217/782-2113785-1705

<u>"REVISED"</u> CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT

PERMITTEE

Midwest Generation, LLC Attn: <u>Scott MillerSharene Shealey</u> 440 S. LaSalle Street, Suite 3500<u>5</u>29 E. 135th Street ChicageRomeoville, Illinois <u>60605</u>60466

 Application No.: 95090047
 I.D. No.: 097190AAC

 Applicant's Designation: Waukegan
 Date Received: September 07, 1995

 Operation of: Electrical Power Generation
 Date Received: September 07, 1995

 Date Issued: FEBRUARY 7, 2006
 Effective Date: TBD

 Effective Date: TBD
 Expiration Date¹: February 7, 2011TBD

 Source Location: 401 East Greenwood Ave, Waukegan, Lake County 60087-5197

 Responsible Official: Bob DueyMark Nagel /Station Director

 Alternate Responsible Official: Donald D. Claybaugh/VP Operations-Midwest

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

The current federal Acid Rain Permit issued to Midwest Generation by the Illinois EPA for this source is incorporated into this CAAPP permit (See Attachment 5).

Revision Date Received: TBD Revision Date Issued: TBD Purpose of Revision: Significant Modification

This significant modification to the CAAPP Permit represents certain changes to Permit Conditions, as discussed in the Statement of Basis for this action, resulting from the settlement resolution of an administrative permit appeal filed in 2005 before the Pollution Control Board.²

If you have any questions concerning this permit, please contact the $\frac{\text{Utility}\text{CAAPP}}{\text{Utility}\text{CAAPP}}$ Unit at 217/782-2113785-1705 (217/782-9143 TDD).

Donald E. Sutton, P.E.Raymond E. Pilapil Acting Manager, Permit Section Division of Air Pollution Control

Except as addressed in Condition 8.7 of this permit.

The permit revises the initial CAAPP permit for the source, which was placed into effect on the same date as a consequence of the Pollution Control Board order in the appeal proceeding (PCB 06-146) granting a Joint Motion To Partially Lift Stay Of CAAPP Permit And Request Remand Of Permit To Respondent. The significant modification undertaken in this action revises the permit to facilitate a dismissal of the permit appeal. Unless otherwise indicated, all citations to the Code of Federal Regulations in this permit, as revised, are to the Code of Federal Regulations as effective on February 7, 2006.

DES:MTR:psjREP:MTR:DLR:psj

cc: Illinois EPA, FOS, Region 1 USEPA TABLE OF CONTENTS

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1.0 INTRODUCTION

1.1 Source Description

Waukegan Electric Generating Station 401 East Greenwood Avenue Waukegan, Illinois 60087-5197 847/599-2289

I.D. No.: 097190AAC Acid Rain Permit ORIS Code No.: 883

Standard Industrial Classification: 4911, Electrical Services

1.2 Owner/Parent Company

Midwest Generation, LLC 440 South LaSalle Street, Suite 3500401 East Greenwood Avenue ChicagoWaukegan, Illinois 6060560087-5197

1.3 Operator

Midwest Generation, LLC - Waukegan Generating Station 401 East Greenwood Avenue Waukegan, Illinois 60087-5197

Mary ConnorSharene Shealey/Environmental Contact
847/599-2289815-372-4625

1.4 General Source Description

The Waukegan Generating StationPermittee operates three coalfired boilers³ and four oil-fired peaking turbines to produce electricity. These boilers may also be fired with natural gas during startup, boiler flame stabilization, and shutdown periods.

³ The Permittee retired Waukegan Unit 6, effective 12/31/2007; consequently, as provided by Condition 9.11, no condition of this permit should be construed to impose obligations related to that unit.

| acfm | Actual Cubic Feet Per Minute |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 |
| Btu | British thermal unit |
| CAA | Clean Air Act [42 U.S.C. Section 7401 et seq.] |
| CAAPP | Clean Air Act Permit Program |
| CAM | Compliance Assurance Monitoring |
| CEMS | Continuous Emission Monitoring System |
| CFR | Code of Federal Regulations |
| CO | Carbon Monoxide |
| dcfm | dry cubic feet per minute |
| EGU | Electrical Generating Unit(s) |
| ERMS | Emissions Reduction Market System (35 IAC Part 205) |
| Gal | Gallon |
| ESP | Electrostatic Precipitator |
| °F | degrees Fahrenheit |
| FGC | Flue Gas Conditioning |
| ft | foot |
| ft ³ | cubic foot |
| HAP | Hazardous Air Pollutant |
| HP | horsepower |
| hr | Hour |
| 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 |
| °K | degrees Kelvin |
| Kg | kilogram |
| kW | Kilowatts |
| Lb or lb | Pound |
| LNB | Low NO _x Burners |
| m | meter |
| MACT | Maximum Achievable Control Technology |
| mmBtu | million British thermal units |
| MW | Megawatts |
| NESHAP | National Emission Standards for Hazardous Air Pollutants |
| NOx | Nitrogen Oxides |
| NSPS | New Source Performance Standards (40 CFR Part 60) |
| NSSA | New Source Set-Aside |
| ORIS | Office of Regulatory Information System |
| OFA | Over-Fire Air |
| OM | organic material |
| PM | Particulate Matter |

2.0 LIST OF ABBREVIATIONS AND ACRONYMS USED IN THIS PERMIT

| 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 | | | |
| ppm | parts per million | | | |
| PSD | Prevention of Significant Deterioration (40 CFR 52.21) | | | |
| psia | pounds per square inch absolute | | | |
| RMP | Risk Management Plan | | | |
| SO ₂ | Sulfur Dioxide | | | |
| Т | ton (2000 pounds) | | | |
| Т1 | 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 | | | |
| VOC <u>or</u> VOM | volatile organic compounds or volatile organic material | | | |
| VOL | volatile organic liquid | | | |
| yr | year | | | |

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:

Gasoline Storage Tank

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:

> Sulfuric Acid Storage Tank Diesel Fuel Unloading Direct Fired Space Heaters < 10 mmBtu/hr

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)].

Equipment used for filling drums, pails, or other packaging containers, excluding aerosol cans, with soaps, detergents, surfactants, lubricating oils, waxes, vegetable oils, greases, animal fats, glycerin, sweeteners, corn syrup, aqueous salt solutions, or aqueous caustic solutions [35 IAC 201.210(a)(8)].

Storage tanks of any size containing virgin or rerefined distillate oil, hydrocarbon condensate from natural gas pipeline or storage systems, lubricating oil, or residual fuel oils [35 IAC 201.210(a)(11)].

Gas turbines and stationary reciprocating internal combustion engines of between 112 kW and 1,118 kW

(150 and 1,500 horsepower) power output that are emergency or standby units [35 IAC 201.210(a)(16)].

Storage tanks of any size containing exclusively soaps, detergents, surfactants, glycerin, waxes, vegetable oils, greases, animal fats, sweeteners, corn syrup, aqueous salt solutions, or aqueous caustic solutions, provided an organic solvent has not been mixed with such materials [35 IAC 201.210(a)(17)].

Loading and unloading systems for railcars, tank trucks, or watercraft that handle only the following liquid materials, provided an organic solvent has not been mixed with such materials: soaps, detergents, surfactants, lubricating oils, waxes, glycerin, vegetable oils, greases, animal fats, sweetener, corn syrup, aqueous salt solutions, or aqueous caustic solutions [35 IAC 201.210(a)(18)].

3.1.4 Activities that are considered insignificant activities pursuant to 35 IAC 201.210(b).

Note: The heating of a coal-fired boiler with auxiliary fuel during maintenance and repair of the boiler is considered an insignificant activity under 35 IAC 201.210(b)(29) and is generally not addressed by the unit-specific conditions of this permit for coal fired boilers. Notwithstanding such status as an insignificant activity, the opacity of the exhaust from each coal fired boiler is at all times subject to the applicable opacity standard and the unit-specific conditions of this permit for boilers that relate to opacity are applicable during maintenance and repair of a boiler.

3.2 Compliance with Applicable Requirements

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

- 3.2.1 For each cold cleaning degreaser, the Permittee shall comply with the applicable equipment and operating requirements of 35 IAC 218.182.
- 3.2.2 For each particulate matter process emission unit, other than units excluded by 35 IAC 212.323 or 212.681, the Permittee shall comply with the applicable particulate matter emission limit of 35 IAC 212.321 or 212.322. For example, the particulate matter emissions from a process

emission unit shall not exceed 0.55 pounds per hour if the emission unit's process weight rate is 100 pounds per hour or less, pursuant to 35 IAC 266.110.

- 3.2.3 For each organic material emission unit that uses organic material, e.g., a mixer or printing line, the Permittee shall comply with the applicable VOM emission limit of 35 IAC 218.301, which requires that organic material emissions not exceed 8.0 pounds per hour or do not qualify as photochemically reactive material as defined in 35 IAC 211.4690.
- 3.3 Addition of Insignificant Activities
 - 3.3.1 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type that is identified in Condition 3.1, until the renewal application for this permit is submitted, pursuant to 35 IAC 201.212(a).
 - 3.3.2 The Permittee must notify the Illinois EPA of any proposed addition of a new insignificant activity of a type addressed by 35 IAC 201.210(a) and 201.211 other than those identified in Condition 3.1, pursuant to Section 39.5(12)(b) of the Act.
 - 3.3.3 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type identified in 35 IAC 201.210(b).

| Emission | | Emission Control | Ref.* |
|-------------------------|---------------------------------|--------------------------------|-------|
| Unit | Description | Equipment/Measures | |
| Unit 6 | Babcock & Wilcox Boiler | Overfire Air, ESP | |
| (Boiler | Nominal 1314 mmBtu/hr (1952) | | |
| BLR <mark>16**</mark>) | | | |
| Unit 7 | Combustion Engineering Boiler | Low NO_x Burners, | |
| (Boiler | Nominal 3255 mmBtu/hr (1958) | Overfire Air and | 7.1 |
| BLR <mark>27</mark>) | | ESP | |
| Unit 8 | Combustion Engineering Boiler | Low NO _x Burners, | |
| (Boiler | Nominal 3262 mmBtu/hr (1962) | Overfire Air and | |
| BLR <mark>3</mark> 8) | | ESP | |
| Coal | Coal Receiving Operations, Coal | Enclosures, Covers, | 7.2 |
| Handling | Storage Operations and Coal | Water Spray, Dust | |
| Equipment | Transfer Operations | Suppressant | |
| | | Application | |
| | | Systems Suppression, | |
| | | and/or Dust | |
| | | Collection Devices | |
| Coal | Coal Crushing Operation | Enclosures, Covers, | 7.3 |
| Breaker | | Dust , Water Spray, | |
| Building | | Dust Suppressant | |
| - TP2 | | Application | |
| | | Suppression, and/or | |
| | | Dust Collection | |
| | | Devices | |
| Fly Ash | TransferConveying System, Silo, | Enclosures and Dust | 7.4 |
| Equipment | and Loadout Operation | Collection Devices | |
| Turbine | Distillate Oil Fired Turbine | None | |
| GT 31-1 | Nominal 553 mmBtu/hr | | |
| Turbine | Distillate Oil Fired Turbine | None | |
| GT 31-2 | Nominal 553 mmBtu/hr | | 7.5 |
| Turbine | Distillate Oil Fired Turbine | None | 1.5 |
| GT 32-1 | Nominal 553 mmBtu/hr | | |
| Turbine | Distillate Oil Fired Turbine | None | 1 |
| GT 32-2 | Nominal 553 mmBtu/hr | 1 | 1 |

4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE

* Reference to the Unit Specific Conditions in Section 7 of this permit. ** Formerly identified as Boiler 17, referenced to in Condition 6.1.10.

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 SO_2 , CO, NO_x , VOM, PM and HAP 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.
- 5.2 Applicable Regulations
 - 5.2.1 Specific emission units at this source are subject to particular regulations as set forth in Section 7 (Unit-Specific Conditions) of this permit.
 - 5.2.2 In addition, emission units at this source are subject to the following regulations of general applicability:
 - a. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith (i.e., overhead) 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. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 212.123(b) and 212.124.
 - 5.2.3 Certain emission units at the source are subject to the following standards related to control of fugitive particulate matter emissions because the source is located in an area listed in 35 IAC 212.302:
 - a. Pursuant to 35 IAC 212.304(a), all storage piles of material shall be protected by a cover or sprayed with a surfactant solution or water on a regular basis, as needed, or treated by an equivalent method in accordance with an operating program for fugitive particulate matter emissions. (Refer to Condition 5.2.4 for the operating program for fugitive particulate matter emissions.)

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Note: This rule is applicable because uncontrolled emissions of fugitive particulate matter from all storage piles at the source would be in excess of 50 tons/year, based on information in the application.

- b. Pursuant to 35 IAC 212.305, all conveyor loading operation to storage piles subject to 35 IAC 212.304 (See Condition 5.2.3(a)) shall utilize spray system, telescopic chutes, stone ladders or other equivalent methods in accordance with an operating program for fugitive particulate matter emissions. (Refer to Condition 5.2.4)
- c. Pursuant to 35 IAC 212.306 and Section 39.5(7)(a) of the Act, all normal traffic pattern access areas surrounding storage piles subject to 35 IAC 212.304 (See Condition 5.2.3(a)) and all normal traffic pattern roads and parking facilities located at this source shall be paved or treated with water, oils, or chemical dust suppressants. All paved areas shall be cleaned on a regular basis. All areas treated with water, oils, or chemical dust suppressants shall have the treatment applied on a regular basis, as needed, in accordance with an operating program for fugitive particulate matter emissions. (Refer to Condition 5.2.4)
- d. Pursuant to 35 IAC 212.307, all unloading and transporting of materials collected by pollution control equipment shall be enclosed or shall utilize spraying, pelletizing, screw conveying or other equivalent methods.
- e. Pursuant to 35 IAC 212.308, crushers, grinding mills, screening operations, bucket elevators, conveyor transfer points, conveyors, bagging operations, storage bins and fine product truck and railcar loading operations shall be sprayed with water or surfactant solution, utilize choke-feeding or be treated by an equivalent method, in accordance with an operating program for fugitive particulate matter emissions. (Refer to Condition 5.2.4)
- f. Pursuant to 35 IAC 212.313, if particulate matter collection equipment is operated pursuant to 35 IAC 212.304 through 212.310 (as addressed in Conditions 5.2.3(a) through (e) and 5.2.4(a)), emissions of particulate matter from such equipment shall not exceed 68 mg/dscm (0.03 gr/dscf).
- 5.2.4 Fugitive Particulate Matter Operating Program
 - a. The emission units addressed by 35 IAC 212.304 through 212.308 (See Conditions 5.2.3(a) through (e))

shall be operated under the provisions of an operating program, consistent with the requirements of 35 IAC 212.310 and 212.312, and prepared by the Permittee and submitted to the Illinois EPA for its review. Such operating program shall be designed to significantly reduce fugitive particulate matter emissions [35 IAC 212.309(a)].

- b. The operating program shall be amended from time to time by the Permittee so that the operating program is current. Such amendments shall be consistent with the requirements set forth by this Condition and shall be submitted to the Illinois EPA [35 IAC 212.312].
- 5.2.5 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, <u>Subpart F</u>, including the following:

- 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 appropriately certified by an approved technician certification program pursuant to 40 CFR 82.161.

5.2.6 Risk Management Plan (RMP)

Should this stationary source, as defined in 40 CFR 68.3, become subject to the federal rules for Chemical Accident Prevention in 40 CFR Part 68, then the owner or operator shall submit:

- 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 applicable 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.

Note: This condition is imposed pursuant to 40 CFR 68.215(a).

- 5.2.7 Future Emission Standards
 - a. Should this source become subject to a regulation under 40 CFR Parts 60, 61, or 63, or 35 IAC Subtitle B after the date issued of this permit, 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 or otherwise demonstrate initial compliance as provided by such regulation. Following the submittal of such a compliance certification or initial compliance demonstration, the Permittee shall address the applicable requirements of such regulation as part of the annual compliance certification required by Condition 9.8.

Note: This permit may also have to be revised or reopened to address such newly applicable regulations, as provided by Section 39.5(15)(a) of the Act. (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.
- 5.2.8 Episode Action Plan
 - a. Pursuant to 35 IAC 244.142, the Permittee shall maintain at the source and have on file with the Illinois EPA a written episode action plan (plan) for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with safe operating procedures. The plan shall contain the information specified in 35 IAC 244.144.
 - b. The Permittee shall immediately implement the appropriate steps described in this plan should an air pollution alert or emergency be declared.
 - c. If an operational change occurs at the source that 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 $\ensuremath{\mathsf{EPA}}\xspace.$

5.2.9 Compliance Assurance Monitoring (CAM) Plan

Pursuant to 40 CFR 64.5, if the Permittee submits a request for a significant revision of this permit that is applicable to an affected large pollutant specific emissions unit, as defined by 40 CFR 64.1, 64.2 and 64.5(a), (e.g., a coal-fired boiler as it emits particulate matter), the Permittee shall submit as part of such application the information required under 40 CFR 64.4 for a CAM plan.

Note: As provided by 40 CFR 64.5(a)(1), the Permittee was not required to submit CAM plans for affected large pollutant-specific emissions units with the application for this permit because a complete CAAPP application was submitted before April 20, 1998. For all pollutantspecific emissions units that meet the criteria in 40 CFR 64.42(a), so as to be subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, the source must submit the information required under 40 CFR 64.4 as part of the application for renewal of this permit.

- 5.3 General Non-Applicability of Regulations of Concern
 - 5.3.1 Non-Applicability of 35 IAC 212.316

Emissions units at this source are not subject to 35 IAC 212.316 because the source is not located in an area defined in 35 IAC 212.324(a)(1).

Note: Non-applicability of regulations to individual emissions units and groups of emission units is also addressed in Section 7 of this permit.

5.4 Source-Wide Operational and Production Limits and Work Practices

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

None

- 5.5 Source-Wide Emission Limitations
 - 5.5.1 Permitted Emissions for Fees

Emission limitations are not set for this source for the purpose of permit fees. Rather, the Permittee shall pay the maximum fee required pursuant to Section

39.5(18)(a)(ii)(A) of the Act, which is currently \$250,000.00 per year. (See also Condition 9.4.)

- 5.6 General Recordkeeping Requirements
 - 5.6.1 Records for Emissions

The Permittee shall maintain records for the source to prepare its Annual Emission Report including the following items, pursuant to Sections 4(b) and 39.5(7)(a), (b), and (c) of the Act:pursuant to 35 IAC 254.134.

- a. Records of annual emissions from the emission units that are covered by Section 7 (Unit Specific Conditions) of this permit, including emissions of mercury, hydrogen chloride, and hydrogen fluoride.
- b. i. For purposes of estimating mercury emissions from the source, the mercury content of coal burned in boilers may be based on the data collected by USEPA in its Information Collection Request (ICR) pursuant to Section 112 of the Clean Air Act.
 - ii. If ICR data or other reliable data for elemental composition, including mercury content, is not available for coal that is burned in a boiler, the Permittee shall collect representative data on the elemental composition of the coal, similar to the ICR data collected by USEPA.
- 5.6.2 Retention and Availability of Records

The Permittee shall comply with the following requirements with respect to retention and availability of records pursuant to Sections 4(b) and 39.5(7)(a), (b), (e) (ii), (o) (v), and $(\frac{f}{2})$ (ii) (A) and (B) of the Act.

- 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 <u>Permittee</u>, the <u>Illinois EPA</u> or<u>and USEPA</u>, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.
- b. TheIn response to an Illinois EPA or USEPA request made during the course of an inspection of the source, the Permittee shall retrieve and print,

enprovide paper during normal source office hourscopies, or as electronic media, any records required by this permit that are retained in an electronic format (e.g., computer) in response to an Illinois EPA or USEPA request for specific records during the course of). Such response shall be provided at the time of the inspection; however, if the Permittee believes that the volume and nature of the requested material would make this overly burdensome, material shall be provided no later than 10 days thereafter unless a source inspectionlater date is agreed upon by the Permittee, Illinois EPA, and/or the USEPA.

- c. Upon written request by the Illinois EPA for copies of records or reports required to be kept by this permit, the Permittee shall promptly submit a copy of such material to the Illinois EPA. For this purpose, material shall be submitted to the Illinois EPA within 30 days unless additional time is provided by the Illinois EPA or the Permittee believes that the volume and nature of requested material would make this overly burdensome, in which case, the Permittee shall respond within 30 days with the explanation and a schedule for submittal of the requested material. (See also Condition 9.12.4.)
- d. For certain records required to be kept by this permit as specifically identified in the recordkeeping provisions in Section 7 of this permit, which records are a basis for control practices or other recordkeeping required by this permit, the Permittee shall promptly submit a copy of the record to the Illinois EPA when the record is created or revised. For this purpose, the initial record shall be submitted within 30 days of the issuance of this permit. Subsequent revisions shall be submitted within 10 days of the date the Permittee begins to rely upon the revised record.
- 5.7 General Reporting Requirements
 - 5.7.1 General Source-Wide Reporting Requirements

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

a. For emissions units that are addressed by the unitspecific conditions of this permit, the timing for reporting of deviations shall be in accordance with such conditions.

- b. i. For other emissions units and activities at the source, the timing for reporting of deviations shall be in accordance with the provisions of relevant regulations if such provisions address timing of deviation reports.
 - ii. Otherwise, if the relevant regulations do not address timing of deviation reports, deviation reports shall be submitted within 30 days.
- 5.7.2 Annual Emissions Report

The annual emissions report required pursuant to Condition 9.7 shall contain emissions information for the previous calendar year<u>ineluding information for</u> emissions of mercury, hydrogen chloride, hydrogen fluoride, and other hazardous air pollutants, as specified by 35 IAC Part 254 [Sections 4(b) and 39.5(7)(a), (b) and (f) of the Act].

5.8 General Operational Flexibility/Anticipated Operating Scenarios

None

Note: For individual emissions units or groups of similar emission units, operation flexibility and anticipated operating scenarios are addressed in Section 7 of this permit.

5.9 Submittal of Information for Permit Reopening

The Permittee shall promptly submit information to assist the Illinois EPA in a reopening of the CAAPP permit in accordance with Section 39.5(15)(a)(i) of the Act and 35 IAC 270.503(a)(1), as follows:

5.9.1 Unless the CAAPP permit has been reopened within 32 days after issuance of this permit, Permittee shall submit to the Illinois EPA the following information, as part of a revised CAAPP application, within 90 days of permit issuance:

> a. An identification of all additional Clean Air Act requirements that have become applicable to the source since September 29, 2005. Such identification shall adhere to the definition of "applicable Clean Air Act requirement" set forth at Section 39.5(1) of the Act, including any term or condition of a Title I preconstruction permit and other such designated requirement(s) promulgated under the federal Clean Air Act.

- b. For any requirement identified in Condition 5.9.1(a) for which the source does not currently comply:
 - i. An identification of such requirement and the affected emission unit(s) subject to the requirement;

 - iii. An explanation of the source's failure to comply with the requirement; and
 - iv. A proposed compliance plan and schedule for the noncompliant emission unit(s) (i.e., Form 294 CAAPP).
- 5.10 Implementation of Permit Upon Date of Initial Effectiveness

| a. | If this revised permit becomes effective during the |
|----|----------------------------------------------------------|
| | fourth quarter of a given year, any annual (identified |
| | by the permit as calendar year or otherwise) or semi- |
| | annual inspection or observation requirements, including |
| | the combustion evaluations for the coal-fired boilers |
| | and the natural gas-fired auxiliary boiler, the opacity |
| | observations for the coal handling, coal processing and |
| | fly ash equipment, the inspections for baghouses, and |
| | the submerged fill pipe inspection for the storage tank, |
| | need not be performed by the Permittee until the |
| | following year. |
| | |

- b. If this revised permit becomes effective on or after the 45th day of a given quarter (calendar or otherwise), any quarterly testing, inspection and observation requirements, including the PM and CO emission measurements based on the use of alternative fuel relative to standard fuel, need not be performed by the Permittee until the following quarter.
- c. If this revised permit becomes effective on or after the 15th day of a given month (calendar or otherwise), any monthly inspection requirements, including the monthly inspections required pursuant to Sections 7.2.8 (a)-(c), 7.3.8 (a)-(c), and 7.4.8(a) (i) and (d), need not be performed by the Permittee until the following month.
- <u>d.</u> If this revised permit becomes effective on or after Wednesday of a given week (calendar or otherwise), any weekly inspection requirements, including the weekly inspections required pursuant to 7.4.8(a) (ii), need not be performed by the Permittee until the following week.

- e. The inspection requirements set forth in Condition 7.2.8(d) need not be performed by the Permittee until on or after the 35th day after the effective date of this revised permit.
- f. The first quarterly report to be submitted pursuant to Condition 7.1.10-2(a) must be submitted as follows. Thereafter, each subsequent quarterly report must be submitted as specified in Condition 7.1.10-2(a) (iii).
 - i. If this revised permit becomes effective before the 45th day of a calendar quarter, the report must be submitted within 60 days after the end of that quarter and address the period from the effective date of this permit through the end of that quarter.
 - ii. If this revised permit becomes effective on or after the 45th day of a calendar quarter, the report must be submitted within 60 days after the end of the first complete quarter in which this permit is effective and address the period from the effective date of this permit through the end of the first complete calendar quarter in which this permit is effective.

