217/782-2113

RENEWAL
CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT

PERMITTEE:

Dynegy Kendall Energy, LLC
Attn: James Eiseman, Plant Manager
1401 County Line Road
Minooka, Illinois 60447

I.D. No.: 093808AAD
Application No.: 03030002

Date Received: February 22, 2008
Date Issued: March 20, 2009
Expiration Date[1]: March 20, 2014

Operation of: Kendall Energy, Electric Generation
Source Location: 1401 County Line Road, Minooka, Kendall County, 60447
Responsible Official: James Eiseman, Plant Manager

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 Ross Cooper at 217/782-2113.

Edwin C. Bakowski, P.E.
Manager, Permit Section
Division of Air Pollution Control

ECB:RWC:psj

cc: Illinois EPA, FOS, Region 1
CES
Lotus Notes

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

TABLE OF CONTENTS

		Page
1.0	**INTRODUCTION**	4
	1.1 Source Identification	
	1.2 Owner/Parent Company	
	1.3 Operator	
	1.4 Source Description	
	1.5 Title I Conditions	
2.0	**LIST OF ABBREVIATIONS AND ACRONYMS COMMONLY USED**	6
3.0	**CONDITIONS FOR INSIGNIFICANT ACTIVITIES**	7
	3.1 Identification of Insignificant Activities	
	3.2 Compliance with Applicable Requirements	
	3.3 Addition of Insignificant Activities	
4.0	**SIGNIFICANT EMISSION UNITS AT THIS SOURCE**	9
5.0	**OVERALL SOURCE CONDITIONS**	10
	5.1 Applicability of Clean Air Act Permit Program (CAAPP)	
	5.2 Area Designation	
	5.3 Source-Wide Applicable Provisions and Regulations	
	5.4 Source-Wide Non-Applicability of Regulations of Concern	
	5.5 Source-Wide Control Requirements and Work Practices	
	5.6 Source-Wide Production and Emission Limitations	
	5.7 Source-Wide Testing Requirements	
	5.8 Source-Wide Monitoring Requirements	
	5.9 Source-Wide Recordkeeping Requirements	
	5.10 Source-Wide Reporting Requirements	
	5.11 Source-Wide Operational Flexibility/Anticipated Operating Scenarios	
	5.12 Source-Wide Compliance Procedures	
6.0	**CONDITIONS FOR EMISSIONS CONTROL PROGRAMS**	17
	6.1 Clean Air Interstate Rule (CAIR) Program	
	6.2 Acid Rain	
7.0	**UNIT SPECIFIC CONDITIONS FOR SPECIFIC EMISSION UNITS**	22
	7.1 Natural Gas-Fired Turbine (Subject to NSPS - 40 CFR Subpart GG) Heat recovery Steam Generators (HRSG) (Subject to NSPS - 40 CFR Subpart Da)	
	7.2 Natural Gas Fired Fuel Heater	

Page

7.3 Cooling Towers
7.4 Diesel Engines (Subject to NESHAP - 40 CFR 63 Subpart ZZZZ)

8.0 GENERAL PERMIT CONDITIONS 78

8.1 Permit Shield
8.2 Applicability of Title IV Requirements
8.3 Emissions Trading Programs
8.4 Operational Flexibility/Anticipated Operating Scenarios
8.5 Testing Procedures
8.6 Reporting Requirements
8.7 Title I Conditions

9.0 STANDARD PERMIT CONDITIONS 83

9.1 Effect of Permit
9.2 General Obligations of Permittee
9.3 Obligation to Allow Illinois EPA Surveillance
9.4 Obligation to Comply with Other Requirements
9.5 Liability
9.6 Recordkeeping
9.7 Annual Emissions Report
9.8 Requirements for Compliance Certification
9.9 Certification
9.10 Defense to Enforcement Actions
9.11 Permanent Shutdown
9.12 Reopening and Reissuing Permit for Cause
9.13 Severability Clause
9.14 Permit Expiration and Renewal
9.15 General Authority for the Terms and Conditions of this Permit

10.0 ATTACHMENTS

1 Example Certification by a Responsible Official 1-1
2 Emissions of Particulate Matter from Process Emission Units 2-1
3 Compliance Assurance Monitoring (CAM) Plan 3-1
4 Guidance 4-1
5 Clean Air Interstate Rule (CAIR) Permit 5-1
6 Acid Rain Program Permit 6-1

1.0 INTRODUCTION

1.1 Source Identification

Dynegy Kendall Energy, LLC
1401 County Line Road
Minooka, Illinois 60447
815/521-1000

I.D. No.: 093808AAD
County: Kendall
Standard Industrial Classification: 4911, Electric Generation

1.2 Owner/Parent Company

Dynegy Kendall Energy, LLC
1000 Louisiana Street, Suite 5800
Houston, Texas 77002

1.3 Operator

Dynegy Kendall Energy, LLC
1401 County line Road
Minooka, Illinois 60447

James Eiseman, Plant Manager
815/521-1000

1.4 Source Description

Dynegy Kendall Energy, LLC is located at 1401 County Line Road. The source utilizes four natural gas turbines with heat recover steam generators (HSRG) to generate electricity. The HSRGs are equipped with natural gas-fired duct burners (supplemental firing), and the gas turbines are capable of utilizing steam injection for power augmentation. In addition, the turbines and HSRGs control NO_x with low NO_x burners and selective catalytic reduction (SCR) systems.

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

1.5 Title I Conditions

As generally identified below, this CAAPP permit contains certain conditions for emission units at this source that address the applicability of permitting programs for the construction and modification of sources, which programs were established pursuant to Title I of the Clean Air Act (CAA) and regulations thereunder. These programs include PSD and MSSCAM, and are implemented by the Illinois EPA pursuant to Sections 9, 9.1, 39(a) and 39.5(7)(a) of the Illinois Environmental Protection Act (Act). These conditions continue in effect, notwithstanding the expiration date specified on the first page of this permit, as their authority derives from Titles I and V of the CAA, as well as Titles II and X of the Act. (See also Condition 8.7.)

a. This permit contains Title I conditions that reflect Title I requirements established in permits previously issued for this source, which conditions are specifically designated as “T1.”

2.0 LIST OF ABBREVIATIONS 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 Standards, Research Triangle Park, NC 27711
ATU	Allotment Trading Unit
BACT	Best Available Control Technology
BAT	Best Available Technology
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	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_x	Nitrogen Oxides
NSPS	New Source Performance Standards
PM	Particulate Matter
PM_{10}	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods
$PM_{2.5}$	Particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 microns as measured by applicable test or monitoring methods
PSD	Prevention of Significant Deterioration (40 CFR 52.21, New Source Review for attainment areas)
RMP	Risk Management Plan
SO_2	Sulfur Dioxide
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 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:

Diesel Fuel truck Unloading

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:

Ammonia Tank

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:

Direct combustion units designed and used for comfort heating purposes and fuel combustion emission units as follows: (A) Units with a rated heat input capacity of less than 2.5 mmBtu/hr that fire only natural gas, propane, or liquefied petroleum gas; (B) Units with a rated heat input capacity of less than 1.0 mmBtu/hr that fire only oil or oil in combination with only natural gas, propane, or liquefied petroleum gas; and (C) Units with a rated heat input capacity of less than 200,000 Btu/hr which never burn refuse, or treated or chemically contaminated wood [35 IAC 201.210(a)(4)].

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)(11)].

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 Unit	Description	Date Constructed	Emission Control Equipment
Unit 1	Natural Gas Fired Turbine (nominal 2166 mmBtu/hr)	June 1999	Low NO_x Burners and SCR1
HRSG 1	Natural Gas Fired HRSG (350 mmBtu/hr)	June 1999	SCR1
Unit 2	Natural Gas Fired Turbine (nominal 2166 mmBtu/hr)	June 1999	Low NO_x Burners and SCR2
HRSG 2	Natural Gas Fired HRSG (350 mmBtu/hr)	June 1999	SCR2
Unit 3	Natural Gas Fired Turbine (nominal 2166 mmBtu/hr)	June 1999	Low NO_x Burners and SCR3
HRSG 3	Natural Gas Fired HRSG (350 mmBtu/hr)	June 1999	SCR3
Unit 4	Natural Gas Fired Turbine (nominal 2166 mmBtu/hr)	June 1999	Low NO_x Burners and SCR4
HRSG 4	Natural Gas Fired HRSG (350 mmBtu/hr)	June 1999	SCR4
GHS-1	Natural Gas Fired Heater (20.1 mmBtu/hr)	June 1999	Low NO_x Burners
T1-T18	Cooling Tower Cells	June 1999	Drift Eliminators

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 PM_{10}, NO_x, VOM, CO, SO_2 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).

5.2 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, NO2, ozone, PM2.5, PM10, SO2).

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)	412.9
Sulfur Dioxide (SO_2)	111.0
Particulate Matter (PM)	319.3
Nitrogen Oxides (NO_x)	317.4
HAP, not included in VOM or PM	----
Total	954.1

5.6.2 Emissions of Hazardous Air Pollutants

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. 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). This condition is being imposed so that the source is not a major source of HAP emissions and the requirements of 40 CFR Part 63, Subpart YYYY, National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines, do not apply to the source. The Permittee shall fulfill the applicable testing, recordkeeping, and reporting requirements of Conditions 5.7.2, 5.9.2, and 5.10.2.

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, emissions of HAPs exceeded 80% of major source threshold for individual or total HAPs (greater than 8 tons of a single HAP or greater than 20 tons of total HAPs), 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 the largest turbine which makes the largest contributions to individual and total HAP emissions.

b. The calculation as to whether the 80% of major source threshold was exceeded shall be based on records and procedures in Condition 5.9.2 and shall be completed by January 31 for the previous calendar year. If testing is required it shall be completed by May 1st.

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 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 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.

5.10 <u>Source-Wide Reporting Requirements</u>

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.

