINDA	ger	Date	
Comments Returned to Analyst				N			KC		C	08/18/14					
Final Draft Sent to Applicant for Comments										/ '					
	Word Processing			□ N/A	.				ļ						
Draft Permit to Community Relations N/A  Public Comment Period Initiated						AAI	VIKC			0/08/14					
Public Hearin				N/A		10,1				700/17					
Public Comment Period Completed N/A NKC 11/07/14															
45 Day USEPA Comment Period N/A NAC 11/2-2/14															
USEPA Comi	ments Received		Yes	No.						<del></del>					
Responsivene	ss Summary Completed			□ N/A	`										
Public Particip	Public Participation Completed														
Final Action (Fill in One)				Analyst				Date l		Unit Manager		Date			
Permit Not Required															
Grant					MKC_			12	12/04/14   DX		-M	12	12/23/11		
Deny .															
Mail-Out District Office Pu			blic Parti	olic Participation List			Cook County				Health Dept				
	Enforcement			Ot	her				Init.			_	Date 0-26-14		
						1			(	Community					
Permit Electronically Sent to Applicant						CE	s	DLC		Relations	U	SEPA	AQPS	FOS	
Person Sendin	Person Sending (Initials)														

# **EXHIBIT 4**

### Cooper, Roston

From:

Cooper, Roston

Sent:

Thursday, June 26, 2014 10:46 AM

To:

Laplaca, Robert H

Hutcheson, Michael J; Anderson, Kenneth J; Michael, John

Subject:

RE: Ross Cooper's Email Address

Thank you very much for the documentation of your position. I have reviewed the documents, and will have John Michael add them into the relevant permit records (John, please print the email and attachments and add to their

"we ask that you contact us for a further discussion on this matter" - I understand your rationale as it is well organized and understandable so I don't know the direct benefit of further discussion... personally, I am comfortable with what I have to raise your position up my chain... ultimately the issue is that there is a difference of opinion on whether "consistent with 201.210" operates as a preclusion from designation as insignificant under 201.211 if they are in a named category under Section 210.

Let me know if you want to discuss, I am at my desk till lunch as far as I know, and around this afternoon as well. 217/785-1723

From: Laplaca, Robert H [mailto:RLaplaca@ameren.com]

Sent: Thursday, June 26, 2014 9:01 AM

To: Cooper, Roston

Cc: Hutcheson, Michael J; Anderson, Kenneth J; Michael, John

Subject: RE: Ross Cooper's Email Address

### Ross:

The attachments are Ameren's basis for asserting that the natural gas heaters at Goose Creek and Raccoon Creek should continue to be treated as insignificant activities in the renewed CAAPP permits. Once you have reviewed these documents, we ask that you contact us for a further discussion on this matter, and before the permits are sent to public

Thanks for your consideration of this issue.

Bob LaPlaca Ameren Environmental Services Dept. 314-554-3647

From: Cooper, Roston [mailto:Roston.Cooper@Illinois.gov]

Sent: Wednesday, June 25, 2014 4:48 PM

To: Laplaca, Robert H

Cc: Hutcheson, Michael J; Anderson, Kenneth J Subject: RE: Ross Cooper's Email Address

I have been swamped, my apologies for the delay.

"It was our understanding from the call that you would first send us an e-mail detailing your rationale for the significant activity determination based on the "revised" IEPA guidance or policy." -- There was never guidance or policy relating to

insignificant activities that I am aware of, so I don't think that anything policy-wise is being revised per se. The result may be different today, true, but the rationale is the same as it always was (i.e., apply the rule). Today I would say we are reading the rule more closely than we did in the past, and thus giving rise to the issue. A variation of the below rationale is intended to be inserted into the permit's SOB.

- the implementation of 201.210(a)/211 is that an emission unit either falls under the prescribed listing of 201.210(a) or the broader proposed "listing" of 201.211, not both.
- You get to 201.211 via 201.210(a)(1), and in 201.211(a) it states that "an emission unit at the source be treated
  as an insignificant activity consistent with Section 201.210." The phrase "consistent with" is applied to all of
  Section 210.
- 201.211(a)(1) allows for 1.0 lb/hr of a pollutant. In this case that correlates to a 10.0 mmBtu/hr unit @ 100 lb NOx/mmscf AP42 1.4-1.
- A 10.0 mmBtu/hr fuel combustion emission unit potentially allowed via 211 is not consistent with 201.210, specifically 201.210(a)(4), which has a prescribed limit of less than 2.5 mmBtu/hr for fuel combustion emission units. Therein lies the conflict.
- The Agency appears to have been in error in prior permitting actions as related to this emission unit type and its significant status.

In addition to following orders, I have given some thought to this issue which I will share. Based on the design of 210/211, the Board's choice of language must play a role which appears to be that an emission unit type listed in 201.210 effectively gets that one bite at the apple, to put it colloquially. The Board went to some effort to create so many prescriptive pigeon holes in 210 that it seems quite odd to me that if it was their intent that 210 could be leap-frogged by 211, why bother to list the very specific emission units and limits in 210 at all and just have a 211. Additionally, if the term 'consistent with' does not do what we think it does... what does it apply to? In rationalizing those oddities (i.e., that there are both a 210 and 211 and the phrase "consistent with" must play a role)... to implement the rule it seems that those prescriptive pigeon holes are exactly that as caveated by the "consistent with," and the intent therefore of 201.211 is to catch the myriad of small emission units the Board could not possibly list. For example, a small tub grinder... there is no listing for that emission unit type in 201.210 and so it passes to 211 with no consistency conflict in 210.

From my chair, my goal is to get it done right (whatever right may be) while obviously following my superiors' instruction. Consistent with trying to get it right, I will be more than happy to personally review a differing opinion on the subject, and as I had said, I will be more than happy to internally relay your opinion to my superiors for a ruling.

Let me know your thoughts. Have a good one.

Ross

### Section 201.210 Categories of Insignificant Activities or Emission Levels

- The owner or operator of a CAAPP source, pursuant to 35 Ill. Adm. Code 270, shall submit to the Agency within its CAAPP application a list of the following activities or emission levels:
  - 4) Direct combustion units designed and used for comfort heating purposes and fuel combustion emission units as follows:
    - Units with a rated heat input capacity of less than 2.5 mmbtu/hr that fire only natural gas, propane or liquefied petroleum gas;

### **CERTIFICATE OF SERVICE**

I, the undersigned, certify that on this 17<sup>th</sup> day of March, 2015, I have served electronically the attached **MOTION FOR SUMMARY JUDGMENT** upon the following persons:

Mr. John T. Therriault, Clerk Illinois Pollution Control Board James R. Thompson Center 100 West Randolph, Suite 11-500 Chicago, Illinois 60601 john.therriault@illinois.gov

Mr. Christopher Grant Assistant Attorney General Office of the Attorney General 69 West Washington Street, Suite 1800 Chicago, Illinois 60602 cgrant@atg.state.il.us

and their having waived paper service, electronically upon the following person:

Ms. Carol Webb, Hearing Officer Illinois Pollution Control Board James R. Thompson Center 100 West Randolph Street, Suite 11-500 Chicago, Illinois 60601 carol.webb@illinois.gov

Joshua R. More Raghav Murali

SCHIFF HARDIN LLP 233 South Wacker Drive

Suite 6600

Chicago, IL 60606

312-258-5500

Fax: 312-258-5600

jmore@schiffhardin.com rmurali@schiffhardin.com