6.0 EMISSIONS CONTROL PROGRAMS

6.1 NO_x Trading Program⁴

6.1.1 Description of NO_x Trading Program

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

Electrical generating units (EGU) that are subject to the $NO_{\rm x}$ Trading Program are referred to as "budget EGU." Sources that have one or more EGU or other units subject to the $NO_{\rm x}$ Trading Program are referred to as budget sources.

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

The number of NO_x allowances available for budget sources is set by the overall budget for NO_x emissions established by USEPA. This budget requires a substantial reduction in NO_x emissions from historical levels as necessary to meet air quality goals. In Illinois, existing budget sources initially receive their allocation or share of the NO_x allowances budgeted

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 $[\]frac{4}{100}$ Conditions 6.1.1 through 6.1.10 will be removed from the CAAPP permit in a later permitting action, as the Illinois regulations establishing a NO_g Trading Program for electrical generating units, 35 IAC Part 217 Subpart W, have been sunset and are no longer applicable.

for EGU in an amount determined by rule [35 IAC Part 217, Appendix F]. Between 2007 and 2011, the allocation mechanism for existing EGU gradually shifts to one based on the actual operation of EGU in preceding control periods. New budget EGU, for which limited operating data may be available, may obtain NO_x allowances from the new source set-aside (NSSA), a portion of the overall budget reserved for new EGU.

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

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

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

Note: This narrative description of the NO_x Trading Program <u>in Condition 6.1.1</u> is for informational purposes only and is not enforceable<u>implies no limits or</u> constraints.

6.1.2 Applicability

a. The following emission units at this source are <u>existing</u> budget EGU for purposes of the NO_x Trading Program. Accordingly, this source is a budget source and the Permittee is the owner or operator of a budget source and budget EGU. In this section of this permit, these emission units are addressed as budget EGU.

Units 6, 7 and 8 (Boilers 1, 2, and 3) Turbines GT 31-1, 31-2, 32-1, and 32-2

- b. This permit does not provide "low-emitter status" for the above emission units pursuant to 35 IAC 217.754(c).
- 6.1.3 General Provisions of the NO_x Trading Program
 - a. This source and the budget EGU at this source shall comply with all applicable requirements of Illinois' NO_x Trading Program, i.e., 35 IAC Part 217, Subpart W, and 40 CFR Part 96 (excluding 40 CFR 96.4(b) and 96.55(c), and excluding 40 CFR 96, Subparts C, E, and I), pursuant to 35 IAC 217.756(a) and 217.756(f) (2).
 - b. Any provision of the NO_x Trading Program that applies to a budget source (including any provision applicable to the account representative of a budget source) shall also apply to the owner and operator of such budget source and to the owner and operator of each budget EGU at the source, pursuant to 35 IAC 217.756(f)(3).
 - c. Any provision of the NO_x Trading Program that applies to a budget EGU (including any provision applicable to the account representative of a budget EGU) shall also apply to the owner and operator of such budget EGU. Except with regard to requirements applicable to budget EGUs with a common stack under 40 CFR 96, Subpart H, the owner and operator and the account representative of one budget EGU shall not be liable for any violation by any other budget EGU of which they are not an owner or operator or the account representative, pursuant to 35 IAC 217.756(f)(4).
- 6.1.4 Requirements for NO_x Allowances
 - a. Beginning in 2004, byBy November 30 of each year, the allowance transfer deadline, as applicable, the account representative of each budget EGU at this source shall hold allowances available for compliance deduction under 40 CFR 96.54 in the budget EGU's

compliance account or the source's overdraft account in an amount that shall not be less than the budget EGU's total tons of NO_x emissions for the preceding control period, rounded to the nearest whole ton, as determined in accordance with 40 CFR 96, Subpart H, plus any number necessary to account for actual utilization (e.g., for testing, start-up, malfunction, and shut down) under 40 CFR 96.42(e) for the control period, pursuant to 35 IAC 217.756(d)(1). For purposes of this requirement, an allowance may not be utilized for a control period in a year prior to the year for which the allowance is allocated, pursuant to 35 IAC 217.756(d)(5).

- b. The account representative of a budget EGU that has excess emissions in any control period, i.e., NO_x emissions in excess of the number of NO_x allowances held as provided above, shall surrender allowances as required for deduction under 40 CFR 96.54(d)(1), pursuant to 35 IAC 217.756(f)(5). In addition, the owner or operator of a budget EGU that has excess emissions shall pay any fine, penalty, or assessment, or comply with any other remedy imposed under 40 CFR 96.54(d)(3) and the Act, pursuant to 35 IAC 217.756(f)(6). Each ton of NO_x emitted in excess of the number of NO_x allowances held as provided above for each budget EGU for each control period shall constitute a separate violation of 35 IAC Part 217 and the Act, pursuant to 35 IAC 217.756(d)(2).
- c. An allowance allocated by the Illinois EPA or USEPA under the NO_x Trading Program is a limited authorization to emit one ton of $\ensuremath{\text{NO}_x}$ in accordance with the NO_x Trading Program. As explained by 35 IAC 217.756(d)(6), no provisions of the NO_x Trading Program, the budget permit application, the budget permit, or a retired unit exemption under 40 CFR 96.5 and no provision of law shall be construed to limit the authority of the United States or the State of Illinois to terminate or limit this authorization. As further explained by 35 IAC 217.756(d)(7), an allowance allocated by the Illinois EPA or USEPA under the NO_x Trading Program does not constitute a property right. As provided by 35 IAC 217.756(d)(4), allowances shall be held in, deducted from, or transferred among allowances accounts in accordance with 35 IAC Part 217, Subpart W, and 40 CFR 96, Subparts F and G.
- 6.1.5 Monitoring Requirements for Budget EGU
 - a. The Permittee shall comply with theany applicable NO_x Trading Program monitoring requirements of 40 CFR Part 96, Subpart H, for each budget EGU and the

compliance of each budget EGU with the emission limitation under Condition 6.1.4 (a) shall be determined by the emission measurements recorded and reported in accordance with 40 CFR 96, Subpart H, pursuant to 35 IAC 217.756(c) (1), (c) (2) and (d) (3).

- i. For Units 6, 7 and 8, the Permittee is conducting continuous emissions monitoring for NO_x , as generally provided for by 40 CFR 75.71(a).
- ii. For the Turbines (GT 31-1, 31-2, 32-1, and 32-2), the Permittee is using the low mass emissions excepted methodology, as generally provided for by 40 CFR 75.71(e)(2).
- b. The account representative for the source and each budget EGU at the source shall comply with those sections of the monitoring requirements of 40 CFR 96, Subpart H, applicable to an account representative, pursuant to 35 IAC 217.756(c)(1) and (d)(3).
- 6.1.6 Recordkeeping Requirements for Budget EGU

Unless otherwise provided below, the Permittee shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This 5-year period may be extended for cause at any time prior to the end of the 5 years, in writing by the Illinois EPA or the USEPA.

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

 $\rm NO_x$ Trading Program, pursuant to 35 IAC 217.756(e)(1)(C).

- d. Copies of all documents used to complete a budget permit application and any other submission under the NO_x Trading Program, pursuant to 35 IAC 217.756(e) (1) (D).
- 6.1.7 Reporting Requirements for Budget EGU
 - a. The account representative for this source and each budget EGU at this source shall submit to the Illinois EPA and USEPA the reports and compliance certifications required under the NO_x Trading Program, including those under 40 CFR 96, Subparts D and H, and 35 IAC 217.774, pursuant to 35 IAC 217.756(e) (2).
 - b. Notwithstanding the provisions in Conditions 9.8 and 9.9 of this CAAPP permit, these submittals need only be signed by the designated representative, who may serve in place of the responsible official for this purpose, as provided by Section 39.5(1) of the Act, and submittals to the Illinois EPA need only be made to the Illinois EPA, Air Compliance Section.
- 6.1.8 Allocation of NO_x Allowances to Budget EGU
 - a. As the budget EGU identified in Condition 6.1.2(a) are "existing" EGU listed in 35 IAC Part 217, Appendix F, these EGU are entitled to NO_x allowances as follows. (The portion of Appendix F that applies to the Permittee is provided in Condition 6.1.10.) The number of NO_x allowances actually allocated for the budget EGU shall be the number of NO_x allowances issued by USEPA pursuant to the allocation information reported to it by the Illinois EPA, which information may reflect adjustments to the overall allocations to budget EGU as provided for by 35 IAC 217.760(b) and (c):
 - i. In 2004 through 2006 (the first three years of the NO_x Trading Program), an annual allocation of NO_x allowances as specified by 35 IAC 217.764(a) (1), i.e., the number of NO_x allowances listed in Appendix F, Column 7, and as provided by 35 IAC 217.768(j), a pro-rata share of any NO_x allowances remaining in the new source set-aside (NSSA) following the allocation of allowances to new budget EGU.
 - ii. In 2007, as provided by 35 IAC 217.764(b), an allocation of NO_x allowances as specified by 35 IAC 217.764(b)(1), i.e., the number of NO_x

allowances listed in Appendix F, Column 8, and as provided by 35 IAC 217.764(b)(4), a prorata share of any NO_x allowances remaining after the allocation of allowances pursuant to 35 IAC 217.764(b)(2) to budget EGU that commence operation between January 1, 1995 and April 30, 2003.

- iii. In 2008, as provided by 35 IAC 217.764(c), a specified allocation of NO_x allowances, i.e., the number of NO_x allowances listed in Appendix F, Column 8, and as provided by 35 IAC 217.764(c)(4), a pro-rata share of any NO_x allowances remaining after the allocation of allowances to budget EGU that commence operation between January 1, 1995 and April 30, 2004.
- iv. In 2009, as provided by 35 IAC 217.764(d), a specified allocation of NO_x allowances, i.e., the number of NO_x allowances listed in Appendix F, Column 9, and as provided by 35 IAC 217.764(d)(4), a pro-rata share of any NO_x allowances remaining after the allocation of NO_x allowances to budget EGU that commence operation between January 1, 1995 and April 30, 2005, and as provided by 35 IAC 217.764(d)(6), a pro-rata share of any surplus of NO_x allowances in the NSSA after the allocation of NO_x allowances to new budget EGU pursuant to 35 IAC 217.764(d)(5).
- v. In 2010, as provided by 35 IAC 217.764(e), a specified allocation of NO_x allowances, i.e., the number of NO_x allowances listed in Appendix F, Column 9, and a pro-rata share of any NO_x allowances remaining after the allocation of NO_x allowances to budget EGU that commence operation between January 1, 1995 and April 30, 2006, and a prorata share of any surplus of NO_x allowances in the NSSA following the allocation of NO_x allowances to get EGU.
- vi. In 2011 and annually thereafter, as provided by 35 IAC 217.764(f), an allocation of NO_x allowances based on the prior operation of the EGU during previous control periods, as described in Condition 6.1.8(b), and a prorata share of any surplus of NO_x allowances in the NSSA following the allocation of NO_x allowances to new budget EGU.

- b. In accordance with 35 IAC 217.762, the theoretical number of NO_x allowances for the budget EGU listed in Condition 6.1.2(a), calculated as the product of the applicable NO_x emissions rate and heat input as follows, shall be the basis for determining the prorata share of NO_x allowances for the budget EGU and the allocation of NO_x allowances to the budget EGU based on their prior operation:
 - i. The applicable $\rm NO_x$ emission rate for the budget EGU shall be 0.15 lb/mmBtu, as specified by 35 IAC 217.762(a)(1).
 - ii. The applicable heat input (mmBtu/control period) shall be the average of the two highest heat inputs from the control periods four to six years prior to the year for which the allocation is being made, as provided by 35 IAC 217.762 (b) (1).
- 6.1.9 Budget Permit Required by the NO_x Trading Program
 - a. For this source, this segment of the CAAPP Permit, i.e., Section 6.1, is the Budget Permit required by the NO_x Trading Program and is intended to contain federally enforceable conditions addressing all applicable NO_x Trading Program requirements. This Budget Permit shall be treated as a complete and segregable portion of the source's entire CAAPP permit, as provided by 35 IAC 217.758(a) (2).
 - b. The Permittee and any other owner or operator of this source and each budget EGU at the source shall operate the budget EGU in compliance with this Budget Permit, pursuant to 35 IAC 217.756(b)(2).
 - c. No provision of this Budget Permit or the associated application shall be construed as exempting or excluding the Permittee, or other owner or operator and, to the extent applicable, the account representative of a budget source or budget EGU from compliance with any other regulation or requirement promulgated under the CAA, the Act, the approved State Implementation Plan, or other federally enforceable permit, pursuant to 35 IAC 217.756(g).
 - d. Upon recordation by USEPA under 40 CFR 96, Subpart F or G, or 35 IAC 217.782, every allocation, transfer, or deduction of an allowance to or from the budget units' compliance accounts or to or from the overdraft account for the budget source is deemed to amend automatically, and become part of, this budget permit, pursuant to 35 IAC 217.756(d)(8). This automatic amendment of this budget permit shall be

deemed an operation of law and will not require any further review.

- e. No revision of this Budget Permit shall excuse any violation of the requirements of the NO_x Trading Program that occurs prior to the date that the revisions to this permit takes effect, pursuant to 35 IAC 217.756(f)(1).
- f. The Permittee, or other owner or operator of the source, shall reapply for a Budget Permit for the source as required by 35 IAC Part 217, Subpart W and Section 39.5 of the Act. For purposes of the NO_x Trading Program, the application shall contain the information specified by 35 IAC 217.758(b)(2).

6.1.10 References

35 IAC Part 217 Appendix F - (provisions applicable to the Permittee)

| | | | | 80% of | 50% of | 2004, | | |
|-----------|------------|------------|------------|------------|------------|------------|------------|------------|
| Company | | | NOx | NOx | NOx | 2005, | 2007, | 2009, |
| Name/ | Generating | | Budget | Budget | Budget | 2006 | 2008 | 2010 |
| I.D. No. | Unit | EGU | Allowances | Allowances | Allowances | Allowances | Allowances | Allowances |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 097190AAC | Waukegan 6 | Boiler 17 | 199 | 159 | 100 | 189 | 156 | 98 |
| 097190AAC | Waukegan 7 | Waukegan 7 | 376 | 301 | 188 | 357 | 295 | 184 |
| 097190AAC | Waukegan 8 | Waukegan 8 | 667 | 534 | 334 | 634 | 523 | 327 |
| 097190AAC | Peaker | GT 31-1 | 5 | 4 | 3 | 4 | 4 | 2 |
| 097190AAC | Peaker | GT 31-2 | 5 | 4 | 3 | 5 | 4 | 2 |
| 097190AAC | Peaker | GT 32-1 | 5 | 4 | 3 | 5 | 4 | 3 |
| 097190AAC | Peaker | GT 32-2 | 5 | 4 | 3 | 5 | 4 | 3 |

6.2 Emissions Reduction Market System (ERMS)

6.2.1 Description of ERMS

The ERMS is a "cap and trade" market system for major stationary sources located in the Chicago ozone nonattainment area. It is designed to reduce VOM emissions from stationary sources to contribute to reasonable further progress toward attainment, as required by Section 182(c) of the CAA.

The ERMS addresses VOM emissions during a seasonal allotment period from May 1 through September 30. Once the ERMS begins, participating sources must hold "allotment trading units" (ATUs) for their actual seasonal VOM emissions. Each year participating sources are issued ATUs based on allotments set during initial issuance of the sources' CAAPP permits. These allotments are established from historical VOM emissions or "baseline emissions" lowered to provide the emissions reductions from stationary sources required for reasonable further progress.

By December 31 of each year, the end of the reconciliation period following the seasonal allotment period, each source should have sufficient ATUs in its transaction account to cover its actual VOM emissions during the preceding season. A transaction account's balance as of December 31 will include any valid ATU transfer agreements entered into as of December 31 of the given year, provided such agreements are promptly submitted to the Illinois EPA for entry into the transaction account database. The Illinois EPA will then retire ATUs in sources' transaction accounts in amounts equivalent to their seasonal emissions. When a source does not appear to have sufficient ATUs in its transaction account, the Illinois EPA will issue a notice to the source to begin the process for Emissions Excursion Compensation.

In addition to receiving ATUs pursuant to their allotments, participating sources may also obtain ATUs from the market, including ATUs bought from other participating sources and general participants in the ERMS that hold ATUs (35 IAC 205.630) and ATUs issued by the Illinois EPA as a consequence of VOM emissions reductions from an Emissions Reduction Generator or an Intersector Transaction (35 IAC 205.500 and 35 IAC 205.510). During the reconciliation period, sources may also buy ATUs from a secondary reserve of ATUs managed by the Illinois EPA, the "Alternative Compliance Market Account" (ACMA) (35 IAC 205.710). Sources may also transfer or sell the ATUs that they hold to other sources or participants (35 IAC 205.630).

6.2.2 Applicability

Emissions of VOM from the source during the seasonal allotment period from May 1 through September 30 of each year shall not exceed 15 tons, not including VOM emissions from insignificant emission units and activities as identified in Section 3 of this permit. This limitation is established at the request of the source to exempt it from the requirements of 35 IAC Part 205, Emissions Reduction Market System (ERMS), pursuant to 35 IAC 205.205.

6.2.3 Recordkeeping and Reporting

- a. The Permittee shall maintain the following records to determine compliance with the above limitation:
 - i. Records of operating data and other information for each individual emission unit or group of related emission units at the source, as specified in Sections 5 and 7 of this permit, as appropriate, to determine actual VOM emissions during the seasonal allotment period;
 - ii. Records of the VOM emissions, in tons, during the seasonal allotment period, with supporting calculations, for each individual emission unit or group of related emission units at the source, determined in accordance with the procedures specified in Sections 5 and 7 of this permit; and
 - iii. Total VOM emissions from the source, in tons, during each seasonal allotment period.
- b. The Permittee shall submit the seasonal emissions component of the Annual Emissions Report by October 31 of each year, reporting actual emissions of VOM during the seasonal allotment period, in accordance with 35 IAC 205.205(b) and 35 IAC 205.300.
- c. In the event that the source's VOM emissions during the seasonal allotment period exceed 15 tons, the source shall no longer be exempt from the ERMS and beginning with the following seasonal allotment period, shall comply with 35 IAC Part 205, by holding allotment trading units (ATUs) for its VOM emissions during each seasonal allotment period.

6.3 Acid Rain Program

6.3.1 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:

Units 6*, 7 and 8

 \star Unit 6 is also referred to as Unit 17 in certain records and reports

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.

6.3.2 Applicable Emission Requirements

The owners and operators of the source shall not violate applicable Title IV provisions. In particular, NO_x emissions of affected units shall not exceed the limit set by 40 CFR Part 76 as allowed by an Acid Rain Permit. 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.

6.3.3 Monitoring, Recordkeeping and Reporting

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

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

NO_x: Continuous Emissions Monitoring (40 CFR 75.12) SO₂: Continuous Emissions Monitoring (40 CFR 75.11) Opacity: Continuous Emission Monitoring (40 CFR 75.14)

6.3.4 Acid Rain Permit

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

Note: The source is subject to an Acid Rain permit, which was issued pursuant to Title IV provisions, including Section 39.5(17) of the Act. Affected sources must be operated in compliance with their Acid Rain permits. This source's Acid Rain permit is incorporated by reference into this permit and a copy of the current Acid Rain permit is included as Attachment 5 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.

6.3.5 Coordination with Other Requirements

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

7.0 UNIT SPECIFIC CONDITIONS

7.1 Coal Fired Boilers

7.1.1 Description

The Permittee operates coal-fired boilers for electric generation. The boilers, which were built in the 1952, 1958, and 1962, have nominal capacities of 1314, 3255, and 3262 mmBtu/hour, respectively, and are served by three separate stacks. These boilers also have the capability to fire at various modes such as combinations of coal, natural gas and/or fuel oil as their principal fuel. In addition to coal, these boilers fire natural gas or fuel oil as auxiliary fuel during startup and for flame stabilization.

Nitrogen oxide (NO_x) emissions from the boilers are controlled by low- NO_x burners and/or over fired air systemsystems. Particulate matter (PM) emissions from the boilers are controlled by electrostatic precipitators (ESP).

Note: The description in Condition 7.1.1 is for informational purposes only and implies no limits or constraints.

| Boiler | | Emission Control |
|----------------------|-------------------------------|------------------------------|
| ID | Description | Equipment |
| Unit 6 | Babcock & Wilcox Boiler | Overfire Air and |
| BLR <mark>16</mark> | Nominal 1314 mmBtu/hr (1952) | ESP |
| Unit 7 | Combustion Engineering Boiler | Low NO _x Burners, |
| BLR <mark>2</mark> 7 | Nominal 3255 mmBtu/hr (1958) | Overfire Air, |
| _ | | and ESP |
| Unit 8 | Combustion Engineering Boiler | Low NO _x Burners, |
| BLR <mark>3</mark> 8 | Nominal 3262 mmBtu/hr (1962) | Overfire Air, |
| _ | | and ESP |

7.1.2 List of Emission Units and Air Pollution Control Equipment

7.1.3 Applicability Provisions

- a. An "affected boiler" for the purpose of these unitspecific conditions, is a boiler described in Conditions 7.1.1 and 7.1.2.
- b. Startup Provisions

Subject to the following terms and conditions, the Permittee is authorized to operate an affected boiler in violation of the applicable standards in Condition 7.1.4(a) (35 IAC 212.123), Condition 7.1.4(b) (35 IAC 212.201 and 35 IAC 212.203), Condition 7.1.4(d) (35 IAC 216.121), and Condition 7.1.4(e) (35 IAC 217.141(b)) during startup. This authorization is provided pursuant to 35 IAC 201.149, 201.161261 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 startups 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 an affected boiler in accordance with written procedures prepared by the Permittee and maintained in the control room for the boiler, that are specifically developed to minimize emissions from startups and that include, at a minimum, the following measures:
 - A. Use of auxiliary fuel burners to heat the boiler prior to initiating burning of coal.
 - B. Timely energization of the electrostatic precipitator as soon as this may be safely accomplished without damage or risk to personnel or equipment.
- iii. The Permittee shall fulfill applicable
 recordkeeping and reporting requirements of
 Conditions 7.1.9(c), (e), and (g) and 7.1.10 2(a).
- iv. 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.
- c. Malfunction and Breakdown Provisions

Subject to the following terms and conditions, the Permittee is authorized to continue operation of an affected boiler in violation of the applicable

requirements of Condition 7.1.4(a) (35 IAC 212.123), Condition 7.1.4(b) (35 IAC 212.201 and 35 IAC 212.203), Condition 7.1.4(d) (35 IAC 216.121), and Condition 7.1.4(e) (35 IAC 217.141(b)) in the event of a malfunction or breakdown of an affected boiler, including the coal pulverizer, the ash removal system, or the electrostatic precipitator (including flue gas conditioning $\left(\cdot \right)$. This authorization is provided pursuant to 35 IAC 201.149, 201.161261 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 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 to prevent 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 practicable reduce boiler load, repair the affected boiler, remove the affected boiler from service or undertake other action so that excess emissions cease.
- iii. The Permittee shall fulfill applicable recordkeeping and reporting requirements of Conditions 7.1.9(e), (e) and (h), 7.1.10-2(c) and (d) and 7.1.10-3(a). 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 boiler 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 Applicable Emission Standards
 - a. The affected boilers shall comply with the standard in Condition 5.2.2(b) [35 IAC 212.123], which addresses the opacity of the emission of smoke or other PM from the affected boilers.
 - b. i. The emissions of PM from affected boilers Unit 6 and Unit 7 <u>each</u> shall not exceed 0.10 lb/mmBtu of actual heat input in any one hour period, pursuant to 35 IAC 212.201.
 - ii. The emissions of PM from affected boiler Unit 8 shall not exceed 0.12 lb/mmBtu of actual heat input in any one hour period, pursuant to 35 IAC 212.203. This standard applies because the affected boiler qualifies for the alternative standard provided by this rule, as recognized by the Illinois Pollution Control Board in Regulatory Proceeding R82-1. In particular, in accordance with 35 IAC 212.203(a), as of April 14, 1972, the affected boiler had an hourly emission rate based on the stricter of the original design or equipment performance test conditions that was less than 0.20 lb/mmBtu of actual heat input, i.e., 0.07 lb/mmBtu. Thereafter, under this rule, the emission rates are not allowed to degrade by more than 0.05 lb/mmBtu from the base emission rate, resulting in an emission standard of 0.12 lb/mmBtu.
 - c. The emissions of SO_2 from each affected boiler shall not exceed 1.8 $\rm lbs/mmBtu$ of actual heat input, pursuant to 35 IAC 214.141.
 - d. The emissions of CO from each affected boiler shall not exceed 200 ppm, corrected to 50 percent excess air, pursuant to 35 IAC 216.121.