5.11 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:

Unit 1 with HSRG 1, Unit 2 with HSRG 2, Unit 3 with HSRG 3, Unit 4 with HSRG 4

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_2 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_x Emissions

The owners and operators of this source shall not violate applicable CAIR provisions, in 35 IAC Part 225, Subpart D. 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 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_x 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_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.

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:

Unit 1 with HSRG 1, Unit 2 with HSRG 2, Unit 3 with HSRG 3, Unit 4 with HSRG 4

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)(l) 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 Turbine (Subject to NSPS - 40 CFR Subpart GG)
Heat recovery Steam Generators (HRSG) (Subject to NSPS - 40 CFR Subpart Da)

7.1.1 Description

The turbines are process emission units, and the HRSGs are fuel combustion emission units exhausted through a common stack, and are used to generate electricity. The turbines and HRSGs are powered by natural gas. Each system has a total nominal capacity of 275 MW (summer) and 300 MW (winter) NO_x emissions are controlled with dry low NO_x burners and selective catalytic reduction (SCR) systems.

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 Unit	Description	Date Constructed	Emission Control Equipment
Unit 1	Natural Gas Fired Turbine (nominal 2166 mmBtu/hr)	June 1999	Low NO_x Burners and SCR1
HRSG 1	Natural Gas Fired HRSG (350 mmBtu/hr)	June 1999	SCR1
Unit 2	Natural Gas Fired Turbine (nominal 2166 mmBtu/hr)	June 1999	Low NO_x Burners and SCR2
HRSG 2	Natural Gas Fired HRSG (350 mmBtu/hr)	June 1999	SCR2
Unit 3	Natural Gas Fired Turbine (nominal 2166 mmBtu/hr)	June 1999	Low NO_x Burners and SCR3
HRSG 3	Natural Gas Fired HRSG (350 mmBtu/hr)	June 1999	SCR3
Unit 4	Natural Gas Fired Turbine (nominal 2166 mmBtu/hr)	June 1999	Low NO_x Burners and SCR4
HRSG 4	Natural Gas Fired HRSG (350 mmBtu/hr)	June 1999	SCR4

7.1.3 Applicable Provisions and Regulations

a. The “affected turbines”, “affected HRSG”, and “affected turbine/HRSG system” for the purpose of these unit-specific

conditions, are turbines described in Conditions 7.1.1 and 7.1.2.

b. i. When the duct burner in an affected HRSG <u>is not</u> being fired:

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.

B. 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.

ii. When the duct burner in an affected HRSG is being fired:

The emission of smoke or other particulate matter from the affected turbine/HRSG system shall not have an opacity greater than 20 percent, pursuant to 40 CFR 60.42a(b), except for one 6-minute period per hour of not more than 27 percent opacity, as further allowed by 40 CFR 60.42a(b).

iii. When the duct burner in an affected turbine/HRSG system <u>is</u> fired, the Permittee is hereby shielded from 35 IAC 212.122 and 35 IAC 212.123 [Condition 7.1.3(b)(i)(A) and Condition 5.3.2(b)] for the affected boilers as it must comply with 40 CFR 60.42a(b) [Condition 7.1.3(b)(ii)]. This federal rule establishes an identical standard of general applicability, i.e., 20 percent opacity measured on a six minute average, as 35 IAC 212.122, the opacity standard for large new fuel combustion emission units. The Illinois EPA has determined that the exception in the federal rule, i.e., one 6-minute period per hour of up to 27 percent opacity, is comparable to the exception allowed by 35 IAC 212.122(b), i.e., up to three minutes aggregate per hour with up to 40 percent opacity and that for

purpose of streamlined implementation and enforcement should be considered sufficient to show compliance with 35 IAC 212.122.

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 turbine is 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 (percent by weight)	F (NO_x percent by volume)
$N \leq 0.015$	0
$0.015 < N \leq 0.1$	0.04 (N)
$0.1 < N \leq 0.25$	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_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. The affected HRSGs are subject to the NSPS for Electric Utility Steam Generating Units, 40 CFR 60 Subparts A and Da, because the construction, modification, or

reconstruction is commenced after September 18, 1978 and is capable of combusting more than 73 megawatts (250 million Btu/hour) heat input of fossil fuel. 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 60.44(a)(d)(1), no new source owner or operator shall cause to be discharged into the atmosphere from any affected HRSG for which construction commenced after July 9, 1997 any gases which contain nitrogen oxides (expressed as NO_2) in excess of 200 nanograms per joule (1.6 pounds per megawatt-hour) gross energy output, based on a 30-day rolling average, except as provided under 40 CFR 60.46a(k)(1).

ii. Standard for Sulfur Dioxide (SO_2)

Pursuant to 40 CFR 60.43(a)(b)(2), no owner or operator shall cause to be discharged into the atmosphere from any affected HRSG which combusts liquid or gaseous fuels, any gases which contain sulfur dioxide in excess of 100 percent of the potential combustion concentration (zero percent reduction) when emissions are less than 86 ng/J (0.20 lb/million Btu) heat input.

iii. Standard for Particulate Matter (PM)

Pursuant to 40 CFR 60.42(a)(1), no owner or operator of an affected HSRG shall cause to be discharged into the atmosphere from that affected HSRG any gases that contain particulate matter in excess of (0.03 lb/million Btu) heat input derived from the combustion of solid, liquid, or gaseous fuel.

iv. Standard for Opacity

Pursuant to 40 CFR 60.42(b), no owner or operator of an affected HSRG shall cause to be discharged into the atmosphere from that affected HSRG any gases which exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

g. Pursuant to 35 IAC 216.121, no person shall cause or allow the emission of carbon monoxide (CO) into the atmosphere from any fuel combustion emission source with actual heat input greater than 10 mmBtu/hr to exceed 200 ppm, corrected to 50 percent excess air.

Note: The affected HRSGs are fuel combustion emission sources.

h. Pursuant to 35 IAC 217.121(a), no person shall cause or allow the emission of nitrogen oxides (NO_x) into the atmosphere in any one hour period from any new fuel combustion emission source with an actual heat input equal to or greater than 73.2 MW (250 mmBtu/hr) to exceed the following standards and limitations:

For gaseous fossil fuel firing, 0.20 lbs/mmBtu of actual heat input

Note: The affected HRSGs are fuel combustion emission sources.

i. Pursuant to 35 IAC 217 Subpart V: Electric Power Generation:

i. During each ozone control period (May 1 through September 30):

A. The emissions of NO_x from each turbine/HRSG system shall not exceed 0.25 lb/mmBtu of actual heat input based on a ozone control period average, for that unit, pursuant to 35 IAC 217.706(a).

ii. If the Permittee elects to have an affected turbine/HRSG system comply by participation in a NO_x averaging demonstration as provided for and authorized above:

A. The affected turbine/HRSG system shall be included in only one NO_x averaging demonstration during an ozone control period, pursuant to 35 IAC 217.708(d).

B. The NO_x averaging demonstration shall only include other EGU that are authorized through a federally enforceable permit to participate in a NO_x averaging demonstration and for which the owner or operator of the EGU maintains the required records, data and reports and submits copies of such records, data, and reports to the Illinois EPA upon request, pursuant to 35 IAC 217.708(c) and (g).

C. The effect of failure of the NO_x averaging demonstration to show compliance shall be that the compliance status of the affected turbine/HRSG system shall be determined pursuant to Condition 7.1.3(i)(i)(A) as if the NO_x emission rates of the affected turbine/HRSG system were not averaged with other EGU, pursuant to 35 IAC 217.708(g).

Note: Given the emission determination methods specified by 35 IAC 217.710, the emissions of NO_x for purposes of these standards are generally calculated in accordance with the federal Acid Rain Program and are different from the emissions determined for purposes of the NO_x Trading Program.

j. Startup Provisions

Subject to the following terms and conditions, the Permittee is authorized to operate the affected turbine/HRSG systems in violation of the applicable standards in Condition 7.1.3(b) and the hourly emission limits for NOx in Condition 7.1.6(a) and (b) during startup. This authorization is provided pursuant to 35 IAC 201.149, 201.161 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/HRSG system(s) in accordance with written procedures prepared by the Permittee and maintained at the facility, in the control room for the each affected turbine/HRSG system(s), that are specifically developed to minimize emissions from startups and that include, at a minimum, the following measures:

A. The Permittee shall conduct startup of an affected turbine/HRSG system in accordance with the manufacturer's written instructions or other written instructions prepared by the source owner or operator and maintained on site.

B. The Permittee shall take the following measures to minimize emissions resulting from startups, the duration of startups, and minimize the frequency of startups:

I. 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 source owner or operator 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.

II. Maintaining 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 7.1.9(l) and 7.1.10(e).

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.

k. Malfunction and Breakdown Provisions

Subject to the following terms and conditions, the Permittee is authorized to continue operation of an affected turbine/HRSG system in violation of the applicable standards in Condition 7.1.3(b) and the hourly emission limits for NOx in Condition 7.1.6(a) and (b) in the event of a malfunction or breakdown of the affected turbine/HRSG systems. This authorization is provided pursuant to 35 IAC 201.149, 201.161 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/HRSG system, remove the affected turbine/HRSG system 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(m) 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 turbine/HRSG systems 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 <u>Non-Applicability of Regulations of Concern</u>

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 can not be set so that such rules can not 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.

7.1.5 <u>Control Requirements and Work Practices</u>

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/HRSG system 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 turbine/HRSG systems 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/HRSG system with appropriate adjustments to reduce emissions.

B. Implementation of inspection and repair procedures for a affected turbine/HRSG system prior to attempting startup following repeated trips.

iii. The source owner or operator shall maintain the affected turbine/HRSG systems 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, an inspection of emissions-related components shall be completed quarterly. Inspections shall be conducted in accordance with manufacturer's written instructions.

B. Repair and routine replacement of emissions-related components.

iv. The above procedures may incorporate the manufacturer's written instruction for operation and maintenance of the affected turbine/HRSG systems and associated control systems. The source owner or operator shall review these procedures at least every two years 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. The only fuels fired in the affected turbine/HRSG system systems shall be natural gas as defined in 40 CFR 60.41c [T1].

c. Each affected turbine shall be equipped, operated, and maintained with dry low NO_x combustors, and each affected HRSG shall be equipped, operated, and maintained with a selective catalytic reduction (SCR) system to reduce emissions of NO_x [T1].

d. i. Each affected turbine and affected HRSG shall be operated in a manner consistent with good air pollution control practice to minimize emissions of NO_x during startup, malfunction, and shutdown including [T1]:

A. Operation in accordance with the manufacturer's written instructions or other written instructions developed by the Permittee.

B. Review of operating parameters of the unit during startup, malfunction, and breakdown, or shutdown as necessary to make adjustments to reduce or eliminate excess emissions.

C. Operation of the SCR system as soon as and as long as the unit operating conditions are amenable to its effective use, except when precluded during periodic tuning.

Note: Periodic tuning is a separate operating mode of the affected turbine/HRSG during which emissions performance is evaluated and adjustments are made if necessary to established settings for various operating parameters to improve performance of units. Periodic tuning is a planned activity that is supervised by expert staff of the Permittee or outside personnel, which is generally conducted when units are not being relied upon for power output.

D. Review of operating parameters of the affected turbine/HRSG system during startup, malfunction, breakdown or shutdown of the duct burners or steam augmentation as necessary to make adjustments to minimize NO_x emissions.

e. Upon malfunction of the SCR system that will result in NO_x emissions in excess of Condition 7.1.6(b) [T1].

i. The Permittee shall as soon as practicable repair the affected system or remove the affected turbine or affected HRSG from service so that excess emissions cease.

ii. Consistent with the above, the Permittee shall begin shutdown of the affected turbine or affected HRSG

within 90 minutes, unless the malfunction is expected to be repaired in 120 minutes or such shutdown would threaten the stability of the regional electrical power system. In such case, shutdown of the affected turbine and affected HRSG shall be undertaken when it is apparent that repair will not be accomplished within 120 minutes or shutdown would not endanger the regional power system. In no case shall shutdown of a affected turbine or affected HRSG be delayed solely for the economic benefit of the Permittee.

Note: Conditions 7.1.5(c), (d), and (e) represents the application of the Best Available Control Technology as required by Section 165 of the Clean Air Act as established in Permit 98110017 for the affected turbines [T1].

f. The above limitations were established in Permit 98110017, 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].

7.1.6 Production and Emission Limitations

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

a. Emissions from the affected turbines and affected HRSGs shall not exceed the following limits:

	Without Duct Burners[3]	
Pollutant	(Lb/mmBtu[1])	(Lb/Hour[2])
NO_x	0.0166	36.0
CO	0.0511	93.8
PM/PM_{10}	0.0180	36.7
VOM	0.0094	17.3
SO_2	0.0060	13.4

1. Limit based on vendor/manufacture data and information provided in the permit application. These limits only apply in the maximum load range of the affected turbines and affected HRSGs.

2. Limit based on modeling data and information provided in the permit application. These limits apply at all times, except the limit on CO and VOM, which do not apply below 75% load. CO and VOM emissions between 50% and 75% load shall not exceed 541 and 30 lb/hour, respectively.

3. Emission limits are per unit.

Pollutant	With Duct Burners[3] (Lb/mmBtu[1])	(Lb/Hour[2])
NO_x	0.0166	41.7
CO	0.0626	136.7
PM/PM_{10}	0.0183	43.9
VOM	0.0162	35.3
SO_2	0.0060	15.6

1. Limit based on vendor/manufacture data and information provided in the permit application. These limits only apply in the maximum load range of the affected turbines and affected HRSGs.

2. Limit based on modeling data and information provided in the permit application. These limits apply at all times, except the limit on CO, which does not apply below 75% load. CO emissions shall not exceed 541 lb/hour between 50% and 75% load.

3. Emission limits are per unit.

Pollutant	Annual Emissions[2] Contribution	(Ton/Yr)[1]
NO_x	157.7	630.7
CO	598.8	2,395.2
PM/PM_{10}	192.3	769.1
VOM	154.6	618.4
SO_2	68.3	273.3

1. The annual limits for NO_x, PM/PM_{10}, VOM, and SO_2 are based on continuous operation at the maximum hourly emission rate. The CO annual limit was determined based on maximum emissions considering operation at reduced load (50% load) for 15% of the time.

2. Emission limits are per unit.

b. The emissions of NO_x from each affected turbine/HRSG when firing natural gas shall not exceed 4.5 ppmvd at 15% O_2 on an hourly average, except during startup, malfunction or shutdown or periodic tuning [T1].

Note: Conditions 7.1.6(b) represents the application of the Best Available Control Technology as required by Section 165 of the Clean Air Act as established in Permit 98110017 for the affected turbines [T1].

c. On a daily basis, VOM emissions from the affected turbines and/or the affected turbines and affected HRSGs shall not exceed 3,725 pounds, total, unless a lower limit applies as set forth below [T1].

   i. After VOM emissions testing is completed in accordance with Condition 12 of Construction Permit 98110017, VOM emissions from the affected turbines and/or the affected turbines and affected HRSGs during the ozone season (May through September) shall not exceed 3000 pounds/day, if such testing demonstrates that such limit can be consistently achieved by use of good combustion practices or an intermediate limit (between 3,000 pounds/day and 3,725 pounds/day) set by the Illinois EPA based on such testing as it demonstrates that such an intermediate limit can be consistently achieved. These requirements are set to address the impact of the facility's VOM emissions on ozone air quality.

d. To ensure that the source is operated as a minor source of HAPs, emissions from each affected turbine and affected HRSG pair shall not exceed the following limits [T1]:

Pollutant	(Lb/Hour)	(Tons/Year)
Formaldehyde	0.4	7.0
Toluene	0.4	7.0

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].

f. The above limitations were established in Permit 98110017, 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 turbine/HRSG systems 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

P_o = observed combustor inlet absolute pressure at test, mm Hg

H_o = observed humidity of ambient air, g H_2O/g air

e = transcendental constant, 2.718

T_a = 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 under paragraphs (b)(9) and (b)(10) of this section 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 paragraph (b)(1) of this section, 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/HRSG system 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 turbine/HRSG systems.

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/HRSG system/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/HRSG system(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/HRSG system(s) within 90 calendar days of the request, or on the date turbine/HRSG system(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/HRSG system operating conditions.

F. Raw data.

G. Opacity determinations.

H. Conclusions.

7.1.8 Monitoring Requirements

a. i. If an affected turbine/HRSG system is routinely operated or exercised to confirm that the turbine/HRSG system will operate when needed, the operation and opacity of the affected turbine/HRSG system shall be formally observed by operating personnel for the affected turbine/HRSG system or a member of source owner or operator's environmental staff on a regular basis to assure that the affected turbine/HRSG system is operating properly, which observations shall be made at least every six months.

ii. If an affected turbine/HRSG system is not routinely operated or exercised, i.e., the time interval between operation of an affected turbine/HRSG system is typically greater than six months, the operation and opacity of the affected turbine/HRSG system shall be formally observed as provided above each time the source owner or operator carries out a scheduled exercise of the affected turbine/HRSG system.

iii. The source owner or operator shall also conduct formal observations of operation and opacity of an affected turbine/HRSG system 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/HRSG system.

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/HRSG system who would be able to make a determination based from the observed opacity as to whether or not the affected turbine/HRSG system 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 paragraph (h)(3)of this section. 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 paragraph (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. Intentionally left blank.

d. i. The owner or operator of an affected turbine/HRSG system 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_x 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 combustion turbine/HRSG system that operates less than 350 hour per ozone control period may determine the heat input and NO_x emissions of the turbine/HRSG system as follows [35 IAC 217.710(c)]:

A. Heat input shall be determined from the metered fuel usage to the turbine/HRSG system or the calculated heat input determined as the product of the turbine/HRSG system's maximum hourly heat input and hours of operation as recorded by operating instrumentation on the turbine/HRSG system [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. The affected turbine/HRSG system shall be equipped, operated, and maintained with a continuous monitoring system to monitor and record the fuel consumption being fired.

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/HRSG system(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/HRSG system 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_x emissions are determined pursuant to 35 IAC 217.710(c) (Condition 7.1.8(d)(ii)) 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 and other fuels used to fire the turbine/HRSG systems 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. i. A maintenance and repair log for the affected turbine/HRSG system, listing each activity performed with date.

ii. A maintenance and repair log for each SCR system and each SCR reagent storage system, listing activities performed with date, including a record of the following:

A. Whether the SCR control system is in operation or not.

B. Type of reagent in use if SCR control is in use.

C. Manufacture/vendor or site developed operating and maintenance procedures.

D. Operating and maintenance logs and addition or replacement of a catalyst layer.

d. The Permittee shall maintain following records for each affected turbine/HRSG related to periodic tuning:

i. The date and duration of periodic tuning of the affected turbine /HRSG and/or associated SCR control system.

ii. The reason for tuning (e.g., regularly scheduled or special purpose), scope of tuning (e.g., performance of the affected turbine, SCR and/or duct burner) and identity and employer of individual(s) supervising tuning.

iii. Identification of each operating scenario for which tuning is performed, with the emission rates before and after tuning and a summary of the adjustments that were made to settings for operating parameters.

iv. Recommendations, if any, for additional tuning or maintenance/repair to be performed for the affected turbine/HRSG.

v. NOx emissions from each affected turbine/HRSG recorded during periodic tuning and each startup, malfunction or breakdown and shutdown during operation with duct burners or steam augmentation (in lbs/event).

e. Fuel consumption for the affected turbine/HRSG system, scf/month and scf/year.

f. Intentionally left blank.

g. i. Operating hours for the affected turbine/HRSG system, hr/month and hr/year.

ii. Identification of each hour when a turbine/HRSG system is operated at less than 50% load, other than during startup, malfunction, or shutdown.

h. Heat content of the fuel being fired in the affected turbine/HRSG system.

i. Emissions of each pollutant from the affected turbine/HRSG system, 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. 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/HRSG system.

l. The source owner or operator shall maintain the following records related to each startup and shutdown of the turbine/HRSG systems:

i. The following information for each startup of the turbine/HRSG systems:

A. Date and time of startup.

B. Whether operating personnel for the turbine/HRSG systems or air environmental staff are on site during startup.

C. A description of the startup, if written operating procedures are not followed during the startup or significant problems occur during the startup, including detailed explanation.

ii. The following information for each shutdown of a turbine/HRSG system:

A. Date and time of shutdown.

B. A description of the shutdown, if written operating procedures are not followed during the shutdown or significant problems occur during the shutdown, including detailed explanation.

iii. The following information for the turbine/HRSG systems when above normal opacity, as defined in Condition 7.1.8, has been observed by source personnel:

A. Name of observer, position and reason for being at site.

B. Date and duration of above normal opacity, including affected turbine/HRSG system, start time and time normal operation was achieved.