- e. The emissions of NO_x from affected boilers Unit 7 and Unit 8 <u>each</u> shall not exceed 0.9 lb/mmBtu of actual heat input in any one hour period, pursuant to 35 IAC 217.141(b).
- f. The <u>EGUs at the source associated with the</u> affected boilers are <u>each</u> subject to the following requirements related to NO_x emissions pursuant to 35 IAC Part 217 Subpart V:
 - i. During each ozone control period (May 1 through September 30):
 - A. The emissions of NO_x from <u>each EGU</u> <u>associated with</u> an affected boiler shall not exceed 0.25 lb/mmBtu of actual heat input based on <u>aan</u> ozone control period average for that <u>unitEGU</u>, pursuant to 35 IAC 217.706(a)<u>7</u>; or
 - $\frac{\text{Notwithstanding the requirement in}}{\text{Condition 7.1.4(f)(i)(A), if} \text{H}} \text{ the Permittee elects to participate in a NO}_x$ в. averaging plan, demonstration pursuant to 35 IAC 217.708(a), the average rate of emissions of NO_x from the affected boilerPermittee's EGUs at this source and all other eligible EGUEGUS at any source that are participating in such NO_x averaging demonstration shall not exceed 0.25 lbslb/mmBtu of actual heat input, as averaged for the ozone control period for the EGU partici demonstration, pursuant to 35 IAC 217.708(a) and (b). For this p other In accordance with 35 IAC 217.708(c), all EGUs at this source that are subject to 35 IAC 217.706, including the affected boilers addressed in Section 7.1 and the affected turbines addressed in Section 7.5 and their associated electric generators, are authorized by this permit to participate in averaging demonstrations to show compliance with Part 217, Subpart V. Note: In addition to the EGUs at this source, the
 - <u>other</u> eligible <u>EGUEGUs</u> <u>include:</u> (1) EGU at this source, which are also authorized by this permit tothat may participate in a NO_{*} such averaging <u>include</u> demonstration, and (2) any other EGU at any source that areis authorized by the Illinois EPA to participate in a NO_{*} averaging <u>plan</u>demonstration by a

CAAPP permit or other federally enforceable permit issued by the Illinois EPA to the owner or operator of these that EGU.

Note: Given the emission determination methods opecified by 35 IAC 217.710, the emissions of NO_{*} 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_{*} Trading Program.

- ii. If the Permittee elects to have an \underline{EGU} associated with an affected boiler comply by participation in a NO_x averaging demonstration as provided for and authorized above:
 - A. The affected boilerEGU 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 <u>EGUEGUS</u> 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 boilerEGU shall be determined pursuant to Condition 7.1.4(f)(i)(A) as if the NO_x emission rates of the affected beilerEGUs were not averaged with other EGUEGUS, pursuant to 35 IAC 217.708(f).

Note: The above requirements also apply as a matter of rule to EGUs other than the affected boilerEGUs associated with the affected boilers and affected turbines addressed in Sections 7.1 and 7.5 of this permit if the owner or operator of such other EGUs elects to participate in a NO_x averaging demonstration.

- 7.1.5 Non-Applicability of Regulations of Concern
 - This permit is issued based on affected boiler Unit 6 not being subject to 35 IAC 217.141(b) (Condition

7.1.4(e)) because it is a cyclone fired boiler [35 IAC 217.141(d)].

- b. i. The Permittee is shielded from the following rules for an affected boiler when the boiler is using <u>coal or other</u> solid fuel (coal) as its principal fuel. This is because incidental use of <u>other fuelsnatural gas or</u> <u>liquid fuel</u> generally serves as a good combustion practice for firing of solid fuel and does not provide a decrease in emissions that can be used to reduce the emission rate that must be achieved for the emissions associated with combustion of solid fuel:
 - 35 IAC 212.207.
 - 35 IAC 214.162.
 - 35 IAC 217.141(c)*.

* This provision does not apply for the Unit 6 boiler because it is not subject to 35 IAC 217.141(b) or (c), pursuant to 35 IAC 217.141(d). (Refer to Condition 7.1.5(a).)

- ii. If an affected boiler is not using <u>coal or</u> <u>other</u> solid fuel (coal) as its principal fuel, the affected boiler shall comply with the requirements of the following conditions. During such periods, for PM, Condition 7.1.5(b)(ii)(A) shall substitute for Condition 7.1.4(b); for SO₂, Condition 7.1.5(b)(ii)(B) shall supplement Condition 7.1.4(c); and for NO_x, Condition 7.1.5(ii)(c) shall substitute for Condition 7.1.4(e):
 - A. The emissions of PM from the affected boiler in any one hour period shall not exceed the amount, in lbs/hr, allowed by the formula in 35 IAC 212.207. For this purpose, the applicable PM standard for heat input from liquid fuel shall be 0.1 lb/mmBtu, pursuant to 35 IAC 212.206 and 212.207.
 - B. The emissions of SO_2 from the affected boiler in any one hour period shall not exceed the amount, in lbs/hr, allowed by the formula in 35 IAC 214.162. For this purpose, the applicable SO_2 standards for heat input from residual fuel oil, and distillate fuel oil, shall be 1.0 and 0.3

lb/mmBtu, respectively, pursuant to 35 IAC 214.161(a), 214.161(b), and 214.162.

- C. The emissions of NO_x from thean affected boiler* in any one hour period shall not exceed the amount, in lb/hr, allowed by the formula in 35 IAC 217.141(c).
 - * Applicable for the Unit 7 and Unit 8 boilers only.
- iii. For the purpose of the above conditions, an affected boiler shall be considered to be using <u>coal or other</u> solid fuel (coal) as its principal fuel if the use of natural gas and/or fuel oil is incidental to the use of coal, occurring for specific purposes associated with routine firing of solid fuel, such as startup, opacity reduction emission mitigation, flame stabilization, outage of a coal pulverizer, or other temporary interruption in solid fuel supply. A boiler shall not be considered to be using solid fuel as its principal fuel if the use of natural gas and/or fuel oil is more than incidental to the firing of coal in the boiler or the use of coal is incidental to the operation of the boiler.
- iv. The Permittee shall notify the Illinois EPA if the status of an affected boiler changes to or from using <u>coal or other</u> solid fuel (coal) as its principal fuel. This notification shall be provided at least 7 days in advance of such change in status unless the change results from a sudden event that precludes such advance notification, in which case notification shall be provided as soon as practicable prior to the change.
- c. Pursuant to 35 IAC 201.403(a), the Permittee is not subject to the requirements of 35 IAC Part 201 Subpart L for opacity monitoring because the Permittee <u>must conducts</u> opacity monitoring <u>onof</u> the affected boilers in accordance with the <u>NSPE</u>consistent with Performance Specification 1 in <u>Appendix B to 40 CFR Part 60, pursuant toas specified</u> <u>at 40 CFR 75.14 of</u> the federal Acid Rain <u>programProgram</u>.
- d. The affected boilers are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources for SO₂ and NO_x Acid Rain Requirements because the affected boilers are subject

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to Acid Rain Program requirements, pursuant to 40 CFR 64.2(b)(1)(iii).

- e. The affected boilers are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources for SO₂ and NO_x State Rule Requirements because the affected boilers 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).
- f. The affected boilers are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources for CO State Rule Requirements because the affected boilers do not use an add-on control device to achieve compliance with an emission limitation or standard.
- 7.1.6 Work Practices, Operational and Production Limits, and Emission Limitations
 - As part of its operation and maintenance of the affected boilers, the Permittee shall perform formala "combustion evaluation" on each boiler on at least a quarterly basissemi-annually, pursuant to Section 39.5(7)(d) of the Act. These evaluationsThis evaluation shall consist of diagnosticprocess measurements of the concentration of CO in the flue gas of the affected boiler as well as any, with adjustments and/or preventative and corrective measures undertaken for the boiler's combustion systems teof the boilerste maintain efficient combustion.
- 7.1.7 Testing Requirements

Pursuant to Section 39.5(7)(d)(ii) of the Act, the Permittee shall have the PM and CO emissions of each affected boiler measured as specified below:

- a. i. PM emission measurements shall be made as soon as possible but no later than 180 daysone year after the effective dateeffectiveness of this condition. (Measurements made after December 31, 2003 may satisfy this requirement.)
 - ii. PM emission measurements shall be made within 90 days of operating an affected boiler for more than 3072 hours total in a calendar quarter at a load* that is more than 10 Megawatts or 25 percent (whichever is greatest) higher than the greatest load on the boiler, during the most recent set of PM tests

Formatted: Indent: Left: 1", Hanging: 0.75", Tab stops: 1.75", Left + 2.08", Left + Not at 1.63" + 2.06" on the affected boiler in which compliance is shown (refer to Condition 7.1.7(e)(iii)(D)), provided, however, that the Illinois EPA may upon request of the Permittee provide more time for testing (if such time is reasonably needed to schedule and perform testing or coordinate testing with seasonal conditions). Notwithstanding Condition 5.10, this condition shall take effect after the first complete quarter following the effectiveness of this condition.

- * For this purpose, load shall be expressed in terms of either gross megawatt output or steam flow, consistent with the form of the records kept by the Permittee pursuant to Condition 7.1.9(a).
- iii. Periodic PM emission measurements shall be made for the affected boilers within a time period determined from the compliance margin for the applicable PM emission standard, based on the results of the preceding PM measurement, as follows. For this purpose, the compliance margin is the extent to which the actual PM emissions as measured are lower than the applicable PM limit. For example, if the measured PM emissions of the affected boiler are 0.075 lb/mmBtu, the compliance margin for the applicable PM limit, 0.10 lb/mmBtu, would be 25 percent. (0.100 - 0.075 = 0.025, 0.025/0.100 = 0.25 or 25 percent)
 - A. If the compliance margin is less than 20 percent, within 15 months of the previous measurement.
 - B. If the compliance margin is between 20 and 40 percent, within 27 months of the previous measurement.
 - C. If the compliance margin is greater than 40 percent, within 39 months of the previous measurement.
- iv. Measurements of CO emissions shall be made as follows:
 - A. In conjunction with the initial measurements of PM emissions as required above by Condition 7.1.7(a)(i) (unless this PM measurement is conducted prior to the issuance of this permit), if a measurement of CO emissions is not

otherwise performed earlier in conjunction with a relative accuracy test audit (RATA) for SO_2 or NO_x conducted under this permit.

- B. In conjunction with each subsequent measurement of PM emissions made pursuant to Condition 7.1.7(a)(ii) or (iii) (or a RATA for SO₂ or NO_x preceding such measurement), provided, however, that if measured CO emissions are no more than 100 ppm at 50 percent excess air, CO measurements need not be performed with the next PM measurement (or preceding RATA) but shall be performed with the second measurement of PM emissions following the measurement in which CO emissions were no more than 100 ppm (or a RATA preceding that PM measurement).
- A. If standard fuel (i.e., coal, fuel oil, and <u>natural</u> gas) is less than 97.0 percent by weight of the fuel supply toburned in a boiler during a quarter calendar quarter, unless measurements for PM and CO emissions have already been conducted while burning alternative fuel or process waste at percentage that is greater than or equal to the percent of those materials burned in that calendar quarter or at the maximum rate at which the systems that feed alternative fuel or process waste to the boiler will be operated, the Permittee shall have measurements of PM and CO emissions from the boiler made during the next calendar quarter while firingin which alternative fuel or process waste is burned in the boiler. Notwithstanding Condition 5.10, this condition shall take effect after the first complete quarter following the effectiveness of this condition.
 - B. The Permittee shall conduct such measurements while firing the boiler with at the lower of the following: (i) at least 1.25 times the greatest percentage of alternative fuel material or process waste in the calendar quarter that triggered the testing, or (ii) at. This percentage at which testing shall be conducted shall not exceed that allowed by the maximum design capacity of rate at

v.

which the systems that feed alternative fuel or process waste to the boiler will be operated. the alternative fuel handling system. If the boiler has been firingburning a mix of alternative fuel materials or process wastes, the mix of fuel during such measurements shall be approved by the Illinois EPA.

- C. The Permittee shall repeat such measurements if the percentage of alternative fuel materials and process wastes burned in a boiler during a quarter is more than the percentage of such material in the fuel supply tobeing burned in the boiler when previous emission measurements were conducted.
- vi. Measurements of PM and CO emissions shall be made within 90 days (or such later date set by the Illinois EPA) following a request by the Illinois EPA for such measurements.
- b. i. These measurements shall be performed at the<u>90</u> percent or better of the seasonal maximum operating loads of the affected boilers or related turbines and other operating conditions that are representative of normal operation. In addition, the Permittee may perform measurements at other operating conditions to evaluate variation in emissions.
 - ii. Measurements shall be taken at an appropriate location in the ductwork or stack associated with the affected boiler.
 - iii. <u>A.</u> The following testReference methodsMethods and procedures shall be used for these measurements. Refer to 40 CFR 60, Appendix A for USEPA Methods.

Location of Sample PointsUSEPA Method 1Gas Flow and VelocityUSEPA Method 2Flue Gas WeightUSEPA Method 3MoistureUSEPA Method 4Particulate Matter (PM)USEPA Methode 5 & 202*Carbon Monoxide (CO)USEPA Method 10

Other test methods adopted by USEPA may be used in place of the above methods with the approval of the Illinois EPA.

*Measurements of condensable PM are also required by USEPA Method 202 (40 CFR Part 51, Appendix M) or other established test method approved by the Illinois EPA, except for a test conducted prior to issuance of this permit.

- B. Compliance may be determined from the average of three valid test runs, subject to the limitations and conditions contained in 35 IAC Part 283.
- c. Except for minor deviations in test methods, as defined by 35 IAC 283.130, emission testing shall be conducted in accordance with a test plan prepared by the testing service or the Permittee and submitted to the Illinois EPA for review prior to emission testing, and the conditions, if any, imposed by the Illinois EPA as part of its review and approval of the test plan, pursuant to 35 IAC 283.220 and 283.230.
 - i. The Permittee shall submit this test plan at least 60 days prior towithin the actual date of testingtime period provided in Condition 8.6.2 and the test plan shall include the information specified by Condition 8.6.2.
 - ii. Notwithstanding the above, as provided by 35 IAC 283.220(d), the Permittee need not submit a test plan for emission testing that will be conducted in accordance with the procedures used for previous tests accepted by the Illinois EPA or the previous test plan submitted to and approved by the Illinois EPA, provided that the Permittee's notification for testing, as required below, contains the information specified by 35 IAC 283.220(d)(1)(A), (B) and (C).
- d. The Permittee shall notify the Illinois EPA prior to conducting emission tests to enable the Illinois EPA to observe testing. Notification for the expected test date shall be submitted a minimum of 30 days prior to the expected date of testing. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual test date. The Illinois EPA may on a case-by case basis accept shorter advance notice if it would

not interfere with the Illinois $\mbox{EPA}\xspace's$ ability to observe testing.

- e. The Permittee shall submit the Final Report(s) for any required emission testing to the Illinois EPA within 45 days after the tests results are compiled and finalized but no later than 120 days after the date of testing. The Final Report shall include the information specified in Condition 8.6.3 and the following information:
 - Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.
 - A description of any minor deviations from the test plan, as provided by 35 IAC 283.230(a).
 - iii. Detailed description of operating conditions during testing, including:
 - A. Source(s) of fuel and specifications (ash, sulfur and heat content).
 - B. Boiler operating information, i.e., firing rate of the affected boiler(s) (mmBtu/hr), composition of fuel as burned (ash, sulfur and heat content), and fuel blending ratio (%), if a blend of fuels is burned.
 - C. Combustion system information, i.e., settings for distribution of primary and secondary combustion air, target level for θ_2 of excess air in the flue gas, and levels of CO, CO₂ or O₂ in the flue gas₇ as determined by any diagnostic measurements.
 - D. Control equipment information, i.e., equipment condition and operating parameters during testing.
 - E. Load during testing (gross megawatt output and steam flow).
 - F. Information on the usage of alternative fuel materials or process wastes during testing, if testing was conducted to satisfy Condition 7.1.7(a) (v).
 - iv. Data and calculations, including copies of all raw data sheets and records of laboratory

analyses, sample calculations, and data on equipment calibration.

- v. The SO₂ NO_x, O₂ or CO₂ (hourly averages) and opacity data (6-minute averages) measured by the certified continuous emissions or opacity monitors during testing.
- 7.1.8 Monitoring Requirements
 - a. Pursuant to 40 CFR 75.14 and Section 39.5(7)(d)(iii) of the Act, the Permittee shall install, operate, calibrate and maintain continuous monitoring equipment for the measurement of opacity from the affected boilers.
 - i. The Permittee shall operate this equipment in accordance with the general provisions for opacity monitoring systems in 40 CFR 75.10.
 - ii. These monitors shall be the primary basis for reporting of exceedances of Condition 7.1.4(a). (See Conditions 7.1.10-2(a) and 7.1.10-3(a)).
 - b. Pursuant to 40 CFR 75.11 and Section 39.5(7) (d) (iii) of the Act, the Permittee shall install, operate, calibrate and maintain—a continuous emission monitoring systems (CEMS) for the measurement of SO_2 emissions from the affected boilers.
 - i. These CEMS shall be used to demonstrate compliance with the $\frac{1}{1}$ in Condition 7.1.4(c) based on the average hourly SO_2 emission rate determined from monitored data from three-hour block averaging periods.
 - c. Pursuant to 40 CFR 75.12, 35 IAC 217.710(a), and Section 39.5(7)(d)(iii) of the Act, the Permittee, shall install, calibrate, maintain and operate a CEMS for the measurement of NO_x emissions from the affected boilers, in accordance with the requirements of 40 CFR 75 Subpart B.
 - d. Pursuant to Section 412 of the Clean Air Act and 40 CFR Part 75, the source is required to operate continuous monitors for the affected boilers for various parameters, including SO₂, NO_x, volumetric flow and opacity, along with a computerized data acquisition and handling system for collected data. (See also Condition 6.3.3) To the extent that applicable performance specifications and operating requirements for monitoring under 40 CFR Part 75 are inconsistent with the above requirements for

monitoring, the procedures of 40 CFR Part 75 shall take precedence. (See also Condition 8.2)

e. Compliance Assurance Monitoring (CAM) Requirements

The affected boilers are subject to 40 CFR Part 64, <u>Compliance Assurance Monitoring (CAM) for Major</u> <u>Stationary Sources as addressed in Conditions 7.1.13-</u> <u>1 and 7.1.13-2.</u>

- 7.1.9 Recordkeeping Requirements
 - a. Operational Records for the Affected Boilers

Pursuant to Sections 39.5(7)(a) and (e) of the Act, the Permittee shall maintain the following operational operating records for the affected boilers:

- A. Load (in terms of either gross megawatts output or steam flow) on an hourly basis for each affected boiler or unit.
 - B. If the Permittee is relying on data for heat input for purposes of compliance with Condition 7.1.4(b) that is different from that recorded pursuant to the federal Acid Rain Program, records of heat input (mmBtu, on an hourly basis) or the conversion factors that the Permittee relies upon to convert from boiler load as recorded above to hourly heat input.
- ii. Records for each day when an alternative fuel, (i.e., a fuel material other than coal, gas or oil) or process waste was burned, including the estimated amount of each such material burned and the affected boiler(s) in which it was burned.
- iii. Total operating hours (hours/quarter) for each affected boiler.
- iv. A. Amount of coal consumed (tons/quarter).
 - B. Amount of each otheralternative fuel material<u>or process waste</u> consumed (tons, gallons, cubic feet per quarter, as appropriate).
- v. A. Records of agreements with suppliers of alternative <u>fuelsfuel(s)</u>, including origin of material, specifications for heat and ash content, and representative

data for elemental composition of such material, including mercury and other heavy metals, chlorine and fluorine.

- B. Records for each load of such <u>materialfuel(s)</u> received at the source, which at a minimum shall include date, supplier name, type of <u>materialfuel</u> and amount (tons).
- vi. An operating log, maintenance and repair log, or other records for each affected boiler documenting the performance of the combustion evaluation required by Condition 7.1.6(a), including the date of the evaluation, the concentrations of CO measured at the start and conclusion of the evaluation, and a description of <u>any</u> adjustments and/or preventative and corrective measures undertaken for the combustion systems of the boiler.
- b. Records for Control Equipment

Pursuant to Sections 39.5(7)(a) and (e) of the Act, the Permittee shall maintain the following operating records for the air pollution control equipment on the affected boilers:

i. Maintenance and Repair Log

A maintenance and repair log for each control device, which shall list the activities performed, with date and description. (See also Condition 9.6.1, Control Equipment Maintenance Records.)

ii. Operating Records for ESPs

When anthe affected boiler served by an ESP is in operation:

- A. The status of each ESP field in the ESP shall be recorded at least once per shift, and.
- B. The following numerical data shall be recorded at least once per day: (1) Primary voltages and currents; and (2) Secondary voltages and currents.
- c. Records for Continuous Opacity Monitoring Systems

Pursuant to Section 39.5(7)(e) of the Act, the Permittee shall maintain records for the opacity

monitoring system on each affected boilersboiler required by Condition 7.1.8(a) that as a minimum shall include the following:

- i. Operating records for each opacity monitoring system, including:
 - A. Opacity measurements <u>(6-minute, one-hour,</u> and three-hour block averages).
 - B. <u>Continuous monitoring system pP</u>erformance testing measurements.
 - C. Performanceand evaluations, calibration checks and other quality assurance/control activities.
 - D. Calibration checks.
 - $\underline{\mathbf{FC}}$. Maintenance and adjustment performed.
 - FD. Periods other than performance of quality assurance, calibration, and maintenance, as addressed above, when the monitor was inoperative, with reason.
 - **<u>GE</u>**. Quarterly reports submitted in accordance with Condition 7.1.10-2(a) and (d).

Records for each affected boiler that identify the upper bound of the 95% confidence interval (using a normal distribution and 1 minute averages) for opacity measurements from the boilers, considering an hour of operation, within which compliance with Condition assured, with 1.4(b) is supporting explanation and documentation, including results of historic emission tests. At these records shall nimum, each subsequent PM emission test on the affected boiler. Copies of these records submitted to the Illinoi 5.6.2(d).

- iiiii. Records to address compliance with Conditions
 7.1.4(a) and (b), including:
 - A. Each 6-minute period when the opacity was above the limitation of Condition 7.1.4(a) (30 percent opacity) with date, time, whether it occurred during startup, malfunction, breakdown, or shutdown, and further explanation of the incident.

B. Each three-hour block averaging period when the measuredaverage opacity of an affected boiler was above the upper bound, as specified above in Condit 7.1.9(c)(ii),30 percent, with date, time, measured opacity (three-hour block average), operating condition if startup, malfunction, breakdown, or shutdown, further explanation description of the incident, and whether, if other information shows that the PM emissions of an affected boiler(s) may have exceeded or likely exceeded the limit ofin Condition 7.1.4(b), a description of that information with explanation.

Note: For purposes of this Condition 7.1.9(c)(ii)(B), a three-hour block average is the average of three consecutive one-hour block averages.

d. Records for Continuous SO_2 Monitoring Systems

Pursuant to Section 39.5(7) (e) of the Act, the Permittee shall maintain records for the SO_2 CEMS on each affected boiler required by Condition 7.1.8 (b) that as a minimum shall include the following:

- i. Operating records for the SO₂ CEMS, including:
 - A. SO_2 emission measurements.
 - B. <u>Continuous monitoring system performance</u> <u>Performance</u> testing measurements.
 - C. Performance and evaluations, calibration checks, and other quality assurance/control activities.

D. Calibration checks.

- EC. Maintenance and adjustments performed.
- FD. Periods when the SO_2 CEMS was inoperative, with date, time and reason.
- $\underline{\Theta E}$. Data reduction information.
- HF. Quarterly reports submitted in accordance with Condition 7.1.10-2(a) and (b).
- ii. Records to verify compliance with the limitation of Condition 7.1.4(c), including:

- A. SO_2 emissions in the terms of the applicable standard (lbs/mmBtu) from the affected boiler on an hourly basis, as derived from the data obtained by the SO_2 CEMS.
- e. Records for Continuous $\ensuremath{\text{NO}_{x}}$ Monitoring

Pursuant to Section 39.5(7) (e) of the Act and 35 IAC 217.712(a), the Permittee shall maintain records for the NO_x CEMS on each affected boiler required by Condition 7.1.8(c) in accordance with the applicable recordkeeping requirements of 40 CFR 75, pursuant to 35 IAC 217.712(a), that as a minimum shall include:

- Operating records for the each NO_x CEMS, including:
 - A. $\ensuremath{\text{NO}_x}$ emission measurements.
 - B. <u>Continuous monitoring system performance</u> <u>Performance</u> testing measurements.
 - C. Performance and evaluations, calibration checks, and other quality assurance/control activities.
 - D. Calibration checks.
 - EC. Maintenance and adjustments performed.
 - FD. Periods when the $\frac{NO_x}{2}$ CEMS was inoperative, with date, time and reason.
 - $\underline{\Theta E}$. Data reduction information.
 - HF. Quarterly reports submitted in accordance with Condition 7.1.10-2(a) and (c).
- ii. Records for affected boilers Unit 7 and Unit 8 to verify compliance with the limit of Condition 7.1.4(e), including:
 - A. NO_x emissions in the terms of the applicable standard (lbs/mmBtu) from the affected boiler on an hourly basis, as derived from the data obtained by the NO_x CEMS.
- f. Acid Rain Program

Records for the continuous emission monitoring required for the affected boilers by the Acid Rain Program should be kept by the source in accordance with 40 CFR Part 75, including the General Recordkeeping Provisions; the General Recordkeeping Provisions for Specific Situations, if applicable; and Certification, Quality Assurance and Quality Control Record Provisions [See Condition 6.3.3].

- g. Records for Startups of Affected Boilers, pursuant to Section 39.5(7) (b) of the Act
 - i. The Permittee shall maintain written startup procedures for each affected boiler, as required by Condition 7.1.3(b)(ii).
 - ii. The Permittee shall maintain the following records related to startups of the affected boilers:
 - A. For all startups on each affected boiler.
 - I. Date, time and duration of the startup.
 - II. A description of the startup, the reason(s) for the startup, and an indication of whether or not written startup procedures were followed. If any procedures were not followed, the records shall include any departures from established procedures and the reason the procedure could not be followed.
 - B. For each startup of an affected boiler where emissions in excess of a relevant standard occurred during startup or the Permittee believes that compliance with the PM standard likely was not maintained during the startup, maintain the following additional records for such startup.
 - I. An explanation of the nature of such exceedance(s), including the qualitative or, if available, quantitative magnitude of such excess emissions.
 - II. A description of the actions taken or to be taken to minimize the magnitude and duration of any excess emissions.

- III. An explanation of whether similar incidents could be prevented in the future and, if so, a description of the actions taken or to be taken to prevent similar incidents in the future.
- C. Maintain the following additional records for each startup with a duration exceeding 20 hours for Unit 7 or 23 hours for Unit 8. For purposes of this condition, the duration of the startup is measured from the initial firing of fuel in an affected boiler to stable operation of the corresponding EGU at load.
 - I. A description of the events that led up to the extended startup duration.
 - II. The reason(s) for the extended startup duration.
 - III. The actions taken to minimize emissions and the duration of the startup.
 - IV. An explanation of whether similar incidents might be prevented in the future and, if so, the corrective actions taken or to be taken to prevent similar incidents.

Pursuant to 35 IAC 201.263 and Sections 39.5(7)(a) and (c) of the Act, the Permittee shall maintain the following records related to startup of the affected boilers:

i. The Permittee's startup procedures for the affected boilers (as required by Condition 7.1.3(b)(ii)), accompanied by the Permittee's estimates of both total and excess opacity and emissions of PM, CO and NO_x during typical startup(s), with supporting information and calculations.

i. Records for each startup of an affected boiler that, at a minimum, include the following information:

A. Date, time, duration and description of the startup.

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- B. The elapsed time from initial firing of auxiliary fuel to achievement of stable operation of the beiler with the principal fuel and with boiler systems and control devices operating to enable compliance with applicable standards for opacity and emissions of PM, CO and NO...
- C. If this elapsed time is more than 4 hours for Unit 6 (Boiler 1) or , or 6 hours for Units 7 or 8 (Boilers 2 or 3) , or if the Permittee's startup procedures are not followed:
 - 1. A detailed explanation why startup of the boiler was not completed sooner or startup procedures were not followed.
 - 2. Documentation for the startup procedures that were followed.
 - 3. The elapsed time from initial firing of auxiliary fuel until firing of the principal fuel was begun.
 - 4. The flue gas temperature at which the ESP was energized, if coal was fired before the ESP was energized.
 - 5. Estimates of the magnitude of emissions of PM and CO during the startup, including whether emissions may have exceeded any applicable hourly standard, as listed in Condition 7.1.4.
 - 6. Emissions of NO_x and boiler load during the startup, on an hourly basis, if monitored emissions exceeded the applicable hourly standard.
- h. Records for Continued Operation During Malfunctions And Breakdowns

Pursuant to 35 IAC 201.263 and Sections 39.5(7)(a) and (e) of the Act, the Permittee shall maintain following records, related to malfunction and breakdown of the affected boilers:

i. Maintenance and repair log(s)records for the affected boilers that, at a minimum, address

aspects or components of the boilers for which malfunction or breakdown has resulted in excess emissions, which shall list the activities performed on such aspects or components, with date, description and reason for the activity. In addition, in the maintenance and repair log(s) for control equipment required by Condition 7.1.9(b)(i), the Permittee shall also list the reason for the activities that are performed.

- ii. Records for each incident when operation of an affected boiler continued with excess opacity or emissions, including during malfunction or breakdown as addressed by Condition 7.1.3(c), that, at a minimum, shall include the following information:
 - A. Date, time, duration <u>(i.e., the length of</u> time during which operation continued with excess opacity or emissions until corrective actions were taken or the boiler was taken out of service), and description of the incident.
 - B. The corrective actions used to reduce the quantity of emissions and to reduce the duration of the incident.
 - C. Confirmation of fulfillment of the requirements of Condition 7.1.10-3(a), as applicable, including copies of <u>any</u> follow-up reports submitted pursuant to Condition 7.1.10-3(a)(ii).
 - D. If opacity <u>during the incident</u> exceeded the applicable standard for two or more hours, or emissions exceeded or may have exceeded an applicable hourly standard, as listed in Condition 7.1.4, or the Permittee believes that compliance with the PM standard likely was not maintained:
 - <u>+I</u>. A detailed explanation why continued operation of the affected boiler was necessary.
 - 211. The preventative measures that have been or will be taken to prevent similar incidents or reduce their frequency and severity, including any repairs to the affected boilers and associated equipment and any

changes to operating and maintenance procedures.

- E. If PM emissions during the incident exceeded an applicable hourly standard, as listed in Condition 7.1.4, or the Permittee believes that compliance with the PM standard likely was not maintained, estimates of the magnitude of emissions of PM during the incident, with magnitude estimated on a qualitative or, if available, quantitative basis.
- F. If CO emissions during the incident exceeded an applicable hourly standard, as listed in Condition 7.1.4, estimates of the magnitude of emissions of CO during the incident, with magnitude estimated on a qualitative or, if available, quantitative basis.
 - 3. Estimates of the magnitude of emissions of PM and CO during the incident, as emissions may have exceeded any applicable hourly standard.
- G. If NO_x emissions for Unit 7 or Unit 8 boilers during the incident exceeded an applicable hourly standard, as listed in Condition 7.1.4, estimates of the magnitude of emissions of NO_x during the incident, with magnitude estimated on a qualitative or, if available, quantitative basis.
 - 4. For the Unit 7 and Unit 8 boilers, omissions of NO_x during the incident, on an hourly basis, if monitored emissions exceeded the applicable hourly standard.

7.1.10-1 Reporting Requirements - Reporting of Deviations

a. Prompt Reporting of Deviations

For each affected boiler, the Permittee shall promptly notify the Illinois EPA of deviations from permit requirements as followspecified below. At a minimum, theseThese notifications shall include a description of such deviations, including whether they occurred during startup or malfunction/breakdown, and a discussion of the possible probable cause of such deviations, any corrective actions taken and any preventative measures taken [Section 39.5(7)(f)(ii) of the Act].

- i. NotificationFor those breakdown or malfunction PM or opacity events that require notification and reporting as specified inpursuant to Condition 7.1.10-3(a), for certain deviations from the PM limit in Condition 7.1.4(b).
- ii. Notification notification and reporting as specified in shall be provided pursuant to Condition 7.1.10-3(a) for certain deviations from the opacity limit in Condition 7.1.4(a) rather that 7.1.10-2(d).
- iiiii. Notification with the <u>quarterly or annual</u> reports required by Conditions 7.1.10-2(b), (c), (d) and (e) for deviations from Conditions 7.1.4(a), (b), (c), (e) and (f) and from the requirements of Condition 7.1.8 for emissions monitoring, <u>unless notification and</u> reporting for that deviation is required <u>pursuant to Condition 7.1.10-3(a)</u>.
- iviii. Notification with the quarterly reports
 required by Condition 7.1.10-2(a) for
 deviations not addressed above by Condition
 7.1.10-1(a)(i), (ii) or (iii), including
 deviations from other applicable requirements,
 e.g., the applicable CO emission standard, the
 work practice requirements, and recordkeeping
 requirements.
- b. Periodic Reporting of Deviations

The quarterly reports required by Condition 7.1.10-2 (a) shall include the following information for the affected boilers related to deviations from permit requirements during the quarter [Sections 39.5(7)(a) and (f)(i) of the Act].

i. A listing of all <u>notifications and reports for</u> instances of deviations that have been <u>reportedprovided</u> in writing to the Illinois EPA as provided bypursuant to Condition 7.1.10-13(a)(i) and (ii), including identification of each such written notification or report. For this purpose, the Permittee need not resubmit copies of these previous notifications or reports but may elect to supplement such material. ii. Detailed information, as required by Condition 7.1.10-1(a) (<u>iiiii</u>) or (<u>iviii</u>), for all other deviations not addressed in the above listing.

7.1.10-2 Reporting Requirements - Regular Reports

a. Quarterly Reports

In place of the semi-annual monitoring reports required by Condition 8.6.1, the Permittee shall submit quarterly reports to the Illinois EPA pursuant to Sections 39.5(7)(a) and (f) of the Act.

- i. These reports shall include the following information for operation of the affected boilers during the quarter:
 - A. The total operating hours <u>for each</u> <u>affected boiler</u>, as also reported in accordance with 40 CFR Part 75.
 - B. The greatest maximum hourly load achieved by each affected boiler (steam flow, or gross megawatts, or heat input).
 - C. A discussion of significant changes in the fuel supply to the affected boilers, if any, including changes in the source of coal, the introduction of new fuel materials other than coal, gas and oil, and changes in the source of such other fuel materials or the maximum rate at which they will be fired.
 - D. A list of the startups of each affected boiler, including the date, duration and description of each startup, accompanied by a copy of the records pursuant to Condition 7.1.9(g) (ii) (C) for each startup for which such records were required.

E. A copy of the records required by Condition 7.1.9(c) (iii) (B) identifying the date and time that the upper bound, as opecified above in Condition 7.1.9(c) (ii), was exceeded, with operating condition if startup, malfunction, breakdown, or shutdown; with further explanation of the incident and whether particulate matter emissions may have exceeded the PM limit. **Formatted:** Tab stops: 1.75", Left + 2.08", Left + Not at 1.63" + 2.06"

- ii. These reports shall include the information specified in Conditions 7.1.10-2(b), (c), and (d) for SO₂, NO_x, and PM emissions and opacity from the affected boiler during the quarter and for the operation of required continuous monitoring systems specified by Conditions 7.1.10-2(b), (c) and (d) during the quarter.
- iii. A. These reports shall be submitted after the end of every calendar quarter as follows, except as provided for in <u>Condition 7.1.10-2 (a) (iii) (B)</u>:

| Μ | Ionitoring Period | Submittal Deadline |
|--------|---------------------------------------------------------------------------|---------------------------------------------------|
| A J | January - March April - June July - September October - December | May 15 August 15 November 15 February 15 |
| | | |

- B. Notwithstanding the above, the first four quarterly reports report required pursuant to this permit shall be submitted in accordance with Condition 5.10(f), and the next three quarterly reports shall be submitted no later than 60 days after the end of each calendar quarter.
- b. Reporting of SO₂ Emissions

Pursuant to Sections 39.5(7)(a) and (f) of the Act, the Permittee shall report the following information for the affected boilers to the Illinois EPA with its quarterly reports pursuant to Condition 7.1.10-2(a):

- i. Summary information on the performance of the SO_2 CEMS, including the information for a "Summary Report" specified by 40 CFR 60.7(d). When the SO_2 CEMS was not inoperative, repaired or adjusted except for zero and span checks, thissuch information shall be stated in the report as specified by 40 CFR 60.7(c) (4).
- ii. If specifically requested by the Illinois EPA or the CEMS downtime was more than 5 percent of the total operating time for the affected boilers: the date and time identifying each period during which the CEMS was inoperative except for zero and span checks, and the nature of CEMS repairs or adjustments and a summary of quality assurance data consistent with 40 CFR Part 75, i.e., the dates and results of the Linearity Test(s) and any

Relative Accuracy Test Audit(s) during the quarter, a listing of any days when a required daily calibration was not performed, and the date and duration of any periods when the CEMS was "out-of-control" as addressed by 40 CFR 75.24.

- iii. The following information for each period when SO_2 emissions were in excess of the limitation in Condition 7.1.4(c)*. When there were no such exceedances, this shall be stated in the report.
 - A. The starting date and time of the SO2 excess emissions.
 - B. The duration of the excess emissions.
 - C. A copy of the recordsThe one-hour and three-hour average (lbs/hour) for theeach three-hour block of excess emissions, as maintained pursuant to Condition 7.1.9(d)(ii), including the measured emission rate.
 - D. A detailed explanation of the cause of the excess emissions if known, including whether such excess emissions occurred during startup, malfunction or breakdown of a boiler.
 - E. A detailed explanation of the<u>any</u> corrective actions and actions taken to lessen the emissions.
 - * For SO₂ emissions, the averaging period is a three-hour block average, as used to determine compliance with the limitations of Condition 7.1.4(c). The records for excess emissions shall consist of threehour block emission averages during which the limitation was exceeded.
- c. Reporting of $\ensuremath{\text{NO}_{x}}$ Emissions

Pursuant to Sections 39.5(7)(a) and (f) of the Act, the Permittee shall report the following information for the affected boilers to the Illinois EPA with its quarterly reports pursuant to Condition 7.1.10-2(a):

i. Summary information on the performance of the NO_x CEMS, including the information for a "Summary Report" specified by 40 CFR 60.7(d). When the NO_x CEMS was not inoperative,

repaired or adjusted except for zero and span checks, this such information shall be stated in the report as specified by 40 CFR 60.7(c)(4).

- ii. If specifically requested by the Illinois EPA or the CEMS downtime was more than 5 percent of the total operating time for the affected boilerboilers: the date and time identifying each period during which the CEMS was inoperative except for zero and span checks, and the nature of CEMS repairs or adjustments and a summary of quality assurance data consistent with 40 CFR Part 75, i.e., the dates and results of the Linearity Test(s) and any Relative Accuracy Test Audit(s) during the quarter, a listing of any days when a required daily calibration was not performed, and the date and duration of any periods when the CEMS was "out-of-control" as addressed by 40 CFR 75.24.
- iii. The following information for affected boilers Unit 7 and Unit 8 for each period when NOx emissions were in excess of the limit in Condition 7.1.4(e)*. When there were no such exceedances, this shall be stated in the report.
 - A. The starting date and time of the $\ensuremath{\text{NO}}_x$ excess emissions.
 - B. The duration of the excess emissions.
 - C. A copy of the records The one-hour and three-hour average (lbs/hour) for theeach three-hour block of excess emissions, as maintained pursuant to Condition 7.1.9(c)(ii), including the measured emission rate.
 - D. A detailed explanation of the cause of the excess emissions, if known, including whether such excess emissions occurred during startup, malfunction or breakdown of a boiler.
 - E. A detailed explanation of theany corrective actions and actions taken to lessen the emissions.
 - For NO_x emissions, the averaging period is a three-hour block average, as used to determine compliance with the limitations

of Condition 7.1.4(e). The records for excess emissions shall consist of threehour block emission averages during which the limitation was exceeded.

d. Reporting Related to Opacity and PM Emissions

Pursuant to Sections 39.5(7) (b) and (f) of the Act, the Permittee shall report the following information for each affected boiler to the Illinois EPA with its quarterly reports pursuant to Condition 7.1.10-2(a):

- i. Summary iInformation on the performance of the opacity monitoring system and excess emissions, as required for a "Summary Report" in accordance withspecified by 40 CFR 60.7(d). When no excess opacity occurred or the continuous opacity monitoring system washas not been inoperative, repaired or adjusted except for zero and opan checks, thissuch information shall be stated in the report as specified by 40 CFR 60.7(c) (4).
- ii. If the total duration of excess opacity during the calendar quarter is 1 percent or greater of the total operating time for an affected boiler during the quarter or if the opacity monitoring system downtime was more than 5 percent of the total operating time for an affected boiler during the quarter then, in addition to the "Summary Report" required by Condition 7.1.10-2(d) (i) and the information required by Condition 7.1.10-2(d) (iii), the guarterly report must include:
 - A. The total operating time of the affected boiler; and
 - B. The operating status of the opacity monitoring system, including the dates and times of any periods during which it was inoperative, if requested by the Illinois EPA or the opacity monitoring system downtime was more than 5 percent of the total operating time for an affected boiler during the quarter.
- iii. The following information for each period when opacity was in excess of the limitation in Condition 7.1.4(a).

A. A summary of information for each period of excess opacity that includes:

- AI. The starting datesdate and time of the exceedance excess opacity.
- BII. The duration of the excess opacity.
- eIII. The magnitude of excess opacity, based on six minute average opacity, including:
 - The percent opacity for each six-minute period in excess of the limitation.
 - The start and stop time of each six-minute period in excess of the limitation.
- DIV. A detailed explanation of theThe cause of excess opacity, if known, including whether such excess opacity occurred during startup, malfunction or breakdown of thea boiler.
- <u>BV</u>. <u>A detailed explanation of theAny</u> corrective actions and actions takento lessen the opacity.
- FVI. Identification of the any previous report for the incidentincidents during the quarter submitted to the Illinois EPA pursuant to Condition 7.1.10-3 (a) (ii). For this purpose, the Permittee need not resubmit copies of such report but may elect to supplement such material.
- <u>GVII</u>. A summary of the recordsInformation required by Conditions 7.1.9(h)(ii)(A), (B) and (D)(I) for incidents when operation of thean affected boiler continued during malfunction or breakdown with excess <u>emissionsopacity</u> that are not addressed by individual reports submitted pursuant to Condition 7.1.10-3(a)(ii).

Note: Because the Permittee is <u>subject to the</u> reporting in accordance with the requirements of the NSPS, 40 CFR 60.7(c) and (d) for <u>thean</u> affected boiler for opacity, pursuant to the federal Acid Rain <u>programProgram</u>, as included above, the Permittee is not subject to reporting pursuant to 35 IAC 201.405 (35 IAC 201.403(a)).

- iv. The following information for periods when PM emissions were in excess of the limitation in Condition 7.1.4(b). If there were no such exceedancesperiods of excess emissions during the reporting period, the quarterly report shall so state.
 - A. A summary of information for each period of exceedance excess emissions that includes:
 - <u>+I</u>. The starting date and time of the exceedance excess emissions.
 - 2<u>II</u>. The duration of the exceedance excess emissions.
 - JIII. The qualitative or, if available, quantitative magnitude of the exceedanceexcess emissions.
 - 4. The percent opacity measured for each six-minute period during the exceedance.
 - <u>SIV</u>. The means by which the exceedance wasexcess emission were indicated or identified, in addition toif other than the level of opacity.
 - **<u>6V</u>**. A detailed explanation of the cause of the <u>exceedanceexcess emissions</u> <u>if known</u>, including whether <u>the</u> <u>exceedancesuch excess emissions</u> occurred during startup, malfunction or breakdown.
 - 7<u>VI</u>. A detailed explanation of theany corrective actions and actions taken to lessen the emissions.
 - **BVII**. Identification of the previous reports for the incidents submitted to the Illinois EPA pursuant to Condition 7.1.10-3(a)(ii), if any. For this purpose, the Permittee need not resubmit copies of such report but may elect to supplement such material.

- v. The following <u>summary</u>further information related to opacity <u>and PM</u> exceedances <u>or</u> groups of opacity exceedances during the <u>quarter that resulted from the same or similar</u> cause(s):
 - A. For opacity exceedances or groups of exceedances with "recurring" cause(s) (i.e., cause(s) that also resulted in exceedance(s) during the previous quarter): an explanation Further information for each type of recurring opacity exceedance that occurred duri the quarter, including: a discussion of any particular circumstances or events factors during the current quarter that generally affected the number or magnitude of such exceedances; a discussion of any additional understanding of the causes for such exceedances gained during the quarter, including the role of component failure or degradation, maintenance practices, and operating procedures; a general discussion of the effectiveness of the changes in the corrective actions that were taken in response to such exceedances during the current quarter as compared to the previous quarter; and a general discussion of further actionsany additional preventative measures that are being considered to address such exceedances were taken during the current guarter to reduce the number or magnitude
 of exceedances(s).
 - Further information for any new type(s) в. ofFor opacity exceedances that occurred or groups of exceedances with "new" cause (s) (i.e., cause(s) that did not result in opacity exceedances(s) during the previous_quarter)_including: an explanation of the cause(s) or probable cause(s) of such exceedance(s), to the extent known; a discussion of any particular circumstances or factors during the quarter that resulted in such exceedances(s); the corrective action(s) taken, if any, with explanation of how those action(s) functioned to end the exceedances(s); and a discussion of any preventative measures taken to reduce the number or magnitude of exceedances(s).a general narrative description for the

type(s) of exceedance; a general ation of the cause(s) for a exceedances, including the role of omponent failure or degradation, .ntenance practices, and operating cedures; a detailed explanation of corrective actions that have been taken for such exceedances, including the that the selected action the effectiveness of th actions, and the likelihood of future occurrence of similar exceedances; and a general discussion of possible further actions that could be taken to address such exceedances. For this purpose, new type(s) of exceedance are ones that have not been addressed in the preceding four quarterly opacity reports.

- C. Other information relevant to generally explaining the number and magnitude of opacity and PM exceedances during the quarter, e.g., a further discussion of specific events or circumstances that occurred that affected the number of magnitude or exceedances during the quarter.
- D. Information describing actions taken during the quarter that should generally act to significantly reduce the number or magnitude of future opacity or PM exceedances, e.g., a summary of relevant upgrades or replacements of components that were completed, with a description of such actions, an explanation of their relationship to exceedances, and a discussion of their anticipated effect on future exceedances.
- vi. A glossary of <u>common specialized</u> technical terms <u>commonly</u> used by the Permittee in its reports pursuant to this Condition 7.1.10-2(d), <u>including the definitions for the</u> <u>categories used by the Permittee to classify</u> <u>exceedance events</u>.
- e. Reporting of $\ensuremath{\text{NO}_x}$ emission for the Ozone Control Period.

Condition 7.1.4(f), pursuant to 35 IAC 217.712(d) and (e).

- i. If the Permittee is demonstrating compliance on a unit-specific basis with Condition 7.1.4(f)(i)(A), this report shall contain the information specified by 35 IAC 217.712(d) including the heat input and NO_x emissions of the <u>unitunits</u> for the ozone control period.
- ii. If the Permittee is demonstrating compliance by means of "NO_x averaging" as authorized by Condition 7.1.4(f) (<u>iii</u>) (B), this report shall contain the information specified by 35 IAC 217.712(e) and other related information as follows:
 - A. In all cases, for each affected boiler $\frac{1}{2}$ overed by this permit that is participating in the NO_x averaging demonstration, the Permittee shall report the following:
 - 11. Identification of the other EGUEGUS that are participating in the demonstration, including identification of the source that is the lead party for the demonstration and that is also taking responsibility for submitting the information required by Condition 7.1.10-2 (e) (ii) (B) below.
 - 211. A statement confirming that the unit is eligible to participate in an averaging demonstration, i.e., the unit is included in only one demonstration [35 IAC 217.708(d)] and the Permittee is complying with applicable recordkeeping and reporting requirements for the unit, pursuant to 35 IAC 217.708(c) and (g).
 - 3III. The average NO_x emission rate for the unit, with calculations and supporting information, as required by 35 IAC 217.712(e)(2) and (3), including the heat input and NO_x emissions of the unit for the ozone control period.

- 4<u>IV</u>. A statement whether the unit would show compliance on its own in the absence of averaging.
- B. If the Permittee is the lead party for a NO_x averaging demonstration that includes units operated by other companies, the Permittee shall report the following:
 - 4I. Copies of the information <u>submittedprovided</u> by other parties <u>to the lead party</u> for the EGU participating in the demonstration, which include all material required by Condition 7.1.10-2 (e) (ii) (A) above (unless or except as this information is provided with the submittal by a person who is a responsible official for the EGU participating in the demonstration).
 - **211**. The averaged NO_x emission rate for all <u>ECUECUS</u> participating in the demonstration, with complete supporting calculations, as required by 35 IAC 217.712(e)(1).
 - **<u>JIII</u>**. A statement whether the demonstration shows compliance.
- f. Submittal of Supplemental Information Related to NO_{x} Emissions during the Ozone Control Period

The Permittee shall submit copies of any records and data required by 35 IAC 217.712 to the Illinois EPA within 30 days after receipt of a written request by the Illinois EPA [35 IAC 217.712(g)].

g. Acid Rain Program Reporting

Pursuant to Section 412 of the Clean Air Act and 40 CFR Parts 72 and 75, the source is subject to the reporting requirements of 40 CFR Part 75, which includes General Provisions; Notifications; Initial Certification or Recertification Application; Quarterly Reports; and Opacity Reports. [See Condition 6.3.3] Pursuant to Section 39.5(17) (m) of the Act, the designated representative of the source must concurrently submit to the Illinois EPA in the same electronic format specified by the USEPA, the data and information submitted to USEPA on a quarterly basis pursuant to 40 CFR 75.64.