C. If normal operation was not achieved within 2 hours, an explanation why startup could not be achieved within this time.

D. A detailed description of the startup, including reason for operation.

E. An explanation why established startup procedures could not be performed, if not performed.

F. The nature of opacity following the end of startup or 2 hours of operation, whichever occurs first, and duration of operation until achievement of normal opacity or shutdown.

G. 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.

m. Records for Malfunctions and Breakdowns

The Permittee shall maintain records, pursuant to 35 IAC 201.263, of continued operation of an affected turbine/HRSG system subject to Condition 7.1.3(k) 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/HRSG system continued to operate in accordance with Condition 7.1.3(k).

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/HRSG system 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/HRSG system 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/HRSG system 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/HRSG system, the total number of startups, the total fuel consumption during the preceding calendar year.

c. The Permittee shall submit quarterly operating reports and emission data that include the following information for each CT/HRSG.

i. Number of startups, average duration of startup and total hours of operation;

ii. Number of duct burner events and duration of such operation;

iii. Number of power augmentation events and duration of such operation;

iv. Number of malfunction events and duration of such operation; and

v. Number of periodic tuning events and duration of such operation.

d. i. Annually report the heat input and NO_x emissions of the turbine/HRSG system as determined in accordance with 35 IAC 217.710(c) (Condition 7.1.8(d)(ii)), 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/HRSG system 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. Reporting of Startups

The source owner or operator shall submit semi-annual startup reports to the Illinois EPA pursuant to Sections 39.5(7)(a) and (f) of the Act. These reports shall be submitted along with the semi-annual reports required by Condition 7.1.10(c) and shall include the following information for startups of the affected turbine/HRSG system during the reporting period:

i. A list of the startups of the affected turbine/HRSG system, including the date, duration and description of each startup, accompanied by a copy of the records pursuant to Condition 7.1.9(i) for each startup for which such records were required.

ii. If there have been no startups of an affected turbine/HRSG system during the reporting period, this shall be stated in the report.

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/HRSG system subject to Condition 7.1.3(k) during malfunction or breakdown:

i. A. 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.

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 turbine/HRSG system s 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/HRSG system 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/HRSG system 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/HRSG system during the reporting period:

A. A listing of malfunctions and breakdowns, in chronological order, that includes:

I. 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 turbine/HRSG systems.

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 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

e. i. Compliance with the NO_x emission limitations of Conditions 7.1.3(f)(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 7.1.8(g), 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(f)(ii) is addressed by the requirements of Condition 7.1.5, the monitoring required by 7.1.8, the records required in Condition 7.1.9, and the reports required in Condition 7.1.10(a).

iii. Compliance with the PM emission limitations of Conditions 7.1.3(f)(iii) is addressed by the requirements of Condition 7.1.5, the monitoring required by 7.1.8, and the records required in Condition 7.1.9, and the reports required in Condition 7.1.10.

f. i. Compliance with the CO emission limitations of Conditions 7.1.3(g) 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 NO_x emission limitations of Conditions 7.1.3(h) and (i) 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).

g. Compliance with the emission limits in Conditions 5.6 and 7.1.6 is addressed by the records and reports required in Conditions 7.1.9 and 7.1.10 and from emission factors developed from the most recent approved stack test in accordance with Condition 7.1.7 (NO_x), standard emission factors (CO, VOM and PM/PM_{10}) and analysis of fuel sulfur content or standard factors (SO_2).

7.2 Natural Gas Fired Fuel Heater

7.2.1 Description

The heater is a fuel combustion emission unit used to increase the temperature of the natural gas entering the combustion turbine. The heater is powered by natural gas. NO_x emissions are controlled with low NO_x burners.

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
GHS-1	Natural Gas Fired Heater (20.1 mmBtu/hr)	June 1999	Low NO_x Burners

7.2.3 Applicable Provisions and Regulations

a. The “affected heater” for the purpose of these unit-specific conditions, is a heater 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. No person shall cause or allow the emission of carbon monoxide into the atmosphere from any fuel combustion emission source with actual heat input greater than 10 mmBtu/hr to exceed 200 ppm, corrected to 50 percent excess air [35 IAC 216.121].

7.2.4 Non-Applicability of Regulations of Concern

a. The affected heater is not subject to the New Source Performance Standards (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR Part 60, Subpart Dc, because pursuant to 40 CFR 60.41(c)the affected heater is by definition a process heater, and thus not included in the definition of steam generating unit.

b. The affected heater is not subject to 40 CFR 63 Subpart B, Requirements For Control Technology Determinations For Major Sources In Accordance With Clean Air Act Section 112(j), because the affected heater is not located at a major source of hazardous air pollutants, pursuant to 40 CFR 63.40(b).

c. i. The affected heater is not subject to 35 IAC 217.121, because the affected heater does not have an actual heat input equal to or greater than 250 mmBtu/hr.

   ii. The affected heater is not subject to 35 IAC 217.454, because the affected heater does not have a maximum design heat input greater than 250 mmBtu/hr.

d. i. The affected heater is 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].

e. The affected heater is not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources:

   i. For NO_x, because the affected heater uses a passive control measure, such as a combustion or other process design feature or characteristic, that is not considered a control device because it acts to prevent the pollutants from forming.

   ii. For 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.

f. 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.

7.2.5 Control Requirements 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 heater 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 which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

b. Natural gas shall be the only fuel fired in the affected heater.

c. The affected heater shall be equipped, operated, and maintained with low NO_x burners to control NO_x emissions that are designed to emit no more than 0.15 lb NO_x/million Btu heat input (HHV) on an hourly average as established in Permit 98110017 [T1].

i. Conditions 7.2.5(c) represents the application of the Best Available Control Technology, BACT for SO_2 being provided because natural gas is the only fuel, as required by Section 165 of the Clean Air Act as established in Permit 98110017 for the affected heater.

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 heater is subject to the following:

a. Emissions from the affected heater shall not exceed the following limits:

Pollutant	(Lb/Hour)	(Ton/Year)
NO_x	6.5	28.6
CO	--	28.6
PM	--	2.4
VOM	--	4.4
SO_2	--	1.3

i. 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].

ii. The above limitations were established in Permit 98110017 [T1].

7.2.7 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 heater(s) within 70 calendar days of the request, or on the date heater(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 heater operating conditions.

F. Raw data.

G. Opacity determinations.

H. Conclusions.

7.2.8 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 diesel 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 diesel 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 affected heater who would be able to make a determination based from the observed opacity as to whether of not the affected heater was running properly, and subsequently initiate a corrective action if necessary.

7.2.9 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, 7.2.3, 7.2.5, and 7.2.6, 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. Fuel consumption for the affected heater, scf/month and scf/year.

d. Operating hours for the affected heater, hr/month and hr/year.

e. Heat content of the fuel being fired in the affected heater.

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:

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

7.2.10 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 7.2.3, 7.2.5, and 7.2.6 within 30 days of such occurrence.

ii. Operation of the affected heater in excess of the limits specified in Condition 7.2.5 within 30 days of such occurrence.

7.2.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected heater.

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(a), the testing requirements in Condition 7.2.7(a), the monitoring requirements of Condition 7.2.8(a), the records required in Condition 7.2.9, and the reports required in Condition 7.2.10.

b. Compliance with the CO emission limitation of Condition 7.2.3(c) is addressed by the requirements of Condition 7.2.5(a), the fuel records required in Condition 7.2.9, the

reports required in Condition 7.2.10, and emission calculations using the emission factor in USEPA's Compilation of Air Pollutant Emission Factors, AP-42, for uncontrolled CO emissions from a gas-fired boiler if suitable manufacture's emission rate data or Illinois EPA approved stack test data is not available.

c. Compliance with the emission limits in Conditions 5.6 and 7.2.6 are addressed by the requirements of Condition 7.2.5, the records and reports required in Conditions 7.2.9 and 7.2.10 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	
Pollutant	Uncontrolled Fuel Input (lb/mmscf)	Low NO_x Burner Controlled Fuel Input (lb/mmscf)
VOM	5.5	5.5
PM	7.6	7.6
SO_2	0.6	0.6
NO_x	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).

7.3 Cooling Towers

7.3.1 Description

The cooling towers are process emission units used to provide equipment cooling.

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

7.3.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
T1-T18	Cooling Tower Cells	1999	Drift Eliminators

7.3.3 Applicable Provisions and Regulations

a. The “affected cooling towers” for the purpose of these unit-specific conditions, are cooling towers 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. Pursuant to 35 IAC 212.301, 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 toward the zenith at a point beyond the property line of the source.