7.1.10-3 Reporting Requirements - Notifications

a. Reporting of<u>Mhen</u> Continued Operation <u>Occurred</u> During Malfunctions And Breakdowns

Pursuant to 35 IAC 201.263 and Sections 39.5(7)(a) and (f) of the Act, the Permittee shall provide the following notifications and reports to the Illinois EPA₇ concerningfor incidents when operation of an affected boiler continued with excess emissions or excess opacity, including continued operation during malfunction or breakdown as addressed by Condition 7.1.3(c). These requirements do not apply to such excess emissions, if any, that occur during startup or shutdown of the affected boiler.

- The Permittee shall immediately notify the i. Illinois EPA's Regional Office, by telephone (voice, facsimile, or electronic) mail, for each incident in which the $\frac{\text{applicable PM}}{\text{PM}}$ emission standard (Condition 7.1.4(b)) could which the opacity from an dod affected boiler exceeds 30 percent for fiveeight or more 6-minute averaging periods within a two-hour period unless the Permittee has begun the shutdown of the affected boiler by such time. (Otherwise, as related opacity, if opacity during an incident only exceeds 30 percent for no more than fiveseven 6-minute averaging periods, the Permittee need only report the incident in the quarterly report, in accordance with ConditionsCondition 7.1.10-1(b) and 7.1.10-2(a) and (d).)
- Upon conclusion of each incident in which the ii. applicable PM emission standard may have beenwas exceeded or in which exceedances an exceedance of the opacity standard arewas two hours or more in duration, the Permittee shall submit a follow-up report to the Illinois EPA, Compliance Section and Regional Office, within 15 days providing a copy of the records for the incident required by Condition 7.1.9(h)(ii)(A), (B) and (D). tha detailed description of the incident and its cause(s); an explanation why continued an affected boiler was e length of time during which operation continued under such conditions, until repairs were completed or the boiler was taken out of ervice; a description of the measures taken minimize and correct deficiencies with chronology; and a description of the

preventative measures that have been and are being taken.

7.1.11 Anticipated Operating Scenarios/Operating Flexibility

The Permittee is authorized to make the following operational changes with respect to each affected boiler without prior notification to the Illinois EPA or revision of this permit, pursuant to Section 39.5(7)(a) and (1) of the Act. This condition does not affect the Permittee's obligation to continue to comply with applicable requirements; to properly obtain a construction permit in a timely manner for any activity constituting construction or modification as defined in 35 IAC 201.102 or, as applicable, 40 CFR 52.21(a)(2) or 35 IAC 203.207; and to comply with other legal requirements that apply to such a change:

- Operation of additional air pollution control equipment, which is addressed by a separate construction permit.
- FiringBurning of coal or a mix of coal from different suppliers.
- c. <u>FiringBurning</u> of the following materials in conjunction with <u>firingburning</u> of standard fuels, provided that such materials can be accommodated with the existing fuel handling system and the burners in the affected boilers, and that such materials do not make up more than 10 percent by weight of the fuel supply to the boiler on a quarterly basis:
 - Other process wastes generated at the source in addition to used oil and boiler cleaning residue.
 - ii. Alternative fuels that do not constitute waste and were not generated from municipal waste or hazardous waste, provided that such fuels are shipped to the source in homogeneous form prepared for use as fuel (e.g., a shipment of tire derived fuel). Such alternative fuels include materials such as petroleum coke, tire derived fuel (as defined at Section 54.10b of the Act), clean lumber and wood waste (as defined at 40 CFR 60.2265), shredded polyethylene agricultural containers, and seed corn, provided that such materials are shipped to the source in homogeneous form prepared for use as fuel (e.g., a shipment of tire derived fuel).

Note: Other requirements unrelated to air pollution control may apply to <u>firingburning</u> of alternative fuels, such as Standards for Management of Used Oil, 35 IAC Part 739.

- 7.1.12 Compliance Procedures
 - a. i. Compliance with the opacity limitation of Condition 7.1.4 (a) (30 percent opacity) is addressed by the average opacity calculated from 6-minute periods of opacity measurements from the continuous opacity monitoring system operated in accordance with the requirements of Condition 7.1.8 (a) and the recordkeeping requirements of <u>ConditionsCondition</u> 7.1.9.
 - ii. Notwithstanding Condition 7.1.12(a)(i) above, should the Permittee choose to rely on 35 IAC 212.123(b) to allow opacity greater than 30 percent (6-minute average) from anthe affected beilerboilers, the Permittee shall do the following:
 - A. Maintain records for each affected boiler of short-term opacity data, that is, either a continuous chart recording of measured opacity, a record of discrete measurements of opacity taken no more than 10 seconds apart, or a record of 1minute average opacity data determined from six or more data points equally spaced during each minute period, to determine whether opacity from the boiler exceeded 30 percent opacity.
 - B. Have the capability to review such shortterm opacity data for the affected boiler to identify:
 - +I. Any hour in which opacity exceeded 30 percent, and then, <u>infor</u> such hour: (1) the duration of opacity in excess of 30 percent; (2) whether opacity ever exceeded 60 percent; and (3) whether the duration of opacity in excess of 30 percent was more than 8 minutes in aggregate.
 - 2II. For each affected boiler, whether opacity in excess of 30 percent occurred in more than three hours in a 24-hour period.

- C. For other emission units at the source, have the ability to review short-term opacity dataany opacity data required to be collected and kept pursuant to other provisions of this permit and that is representative of such units.<u>during</u> hours in which the opacity of the affected boiler on a short term basis may exceed 30 percent, to confirm that the opacity of any other unit at the source did not exceed 30 percent in any minute during an hour in which the short-term opacity of the affected boiler may have exceeded 30 percent.
- D. In the reports required by Condition 7.1.10-2(d), confirm that the relevant short-term opacity data, reviewed as above, shows that the terms of 35 IAC 212.123(b) are satisfied, when 35 IAC 212.123(b) is relied upon as the basis to claim that an affected boiler did not violate Condition 7.1.4(a) even though opacity on a 6-minute average exceeded 30 percent.
- E. Notify the Illinois EPA at least 15 days prior to changingwith its next quarterly report if it changes the type of short term opacity data that it is collecting pursuant to Condition 7.1.12 (a) (ii) (A) for use in conjunctionprocedures associated with reliance on 35 IAC 212.123 (b), to allow the Illinois EPA to review the new recordkeeping and data handling practices planned by the Permittee.
- b. Compliance with the PM emission limitelimitations of Condition 7.1.4 (b) is addressed by continuous opacity monitoring in accordance with Condition 7.1.8 (a), PM testing in accordance with Condition 7.1.7, and the recordkeeping required by Condition 7.1.9.
- c. Compliance with the SO2 emission <u>limit_limitation</u> of Condition 7.1.4(c) is addressed by continuous emission monitoring in accordance with Condition 7.1.8(b) and the recordkeeping required by Condition 7.1.9(d).
- d. Compliance with the CO emission limitation of Condition 7.1.4(d) is addressed by the required work practices in Condition 7.1.6(a), the emission testing

in accordance with Conditions 7.1.7, and the recordkeeping required by Condition 7.1.9.

- e. Compliance with the NO_x emission limitslimitations of Conditions 7.1.4(e) and 7.1.4(f) is addressed by the continuous emissions monitoring required by Condition 7.1.8(c) and the recordkeeping required by Condition 7.1.9(e).
- f. Compliance with the work practicepractices required by Condition 7.1.6(a) is addressed by the recordkeeping required by Condition 7.1.9.

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

 $\frac{7.1.13-1 \text{ Conditional Approval of Compliance Assurance Monitoring}}{\underline{Plan}}$

- a. Due to lack of existing unit-specific performance data for PM emissions, the Permittee must conduct PM emissions testing, prior to use of any approved monitoring for purposes of 40 CFR Part 64, Compliance Assurance Monitoring. The Permittee has submitted an application for a CAM Plan that contains the following:
 - i. The indicators to be monitored to satisfy 40 <u>CFR 64.3(a)(1).</u>
 - ii. The process by which these indicators/ranges shall be established.
 - iii. The performance criteria for the monitoring to satisfy 40 CFR 64.3(b), including for the Continuous Opacity Monitoring System (COMS), pursuant to 40 CFR 64.3(d).
 - iv. A justification for the proposed elements of the monitoring and the appropriateness of such elements.
- b. Pursuant to 40 CFR 64.6(b) and (d) and Section 39.5(7)(a) of the Act, the Permittee shall comply with the following with respect to implementation of CAM:
 - i. The Permittee shall comply with the following schedule, which contains appropriate milestones for completing necessary testing for PM emissions, consistent with the requirements in 40 CFR 64.4(e). The approval of this implementation plan and schedule by

the Illinois EPA is authorized by 40 CFR $\overline{64.4\,(d)\,(1)}$ and (e).

| Commitment | Timing |
|------------------------------------------------------------------------------|----------------------------------------------------|
| Submit a CAM Testing | At least 30 days prior to |
| Protocol to Illinois EPA | CAM Testing. |
| Complete CAM Testing in accordance with submitted CAM Testing Protocol | No later than 120 days of issuance of this permit. |
| Submit CAM Testing results to Illinois EPA | Within 45 days of completing the testing. |
| Begin Implementation of Compliance Assurance Monitoring | Within 180 days of issuance of this permit. |

NOTE: CAM Testing completed prior to issuance of this permit but after June 1, 2015 may be used provided it was conducted in accordance with the submitted CAM Testing Protocol.

- ii. The Permittee shall, in no case later than 60 days following completion of CAM testing, submit an application to the Illinois EPA for a proposed modification to this permit to incorporate information for the opacity value that was derived from testing, thereby addressing all of the requirements of 40 CFR 64.3, 64.4, and 64.5.
- iii. Pursuant to 40 CFR 64.6(b) and Section 39.5(7)(a) of the Act, the Permittee shall promptly notify the Illinois EPA upon start of monitoring in accordance with Condition 7.1.13-2(a) and Tables 7.1.13a and 7.1.13b.

7.1.13-2 Compliance Assurance Monitoring Requirements

- a. Pursuant to 40 CFR 64.7(a), the Permittee shall comply with the CAM requirements in Tables 7.1.13a and 7.1.13b below not later than the date specified in Condition 7.1.13-1(b) above.
- b. Pursuant to 40 CFR 64.5(d), upon start of the monitoring in accordance with Condition 7.1.13-2(a), recordkeeping pursuant to Condition 7.1.9(c)(ii)(B) shall be discontinued.
- c. Pursuant to 40 CFR 64.7(a), the Permittee shall comply with the following CAM requirements and the requirements in Condition 7.1.13-2(d) through (g) not later than the date specified in Condition 7.1.13-1(b) above for implementation of compliance assurance monitoring.

Proper Maintenance and Continued Operation

- A. Pursuant to 40 CFR 64.7(b), at all times, the Permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
- B. Pursuant to 40 CFR 64.7(c), except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit (PSEU) is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of 40 CFR Part 64, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The Permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. Α monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

ii. Response to Excursions

A. Pursuant to 40 CFR 64.7(d)(1), upon detecting an excursion, the Permittee shall restore operation of the PSEU (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distributed control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

B. Pursuant to 40 CFR 64.7(d) (2), determination of whether the Permittee has used acceptable procedures in response to an excursion will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

d. Recordkeeping

Pursuant to 40 CFR 64.9(b)(1), the Permittee shall maintain records of the monitoring data, monitor performance data, corrective actions taken, monitoring equipment maintenance, any written quality improvement plan required pursuant to 40 CFR 64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under Conditions 7.1.9(c)(i), 7.1.13-1, or 7.1.13-2 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

e. Reporting

Pursuant to Sections 39.5(7)(b) and (f) of the Act, the Permittee shall submit the following as part of the Quarterly Monitoring Reports required by Condition 7.1.10-2.

i. Summary information on the number, duration, and cause of excursions, and the corrective actions taken, pursuant to 40 CFR 64.6(c)(3), 40 CFR 64.9(a)(2)(i), and Condition 7.1.10-2(d)(iv), except as otherwise provided in 40 CFR Part 64, including 64.7(d)).

- ii. Summary information on the number, duration, and cause for monitoring equipment downtime incidents, other than downtime associated with calibration checks, pursuant to 40 CFR 64.6(c)(3), 40 CFR 64.9(a)(2)(ii), and Condition 7.1.10-2(d)(i) and (ii).
- f. Quality Improvement Plans (QIP)

Pursuant to 40 CFR 64.8, based on the results of any future determination made under 40 CFR 64.7(d)(2), the Administrator or the Illinois EPA may require the Permittee to develop and implement a QIP under separate permit action, as appropriate, under Sections 39.5(14), (15), or (16).

g. Need for Improved Monitoring

Pursuant to 40 CFR 64.7(e), if the Permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the Permittee shall promptly notify the Illinois EPA within 30 days of identification and, if necessary, submit to the Illinois EPA a proposed modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

PSEU Designation: Boiler BLR7 Pollutant: Particulate (PM) Emissions Opacity Indicators: #1) #2) General Criteria Opacity is measured using a transmissometer. The transmissometer measures the The Monitoring Approach opaqueness of the flue gas exhaust using a beam of light that Used to Measure the Indicators: traverses the stack diameter, which generates an electrical signal that is proportional to the opacitv Opacity less than [*]% averaged The Indicator Range over a 3 hour period is an Which Provides a indicator of proper ESP operation Reasonable Assurance of and provides reasonable assurance Compliance: of meeting the 0.10 lb/mmBtu PM limit. A QIP is not being considered at the time of this CAM Plan submission. Currently, there is no indication of any deficiencies in the monitoring Quality Improvement approach selected. The COMs monitoring requirements provide the Plan (QIP) Threshold $\underline{specific\ QA/QC}$ procedures for data collection, recordkeeping and reporting for determining "reasonable" assurance of compliance with the Levels: applicable PM limitation Performance Criteria The COMs are installed at The Specifications for representative locations in the Obtaining exhaust stack per 40 CFR Part 60, Representative Data: Appendix B, PS-1 requirements. N/A. The COMS were installed and Verification Procedures qualified for use to determine to Confirm the Operational Status of compliance with state opacity standards. Verification the Monitoring: Procedures are not necessary 40 CFR Part 60, Appendix B, Performance Specification 1 and Quality Assurance and Quality Control (QA/QC) Practices that Ensure 40 CFR Part 75 QA/QC procedures. the Validity of the Data: Opacity is measured continuously. The Monitoring Opacity data is reduced in Frequency: accordance with procedures in 40 CFR 60.13. The three hour average is The Data Collection calculated and reported in the CEM Procedures That Will Be Data Acquisition System. Alarm Used: set points are established to alert operators of problems. 3 hour block averages The Data Averaging Period For Determining Whether an Excursion Has Occurred:

Table 7.1.13a CAM Plan for Boiler BLR7 - 35 IAC 212.203

*] - Indicator values to be determined pursuant to Condition 7.1.13-1(a).

| 10010 / 11100 | CAM Plan for Bo | biler BLR8 - 3 | <u>15 IAC 212.203</u> |
|----------------------------------------------------------------------|-------------------------------------------|------------------|-------------------------------------|
| <u>P</u> | SEU Designation: | Boiler BLR8 | |
| | Pollutant: | Particulate (PM) | Emissions |
| Indicators: | #1) Opacity | | #2) |
| General Criteria | | | |
| | Opacity is measured | l using a | |
| | transmissometer. 1 | | |
| | transmissometer mea | | |
| The Monitoring Approach | opaqueness of the flue gas exhaust | | |
| Used to Measure the | using a beam of lig | | |
| Indicators: | traverses the stack | | |
| | which generates an signal that is prop | | |
| | opacity. | DOICIONAL CO CHE | |
| | Opacity less than | * 1% averaged | |
| The Indicator Range | over a 3 hour perio | | |
| Which Provides a | indicator of proper | | |
| Reasonable Assurance of | and provides reason | | |
| Compliance: | of meeting the 0.12 | 2 lb/mmBtu PM | |
| | limit. | | |
| | | | e time of this CAM Plan submission |
| Quality Improvement | Currently, there is | no indication o | f any deficiencies in the monitori: |
| Plan (QIP) Threshold | approach selected. | The COMs monito | ring requirements provide the |
| Levels: | | | |
| | applicable PM limit | | ie assurance of compitance with th |
| Performance Criteria | | | |
| remonance officeria | The COMs are instal | led at | |
| The Specifications for | representative loca | | |
| Obtaining | exhaust stack per 4 | | |
| Representative Data: | Appendix B, PS-1 re | | |
| | N/A. The COMS were | e installed and | |
| Verification Procedures | qualified for use t | | |
| to Confirm the | compliance with sta | | |
| Operational Status of the Monitoring: | standards. Verific | | |
| the Monitoring. | Procedures are not | | |
| Quality Assurance and | 40 CFR Part 60, App | | |
| Quality Control (QA/QC) | Performance Specifi | | |
| Practices that Ensure | 40 CFR Part 75 QA/Q | 2C procedures. | |
| the Validity of the Data: | | | |
| Data: | Opacity is measured | L continuouslu | |
| The Monitoring | Opacity data is rec | | |
| Frequency: | accordance with pro | | |
| <u>//-</u> | CFR 60.13. | | |
| | The three hour aver | age is | |
| The Data Collection | calculated and repo | | |
| Procedures That Will Be | Data Acquisition Sy | | |
| Used: | set points are esta | | |
| | alert operators of | | |
| | 3 hour block average | les | |
| The Data Averaging | | | 1 |
| The Data Averaging Period For Determining | | | |
| The Data Averaging Period For Determining Whether an Excursion | | | |

Table 7.1.13b CAM Plan for Boiler BLR8 - 35 IAC 212.203

[*] - Indicator values to be determined pursuant to Condition 7.1.13-1(a).

7.2 Coal Handling Equipment

7.2.1 Description

The Permittee transfers and stores coal in a series of operations, including railcar unloading, various conveyor belts (with associated hoppers, diverters, and transfer points), storage <u>pilespile</u> (with stackers and feeders), <u>siles</u>, and bunkers. These operations first handle coal, as supplied by <u>thea</u> mine and then, after the crushers, coal that has been processed at the source by the coal processing equipment (See Section 7.3). Particulate matter (PM) emissions associated with these operations are controlled by various <u>control</u> measures <u>including the such as</u> moisture content—of the coal, application of, dust <u>suppressant to the coalsuppression</u>, enclosures and covers, water sprays, <u>andor</u> dust collection devices.

Note: The description in Condition 7.2.1 is for informational purposes only and implies no limits or constraints.

7.2.2 List of Emission Units and Air Pollution Control Equipment

Coal Receiving Operations

Railcar Unloading

Coal Transfer Conveyors Dust Suppressant Application System, Enclosures and Covers, Water Sprays, Dust Collection Devices

Coal Crushing House

Coal Transfer Conveyors Dust Suppressant Application System, Water Sprays, Dust Collection Devices, Enclosures and Covers

Coal Storage Operations

Outdoor Storage Piles Coal Transfer Conveyors Coal Storage Bunkers Duot Suppressant Application System, Water Sprays, Enclosures Coal Unloading by Rail Coal Transfer Conveyors Coal Storage Pile Coal Storage Bunkers

7.2.3 Applicability Provisions

- a. The "affected operations" for the purpose of these unit-specific conditions, are emission units that are used solely for the purpose of transferring coal or other solid fuel from one location to another or for storage of coal or other solid fuel, without changing the size of the fuel, e.g., by crushing or screening, as described in Conditions 7.2.1 and 7.2.2.
- b. Subject to the following terms and conditions, the Permittee is authorized to continue operation of an affected operation in violation of the applicable requirements of Condition 7.2.4(b) (35 IAC 212.123) in the event of a malfunction or breakdown of an affected operation. This authorization is provided pursuant to 35 IAC 201.149, 201.161261 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 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 related to the operation of the coal-fired boilers as necessary to provide essential service or to prevent 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 practicable repair the affected operation, remove the affected operation from service or undertake other action so that excess emissions cease.
 - iii. The Permittee shall fulfill applicable recordkeeping and reporting requirements of <u>ConditionConditions</u> 7.2.9 (fe) and 7.2.10 (b). For this purpose and other related provisions, 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 operation out of service.

- iv. Following notification to the Illinois EPA of a malfunction or breakdown with excess emissions, the Permittee shall comply with all reasonable directives of the Illinois EPA with respect to such incident, pursuant to 35 IAC 201.263.
- v. This authorization does not relieve the Permittee from the continuing obligation to minimize excess emissions during malfunction or breakdown. As provided by 35 IAC 201.265, an authorization in a permit for continued operation with excess emissions during malfunction and breakdown does not shield the Permittee from enforcement for any such violation and only constitutes a prima facie defense to such an enforcement action provided that the Permittee has fully complied with all terms and conditions connected with such authorization.
- 7.2.4 Applicable Emission Standards
 - a. TheFugitive emissions, as defined by 35 IAC 211.2490, of the affected operations shall comply with the standard in Condition 5.2.2(a), which generally addresses visible emissions of fugitive particulate matter, as defined by 35 IAC 211.2490, from the affected operations, pursuant to 35 IAC 212.301.
 - b. The affected operations shall comply with the standard in Condition 5.2.2(b), i.e., 30 percent opacity, in Condition 5.2.2(b), which addresses the opacity of the emission of smoke or other particulate matter from the affected operations, pursuant to 35 IAC 212.123.
 - c. i. The affected operations shall comply with the applicable standards in Condition 5.2.3, which also address particulate matter emissions from the operations.
 - ii. As an affected operation emits fugitive particulate matter, e.g., fugitive emissions from conveyor transfer points, the affected operation shall be addressed by the Permittee in its fugitive particulate matter operating program, as required by Condition 5.2.4, and operated in accordance with such program.

- 7.2.5 Non-Applicability of Regulations of Concern
 - a. The affected operations are not subject to 35 IAC 212.321 or 212.322 because of the disperse nature of the operations, as generally addressed by 35 IAC 212.323.
 - b. The affected operations are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources for PM because the affected operations do not have potential pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

7.2.6 Work Practices, Operational and Production Limits, and Emission Limitations

- a. i. The Permittee shall implement and maintain the control measures for the affected operations, such as enclosure, natural surface moisture, application of dust suppressant, water sprays, and use of dust collection devices, that minimize vioiblefor emissions of particulate matter and provide assurance of compliance withto support the periodic monitoring for the applicable emission standarderequirements in Conditions 7.2.4 pursuant to Section 39.5(7) (a) of the Act.
 - ii. The Permittee shall operate and maintain each affected operation with the control measures implemented and maintained shall be identified in and operated in conformance with the record required by Condition 7.2.9(b) (i) to satisfy Condition 7.2.6(a) (i).

7.2.7 Opacity TestingObservation Requirements

- a. i. The Permittee shall have the opacity of the emissions from the affected operations during representative weather and operating conditions determined by a qualified observer in accordance with <u>USEPA TestReference</u> Method 9, as further specified below, pursuant to Section 39.5(7) (d) of the Act.
 - A. For each affected operation, <u>testingobservations</u> shall be conducted at <u>least annually. For this purpose</u>, <u>testing shall first be conducted within</u> <u>three monthsnot later than 2 years</u> <u>of after</u> the <u>effective dateeffectiveness</u> of this <u>6c</u>ondition 7.2.7(a).

- B. Thereafter, for each affected operation, observations shall be conducted every third year.
- C. Upon written request by the Illinois EPA, such testingobservations shall be conducted for specific affected operation(s) withinnot later than 45 calendar days efafter the Permittee has received the request or on thesuch later date agreed uponto by the Illinois EPA₇ whichever is later.
- ii. The duration of opacity observations for each test shall be at least 30 minutes (five 6minute averages) unless the average opacities for the first 12 minutes of observations (two six-minute averages) are <u>both leoseach not</u> <u>greater</u> than 10.0 percent.
- iii. A. The For each set of observations required by Conditions 7.2.7(a) (i) (A), (B), and (C) 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 observerobservation(s).
 - B. The Permittee shall promptly notify the Illinois EPA of any changes in the time or date for testing.of the observation(s).
- iv. The Permittee shall provide a copy of its
 observer's readings to the Illinois EPA at the
 time of testing, the observation(s), if
 Illinois EPA personnel are present.
- v. The Permittee shall submit a written report for this testingthese observations withinnot later than 1530 days of after the date of testingcompletion of each set of opacity observations required by Conditions 7.2.7(a)(i)(A), (B), and (C). The report shall include a copy of the current Reference Method 9 certification of each observer and shall identify the observer's current employer. This report shall also include the following for each observation:
 - A

A. Identification of the affected operation for which observations were conducted.

B. Date and time of testingobservations.

B. Name and employer of qualified observer.

- C. Copy of current certification.
- D. Description of observation condition, including recent weather.
- <u>ED</u>. Description of the operating conditions of the affected operations.
- **FE**. Raw data.
- GF. Opacity determinations.
- HG. Conclusions.
- 7.2.8 Inspection Requirements
 - a. The Permittee shall perform inspections of the affected operations on at least a monthly basis, including associated control measures, while the affected operations are in use, to confirm compliance with the requirements of Condition 7.2.6(a). These If an affected operation is not in use during an inspection, this shall be noted in the inspection record. The records required by Condition 7.2.9(d) for these inspections shall be signed off by supervisory or management personnel [Sections 39.5(7)(a) and (d) of the Act].
 - b. As part of the inspections shall be performed with personnel not directly involved in the day to day operation of Condition 7.2.8(a), the Permittee shall perform observations of the affected operations andfor visible emissions in accordance with 35 IAC 212.107 to demonstrate compliance with the requirements of Condition 7.2.4(b), unless the Permittee elects to perform Reference Method 9 observations in accordance with Condition 7.2.7(a). These observations may be scheduled so that only a number of affected operations are reviewed during each inspection, provided, however, that all affected operations that are in routine service shall be inspected observed at least once during each calendar month.year. If visible emissions are observed, the Permittee shall take corrective action within 2 hours to return the status of the operations to no visible emission or shall conduct observations of opacity by Reference Method 9 within one week in accordance with

Condition 7.2.7(a). If the Permittee performs Reference Method 9 observations under this Condition 7.2.8(b), such observations are not subject to the notice requirements of Condition 7.2.7(a) (iii) through (v) [Sections 39.5(7)(a) and (d) of the Act].

- bc. The Permittee shall perform and document an inspection of the coal storage bunker baghouses (i.e., Baghouse #4 for Unit 7 Bunkers and Baghouse #5 for Unit 8 Bunkers) to confirm proper condition and operation at least once per month. This inspection shall include recording and verifying that the monitored baghouse differential pressure is within the operating range specified in the record required by Condition 7.2.9(b)(i) and that visible emissions are not observed in the baghouse exhaust The Permittee shall perform detailed inspections of +ho dust collection equipment for the affected operations at least every 15 months while the processes are out of service, with an initial inspection performed repair activities are conducted during the period the process is out of service and a follow-up inspection performed after any such activities are completed. [Sections 39.5(7)(a) and (d) of the Act].
- d. The Permittee shall perform and document an inspection of the railcar unloader baghouses (i.e., Baghouse #1 and Baghouse #2) to confirm proper condition and operation prior to commencing unloading of each train set (i.e., a coal unit train). This inspection shall include recording and verifying that the monitored baghouse differential pressure is within the operating range specified in the record required by Condition 7.2.9(b)(i) and that visible emissions are not observed in the baghouse exhaust [Sections 39.5(7)(a) and (d) of the Act].
- 7.2.9 Recordkeeping Requirements
 - a. The Permittee shall maintain records of the following items for the affected operations, pursuant to Sections 39.5(7)(a) and (e) of the Act:
 - i. Maximum operating capacity of each affected operation (tons/hr).

<u>ii.</u>

a. The Permittee shall keep the following file(s) and log(s):

- File(s) containing the following information for the affected operations, with supporting information, which information shall be kept up to date:
- A. Information related to the dust collection equipmentbaghouses associated with the affected operations, including available design control efficiency or performance specifications and maximum design particulate matter emissions, gr/dscf, with supporting information, which information shall be kept up to date.

B. The maximum operating capacity of each affected operation, (ton/hr).

- iiiii. Maintenance and repair log(s) for the air pollution control equipmentbaghouses associated with the affected operations; including dust suppressant application systems, which log(s) shall list the activities performed on each item of equipment or system, with date and description. (See also Condition 9.6.1, Control Equipment Maintenance Records.)
- b. i. The Permittee shall maintain a record, which shall be kept up to date, of the control measures currently being implemented for the affected operations to reflect any changes that the Permittee may elect to make, that contains the following for each affected operation for which a control measure(s) must be implemented and maintained pursuant to Condition 7.2.6(a). These)(i).
 - A. The type of emission unit (conveyor, storage pile, etc.) and the Permittee's designation for each emission unit with a description of the emission points on the emission unit;
 - B. Whether the emission unit is considered to be an "affected facility" for purposes of the NSPS, with copies of supporting documentation;
 - C. Description of the primary control measures that are utilized, with a description of the control measure and estimated frequency of application, if not continuous; and

- D. Description of any secondary control measures, as defined by the Permittee through these records, are referred to as the "established that would be used based on circumstances (freezing temperatures, recent rain, dry weather, etc.) with identification of the circumstances in which they would be used and whether they would take the place of or supplement the primary control measures." in this subsection of this permit. Copies of these records
- ii. A copy of the record required by Condition 7.2.9(b)(i) shall be submitted to the Illinois EPA in accordance with not later than 60 days after the effectiveness of Condition 5.6.2(d).7.2.9(b)(i). Any subsequent revisions to this record related to control measures or affected operations, including their method of operation, shall be submitted within 30 days after the date of the revision. Upon request by the Illinois EPA, the Permittee shall submit other relevant information related to the control measures.
- c. The Permittee shall maintain the following operating records—of:
 - i. The Permittee shall maintain a record of the amount of coal and other solid fuels received at the source, by type of fuel (tons/month and tons/year).
- d. The Permittee shall maintain records of the following for the inspections required by Condition 7.2.8:

For the inspections required by Condition 7.2.8(a) for each affected operation:

- Ai. Date and time the inspection was performed and, name(s) of inspection personnel, and specific affected operation(s) inspected.
- <u>Bii</u>. The observed condition of the control measures <u>identified in the record required by</u> <u>Condition 7.2.9(b)(i)</u> for each <u>inspected</u> affected operation, including the presence of any visible emissions or <u>atypical</u> accumulations of coal fines in the vicinity of the operation<u>s</u>.
- <u>eiii</u>. A description of any maintenance or repair <u>of</u> <u>equipment</u> associated with establishedthe

control measures identified in the record required by Condition 7.2.9(b)(i) that is recommended as a result of the inspection and associated work order ticket number(s). a review of outstanding recommendations for maintenance or repair from previous inspection(s), i.e., whether recommended action has been taken, is yet to be performed or no longer appears to be required.

- D. A summary of the observed implementation or status of actual control measures, as compared to the established control measures.
- ii. For the inspections required by Condition
 7.2.8(b) for the dust collection equipment
 for affected operations:
 - A. Date and time the inspection was performed and name(s) of inspection personnel.

B. The observed condition of the equipment.

- C. A summary of the maintenance and repair that is to be or was conducted on the equipment.
- Địv. A description of any maintenance or repair that is recommended as a result of the inspection and a review of outstanding recommendations for maintenance or repair from previous inspection(s), i.e., whether recommended action has been taken, is yet to be performed or no longer appears to be required.
 - E. A summary of the observed condition of the equipment as related to its ability to reliably and effectively control_corrective action taken if visible emissions- were observed, including whether corrective action took place within 2 hours of the observation and whether the status of the process returned to no visible emissions.
- e. The Permittee shall maintain records of the following for each incident when any affected operation operatedwas in use without the established control measures:control measure(s) required pursuant to the record required by Condition 7.2.9(b)(i) and each incident when an affected operation continued to

operate during malfunction or breakdown with excess emissions or excess opacity as addressed by Condition 7.2.3(b):

- i. The date of the incident and identification of the affected operationsoperation(s) that werewas involved.
- ii. A description of the incident, including the established control measures that were not present or implemented; the established control measures that were present, if any; operated as required by the record identified in Condition 7.2.9(b)(i); other control measures or mitigation measures that were implemented operated, if any; the measures taken to minimize and correct deficiencies with chronology; and an explanation whether the magnitude of the PM emissions or opacity during the incident exceeded any applicable emission standard, as listed in Condition 7.2.4.
- iii. The time at and means by which the incident was identified, e.g., scheduled inspection or observation by operating personnel.
- iv. The length of time after the incident was identified that the affected operations continued to operate before <u>establishedthe</u> control measures <u>identified</u> in the record <u>required by Condition 7.2.9(b)(i)</u> were in place or the operations were <u>shutdownshut down</u> (to resume operation only after <u>establishedsuch</u> control measures were in place); an explanation of why continued <u>operation was necessary</u>; and, if this time was more than one hour, an explanation <u>of</u> why this time was not shorter, including a description of any mitigation measures that were implemented during the incident.
- v. The estimated total duration of the incident, i.e., the total length of time that the affected operations ran without established control measures the control measure(s) required pursuant to the record required by Condition 7.2.9(b)(i) and the estimated amount of coal handled during the incident.
- vi. A discussion of the probable cause of the incident and any preventative measures taken.

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- vii. A discussion whether any applicable emission standards, as listed in Condition 7.2.4, may have been violated during the incident, with supporting explanation.
- f. Pursuant to 35 IAC 201.263 and Sections 39.5(7) (a) and (e) of the Act, the Permittee shall maintain records, related to malfunction and breakdown for affected operations that as a minimum, shall include:
 - Maintenance and repair log(s) for the affected ÷ operations that, at a minimum, address aspects or components of such operations for which malfunction or breakdown has resulted in excess emissions, which shall list the activities performed on such aspects or components, with date, description and reason activity. -in the In addition. maintenance and repair log(s) for control equipment required by Condition 7.2.9(a)(ii), the Permittee shall also list the reason for uitio. +he orfo
 - ii. Records for each incident when operation of an affected process continued during malfunction or breakdown, including continued operation with excess emissions as addressed by Condition 7.2.3(b), that include the following information::
 - A. Date and duration of malfunction or breakdown.
 - B. A description of the malfunction or breakdown.
 - C. The corrective actions used to reduce the quantity of emissions and the duration of the incident.
 - D. Confirmation of fulfillment of the requirements of Condition 7.2.10(b)(i), as applicable, including copies of follow up reports submitted pursuant to Condition 7.2.10(b)(i)(B).
 - E. If excess emissions occurred for two or more hours:
 - A detailed explanation why continued operation of the affected operation was necessary.

A detailed explanation of the preventative measures planned or taken to prevent similar malfunctions or breakdowns or reduce their frequency and severity.

 An estimate of the magnitude of excess emissions occurring during the incident.

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 \underline{f} . The Permittee shall keep records for all opacity measurements observations made in accordance with USEPAReference Method 9 for the affected operations that it conducts or that are conducted at its behest by individuals who are qualified to make such observations. For each occasion on which such measurements observations are made, these records shall include the formal report for the entsobservations if conducted pursuant to m Condition 7.2.7 (a (Opacity Observation Requirements), or otherwise the identity of the observer, a description of the measurements observations that were made, the operating condition of the affected operations, the observed opacity, and copies of the raw data sheets for the measurements.observations, and the reason for the opacity measurement, e.g., Reference Method 9 opacity observations required by Condition 7.2.7(a)(i), written request by the Illinois EPA, or any required Reference Method 9 opacity observations following observations of visible emissions under Condition 7.2.8(b).

7.2.10 Reporting Requirements

a. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA of deviations from permit requirements for the affected operations, as follows. Such notifications shall include a description of each <u>incidentdeviation</u> and a discussion of the probable cause of deviation, any corrective actions taken, and any preventative measures taken, pursuant to Section 39.5(7)(f)(ii) of the Act.

i. NotificationFor those breakdown or malfunction opacity events that require notification and reporting as specified inpursuant to Condition 7.2.10(b)(i), for certain deviations from notification and reporting shall be provided pursuant to Condition 7.2.410(b)(i) rather than 7.2.10(a).

- ii. Notification withinWithin 30 days for operationafter the conclusion of an incident in which the Permittee continued to operate an affected operation that was not in compliance with applicable requirements in Conditions 7.2.6(a) that continued for more than 12 operating hours from the time that it wasafter discovering that emission control measures required by the record identified in Condition 7.2.9(b)(i) were not present or operating, the Permittee shall submit written notice to the Illinois EPA. Such notifications shall be accompanied by a copy of the records for the incident required by Condition 7.2.9(e).
- iii. A. NotificationExcept for events and incidents for which notification or reporting is required by Condition 7.2.10(a)(ii) or 7.2.10(b)(i), as referenced in 7.2.10(a)(i), all other notifications shall be submitted with the quarterly reports required by Condition 7.2.10(b)(ii) for other deviations, including deviations from applicable emission standards, inspection requirements and recordkeeping requirements.
 - B. With the quarterly report, the Permittee shall also address deviations that occurred during the quarter that have been separately reported to the Illinois EPA, with a summary of such deviations. For this purpose, the Permittee need not resubmit the detailed information provided in prior notifications and reports for such deviations.
- b. Reporting of When Continued Operation Occurred During Malfunctions And Breakdowns

Pursuant to 35 IAC 201.263 and Sections 39.5(7)(a) and (f) of the Act, the Permittee shall provide the following notifications and reports to the Illinois EPA, concerning for incidents when operation of affected operation(s) continued with excess emissions, including continued operation or excess opacity during malfunction or breakdown as addressed by Condition 7.2.3(b).

i. A. The Permittee shall immediately notify the Illinois EPA's Regional Office, by telephone-(voice, facsimile or electronic + mail, for each incident in which the opacity from an affected operation exceeds or may have the applicable opacity standard30 percent for <u>fiveeight</u> or more 6-minute averaging periods- within a two-hour period, unless the Permittee has begun the shutdown by such time. (Otherwise, if opacity during a malfunction or breakdownan incident only exceeds or may have exceeded the applicable standard 30 percent for no more than fiveseven 6-minute averaging periods, the Permittee need only report the incident in the quarterly report, in accordance with Condition 7.2.10(b)(ii).)

- B. Upon conclusion of each incident that is two hours or more in duration, the Permittee shall submit a written followup notice to the Illinois EPA, Compliance Section and Regional Office, within 15 days providing a detailed description copy of the records for the incident and its cause(s), an explanation why continued operation was necessary, the length of time during which operation continued under mditions, the measures taken required by the Permittee to minimize and correct deficiencies w chronology, and when the repairs were completed or the affected operation taken out of service.Condition 7.2.9(e).
- ii. The Permittee shall submit quarterly reports to the Illinois EPA that include the following information for incidents during the quarter in which affected operations continued to operate during malfunction or breakdown with excess emissions, or excess opacity. These reports shall be submitted with the quarterly reports submitted for the coal-fired boiler pursuant to Condition 7.1.10-2(a).
 - A. A listing of such incidents, in chronological order, that includes:

I. <u>(1) the The</u> date, time, and duration of each incident;

- II. (2) __theThe identity of the affected operation(s) involved in the incident₇; and
- III. (3) wWhether a follow-up notice
 was submitted for the incident
 pursuant to Condition
 7.2.10(b)(i)(B), with the date of
 the notice.
- B. The detailed information for each such <u>A</u> description of the incident-required pursuant to Condition 7.2.10 (a) (as each , discussion of probable cause of the incident-constitutes a deviation), corrective actions taken, and <u>Condition</u> 7.2.10 (b) (i) (B). For this purpose, any preventative measures taken; provided, however, that the Permittee need not resubmit information provided in a prior report for an incident, as identified above, but may elect to supplement the prior submittal.
- C. The aggregatesum duration of all incidents during the quarter.
- D. If there have been no such incidents during the calendar quarter, this shall be stated in the report.
- 7.2.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational <u>changechanges</u> with respect to the affected operations without prior notification to the Illinois EPA or revision of this permit, pursuant to Section 39.5(7) (a) and (l) of the Act. This condition does not affect the Permittee's obligation to continue to comply with applicable requirements or to properly obtain a construction permit in a timely manner for any activity constituting a modification as defined by 40 CFR 52.21 or 35 IAC 203.207, as applicable, or for an activity for which a permit is required pursuant to 35 IAC 201.142.

- a. Handling of solid fuels other than coal.
- b. Operation of additional dust suppressant systems.
- c. Operation of additional dust collection equipment.
- d. Operation of replacement dust suppression systems or dust collection equipment that is of equal or greater

effectiveness in controlling $\frac{\rm PHy}{\rm visible}$ emissions than the device(s) being replaced, as recognized in a Construction Permit for such system or equipment.

7.2.12 Compliance Procedures

- a. Compliance with <u>conditions</u>Condition 7.2.4 is addressed by the <u>control</u>, <u>testing</u>, <u>inspection</u>observations, inspections, and recordkeeping required by Conditions 7.2.6(a), 7.2.7(a), 7.2.8, and 7.2.9, respectively.
- b. Compliance with Condition 7.2.6(a) is addressed by the testing, inspection, inspections and recordkeeping required by Conditions 7.2.7, 7.2.8, and 7.2.9, respectively.

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

7.3 Coal Processing Equipment

7.3.1 Description

The Permittee prepares or processes coal for use as fuel in its boilers with crushers that reduce the size of the coal. Associated particulate matter (PM) emissions are controlled by various control measures, <u>including such</u> as moisture content of the coal, application of dust suppressant to the coal, enclosures and covers, <u>andor</u> dust collection devices.

Note: The description in Condition 7.3.1 is for informational purposes only and implies no limits or constraints.

7.3.2 List of Emission Units and Air Pollution Control Equipment

| Emission | DescriptionEmi | Emission Control |
|----------------|--------------------------|-----------------------------|
| Unit | ssion Unit | Equipment/Measures |
| Coal Breaker | Coal Crushing | Enclosures and Covers, |
| Building - TP2 | OperationCrush | Dust Suppressant |
| | ers | Application, Water |
| | | Sprays, and Dust |
| | | Collection Devices |

- 7.3.3 Applicability Provisions
 - a. An "affected process" for the purpose of these unitspecific conditions τ is an individual process emission unit that prepares coal for use as a fuel by crushing the coal as described in Conditions 7.3.1 and 7.3.2.
 - b. Subject to the following terms and conditions, the Permittee is authorized to continue operation of an affected process in violation of the applicable requirements of Condition 7.3.4(b) (35 IAC 212.123) and Condition 7.3.4(dc)) (35 IAC 212.32±2(a)) in the event of a malfunction or breakdown of the affected process. This authorization is provided pursuant to 35 IAC 201.149, 201.16±261 and 201.262 as the Permittee has applied for such authorization in its application, generally explaining why such continued operation would be required to provide essential service or to prevent 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 related to the operation of the coal-fired boilers as necessary to provide essential service or to prevent 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 practicable repair the affected process, remove the affected process from service or undertake other actionactions so that excess emissions cease.
- iii. The Permittee shall fulfill applicable recordkeeping and reporting requirements of <u>ConditionConditions</u> 7.3.9(ed) and 7.3.10(b). 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 process 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.
- 7.3.4 Applicable Emission Standards
 - a. Fugitive emissions, as defined by 35 IAC 211.2490, of the The-affected processes shall comply with the

standard in Condition 5.2.2(a), which addresses visible emissions of fugitive particulate matter, as defined by 35 IAC 211.2490, from the affected processes, pursuant to 35 IAC 212.301.

- b. The affected processes shall comply with the standard, i.e., 30 percent opacity, in Condition 5.2.2(b), which addresses the opacity of the emission of smoke or other particulate matter from the affected processes, pursuant to 35 IAC 212.123.
- c. The affected processes shall comply with 35 IAC
 212.322(a):, which provides that:
- No <u>"no</u> 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 at a source or premises, exceeds the allowable emission rates specified in <u>subsection (c) of [35 IAC 212.322]."(c).</u> (See also Attachment 2.) [35 IAC 212.322(a)]
- d. i. The affected processes shall comply with the applicable standards in Condition 5.2.3, which also address particulate matter emissions from the processes.
 - ii. As an affected process emits fugitive particulate matter, the affected process shall be addressed by the Permittee in its fugitive particulate matter operating program, as required by Condition 5.2.4, and operated in accordance with such program.
- 7.3.5 Non-Applicability of Regulations of Concern

None

- a. The affected processes are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources for PM, including because the affected processes do not use an add-on control device to achieve compliance with an emission limitation or standard.
- 7.3.6 Work Practices, Operational and Production Limits, and Emission Limitations
 - The Permittee shall implement and maintain the control measures for the affected processes, such as enclosure, natural surface moisture,

application of dust suppressant, application of water sprays, and use of dust collection devices, that minimize visible<u>for</u> emissions of particulate matter and provide assurance of compliance withto support the periodic monitoring for the applicable emission standardsrequirements in <u>ConditionsCondition</u> 7.3.4 pursuant to Section 39.5(7) (a) of the Act.

- ii. The Permittee shall operate and maintain each affected process with the control measures implemented and maintained shall be identified in the recordsand operated in conformance with the record required by Condition 7.3.9(b)(i) to satisfy Condition 7.3.6(a)(i).
- 7.3.7 Opacity Observation and Emission Testing Requirements
 - a. i. The Permittee shall have the opacity of the emissions from the affected processes during representative weather and operating conditions determined by a qualified observer in accordance with USEPA TestReference Method 9, as further specified below, pursuant to Section 39.5(7) (d) of the Act.
 - A. For each affected process, <u>testingobservations</u> shall be conducted at <u>least annually. For this purpose</u>, <u>testing not later than two years after</u> <u>the effectiveness of this condition.</u>
 - B. Thereafter, for each affected process, observations shall first be conducted within three months of the effective date of this Condition 7.3.7(a).every third year.
 - BC. Upon written request by the Illinois EPA, such testing_observations shall be conducted for specific affected process(es) withinnot later than 45 calendar days ofafter the Permittee has received the request or on thesuch later date agreed uponto by the Illinois EPA, whichever is later.
 - ii. 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 each not greater than 10.0 percent.

- iii. A. The For each set of observations required by Conditions 7.3.7(a) (i) (A), (B), and (C), 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 observerof the observation(s).
 - B. The Permittee shall promptly notify the Illinois EPA of any changes in the time or date for testing.of the observation(s).
- iv. The Permittee shall provide a copy of its
 observer's readings to the Illinois EPA at the
 time of testing, the observation(s), if
 Illinois EPA personnel are present.
- v. The Permittee shall submit a written report for this testingthese observations withinnot later than 4530 days of after the date of testingcompletion of each set of opacity observations required by Conditions 7.3.7(a) (i) (A), (B), and (C). The report shall include a copy of the current Reference Method 9 certification of each observer and shall identify the observer's current employer. This report shall also include the following for each observation:
 - A. Identification of the affected process for which observations were conducted.
 - B. Date and time of testingobservations.

B. Name and employer of qualified observer.

- C. Copy of current certification.
- D. Description of observation conditionconditions, including recent weather.
- $\underbrace{\underline{\texttt{FD}}}_{}$. Description of the operating conditions of the affected processes.
- FE. Raw data.
- $\underline{\mathsf{GF}}$. Opacity determinations.

HG. Conclusions.

- b. i. Within 90 days <u>efafter the Permittee has</u> <u>received</u> a written request from the Illinois EPA, the Permittee shall have the PM emissions at the stacks or vents of the affected processes, as specified in such request, measured during representative operating conditions, as set forth below, pursuant to Section 39.5(7) (d) of the Act.
 - ii. A. Testing shall be conducted using appropriate USEPA_Reference Test_Methods, including <u>Reference</u> Method 5 or 17 for PM emissions.
 - B. Compliance may be determined from the average of three valid test runs, subject to the limitations and conditions contained in 35 IAC Part 283.
 - iii. The Permittee shall submit a test plan to the Illinois EPA at least 60 days prior to testing, which plan shall include the information specified<u>as required</u> by Condition 8.6.2.
 - iv. 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 30 days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual date of the test. The Illinois EPA may, at its discretion, accept notification with shorter advance notice provided that the Illinois EPA will not accept such notification if it interferes with the Illinois EPA's ability to observe the testing.
 - v. The Permittee shall expeditiously submit <u>a</u> complete <u>Ff</u>inal <u>Rr</u>eport(s) for required emission testing to the Illinois EPA, no later than 90 days after the date of testing. These reports shall include the information specified in Condition 8.6.3 and the following information: a detailed description of the operating conditions of the affected operations during testing, including operating rate (tons/hr) and the control devices being used.

A. A summary of results.

- B. Detailed description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.
- C. Detailed description of the operating conditions of the affected process during testing, including operating rate (tons/hr) and the control measures being used.
- D. Detailed data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.
- E. Representative opacity data (6-minute average) measured during testing.
- 7.3.8 Inspection Requirements
 - a. The Permittee shall perform inspections of eachthe affected processprocesses on at least a weeklymonthly basis, including associated control measures, to confirm compliance with the requirements of Condition 7.3.6(a). These If an affected process is not in operation during an inspection, this shall be noted in the inspection record. The records required by Condition 7.3.9(c) for these inspections shall be performed with signed off by supervisory or management personnel not directly involved in the day to day operation of the affected processes. [Sections 39.5(7)(a) and (d) of the Act.
 - As part of the inspections of Condition 7.3.8(a), the b. Permittee shall perform observations of the affected processes for visible emissions in accordance with 35 IAC 212.107 to demonstrate compliance with the requirements of Condition 7.3.4(b), unless the Permittee elects to perform Reference Method 9 observations in accordance with Condition 7.3.7(a). These observations may be scheduled so that only a number of affected processes are reviewed during each inspection, provided, however, that all affected processes that are in routine service shall be observed at least once during each calendar year in which it is operating. If visible emissions are observed, the Permittee shall take corrective action within 2 hours to return the status of the process to no visible emission or shall conduct observations of opacity by Reference Method 9 within one week in accordance with Condition 7.3.7(a). If the Permittee

performs Reference Method 9 observations under this Condition 7.3.8(b), such observations are not subject to the notice requirements of Condition 7.3.7(a)(iii) through (v) [Sections 39.5(7)(a) and (d) of the Act.].

bc. The Permittee shall perform and document an nspection of the coal breaker building baghouse (i.e., Baghouse #3) to confirm proper condition and operation at least once per month. This inspection shall include recording and verifying that the monitored baghouse differential pressure is within the operating range specified in the record required by Condition 7.3.9(b)(i) and that visible emissions are not observed in the baghouse exhaust The Permittee shall perform detailed inspections of the dust collection equipment for affected processes at least every 15 months while the processes are service, with an initial inspection performed before any maintenance and repair activities are conducted during the period the process is out of service and follow -up inspection performed after activities are completed [Sections 39.5(7)(a) and (e) of the Act].