7.3.4 Non-Applicability of Regulations of Concern

a. The affected cooling towers are not subject to 40 CFR Part 63, Subpart Q, National Emission Standards For Hazardous Air Pollutants For Industrial Process Cooling Towers, because the affected cooling towers are not operated with chromium-based water treatment chemicals at either major sources or are integral parts of facilities that are major sources, pursuant to 40 CFR 63.400(a).

b. The affected cooling towers are not subject to 35 IAC 212.321 or 212.322, because due to the unique nature of such unit, a process weight rate can not be set so that such rules can not reasonably be applied.

c. The affected cooling tower is not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected cooling tower does not have potential pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

7.3.5 Control Requirements 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 cooling tower 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 which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

b. The affected cooling towers shall each be equipped, operated, and maintained with drift eliminators designed to limit the loss of water droplets from the cooling towers to not more than 0.001% of the circulating water flow [T1].

c. Good operating practices shall be followed for the affected cooling towers to maintain the level of dissolved solids in the cooling towers blowdown to not more than 5,750 mg/l, composite daily sample [T1].

7.3.6 Production and Emission Limitations

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

a. PM emissions from the affected cooling tower shall not exceed 30.2 tons per year. 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). These limits were established in Permit 98110017 [T1].

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 cooling tower(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 cooling tower(s) within 70 calendar days of the request, or on the date cooling tower(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 cooling tower operating conditions.

F. Raw data.

G. Opacity determinations.

H. Conclusions.

7.3.8 Monitoring Requirements

Monitoring requirements are not set for the affected cooling towers.

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 cooling tower to demonstrate compliance with Conditions 5.6.1 and 7.3.3(b), pursuant to Section 39.5(7)(b) of the Act:

a. An inspection, maintenance and repair log for the affected cooling tower drift eliminators, listing activities performed with date.

b. Cooling water drift rate, gallons/hour, based on representative operation of the affected cooling tower.

c. Cooling water total dissolved solids (TDS) content, based on representative sampling of water discharge.

d. Actual affected cooling tower operating hours, hours/month, and water circulated gallons/year.

e. Emissions of PM from the affected cooling towers, including emissions from startups, with supporting calculations including documentation on the validity of the emission factors used, ton/month and ton/yr.

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 cooling tower 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 PM from the affected cooling towers in excess of the limits specified in Conditions 7.3.3(b) or 7.3.6(a) within 30 days of such occurrence.

ii. Operation of the affected cooling towers in excess of the limits specified in Condition 7.3.5 within 30 days of such occurrence.

7.3.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected cooling towers.

7.3.12 Compliance Procedures

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

b. Compliance with the emission limits in Conditions 5.6 and 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 or Illinois EPA approved stack test data is not available:

i. Emission factors for particulate emissions for wet cooling towers:

c. Compliance with the emission limits in Conditions 5.6 and 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 or Illinois EPA approved stack test data is not available:

i. Emission factors for PM emissions for the affected cooling towers from AP-42 Section 13.4 (dated 01/95):

Table 13.4-1 provides available particulate emission factors for wet cooling towers. Separate emission factors are given for induced draft and natural draft cooling towers. Several features in Table 13.4-1 should be noted. First, a conservatively high PM_{10} emission factor can be obtained by (a) multiplying the total liquid drift factor by the total dissolved solids (TDS) fraction in the circulating water and (b) assuming that, once the water evaporates, all remaining solid particles are within the PM_{10} size range.

Second, if TDS data for the cooling tower are not available, a source-specific TDS content can be estimated by obtaining the TDS data for the make-up water and multiplying them by the cooling tower cycles of concentration. The cycles of concentration ratio is the ratio of a measured parameter for the cooling tower water

(such as conductivity, calcium, chlorides, or phosphate) to that parameter for the make-up water. This estimated cooling tower TDS can be used to calculate the PM-10 emission factor as above. If neither of these methods can be used, the arithmetic average PM-10 factor given in Table 13.4-1 can be used. Table 13.4-1 presents the arithmetic average PM-10 factor calculated from the test data in References 2, 4, 8, and 11 - 14. Note that this average corresponds to an effective cooling tower recirculating water TDS content of approximately 11,500 ppm for induced draft towers. (This can be found by dividing the total liquid drift factor into the PM_{10} factor.)

Table 13.4-1 (Metric And English Units). PARTICULATE EMISSIONS FACTORS FOR WET COOLING TOWERS[a]

	Total Liquid Drift[b]				PM-10[c]		
Tower Type[d]	Circulating Water Flow[b]	g/daL	lb/10^3 gal	EMISSION FACTOR RATING	g/daL[e]	lb/10^3 gal	EMISSION FACTOR RATING
Induced Draft (SCC 3-85-001-01, 3-85-001-20, 3-85-002-01)	0.020	2.0	1.7	D	0.023	0.019	E
Natural Draft (SCC 3-85-001-02, 3-85-002-02)	0.00088	0.088	0.073	E	ND	ND	—

[a] References 1-17. Numbers are given to 2 significant digits. ND = no data. SCC = Source Classification Code.

[b] References 2,5-7,9-10,12-13,15-16. Total liquid drift is water droplets entrained in the cooling tower exit air stream. Factors are for % of circulating water flow (10^{-2} L drift/L [10^{-2} gal drift/gal] water flow) and g drift/daL (lb drift/10^3 gal) circulating water flow. 0.12 g/daL = 0.1 lb/10^3 gal; 1 daL = 10^1 L.

[c] See discussion in text on how to use the table to obtain PM-10 emission estimates. Values shown above are the arithmetic average of test results from References 2,4,8, and 11-14, and they imply an effective TDS content of approximately 12,000 parts per million (ppm) in the circulating water.

[d] See Figure 13.4-1 and Figure 13.4-2. Additional SCCs for wet cooling towers of unspecified draft type are 3-85-001-10 and 3-85-002-10.

[e] Expressed as g PM-10/daL (lb PM-10/10^3 gal) circulating water flow.

7.4 Diesel Engines (Subject to NESHAP - 40 CFR 63 Subpart ZZZZ)

7.4.1 Description

The diesel engines are process emission units used to provide backup power generation and to drive a fire pump. The Permittee operates two (2) 765 Hp backup diesel generators and one (1) 240 Hp diesel fire pump.

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
Engine #1	Diesel Backup Generator Distillate: 765 Hp, 1.95 mmBtu/hr	June 1999	None
Engine #2	Diesel Backup Generator Distillate: 765 Hp, 1.95 mmBtu/hr	June 1999	None
Engine #3	Diesel Firepump Distillate: 240 Hp, 0.6 mmBtu/hr	June 1999	None

7.4.3 Applicable Provisions and Regulations

a. The “affected diesel engines” for the purpose of these unit-specific conditions, are diesel engines 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.

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.

ii. Pursuant to 35 IAC 214.304, the emissions from the burning of fuel at process emission sources located in the Chicago or St. Louis (Illinois) major metropolitan areas shall comply with applicable Subparts B through F, in this case 35 IAC 214.161(b). Pursuant to 35 IAC 214.161(b), no person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any existing fuel combustion emission source, burning liquid fuel exclusively to exceed 0.3 lbs/mmBtu of sulfur dioxide per MW-hr of actual heat input when distillate fuel oil is burned.

7.4.4 Non-Applicability of Regulations of Concern

a. The affected diesel 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 diesel engines after July 11, 2005 where the affected diesel engines are:

i. 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.

b. The affected diesel 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 diesel 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.

c. The affected diesel engines (used as diesel generators) are not subject to the Acid Rain Program, 40 CFR 72, because the affected diesel 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.

d. The affected diesel engines are not subject to 35 IAC 212.321 or 212.322, due to the unique nature of such units, a process weight rate can not be set so that such rules can not reasonably be applied, pursuant to 35 IAC 212.323.

e. The affected diesel engines are not subject to 35 IAC 216.121 because the affected diesel engines are not fuel combustion units, as defined by 35 IAC 211.2470.

f. i. The affected diesel engines are not subject to 35 IAC Part 217, Subpart Q: Stationary Reciprocating Internal Combustion Engines and Turbines, because the affected diesel engines are not stationary reciprocating internal combustion engines listed in Appendix G of that Part, pursuant to 35 IAC 217.386.

   ii. The affected diesel engines are not subject to 35 IAC 217.141 because the affected diesel engines are not fuel combustion units, as defined by 35 IAC 211.2470.

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

7.4.5 Control Requirements and Work Practices

a. The Permittee shall follow good operating practices for the affected engines, including periodic inspection, routine maintenance and prompt repair of defects.

b. Distillate fuel oil shall be the only fuel fired in the affected diesel engines.

c. The Illinois EPA shall be allowed to sample all fuels stored at the source.

7.4.6 Production and Emission Limitations

Production and emission limitations are not set for the affected diesel engines. 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 diesel 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 diesel engines, the Permittee shall have the sulfur content of the oil supply to the affected diesel 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 diesel engines pursuant to this permit, provided, however, that if such sample is taken following operation of the affected diesel 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 7.4.3(c) based upon supplier data, provided however, that if the affected diesel 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_2 Emissions Data Protocol for Gas-Fired and Oil-Fired Units e.g., ASTM D4057-88 and ASTM D129-91.

A. Notwithstanding the above, the Permittee may request in writing for an alternative testing methodology.

Note: Condition 7.4.7(b)(ii) is for fuel testing methodology only, and is in no way intended to subject the source to those provisions.

7.4.8 Monitoring Requirements

a. i. If an affected diesel engine is routinely operated or exercised to confirm that the affected diesel engine will operate when needed, the operation and opacity of the affected diesel engine shall be formally observed by operating personnel for the affected diesel engine or a member of Permittee's environmental staff on a regular basis to assure that the affected diesel engine is operating properly, which observations shall be made at least every six months.

ii. If an affected diesel engine is not routinely operated or exercised, i.e., the time interval between operation of an affected diesel engine is typically greater than six months, the operation and opacity of the affected diesel engine shall be formally observed as provided above each time the Permittee carries out a scheduled exercise of the affected diesel engine.

iii. The Permittee shall also conduct formal observations of operation and opacity of an affected diesel 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 diesel engine.

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 diesel engines who would be able to make a determination based from the affected diesel engines who would be able to make a determination based from the observed opacity as to whether of not the affected diesel engine 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 each affected diesel engine to demonstrate compliance with Conditions 5.6.1 and 7.4.3, pursuant to Section 39.5(7)(b) of the Act:

a. i. An operating log for each affected diesel engine, which shall include the following information:

A. Information for each time the affected diesel engine is operated, with date, time, duration, and purpose (i.e., exercise or power service).

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 7.4.8(a) or 7.4.7(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 diesel engine that it conducts or that are conducted on its behalf by individuals who are qualified to make such observations for Condition 7.4.7(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 7.4.8(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 diesel engine was running properly, and whether or not corrective action is necessary and was subsequently initiated.

C. Information identifying any deviation from Condition 7.4.5(b).

ii. A maintenance and repair log for each affected diesel engine and associated equipment, listing activities performed with date.

iii. The Permittee shall keep records of good operating practices for each affected diesel engine, as defined in Condition 7.4.5(a).

b. Fuel usage for the affected diesel engines:

i. Total usage of fuel oil for the affected diesel engines, gallons/month and gallons/year.

c. The following records related to the sulfur content of the oil fuel supply and SO_2 emissions of the affected diesel engines:

i. Records for each shipment of fuel for the affected diesel 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 7.4.3(c).

ii. The Permittee shall maintain records of the sulfur content of the fuel oil supply to the affected diesel 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 diesel 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 7.4.9.

7.4.10 Reporting Requirements

a. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of an affected diesel 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 diesel engines in excess of the limits specified in Conditions 7.4.3 within 30 days of such occurrence.

ii. Operation of the affected diesel engines in noncompliance with the requirements 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 diesel engines.

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(a), and the reports required in Condition 7.4.10(a).

b. i. Compliance with the SO_2 emission limitation of Condition 7.4.3(c)(i) is addressed by the requirements of Condition 7.4.5, the testing requirements in Condition 7.4.7(b), and the records and reports required in Conditions 7.4.9(b) and (c) and 7.4.10(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:

$$SO_2 \text{ ppm} = \frac{\text{Fuel sulfur content (lb/mmBtu)} \times 2 \times 1/64 \times 385.2 \times 1{,}000{,}000}{\text{Engine exhaust rate factor (scf/mmBtu)}}$$

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 7.4.3(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.

Note: Separate records are not being required for Condition 7.4.3(c)(ii) because stoichiometric combustion of oil to emit 0.3 lb SO_2 per million Btu (so as to exactly comply with Condition 7.4.3(c)(ii)) would result in an SO_2 concentration in the exhaust of only about 160 ppm based on the F-factor for oil in USEPA's Reference Method 19, which is well below the 2000 ppm limit in Condition 7.4.3(c)(ii).

c. 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 is not available:

i. Emission factors for the affected diesel engines up to 600 horsepower:

Pollutant	Emission Factors (lb/mmBtu) Fuel Input	(lb/hp-hr) Power Output
VOM	0.35	2.46×10^{-03}
PM	0.31	2.20×10^{-03}
SO_2	0.29	2.05×10^{-03}
NO_x	4.41	0.031
CO	0.95	6.68×10^{-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 Gasoline And Diesel Industrial Engines from AP-42 Section 3.3 (dated 10/96).

ii. Emission factors for the affected engines greater than 600 horsepower:

Pollutant	Emission Factors (lb/mmBtu) Fuel Input	Emission Factors (lb/hp-hr) Power Output
VOM	0.09	7.05×10^{-04}
PM	0.1	0.0007
SO_2	$1.01 \times S_{FO}$	8.09×10^{-03} xS1
NO_x	3.2	0.024
CO	0.85	5.5×10^{-03}

Where S_{FO} represents the percent sulfur in the fuel oil. S1 = % sulfur in fuel oil. 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 January 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.

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
9511 West Harrison
Des Plaines, Illinois 60016

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:

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.

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.

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]:

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)(l) 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
B	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
B	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 T/hr	E lb/hr
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):

	Metric	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
B	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	T/hr	lb/hr
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

Dynegy Kendall Energy, LLC
Attn: James Eiseman, Designated Representative
1401 County Line Road
Minooka, Illinois 60447

Oris No.: 55131
IEPA I.D. No.: 093808AAD
Source/Unit: Kendall Energy
Date Received: December 11, 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 Dynegy Kendall Energy, LLC for the affected units at its Kendall Energy, i.e., GTGZ1 – 4 (Unit 1/HRSG 1 - Unit 4/HRSG 4).

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_2 Allowances	These units are not entitled to an allocation of CAIR SO_2 allowances pursuant to 40 CFR Part 96.
CAIR NO_x 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_x 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 CAIR 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 Ross Cooper at 217-782-2113.

Edwin C. Bakowski, P.E. Date Issued: _____
Manager, Permit Section
Division of Air Pollution Control

ECB:RWC:psj

cc: Beth Valenziano, Region V - USEPA
FOS – Region 1, Illinois EPA

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL -- PERMIT SECTION
P.O. BOX 19506
SPRINGFIELD, ILLINOIS 62794-9506

FOR APPLICANT'S USE
Revision #:
Date: / /
Page _____ of _____

Application For CAIR Permit For Electrical Generating Units (EGU)

FOR AGENCY USE ONLY
ID NUMBER:
PERMIT No.:
DATE:

This application form is to be used to request the Clean Air Act Interstate Rule (CAIR) permit required by the CAIR SO_2 trading program, CAIR NOx annual trading program, CAIR NOx ozone season trading program for EGU subject to the provisions of 35 IAC Part 225, Subpart C, D, and E, respectively.

SECTION 1: SOURCE AND EGU INFORMATION

1) COMPANY NAME: Dynegy Kendall Energy, LLC		
2) PLANT OR FACILITY NAME: Kendall Energy Facility		
3) SOURCE ID NO.: 093808AAD	4) ORIS FACILITY CODE: 55131	
5) CONTACT NAME: James Eiseman	6) PHONE NO.: 815-521-1000 ext. 60	7) E-MAIL ADDRESS: james.eiseman@dynegy.com

8) ELECTRICAL GENERATING UNITS:

GENERATING UNIT / EGU DESIGNATION	EGU DESCRIPTION	APPLICABILITY (Mark all applicable boxes)	
GTGZ1	Combined Cycle, Unit 1	☒ Existing EGU ☐ New EGU	☒ CAIR SO_2 trading program ☒ CAIR NOx annual trading program ☒ CAIR NOx ozone season trading program
GTGZ2	Combined Cycle, Unit 2	☒ Existing EGU ☐ New EGU	☒ CAIR SO_2 trading program ☒ CAIR NOx annual trading program ☒ CAIR NOx ozone season trading program
GTGZ3	Combined Cycle, Unit 3	☒ Existing EGU ☐ New EGU	☒ CAIR SO_2 trading program ☒ CAIR NOx annual trading program ☒ CAIR NOx ozone season trading program
GTGZ4	Combined Cycle, Unit 4	☒ Existing EGU ☐ New EGU	☒ CAIR SO_2 trading program ☒ CAIR NOx annual trading program ☒ CAIR NOx ozone season trading program
		☐ Existing EGU ☐ New EGU	☐ CAIR SO_2 trading program ☐ CAIR NOx annual trading program ☐ CAIR NOx ozone season trading program
		☐ Existing EGU ☐ New EGU	☐ CAIR SO_2 trading program ☐ CAIR NOx annual trading program ☐ CAIR NOx ozone season trading program
		☐ Existing EGU ☐ New EGU	☐ CAIR SO_2 trading program ☐ CAIR NOx annual trading program ☐ CAIR NOx ozone season trading program
		☐ Existing EGU ☐ New EGU	☐ CAIR SO_2 trading program ☐ CAIR NOx annual trading program ☐ CAIR NOx ozone season trading program
		☐ Existing EGU ☐ New EGU	☐ CAIR SO_2 trading program ☐ CAIR NOx annual trading program ☐ CAIR NOx ozone season trading program

The Illinois EPA is authorized to require, and you must disclose, the requested information on this form pursuant to Section 39.5 of the Environmental Protection Act ("Act") 415 ILCS 5/39.5. This information shall be provided using either this form or in an alternative manner at your discretion. Failure to disclose the information may result in your application being denied and/or penalties as provided for in the Act, 415 ILCS 5/42-46. This form has been approved by the Forms Management Center.

APPLICATION PAGE _____

FOR APPLICANT'S USE
_____

Printed on Recycled Paper
670-CAAPP

9) DETERMINATION OF SO_2 EMISSIONS:		
List each EGU that is not currently equipped with a "Part 75 Approved" continuous emissions monitoring system (CEMS) for SO_2:		
(a) EGUs for which SO_2 CEMS installed but not certified:		
1.	4.	7.
2.	5.	8.
3.	6.	9.
(b)) EGUs for which SO_2 CEMS yet to be installed:		
1.	4.	7.
2.	5.	8.
3.	6.	9.
(c)) EGUs for which SO_2 emissions to be determined by the alternative protocol for peaker units:		
1. GTGZ1	4. GTGZ4	7.
2. GTGZ2	5.	8.
3. GTGZ3	6.	9.