7.3.9 Recordkeeping Requirements

- a. The Permittee shall maintain records of the following items for the affected processes, pursuant to Section 39.5(7)(b) of the Act:
 - i. Maximum operating capacity of each affected process (tons/hour).

ii.

a. The Permittee shall keep the following file(s) and log(s):

File(s) containing the following information for the affected processes, with supporting information, which information shall be kept up to date:

> A. Information related to the dust collection equipmentbaghouse associated with the affected processes, including theavailable design control efficiency or performance specifications and maximum design particulate matter emissions, gr/dscf, with supporting information, which information shall be kept up to date.

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B. The maximum operating capacity of each affected process (ton/hour).

- iiii. Maintenance and repair log(s) for the air pollution control equipmentbaghouses associated with the affected processes; including dust suppressant application systems, which log(s) shall list the activities performed on each item of equipment or system, with date and description. (See also Condition 9.6.1, Control Equipment Maintenance Records.)
- b. i. The Permittee shall maintain a record, which shall be kept up to date, of the to reflect any changes that the Permittee may elect to make, that contains the following for each affected process for which a control measure must be implemented and maintained pursuant to Condition 7.3.6(a)(i).
 - A. The type of emission unit (crushers, etc.) and the Permittee's designation for each emission unit with a description of the emission points on the emission unit;
 - B. Whether the emission unit is considered to be an "affected facility" for purposes of the NSPS, with copies of supporting documentation;
 - C. Description of the primary control measures that are utilized, with a description of the control measure and estimated frequency of application, if not continuous; and
 - D. Description of any secondary control measures that would be used based on circumstances (freezing temperatures, recent rain, dry weather, etc.) with identification of the circumstances in which they would be used and whether they would take the place of or supplement the primary control measures currently being implemented for the affected processes to Condition 7.3.6(a). pursuant. ntrol measures, as defined by the Permittee through these records, are referred to as the "established control measures" in this subsection of this permit.

- Accompanying this record, the Permittee shall ii. maintain a demonstration that confirms that the above established control measures identified in the record required by Condition 7.3.9(b)(i) are sufficient to assure compliance with Condition 7.3.4(c) at the maximum process weight rate at which each affected process can be operated (tons coal/hour), with supporting emission calculations and documentation for the emission factors and the efficiency of the control measures being relied upon by the Permittee. Except as This demonstration shall include the information addressed by Condition 7.3.9(a)(i)<mark>, results of</mark> any or testing of an affected process is conducted in accordance withpursuant to Condition 7.3.7(b), this atration shall be dottolot emission factors for uncontrolled PM emissions, efficiency of control measures, and/or controlled PM emissions published by USEPA or other credible sources.
- iii. CopiesA copy of these records the record required by Condition 7.3.9(b)(i) shall be submitted to the Illinois EPA in accordance with Condition 5.6.2(d).withinnot later than 60 days after the effectiveness of Condition 7.3.9(b)(i). Any subsequent revisions to this record related to control measures or affected processes, including their method of operation, shall be submitted not later than 30 days after the date of the revision. Upon request by the Illinois EPA, the Permittee shall submit other relevant information related to the control measures.
- c. The Permittee shall maintain records of the following for the inspections required by Condition 7.3.8:

For the inspections required by Condition 7.3.8(a) for each affected process:

A

- <u>i</u>. Date and time the inspection was performed and, name(s) of inspection personnel, and specific affected process(es) inspected.
- <u>Bii</u>. The observed condition of the control measures identified in the record required by Condition 7.3.9(b)(i), for each inspected affected process(es), including the presence of any

visible emissions or <u>atypical</u> accumulations of coal fines in the vicinity of the process.

- Eiii. A description of any maintenance or repair of equipment associated with established control measures identified in the record required by Condition 7.3.9(b)(i) that is recommended as a result of the inspection and a review of outstanding recommendations for maintenance or repair from previous inspection(s), i.e., whether recommended action has been taken, is yet to be performed or no longer appears to be required associated work order ticket number(s).
 - D. A summary of the observed implementation or status of actual control measures as, compared to the established control measures.
- ii. For the inspections required by Condition 7.3.8(b) for the dust collection equipment for affected processes:
 - A. Date and time the inspection was performed and name(s) of inspection personnel.
 - B. The observed condition of the equipment.
 - C. A summary of the maintenance and repair that is to be or was conducted on the equipment.
- Địv. A description of any maintenance or repair that is recommended as a result of the inspection and a review of outstanding recommendations for maintenance or repair from previous inspection(s), i.e., whether recommendedcorrective action has been taken, is yet to be performed or no longer appears to be required.
- E. A summary of the observed condition of the equipment as related to its ability to reliably and effectively control if visible emissions were observed, including whether corrective action took place within 2 hours of the observation and whether the status of the process returned to no visible emissions.
- d. The Permittee shall maintain records of the following for each incident when any affected process operated without the established control measures:<u>control</u>

measure(s) required pursuant to the record required by Condition 7.3.9(b)(i) and each incident when an affected process continued to operate during malfunction or breakdown with excess emissions or excess opacity as addressed by Condition 7.3.3(b):

- The date of the incident and identification of the affected process(es) that werewas involved.
- ii. A description of the incident, including the established control measures that were not present or implemented; the established operated as required by the record identified in Condition 7.3.9(b)(i); other control measures that were presentoperated, if any; other control the measures or mitigation that were implemented, if any; taken me to minimize and the magnitude of correct deficiencies with chronology; and an explanation of whether the PM emissions or opacity during the incident exceeded any applicable emission standard, as listed in Condition 7.3.4.
- iii. The time at and means by which the incident was identified, e.g., scheduled inspection or observation by operating personnel.
- iv. The length of time after the incident was identified that the affected process(es)processes continued to operate before established the control measures identified in the record required by Condition 7.3.9(b)(i) were in place or the operationsprocesses were shutdownshut down (to resume operation only after establishedsuch control measures were in place); an explanation of why continued operation was necessary; and, if this time was more than one hour, an explanation of why this time was not shorter, including a description of any mitigation measures that were implemented during the incident.
- v. The estimated total duration of the incident, i.e., the total length of time that the affected process(es)processes ran without established control measures the control measure(s) required pursuant to the record required by Condition 7.3.9(b)(i) and the estimated amount of coal processedhandled during the incident.

- vi. A discussion of the probable cause of the incident and any preventative measures taken.
- vii. A discussion whether any applicable emissions standard as listed in Condition 7.3.4 may have been violated during the incident, with supporting explanation as needed.
- e. Pursuant to 35 IAC 201.263 and Section 39.5(7)(a) and (c) of the Act, the Permittee shall maintain records, related to malfunction and breakdown for an affected process that as a minimum, shall include:
 - Maintenance and repair log(s) for the affected processes that, at a minimum, address aspects or components of such processes for which malfunction or breakdown has resulted in missions, which shall list +ho activities performed on such aspects or components, with date, description and reason for the activity. In addition, in the repair log(s) mai equipment required by Condition 7.3.9(a)(ii), the Permittee shall also list the reason for the activities that are performed.
 - ii. Records for each incident when operation of an affected process continued during malfunction or breakdown, including continued operation with excess emissions as addressed by Condition 7.3.3(b), that include the following information:
 - A. Date and duration of malfunction or breakdown.
 - B. A description of the malfunction or breakdown.
 - C. The corrective actions used to reduce the quantity of emissions and the duration of the incident.
 - D. Confirmation of fulfillment of the requirements of Condition 7.3.10(b)(i), as applicable, including copies of follow-up reports submitted pursuant to Condition 7.3.10(b)(i)(D).
 - E. If excess emissions occurred for two or more hours:

- A detailed explanation why continued operation of the affected operation was necessary.
- 2. A detailed explanation of the preventative measures planned or taken to prevent similar malfunctions or breakdowns or reduce their frequency and severity.
- An estimate of the magnitude of excess emissions occurring during the incident.
- fe. The Permittee shall keep records for all opacity measurements observations made in accordance with USEPAReference Method 9 for the affected processes that the Permitteeit conducts or that are conducted at its behest by individuals who are qualified to make such observations. For each occasion on which such measurementsobservations are made, these records shall include the formal report for the measurementsobservations if conducted pursuant to Condition 7.3.7 (a (Opacity Observation and Emission Testing Requirements), or otherwise the identity of the observer, a description of the measurements observations that were made, the operating condition of the affected process(es), the observed opacity, and copie for the measurements.copies of the raw data sheets for the observations, and the reason for the opacity observation, e.g., Reference Method 9 opacity observations required by Condition 7.3.7(a)(i), written request by the Illinois EPA, or any required Reference Method 9 opacity observations following observations of visible emissions under Condition 7.3.8(b).
- 7.3.10 Reporting Requirements
 - a. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA of deviations from permit requirements for the affected processes, as follows. Such notifications shall include a description of each <u>incidentdeviation</u> and a discussion of the probable cause of deviation, any corrective actions taken, and any preventative measures taken, pursuant to Section 39.5(7)(f)(ii) of the Act.

i. NotificationFor those breakdown or malfunction opacity events that require notification and

reporting as specified in pursuant to Condition 7.3.10(b) (i) for certain deviations from), notification and reporting shall be provided pursuant to Condition 7.3.410(b).)(i) rather than 7.3.10(a).

- ii. Notification within Within 30 days for operation after the conclusion of an affected process that was not in compliance with applicable requirements in Condition 7.3. 612) that incident in which the Permittee continued to operate an affected process for more than 12 operating hours from the time that it identified.after discovering that emission control measures required by the record identified in the record identified in Condition 7.3.9(b)(i) were not present or not operating, the Permittee shall submit written notice to the Illinois EPA. Such notifications shall be accompanied by a copy of the records for the incident required by Condition 7.3.9(ed).
- iii. A. NotificationExcept for events and incidents for which notification or reporting is required by Condition 7.3.10 (a) (ii) or 7.3.10 (b) (i), as referenced in 7.3.10 (a) (i), all other notifications shall be submitted with the quarterly reports required by Condition 7.3.10 (b) (ii) for other deviations, including deviations from applicable emission standards, inspection requirements and recordkeeping requirements.).
 - B. With the quarterly report, the Permittee shall also address deviations that occurred during the quarter that have been separately reported to the Illinois EPA, with a summary of such deviations. For this purpose, the Permittee need not resubmit the detailed information provided in prior notifications and reports for such deviations.
- b. Reporting <u>ofWhen</u> Continued Operation <u>Occurred</u> During Malfunctions <u>Andand</u> Breakdowns

Pursuant to 35 IAC 201.263 and Sections 39.5(7)(a) and (f) of the Act, the Permittee shall provide the following notifications and reports to the Illinois EPA for incidents when operation of affected process(es) continued with excess emissions₇

including continued operation or excess opacity during malfunction or breakdown as addressed by Condition 7.3.3(b).

- i . The Permittee shall immediately notify Α. the Illinois EPA's Regional Office, by telephone (voice, facsimile or electronic) mail, for each incident in which the opacity from an affected process exceeds or may have exceeded applicable opacity standard for five30 percent for eight or more 6-minute averaging periods- within a two-hour period, unless the Permittee has begun the shutdown by such time. (Otherwise, if opacity during a malfunction or breakdownan incident only exceeds or may ded the applicable standard30 percent for no more than fiveseven 6minute averaging periods, the Permittee need only report the incident in the quarterly report, in accordance with Condition 7.3.10(b)(ii).)
 - B. Upon conclusion of each incident that is two hours or more in duration, the Permittee shall submit a written followup notice to the Illinois EPA, Compliance Section and Regional Office, within 15 days providing a detailed descripti the incident and its cause(s), an exp lanation why continued operation necessary, the length of time during which operation continued under such conditions, the measures taken by the minimize and corre deficiencies with chronology, and when the repairs were completed or the eted process was taken ice.copy of the records for the incident required by Condition 7.3.9(d).
- ii. The Permittee shall submit quarterly reports to the Illinois EPA that include the following information for incidents during the quarter in which affected processes continued to operate during malfunction or breakdown with excess emissions, or excess opacity. These reports shall be submitted with the quarterly reports submitted for the coal-fired boiler pursuant to Condition 7.1.10-2 (a).
 - A. A listing of such incidents, in chronological order, that includes:

- 1. (1) __the The date, time, and duration of each incident;
- II. (2) the The identity of the affected process(es) involved in the incident; and
- III. (3) wWhether a follow-up notice
 was submitted for the incident
 pursuant to Condition
 7.3.10(b)(i)(B), with the date of
 the notice.
- B. <u>A description of the the detailed</u> <u>information for each such</u> incident, <u>discussion of probable cause of the</u> <u>incident, corrective actions taken,</u> <u>constitutes a deviation</u>) and <u>any</u> <u>preventative measures taken; provided,</u> <u>however, that Condition 7.3.10 (b) (i) (B).</u> <u>For this purpose</u>, the Permittee need not resubmit information provided in a prior report for an incident, as identified above, but may elect to supplement the prior submittal.
- C. The aggregatesum duration of all incidents during the quarter.
- D. If there have been no such incidents during the calendar quarter, this shall be stated in the report.

7.3.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational <u>changechanges</u> with respect to the affected processes without prior notification to the Illinois EPA or revision of this permit, pursuant to Section 39.5(7) (a) and (l) of the Act. This condition does not affect the Permittee's obligation to continue to comply with applicable requirements or to properly obtain a construction permit in a timely manner for any activity constituting a modification as defined by 40 CFR 52.21 or 35 IAC 203.207, as applicable, or for an activity for which a permit is required pursuant to 35 IAC 201.142.

- a. Handling of solid fuels other than coal.
- b. Operation of additional dust suppressant systems.
- c. Operation of additional dust collection equipment.

d. Operation of replacement dust suppression systems or dust collection equipment that is of equal or greater effectiveness in controlling <u>PMvisible</u> emissions than the device(s) being replaced, as recognized in a Construction Permit for such system or equipment.

7.3.12 Compliance Procedures

- a. Compliance with <u>Conditions</u>Condition 7.3.4(a) and (b) is addressed by the <u>control, testing</u>, <u>inspection</u>, <u>observations</u>, inspections and recordkeeping required by Conditions 7.3.6(a), 7.3.7(a), 7.3.8, and 7.3.9, respectively.
- b. Compliance with Conditions 7.3.4(c) and (d) is addressed by the control, testing, inspectionobservations, testing, inspections, and recordkeeping required by Conditions 7.3.6(a), 7.3.7(a), 7.3.7(b), 7.3.8, and 7.3.9, respectively.
- c. Compliance with Condition 7.3.6(a) is addressed by testing, inspection, inspections and recordkeeping required by Conditions 7.3.7, 7.3.8, and 7.3.9, respectively.

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

7.4 Fly Ash Equipment

7.4.1 Description

The Permittee operates fly ash removal systems that handle fly ash collected at the coal-fired boilers. Associated particulate matter (PM) emissions are controlled by various control measures <u>including natural</u> <u>moisture content of the fly ash</u>, <u>such as</u> enclosures and covers, and or dust collection devices.

Note: The description in Condition 7.4.1 is for informational purposes only and implies no limits or constraints.

7.4.2 List of Emission Units and Air Pollution Control Equipment

| Emission | Description Emission | Emission Control | |
|-----------------|-----------------------------------|---------------------------------------------|--|
| Unit | Unit | Equipment | |
| Silo 7 and 77 | ConveyorConveying, | Baghouses <mark>,</mark> BH6 and | |
| | Storage Silo <mark>s</mark> , and | BH7 and Enclosures | |
| | Loadout | and Covers | |

7.4.3 Applicability Provisions

- a. An "affected process" for the purpose of these unitspecific conditions τ is an individual process emission unit that handles fly ash as described in Conditions 7.4.1 and 7.4.2.
- b. Subject to the following terms and conditions, the Permittee is authorized to continue operation of an affected process in violation of the applicable requirements of Condition 7.4.4(b) (35 IAC 212.123) and Condition 7.4.4(c) (35 IAC 212.321(a)+ in the event of a malfunction or breakdown of anthe affected process. This authorization is provided pursuant to 35 IAC 201.149, 201.161261, 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 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 related to the operation of the coal-fired boilers as necessary to provide essential service or to prevent 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 practicable repair the affected process, remove the affected process from service, or undertake other action so that excess emissions cease.
- iii. The Permittee shall maintain a contingency plan for handling of fly ash that includes alternative operating procedures and a storage facility so that fly ash can be temporarily stockpiled at the source with minimal particulate matter emissions if an affected process must be taken out of service due to a malfunction or breakdown and associated repairs.
- iviii. The Permittee shall fulfill applicable recordkeeping and reporting requirements of ConditionConditions 7.4.9(ed) and 7.4.10(b). 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 process out of service.
- 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.
- viv. 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.

- 7.4.4 Applicable Emission Standards
 - a. The Fugitive emissions, as defined by 35 IAC 211.2490, of the affected processes shall comply with the standard in Condition 5.2.2(a), which addresses visible emissions of fugitive particulate matter, as defined by 35 IAC 211.2490, from the affected processes, pursuant to 35 IAC 212.301.
 - b. The affected processes shall comply with the standard in Condition 5.2.2(b), i.e., 30 percent opacity, in Condition 5.2.2(b), which addresses the opacity of the emission of smoke or other particulate matter from the affected processes, pursuant to 35 IAC 212.123.
 - c. The affected processes shall comply with 35 IAC 212.321(a): ______ which provides that _____ 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]."(c). (See also Attachment 1.) [35 IAC 212.321(a)].
 - d. i. The affected processes shall comply with the applicable standards in Condition 5.2.3, which also address particulate matter emissions from the processes.
 - ii. As an affected process emits fugitive particulate matter, the affected process shall be addressed by the Permittee in its fugitive particulate matter operating program, as required by Condition 5.2.4, and operated in accordance with such program.
- 7.4.5 Non-Applicability of Regulations of Concern
 - a. This permit is issued based on the affected processes not being subject to the New Source Performance Standards (NSPS) for Nonmetallic Mineral Processing Plants, 40 CFR Part 60, Subparts A and 000, because the affected processes do not meet the definition of a nonmetallic mineral processing plant because there is no equipment used to crush or grind fly ash.
 - b. The affected processes are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major

Stationary Sources for PM, including because the affected processes do not use an add-on control device to achieve compliance with an emission limitation or standard.

- 7.4.6 Work Practices, Operational and Production Limits, and Emission Limitations
 - a. i. The Permittee shall implement and maintain the control measures for the affected processes, includingsuch as enclosure and filtration-type dust collection devices, that minimize visiblefor emissions of particulate matter and provide assurance of compliance withto support the periodic monitoring for the applicable emission standardsrequirements in Condition 7.4.4, pursuant to Section 39.5(7) (a) of the Act.
 - ii. The Permittee shall operate and maintain each affected process with the control measures implemented and maintained shall be identified in and operated in conformance with the recordsrecord required by Condition 7.4.9(b)(i) to satisfy Condition 7.4.6(a)(i).
- 7.4.7 Opacity Observation and Emission Testing Requirements
 - a. i. The Permittee shall have the opacity of the emissions from the affected processes during representative weather and operating conditions determined by a qualified observer in accordance with USEPA TestReference Method 9, as further specified below, pursuant to Section 39.5(7) (b) of the Act.
 - A. For each affected process, <u>testingobservations</u> shall be conducted at <u>least annually. For this purpose</u>, <u>testingnot later than two years after the</u> effectiveness of this condition.
 - B. Thereafter, for each affected process, observations shall first be conducted within three months after the effective date of this Condition 7.4.7(a).every third year.
 - BC. Upon written request by the Illinois EPA, such testingobservations shall be conducted for specific affected process(es) withinnot later than 45 calendar days of after the Permittee has received the request or on the such later

date agreed $\frac{\text{uponto}}{\text{to}}$ by the Illinois EPA₇ whichever is later.

- ii. 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 each not greater than \$10.0 percent.
- iii. A. TheFor each set of observations required by Condition 7.4.7(a) (i) (A), (B), and (C), 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 observerobservation(s).
 - B. The Permittee shall promptly notify the Illinois EPA of any changes in the time or date for testing.of the observation(s).
- iv. The Permittee shall provide a copy of its
 observer's readings to the Illinois EPA at the
 time of testing, the observation(s), if
 Illinois EPA personnel are present.
- v. The Permittee shall submit a written report for this testingthese observations withinnot later than 1530 days of after the date of testingcompletion of each set of opacity observations required by Conditions 7.4.7(a)(i)(A), (B), and (C). The report shall include a copy of the current Reference Method 9 certification of each observer and shall identify the observer's current employer. This report shall also include the following for each observation:
 - A. Identification of the affected process for which the observations were conducted.
 - B. Date and time of testingobservations.
 - B. Name and employer of qualified observer.
 - C. Copy of current certification.

Description of observation condition, including recent weather.

- ➡D. Description of the operating conditions of the affected processesprocess.
- FE. Raw data.
- GE. Opacity determinations.
- HG. Conclusions.
- b. i. Within 90 days <u>efafter the Permittee has</u> <u>received</u> a written request from the Illinois EPA, the Permittee shall have the PM emissions at the stacks or vents of the affected processes, as specified in such request, measured during representative operating conditions, as set forth below, pursuant to Section 39.5(7) (d) of the Act.
 - ii. A. Testing shall be conducted using appropriate USEPA Reference Test Methods, including <u>Reference</u> Method 5 or 17 for PM emissions.
 - B. Compliance may be determined from the average of three valid test runs, subject to the limitations and conditions contained in 35 IAC Part 283.
 - iii. The Permittee shall submit a test plan to the Illinois EPA at least 60 days prior to testing, which plan shall include the information specified<u>as required</u> by Condition 8.6.2.
 - iv. 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 30 days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual date of the test. The Illinois EPA may, at its discretion, accept notification with shorter advance notice provided that the Illinois EPA will not accept such notification if it interferes with the Illinois EPA's ability to observe the testing.
 - v. The Permittee shall expeditiously submit complete Final Report(s) for required emission

testing to the Illinois EPA, no later than 90 days after the date of testing. These reports shall include the information specified in Condition 8.6.3 and the following information: a detailed description of the operating conditions of the affected processes during testing, including operating rate (tons/hr) and the control devices being used.

A. A summary of results.

- B. Detailed description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.
- C. Detailed description of the operating conditions of the affected process during testing, including operating rate (tons/hr) and the control measures being used.
- D. Detailed data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.
- E. Representative opacity data (6 minute average) measured during testing.
- 7.4.8 Inspection Requirements
 - a. The Permittee shall perform inspections of the affected processes on at least a weekly basis, including associated control measures, while the affected processes are in use, as follows to confirm compliance with the requirements of Condition 7.4.6(a) These inspections shall be performed by personnel who are not directly involved in the day to day operation of the affected processes. [Sections 39.5(7)(a) and (d) of the Act].
 - i. Affected processes other than loadout operations shall be inspected on at least a monthly basis.
 - ii. Affected loadout operations shall be inspected on at least a weekly basis.
 - iii. If an affected process is not in operation during an inspection, this shall be noted in the inspection record.

- iv. The records required by Condition 7.4.9(c) for these inspections shall be signed off by supervisory or management personnel.
- b. As part of the inspections of Condition 7.4.8(a), the Permittee shall perform observations of the affected processes for visible emissions in accordance with 35 IAC 212.107 to demonstrate compliance with the requirements of Condition 7.4.4(b), unless the Permittee elects to perform Reference Method 9 observations in accordance with Condition 7.4.7(a). These observations may be scheduled so that only a number of affected processes are reviewed during each inspection, provided, however, that all affected processes that are in routine service shall be observed at least once during each calendar year in which it is operating other than loadout operations which shall each be observed at least once during each calendar quarter in which it is operating [Sections 39.7(b) and (d) of the Act].
- c. If visible emissions are observed, the Permittee shall take corrective action within 2 hours to return the status of the process to no visible emission or shall conduct observations of opacity by Reference Method 9 within one week in accordance with Condition 7.4.7(a). If the Permittee performs Reference Method 9 observations under this Condition 7.4.8(b), such observations are not subject to the notice requirements of Condition 7.4.7(a) (iii) through (v) [Sections 39.5(7)(b) and (d) of the Act].
- d. The Permittee shall perform and document an inspection of the fly ash baghouses (i.e., Baghouses #6 and #7) to confirm proper condition and operation at least once per month. This inspection shall include recording and verifying that the monitored baghouse differential pressure is within the operating range specified in the record required by Condition 7.4.9(b)(i) and that visible emissions are not observed in the baghouse exhaust [Sections 39.5(7)(a) and (d) of the Act].
- b. The Permittee shall perform detailed inspections of the dust collection equipment for affected processes at least every nine months while the processes are out of service, with an initial inspection performed before any maintenance and repair activities are conducted during the period the process is out of service and a follow-up inspection performed after any such activities are completed. [Sections 39.5(7)(a) and (d) of the Act]
- 7.4.9 Recordkeeping Requirements

- a. The Permittee shall maintain records of the following items for the affected processes, pursuant to Sections 39.5(7)(a) and (e) of the Act:
 - i. Maximum operating capacity of each affected process (tons/hour).

a. The Permittee shall keep the following file(s) and log(s):

- i. File(s) containing the following information for the affected processes, with supporting information, which information shall be kept up to date:
- A. Information related to the dust collection equipment baghouses associated with the affected processes, including theavailable design control efficiency or performance specifications for filter material and maximum design particulate matter emissions, gr/dscf, with supporting information, which shall be kept up to date.