10) DETERMINATION OF NO_x EMISSIONS		
List each EGU that is not currently equipped with a "Part 75 Approved" continuous emissions monitoring system (CEMS) for NO_x:		
(a) EGUs for which NO_x CEMS installed but not certified:		
1.	4.	7.
2.	5.	8.
3.	6.	9.
(b) EGUs for which NO_x CEMS yet to be installed:		
1.	4.	7.
2.	5.	8.
3.	6.	9.
(c) EGUs for which NO_x emissions to be determined by the alternative protocol for peaker units:		
1.	4.	7.
2.	5.	8.
3.	6.	9.

11) CERTIFICATION:

(a) Has a complete Certificate of Representation for the designated representatives for the source been submitted to USEPA, with a copy provided to the Illinois 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 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 (Designated Representative): James Eiseman

SIGNATURE (Designated Representative): James E

DATE: December 11, 2007

APPLICATION PAGE _____

FOR APPLICANT'S USE

SECTION 2: CAIR SO_2 TRADING PROGRAM
COMPLIANCE REQUIREMENTS AS SET FORTH IN 35 IAC 225.310

(a) 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.

(b) CAIR PERMIT REQUIREMENTS:

1) The owner or operator of each source with one or more CAIR SO_2 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_2 Trading Program ("CAIR permit") that complies with the requirements of 35 IAC 225.320.

2) The owner or operator of each CAIR SO_2 source and each CAIR SO_2 unit at the source subject to 35 IAC Part 225, Subpart C must operate the CAIR SO_2 unit in compliance with such CAIR permit.

(c) MONITORING REQUIREMENTS:

1) The owner or operator of each CAIR SO_2 source and each CAIR SO_2 unit at the source must comply with the monitoring, reporting and recordkeeping requirements of 40 CFR 96, Subpart HHH. The CAIR designated representative of each CAIR SO_2 source and each CAIR SO_2 unit at the CAIR SO_2 source must comply with those sections of the monitoring, reporting and recordkeeping requirements of 40 CFR 96, Subpart HHH, applicable to the CAIR designated representative.

2) The compliance of each CAIR SO_2 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 96, subpart HHH and 40 CFR 75.

(d) EMISSION REQUIREMENTS:

1) 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_2 source and each CAIR SO_2 unit at the source must hold a tonnage equivalent in CAIR SO_2 allowances available for compliance deductions pursuant to 40 CFR 96.254(a) and (b) in the CAIR SO_2 source's CAIR SO_2 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 allowances held on the allowance transfer deadline may not be less than the total tonnage equivalent of the tons of SO_2 emissions for the control period from all CAIR SO_2 units at the CAIR SO_2 source, as determined in accordance with 40 CFR 96, subpart HHH.

2) Each ton of excess emissions of SO_2 emitted by a CAIR SO_2 source for each day of control period, starting in 2010 will constitute a separate violation of 35 IAC Part 225, Subpart C, the Clean Air Act, and the Act.

3) Each CAIR SO_2 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.

4) CAIR SO_2 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.

5) In order to comply with the requirements of 35 IAC 225.310(d)(1), a CAIR SO_2 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.

6) A CAIR SO_2 allowance is a limited authorization to emit SO_2 in accordance with the CAIR SO_2 Trading Program. No provision of the CAIR SO_2 Trading Program, the CAIR permit application, the CAIR permit, or a retired unit exemption pursuant to 40 CFR 96.205, 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 SO_2 allowance does not constitute a property right.

8) Upon recordation by USEPA pursuant to 40 CFR 96, subpart FFF or subpart GGG, every allocation, transfer, or deduction of a CAIR SO_2 allowance to or from a CAIR SO_2 source's compliance account is deemed to amend automatically, and become a part of, any CAIR permit of the CAIR SO_2 source. This automatic amendment of the CAIR permit will be deemed an operation of law and will not require any further review.

APPLICATION PAGE 3

FOR APPLICANT'S USE

Printed on Recycled Paper
670-CAAPP

e) RECORDKEEPING AND REPORTING REQUIREMENTS:

1) Unless otherwise provided, the owner or operator of the CAIR SO_2 source and each CAIR SO_2 unit at the source must keep on site at the source each of the documents listed in subsections (e)(1)(A) through (e)(1)(D) of 35 IAC 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 certificate of representation for the CAIR designated representative for the source and each CAIR SO_2 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 96.213, changing the CAIR designated representative.

B) All emissions monitoring information, in accordance with 40 CFR 96, subpart HHH.

C) Copies of all reports, compliance certifications, and other submissions and all records made or required pursuant to the CAIR SO_2 Trading Program or documents necessary to demonstrate compliance with the requirements of the CAIR SO_2 Trading Program or with the requirements of 35 IAC Part 225, Subpart C.

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 SO_2 Trading Program.

2) The CAIR designated representative of a CAIR SO_2 source and each CAIR SO_2 unit at the source must submit to the Agency and USEPA the reports and compliance certifications required pursuant to the CAIR SO_2 Trading Program, including those pursuant to 40 CFR 96, subpart HHH.

f) LIABILITY:

1) No revision of a permit for a CAIR SO_2 unit may excuse any violation of the requirements of 35 IAC Part 225, Subpart C or the requirements of the CAIR SO_2 Trading Program.

2) Each CAIR SO_2 source and each CAIR SO_2 unit must meet the requirements of the CAIR SO_2 Trading Program.

3) Any provision of the CAIR SO_2 Trading Program that applies to a CAIR SO_2 source (including any provision applicable to the CAIR designated representative of a CAIR SO_2 source) will also apply to the owner and operator of the CAIR SO_2 source and to the owner and operator of each CAIR SO_2 unit at the source.

4) Any provision of the CAIR SO_2 Trading Program that applies to a CAIR SO_2 unit (including any provision applicable to the CAIR designated representative of a CAIR SO_2 unit) will also apply to the owner and operator of the CAIR SO_2 unit.

5) The CAIR designated representative of a CAIR SO_2 unit that has excess SO_2 emissions in any control period must surrender the allowances as required for deduction pursuant to 40 CFR 96.254(d)(1).

6) The owner or operator of a CAIR SO_2 unit that has excess SO_2 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 96.254(d)(2).

g) EFFECT ON OTHER AUTHORITIES:

No provision of the CAIR SO_2 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_2 source or a CAIR SO_2 unit from compliance with any other regulation promulgated pursuant to the CAA, the Act, any State regulation or permit, or a federally enforceable permit.

SECTION 3: CAIR NO_x 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 96, subpart AA (excluding 40 CFR 96.104, 96.105(b)(2), and 96.106), subpart BB, subpart FF, subpart GG and subpart HH as incorporated by reference in 35 IAC 225.140.

(b) CAIR PERMIT REQUIREMENTS

1) The designated representative of each source with one or more CAIR NO_x 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_x Annual Trading Program ("CAIR permit") that complies with the requirements of 35 IAC 225.420.

2) The owner or operator of each CAIR NO_x source and each CAIR NO_x unit at the source must operate the CAIR NO_x unit in compliance with its CAIR permit.

(c) MONITORING REQUIREMENTS

1) The owner or operator of each CAIR NO_x source and each CAIR NO_x unit 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_x source and each CAIR NO_x unit at the CAIR NO_x 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.

2) The compliance of each CAIR NO_x 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

1) By the allowance transfer deadline, midnight of March 1, 2010, and by midnight of March 1 of each subsequent year if March 1 is a business day, the owner or operator of each CAIR NO_x source and each CAIR NO_x unit at the source must hold CAIR NO_x allowances available for compliance deductions pursuant to 40 CFR 96.154(a) in the CAIR NO_x source's CAIR NO_x 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 allowances held on the allowance transfer deadline may not be less than the tons of NO_x emissions for the control period from all CAIR NO_x units at the source, as determined in accordance with 40 CFR 96, subpart HH.

2) Each ton of excess emissions of a CAIR NO_x source for each day in a control period, starting in 2009 will constitute a separate violation of 35 IAC Part 225, Subpart D, the Act, and the CAA.

3) Each CAIR NO_x unit will be subject to the requirements 35 IAC 225.410(a)(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 96.170(b)(1) or (b)(2) and for each control period thereafter.

4) CAIR NO_x 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(d)(1), a CAIR NO_x allowance may not be deducted for compliance according to 35 IAC 225.410(d)(1) for a control period in a year before the calendar year for which the allowance is allocated.

6) A CAIR NO_x allowance is a limited authorization to emit one ton of NO_x in accordance with the CAIR NO_x Trading Program. No provision of the CAIR NO_x Trading Program, the CAIR NO_x permit application, the CAIR permit, or a retired unit exemption pursuant to 40 CFR 96.105, 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_x allowance does not constitute a property right.

8) Upon recordation by USEPA pursuant to 40 CFR 96, subpart FF or subpart GG, every allocation, transfer, or deduction of a CAIR NO_x allowance to or from a CAIR NO_x source's compliance account is deemed to amend automatically, and become a part of, any CAIR NO_x permit of the CAIR NO_x source. This automatic amendment of the CAIR permit will be deemed an operation of law and will not require any further review.

APPLICATION PAGE 5

FOR APPLICANT'S USE

e) RECORDKEEPING AND REPORTING REQUIREMENTS:

1) Unless otherwise provided, the owner or operator of the CAIR NO_x source and each CAIR NO_x unit at the source must keep on site at the source each of the documents listed 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.

A) The certificate of representation for the CAIR designated representative for the source and each CAIR NO_x 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 96.113, changing the CAIR designated representative.

B) All emissions monitoring information, in accordance with 40 CFR 96, subpart HH.

C) Copies of all reports, compliance certifications, and other submissions and all records made or required pursuant to the CAIR NO_x Annual Trading Program or documents necessary to demonstrate compliance with the requirements of the CAIR NO_x Annual Trading Program or with the requirements of 35 IAC Part 225, Subpart D.

D) Copies of all documents used to complete a CAIR NO_x permit application and any other submission or documents used to demonstrate compliance pursuant to the CAIR NO_x Annual Trading Program.

E) Copies of all records and logs for gross electrical output and useful thermal energy required by 35 IAC 225.450.

2) The CAIR designated representative of a CAIR NO_x source and each CAIR NO_x unit at the source shall submit to the Agency and USEPA the reports and compliance certifications required pursuant to the CAIR NO_x Annual Trading Program, including those pursuant to 40 CFR 96, subpart HH.

f) LIABILITY:

1) No revision of a permit for a CAIR NO_x unit may excuse any violation of the requirements of 35 IAC Part 225, Subpart D or the requirements of the CAIR NO_x Annual Trading Program.

2) Each CAIR NO_x source and each CAIR NO_x unit must meet the requirements of the CAIR NO_x Annual Trading Program.

3) Any provision of the CAIR NO_x Annual Trading Program that applies to a CAIR NO_x source (including any provision applicable to the CAIR designated representative of a CAIR NO_x source) will also apply to the owner and operator of the CAIR NO_x source and to the owner and operator of each CAIR NO_x unit at the source.

4) Any provision of the CAIR NO_x Annual Trading Program that applies to a CAIR NO_x unit (including any provision applicable to the CAIR designated representative of a CAIR NO_x unit) will also apply to the owner and operator of the CAIR NO_x unit.

5) The CAIR designated representative of a CAIR NO_x unit that has excess NO_x emissions in any control period must surrender the allowances as required for deduction pursuant to 40 CFR 96.154(d)(1).

6) The owner or operator of a CAIR NO_x unit that has excess NO_x 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 96.154(d)(2).

g) EFFECT ON OTHER AUTHORITIES:

No provision of the CAIR NO_x Annual Trading Program, a CAIR permit application, a CAIR permit, or a retired unit exemption pursuant to 40 CFR 96.105 will be construed as exempting or excluding the owner and operator and, to the extent applicable, the CAIR designated representative of a CAIR NO_x source or a CAIR NO_x unit from compliance with any other regulation promulgated pursuant to the CAA, the Act, any State regulation or permit, or a federally enforceable permit.

APPLICATION PAGE 6

FOR APPLICANT'S USE

Printed on Recycled Paper
670-CAAPP

SECTION 4: CAIR NO_x OZONE SEASON TRADING PROGRAM
COMPLIANCE REQUIREMENTS AS SET FORTH IN 35 IAC 225.510

(a) APPLICABLE REGULATIONS

The requirements of 35 IAC Part 225, Subpart E and 40 CFR 96, subpart AAAA (excluding 40 CFR 96.304, 96.306(b)(2), and 96.306), subpart BBBB, subpart FFFF, subpart GGGG and subpart HHHH as incorporated by reference in 35 IAC 225.140

(b) CAIR PERMIT REQUIREMENTS

1) The designated representative of each source with one or more CAIR NO_x 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_x Ozone Season Trading Program ("CAIR permit") that complies with the requirements of 35 IAC 225.529

2) The owner or operator of each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source must operate the CAIR NO_x Ozone Season unit in compliance with its CAIR permit.

(c) MONITORING REQUIREMENTS

1) The owner or operator of each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source must comply with the monitoring, reporting and recordkeeping requirements of 40 CFR 96, Subpart HHHH, 40 CFR 75 and 35 IAC 225.555. The CAIR designated representative of each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source must comply with those sections of the monitoring, reporting and recordkeeping requirements of 40 CFR 96, Subpart HHHH, applicable to a CAIR designated representative.

2) 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.

(d) EMISSION REQUIREMENTS

1) 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_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source must hold CAIR NO_x allowances available for compliance deductions pursuant to 40 CFR 96.354(a) in the CAIR NO_x Ozone Season source's compliance 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_x emissions for the control period from all CAIR NO_x Ozone Season units at the CAIR NO_x Ozone Season source, as determined in accordance with 40 CFR 96, subpart HHHH.

2) 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.

3) Each CAIR NO_x 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.

4) CAIR NO_x Ozone Season allowances must be held in, deducted from, or transferred into or among allowance accounts in accordance with 35 IAC Part 225, Subpart E, and 40 CFR 96, subparts FFFF and GGGG.

5) In order to comply with the requirements of 35 IAC 225.510(d)(1), a CAIR NO_x Ozone 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_x Ozone Season allowance is allocated.

6) 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 retired unit exemption pursuant to 40 CFR 96.305, 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_x Ozone Season allowance does not constitute a property right.

APPLICATION PAGE 7

FOR APPLICANT'S USE

B) Upon recordation by USEPA pursuant to 40 CFR 96, subpart FFFF or GGGG, every allocation, transfer, or deduction of a CAIR NO_x Ozone Season allowance to or from a CAIR NO_x Ozone Season source compliance account is deemed to amend automatically, and become a part of, any CAIR permit of the CAIR NO_x Ozone Season source. This automatic amendment of the CAIR permit will be deemed an operation of law and will not require any further review.

4) RECORDKEEPING AND REPORTING REQUIREMENTS

1) Unless otherwise provided, the owner or operator of the CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source must keep on site at the source each of the documents listed in subsections (e)(1)(A) through (e)(1)(G) of 35 IAC 225.510 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 certificate of representation for the CAIR designated representative for the source and each CAIR NO_x 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 period until the documents are superseded because of the submission of a new certificate of representation, pursuant to 40 CFR 96.313, changing the CAIR designated representative.

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_x Ozone Season Trading Program or documents necessary to demonstrate compliance with the requirements of the CAIR NO_x 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_x Ozone Season Trading Program.

E) Copies of all records and logs for gross electrical output and useful thermal energy required by 35 IAC 225.550.

2) The CAIR designated representative of a CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source must submit to the Agency and USEPA the reports and compliance certifications required pursuant to the CAIR NO_x Ozone Season Trading Program, including those pursuant to 40 CFR 96, subpart HHHH and 35 IAC 225.550.

5) LIABILITY

1) No revision of a permit for a CAIR NO_x Ozone Season unit may excuse any violation of the requirements of 35 IAC Part 225, Subpart E or the requirements of the CAIR NO_x Ozone Season Trading Program.

2) Each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit must meet the requirements of the CAIR NO_x Ozone Season Trading Program.

3) Any provision of the CAIR NO_x Ozone Season Trading Program that applies to a CAIR NO_x Ozone Season source (including any provision applicable to the CAIR designated representative of a CAIR NO_x Ozone Season source) will also apply to the owner and operator of the CAIR NO_x Ozone Season source and to the owner and operator of each CAIR NO_x Ozone Season unit at the source.

4) Any provision of the CAIR NO_x Ozone Season Trading Program that applies to a CAIR NO_x Ozone Season unit (including any provision applicable to the CAIR designated representative of a CAIR NO_x Ozone Season unit) will also apply to the owner and operator of the CAIR NO_x Ozone Season unit.

5) The CAIR designated representative of a CAIR NO_x Ozone Season unit that has excess emissions in any control period must surrender the allowances as required for deduction pursuant to 40 CFR 96.354(d)(1).

6) The owner or operator of a CAIR NO_x Ozone Season unit that has excess NO_x 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 96.354(d)(3).

6) EFFECT ON OTHER AUTHORITIES

No provision of the CAIR NO_x Ozone Season Trading Program, a CAIR permit application, a CAIR permit, or a retired unit exemption pursuant to 40 CFR 96.305 will be construed as exempting or excluding the owner and operator and, to the extent applicable, the CAIR designated representative of a CAIR NO_x Ozone Season source or a CAIR NO_x Ozone Season unit from compliance with any other regulation promulgated pursuant to the CAA, the Act, any State regulation or permit, or a federally enforceable permit.

APPLICATION PAGE 8

FOR APPLICANT'S USE

Printed on Recycled Paper
8/03 CAAPP

Attachment 6 Acid Rain Program Permit

ACID RAIN PROGRAM
PERMIT

217-782-2113

Dynegy Kendall Energy, LLC
Attn: James Eiseman, Designated Representative
1401 County Line Road
Minooka, Illinois 60447

Oris No.: 55131
IEPA I.D. No.: 093808AAD
Source/Unit: Kendall Energy
Date Received: April 24, 2008
Date Issued: March 20, 2009
Effective Date: January 1, 2009
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 Dynegy Kendall Energy, LLC for 1401 County Line Road, Minooka, Illinois 6044.

SULFUR DIOXIDE (SO_2) ALLOCATIONS AND NITROGEN OXIDE (NO_x) REQUIREMENTS FOR EACH AFFECTED UNIT:

GTGZ 1 – 4 (Unit 1/HRSG 1 - Unit 4/HRSG 4)	SO_2 Allowances	These units are not entitled to an allocation of SO_2 allowances pursuant to 40 CFR Part 73.
	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 Ross Cooper at 217/782-2113.

Edwin C. Bakowski, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:RWC:psj

cc: Cecilia Mijares, USEPA Region V
Illinois EPA Region 1

United States
Environmental Protection Agency
Acid Rain Program

OMB No. 2060-025

Acid Rain Permit Application

For more information, see instructions and refer to 40 CFR 72.30 and 72.31

This submission is: ☐ New ☐ Revised ☑ Renewal

STEP 1

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

Plant Name	Kendall Energy Facility	State	IL	ORIS Code	55131

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."

a	b	c	d
Unit ID#	Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)	New Units Commence Operation Date	New Units Monitor Certification Deadline
GTGZ1	Yes		
GTGZ2	Yes		
GTGZ3	Yes		
GTGZ4	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		

EPA Form 7610-16 (rev. 12-03)

Plant Name (from Step 1) Kendall Energy Facility

STEP 3

Read the standard requirements

Permit 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 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.

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.

Plant Name (from Step 1) Kendall Energy Facility

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.
(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. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO_x averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR 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 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

Read the certification statement, sign, and date

Certification

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 James Eiseman	
Signature	Date 4-24-08

EPA Form 7610-16 (rev. 12-03)

Page 1