B. The maximum operating capacity of each affected process (ton/hour).

- iiiii. Maintenance and repair log(s) for the air pollution control equipmentbaghouses associated with the affected processes, including dust suppressant application systems, which log(s) shall list the activities performed on each item of equipment or system, with date and description. (See also Condition 9.6.1, Control Equipment Maintenance Records.)
- b. i. The Permittee shall maintain a record, which shall be kept up to date $_{7}$ of the control Implemented for entlv k affected processes to reflect any changes that the Permittee may elect to make, that contains the following for each affected process for which a control measure(s) must be implemented and maintained pursuant to Condition 7.4.6(a)(i). These control wres, as defined by the Permi e records, are referred to as the "established control measures" in this subsection of this permit.
 - A. The type of emission unit (pneumatic transfer system, silos, etc.) and the Permittee's designation for each emission

unit with a description of the emission points on the emission unit;

- B. Description of the primary control measures that are utilized, with a description of the control measure and estimated frequency of application, if not continuous; and
- C. Description of any secondary control measures that would be used based on circumstances (freezing temperatures, recent rain, dry weather, etc.) with identification of the circumstances in which they would be used and whether they would take the place of or supplement the primary control measures.
- ii. Accompanying this record, the Permittee shall maintain a demonstration that confirms that the above established control measures identified in the record required by Condition 7.4.9(b)(i) are sufficient to assure compliance with Condition 7.4.4(c) at the maximum process weight rate at which each affected process can be operated (tons fly ash/hour), with supporting emission calculations and documentation for the emission factors and the efficiency of the control measures being relied upon by the Permittee. Except as This demonstration shall include the information addressed by Condition 7.4.9(a)(i)(A) or), results of any testing of an affected process is conducted in accordance with pursuant to Condition 7.4.7(b), this demonstration shall be developed using emission factors for uncontrolled PM emissions,; efficiency of control and/or controlled PM emissions published by USEPA or other credible sources.
- iii. CopiesA copy of these records the record required by Condition 7.4.9(b)(i) shall be submitted to the Illinois EPA in accordance with Condition 5.6.2(d) not later than 60 days after the effectiveness of Condition 7.4.9(b)(i). Any subsequent revisions to this record shall be submitted not later than 30 days after the date after the revision. Upon request by the Agency, the Permittee shall submit other relevant information related to the control measures.
- c. The Permittee shall maintain records of the following for the inspections required by Condition 7.4.8:

i. For the inspections required by Condition 7.4.8(a) for each affected process:

- A. Date and time the inspection was performed and, name(s) of inspection personnel, and specific affected process(es) inspected.
- Bii. The observed condition of the control measures identified in the record required by Condition 7.4.9(b)(i) for each inspected affected process, including the presence of any visible emissions or atypical accumulations of fly ash in the vicinity of the process.
- Eiii. A description of any maintenance or repair of equipment associated with established control measures identified in the record required by Condition 7.4.9(b)(i) that is recommended as a result of the inspection and a review of outstanding recommendations for maintenance or repair from previous inspection(s), i.e., whether recommended action has been taken, is yet to be performed or no longer appears to be required.associated work order ticket number(s).
 - D. A summary of the observed implementation or status of actual control measures, as compared to the established control measures.
- ii. For the inspections required by Condition 7.4.8(b) for the dust collection equipment for affected processes:
 - A. Date and time the inspection was performed and name(s) of inspection personnel.
 - B. The observed condition of the equipment.
 - C. A summary of the maintenance and repair that is to be or was conducted on the equipment.
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<u>iv</u>.

A description of any maintenance or repair that is recommended as a result of the inspection and a review of outstanding recommendations for maintenance or repair from previous inspection(s), i.e., whether recommendedcorrective action has been-taken, is yet to be performed or no longer appears to be required.

A summary of the observed condition of the equipment as related to its ability to reliably and effectively centrol if visible emissions were observed, including whether the corrective action took place within 2 hours of the observation and whether the status of the process returned to no visible emissions.

- d. The Permittee shall maintain records of the following for each incident when any affected process operated without the <u>established control measures:control</u> <u>measure(s)</u> required pursuant to the record required by Condition 7.4.9(b)(i) and each incident when an affected process continued to operate during <u>malfunction or breakdown with excess emissions or</u> excess opacity as addressed by Condition 7.4.3(b):
 - i. The date of the incident and identification of the affected process(es) that werewas involved.
 - ii. A description of the incident, including the control measuresmeasure(s) that werewas not present or implemented; the establishedoperated as required by the record identified in Condition 7.4.9(b)(i); other control measures that were presentoperated, if any; other controlthe measures or mitigation measures that were implemented, if any; taken to minimize and the magnitude of correct deficiencies with chronology; and an explanation whether the FM emissions or opacity during the incident+ exceeded any applicable emission standard, as listed in Condition 7.4.4
 - iii. The time at and means by which the incident was identified, e.g., scheduled inspection or observation by operating personnel.
 - iv. The length of time after the incident was identified that the affected process(es)processes continued to operate before established the control measures identified in the record required by Condition 7.4.9(b)(i) were in place or the operationsprocesses were shutdownshut down (to resume operation only after established control measures were in place); an explanation of why continued operation was

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- v. The estimated total duration of the incident, i.e., the total length of time that the affected process(es)processes ran without established control measures the control measure(s) required pursuant to the record required by Condition 7.4.9(b)(i) and the estimated amount of material processedfly ash handled during the incident.
- vi. A discussion of the probable cause of the incident and any preventative measures taken.
- vii. A discussion whether any applicable emission standard, as listed in Condition 7.4.4, may have been violated during the incident, with an estimate of the amount of any excess PM emissions (lbs) and supporting explanation.

e. Pursuant to 35 IAC 201.263 and Sections 39.5(7)(a) and (c) of the Act, the Permittee shall maintain records, related to malfunction and breakdown for an affected process that as a minimum, shall include:

Maintenance and repair log(s) for the affected processes that, at a minimum, address aspects components of such processes for 01 malfunction or breakdown has resulted in excess emissions, which shall list the activities performed on such aspects or with date, the activity. In addition, in the maintenance and repair log(s) for control -require by Condit 9 (a) (: activities that are performed. the

ii. Records for each incident when operation of an affected process continued during malfunction or breakdown, including continued operation with excess emissions as addressed by Condition 7.4.3(b), that include the following information:

A. Date and duration of the incident.

B. A description of the incident.

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- C. The corrective actions used to reduce the quantity of emissions and the duration of the incident.
- D. Confirmation of fulfillment of the requirements of Condition 7.4.10(b)(i), as applicable, including copies of follow up reports submitted pursuant to Condition 7.4.10(b)(i)(B).
- E. If excess emissions occurred for one hour (60 minutes) or more:
 - A detailed explanation why continued operation of the affected operation was necessary.
 - 2. A detailed explanation of the preventative measures planned or taken to prevent similar malfunctions or breakdowns or reduce their frequency and severity.
 - An estimate of the magnitude of excess emissions occurring during the incident.

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e. The Permittee shall keep records for all opacity measurementsobservations made in accordance with USEPAReference Method 9 for the affected processes that it conducts or that are conducted at its behest by individuals who are qualified to make such observations. For each occasion on which such measurementsobservations
shall include the formal report for the measurementsobservations if conducted pursuant to Condition 7.4.7(a) (Opacity Observation and Emission Testing Requirements), or otherwise the identity of the observer, a description of the mentsobservations that were made, the mea operating condition of the affected process (es), the observed opacity, and copies of the raw data sheets for the measurements.copies of the raw data sheets for the observations, and the reason for the opacity observation, e.g., Reference Method 9 opacity observations required by Condition 7.4.7(a)(i), written request by Illinois EPA, or any required Reference Method 9 opacity observation following observations of visible emissions under Condition 7.4.8(b).

7.4.10 Reporting Requirements

a. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA of deviations from permit requirements for the affected processes, as follows. Such notifications shall include a description of each deviation and a discussion of the probable cause of deviation, any corrective actions taken, and any preventative measures taken, pursuant to Section 39.5(7)(f)(ii) of the Act.

- i. NotificationFor those breakdown or malfunction PM and opacity events that require notification and reporting as specified in pursuant to Condition 7.4.10 (b) (i) for certain deviations from), notification and reporting shall be provided pursuant to Condition 7.4.410 (b)-,) (i) rather than 7.4.10 (a).
- ii. Notification withinWithin 30 days after the conclusionfor operation of an incident in which the Permittee continued to operate an affected process that was not in compliance with applicable requirements in Condition 7.4.6(a) that continued for more than four12 operating hours from the time that it wasafter discovering that emission control measures required by the record identified in Condition 7.4.9(b)(i) were not present or operating, the Permittee shall submit written notice to the Illinois EPA. Such notifications shall be accompanied by a copy of the records for the incident required by Condition 7.4.9(ed).
- iii. A. NotificationExcept for events and incidents for which notification or reporting is required by Condition 7.4.10(a)(ii) or 7.4.10(b)(i), as referenced in 7.4.10(a)(i), all other notifications shall be submitted with the quarterly reports required by Condition 7.4.10(b)(ii) for other deviations, including deviations from applicable emission standards, inspection requirements, and recordkeeping requirements.).
 - B. With these reports the quarterly report, the Permittee shall also address deviations that occurred during the quarter that have been separately reported to the Illinois EPA, with a

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summary of such deviations. For this purpose, the Permittee need not resubmit the detailed information provided in prior notifications and reports for such deviations.

b. Reporting <u>ofWhen</u> Continued Operation <u>Occurred</u> During Malfunctions <u>And</u>and Breakdowns

Pursuant to 35 IAC 201.263 and Sections 39.5(7) (a) and (f) of the Act, the Permittee shall provide the following notifications and reports to the Illinois EPA for incidents when operation of an affected process (es) continued with excess emissions τ including continued operation or excess opacity during malfunction or breakdown as addressed by Condition 7.4.3(b).

- The Permittee shall immediately notify i. Α. the Illinois EPA's Regional Office, by telephone (voice, facsimile or electronic) <u>mail</u>, for each incident in which the opacity from an affected process exceeds or may have exceeded the applicable opacity standard for four30 percent for eight or more 6-minute averaging periods - within a two-hour period, unless the Permittee has begun the shutdown by such time. (Otherwise, if opacity during a malfunction or breakdown an incident only exceeds or may have exceeded the applicable standard30 percent for no more than threeseven 6minute averaging periods, the Permittee need only report the incident in the quarterly report, in accordance with Condition 7.4.10(b)(ii).)
 - B. Upon conclusion of each incident that is two hours or more in duration, the Permittee shall submit a written followup notice to the Illinois EPA, Compliance Section and Regional Office, within 15 days providing a detailed the incident and its cause(s), an explanation why continued operation was necessary, the length of time during operation continued under auch conditions, the measures taken by Permittee to minimize and correct deficiencies with chronology, and -repairs were completed or the affected process was taken out of

service.copy of the records for the incident required by Condition 7.4.9(d).

- ii. The Permittee shall submit quarterly reports to the Illinois EPA that include the following information for incidents during the quarter in which affected processes continued to operate during malfunction or breakdown with excess emissions or excess opacity. These reports shall be submitted with the quarterly reports submitted for the coal-fired boiler pursuant to Condition 7.1.10-2(a).
 - A. A listing of such incidents, in chronological order, that includes: (1) the date, time, and duration of each incident, (2) the identity of the affected process(es) involved in the incident, and (3) whether a follow-up notice was submitted for the incident pursuant to Condition 7.4.10(b)(i)(B), with the date of the notice.
 - I. The date, time, and duration of each incident;
 - II. The identity of the affected operation(s) involved in the incident; and
 - III. Whether a follow-up notice was submitted for the incident pursuant to Condition 7.4.10(b)(i)(B), with the date of the notice.
 - B. The detailed information for each such incident required pursuant to Condition 7.4.10(a) (as each incident constitutes a deviation) and Condition 7.4.10(b)(i)(B). For this purpose, A description of the incident, discussion of probable cause of the incident, corrective actions taken, and any preventative measures taken; provided, however, that the Permittee need not resubmit information provided in a prior report for an incident, as identified above, but may elect to supplement the prior submittal.
 - C. The aggregatesum duration of all incidents during the quarter.

- D. If there have been no such incidents during the calendar quarter, this shall be stated in the report.
- 7.4.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational <u>changechanges</u> with respect to the affected processes without prior notification to the Illinois EPA or revision of this permit, pursuant to Section 39.5(7) (a) and (l) of the Act. This condition does not affect the Permittee's obligation to continue to comply with applicable requirements or to properly obtain a construction permit in a timely manner for any activity constituting a modification as defined by 40 CFR 52.21 or 35 IAC 203.207, as applicable, or for an activity for which a permit is required pursuant to 35 IAC 201.142.

- a. Operation of additional dust suppressant systemscontrol measures.
- b. Operation of additional dust collection equipment.
- c. Operation of replacement dust suppression systems or dust collection equipment control measures that is are of equal or greater effectiveness in controlling PMvisible emissions than the device(s)measures being replaced, as recognized in a Construction Permit for such system or equipment measures.
- c. Temporary stockpile storage of fly ash and handling of such fly ash for offsite shipment as such activities are identified in and managed in accordance with the Fugitive Particulate Matter Operating Program required by Condition 5.2.4.
- 7.4.12 Compliance Procedures
 - a. Compliance with <u>conditions</u><u>Condition</u> 7.4.4 is addressed by the <u>control, testing</u>, <u>inspection</u>observations, <u>testing</u>, <u>inspections</u>, and recordkeeping required by Conditions 7.4.6(a), 7.4.7(<u>a)</u>, <u>7.4.7(b)</u>, 7.4.8, and 7.4.9, respectively.
 - b. Compliance with Condition 7.4.6(a) is addressed by the testing, inspection, inspections and recordkeeping required by Conditions 7.4.7, 7.4.8, and 7.4.9, respectively.

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

7.5 Turbines

7.5.1 Description

The turbines are process emission units used to provide electricity to meet peak power demands. The turbines are fired with distillate fuel oil.

Note: The description in Condition 7.5.1 is for informational purposes only and implies no limits or constraints.

| Emission | | Control |
|----------|------------------------------|-----------|
| Unit | Description | Equipment |
| Turbine | Distillate Oil Fired Turbine | None |
| GT 31-1 | Nominal 552.6 mmBtu/hr | |
| Turbine | Distillate Oil Fired Turbine | None |
| GT 31-2 | Nominal 552.6 mmBtu/hr | |
| Turbine | Distillate Oil Fired Turbine | None |
| GT 32-1 | Nominal 552.6 mmBtu/hr | |
| Turbine | Distillate Oil Fired Turbine | None |
| GT 32-2 | Nominal 552.6 mmBtu/hr | |

7.5.2 List of Emission Units and Air Pollution Control Equipment

7.5.3 Applicability Provisions

- a. An "affected turbine" for the purpose of these unitspecific conditions is a turbine described in Conditions 7.5.1 and 7.5.2.
- b. Startup Provisions

Subject to the following terms and conditions, the Permittee is authorized to operate an affected turbine in violation of the applicable limit of 35 IAC 212.123 (See Condition 7.5.4(a)) during startup. This authorization is provided pursuant to 35 IAC 201.149, 201.161261, 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 thean affected turbinesturbine in accordance with written procedures prepared by the Permittee that are specifically developed to minimize emissions from startups that include the following measures, at a minimum. These procedures may incorporate the manufacturers' written or automated instructions for startup of the turbines. A copy of these procedures shall be kept in the control room or other work area for the operators of the turbines.
 - A. Observation of the operation of affected turbines to confirm proper operation and identify any maintenance or repair activities that should be carried out before a turbine is next operated.
- iii. The Permittee shall fulfill the applicable recordkeeping and reporting requirements of Conditions 7.5.9(d) and 7.5.10(b).
- iv. 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.
- 7.5.4 Applicable Emission Standards
 - a. The affected turbines shall comply with the standard in Condition 5.2.2(b), i.e., 30 percent opacity, pursuant to 35 IAC 212.123.
 - b. The sulfur dioxide emissions from each affected turbine shall not exceed 0.3 lb/mmBtu in any one hour period pursuant to 35 IAC 214.161(b) and 214.304.
 - c. Each affected turbine shall comply with 35 IAC 214.301, which provides that no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to excess 2000 ppm.
 - d. i. During each ozone control period (May 1 through September 30) of each year:
 - A. The emissions of NO_{x} from each $\underline{\mathrm{EGU}}$ associated with an affected turbine shall

not exceed 0.25 lb/mmBtu of actual heat input based on an ozone control period average for that $\frac{\text{unitEGU}}{\text{unitEGU}}$, pursuant to 35 IAC 217.706(a) τ ; or

- Β. If Notwithstanding the requirement in Condition 7.5.4(d)(i)(A), if the Permittee elects to participate in a $\ensuremath{\text{NO}_x}$ averaging demonstration pursuant to 35 IAC 217.708(a), the average rate of emissions of NO_x from an affected turbine the Permittee's EGUs at this source and all other eligible ECUEGUs at any source that are participating in such NO_x averaging demonstration, shall not exceed 0.25 lbslb/mmBtu of actual heat input, as averaged for the ozone control period for the EGU participating in demonstration, pursuant to 35 IAC 217.708(a) and (b). For this purpose, other-In accordance with 35 IAC 217.708(c), all EGUs at this source that are subject to 35 IAC 217.706, including the affected boilers addressed in Section 7.1 and the affected turbines addressed in Section 7.5 and their associated electric generators, are authorized by this permit to participate in averaging demonstrations to show compliance with Part 217, Subpart V.
- Note: In addition to the EGUs at this source, the other eligible EGUEGUS include: (1) other affected turbines, (2) other EGU at the source, and (3) that may participate in such averaging include any other EGU at any source that areis authorized by the Illinois EPA to participate in a NO_x averaging plandemonstration by a CAAPP permit or other federally enforceable permit issued by the Illinois EPA to the owner or operator of those that EGU.

Note: Given the applicable emission determination method (See Condition 7.5.8), the calculated NO_{*} emissions of affected turbines for purposes of this standard may be different than the emissions determined for other purposes, e.g., Annual Emission Reports.

ii. If the Permittee elects to have an \underline{EGU} associated with an affected turbine comply by participation in a NO_x averaging demonstration as provided for and authorized above:

- A. The affected turbineEGU shall be included in only one Subpart V 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 <u>EGUEGUS</u> 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 EGU shall be determined pursuant to Condition 7.5.4 (d) (i) (A) as if the NO_x emission rates of the affected turbine were not averaged with other EGU, pursuant to 35 IAC 217.708 (eff).
- 7.5.5 Non-Applicability of Regulations of Concern
 - a. This permit is issued based on the affected turbines not being subject to the requirements of 35 IAC 212.321 or 212.322 because, due to the 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.
 - b. 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.
 - c. Pursuant to 40 CFR 72.6(b)(1), the affected turbines are not subject to the requirements of the Acid Rain Program, as defined by 40 CFR 72.2, because they are simple combustion turbines that commenced commercial operation before November 15, 1990 are not affected units subject to the requirements of the Acid Rain Program.
 - d. This permit is issued based on the affected turbines not being subject to the control requirements of 40 CFR 63 Subpart YYYY, the NESHAP for Stationary Combustion Turbines because the turbines qualify as existing turbines, i.e., they were constructed prior

to January 15, 2003, as provided by 40 CFR 63.6090(b)(4).

Note: An affected turbine would potentially become subject to the control requirements of this NESHAP if it were to be reconstructed on or after January 15, 2003.

- e. The affected turbines are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources because the affected turbines do not use an add-on control device to achieve compliance with an emission limitation or standard.
- 7.5.6 Work Practices, Operational and Production Limits, and Emission Limitations
 - a. The Permittee <u>shallmust</u> comply with the following requirements for the affected turbines, <u>subject to</u> <u>the requirements of 40 CFR 75.19(b)</u>, as a condition to maintain status as low mass emissions units for NO_x emissions pursuant to 40 CFR 75.19(a) (1) (i):
 - i. The turbines <u>challwill</u> be gas or oil-fired as defined at 40 CFR 72.2.
 - ii. Each affected turbine <u>shallwill</u> not operate for more than 150 hours per ozone season.
 - iii. The NO_x emissions of each turbine $\frac{\text{shallwill}}{\text{shallwill}}$ be no more than 50 tons per ozone season.
 - b. i. If an affected turbine is routinely operated or exercised to confirm that the turbine will operate when needed, the operation and opacity of the turbine shall be formally observed by operating personnel for the turbine or a member of Permittee's environmental staff on a regular basis to assure that the turbine is operating properly, which observations shall be made at least every six months.
 - ii. If an affected turbine is not routinely operated or exercised, i.e., the time interval between operation of an affected turbine is typically greater than six months, the operation and opacity of the affected turbine shall be formally observed as provided above each time the Permittee carries out a scheduled exercise of the affected turbine.
 - iii. The Permittee shall also conduct formal observations of operation and opacity of an affected turbine upon written request by the Illinois EPA. With the agreement of the

Illinois EPA, the Permittee may schedule these observations to take place during periods when it would otherwise be operating the affected turbine.

7.5.7-1 Opacity **Testing**Observation Requirements

- a. The Permittee shall have the opacity of the exhaustemissions from the affected turbines during representative operating conditions determined by a qualified observer in accordance with USEPA TestReference Method 9, as further specified below, pursuant to Section 39.5(7)(d) of the Act.
 - i. For each affected turbine, <u>observations shall</u> <u>be conducted</u> once for every 250 hours of operation <u>but at least one observation shall</u> <u>be conducted each calendar year while the</u> <u>turbine is in operation</u>. For this purpose, <u>testingobservations</u> shall first be conducted within the initial 50 hours of operation of the turbine after the date that this condition becomes effective.
 - ii. Upon written request by the Illinois EPA, such testingopacity observations shall be conducted for specific turbine(s) within 45 calendar days of the request, or on the date the turbine(s) next operates, or on the date agreed upon by the Illinois EPA, whichever is laterthe latest.
- b. 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 lesseach not greater than 10.0 percent.
- c. i. The For each set of observations required by Conditions 7.5.7-1(a) (i) and (ii), 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) of the observation(s).
 - ii. The Permittee shall promptly notify the Illinois EPA of any changes in the time or date for testing.of the observation(s).
 - iii. The Permittee shall provide a copy of its observer's readings to the Illinois EPA at the

time of testingthe observation(s), if Illinois EPA personnel are present.

- d. The Permittee shall submit a written report for this testing these observations within 15not later than 30 days after of the date of testing completion of each set of opacity observations required by Conditions 7.5.7-1(a) (i) and (ii). The report shall include a copy of the current Reference Method 9 certification of each observer and shall identify the observer's current employer. This report shall also include the following for each observation:
 - i. Identification of the affected turbine for which observations were conducted.
 - ii. Date and time of testingobservations.

ii. Name and employer of qualified observer.

- iii. Copy of current certification.
- iviii. Description of observation conditions, including weather.
- ★iv. Description of turbine_operating conditions of the affected turbine.
- viv. Raw data.
- viivi. Opacity determinations.
- viiivii. Conclusions.
- 7.5.7-2 Fuel Oil Sampling and Analysis
 - a. i. The Permittee shall have the sulfur content of the oil supply to the affected turbines, in lbs/mmBtu, determined from an analysis of representative sample of the oil supply, as follows, pursuant to Section 39.5(7)(d):
 - A. From a sample taken no later than 90 days after first operating the affected turbines pursuant to this permit, provided, however, that if such sample is taken following operation of the affected turbines, 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 7.5.4(c) based upon supplier

data, provided, however, that if the affected turbine is 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.

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.

- 7.5.8 Emission Monitoring Requirements
 - a. Pursuant to 35 IAC 217.710(c), as each affected turbine operates less than 350 hours per ozone control period, rather than conduct monitoring for NO_x emissions, the Permittee shall determine the heat input and NO_x emissions of each affected turbine for purposes of Condition 7.5.4(d) (i) as follows:
 - i. 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)].
 - ii. NO_x emissions shall be determined as the product of the heat input, as determined above, and 1.2 lbs NO_x /mmBtu, the default factor for fuel oil [35 IAC 217.710(c)(2)].
- 7.5.9 Recordkeeping Requirements

The Permittee shall maintain the following records for the affected turbines, pursuant to Sections 39.5(7)(a) and (e) of the Act:

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

- A. Information for each time the turbine is operated, with date, time, duration, and purpose (i.e., exercise or power service).
- B. Information for the observations conducted pursuant to Condition 7.5.6(b), with date, time, personnel, and findings.
- C. Information identifying any deviation from Condition 7.5.6(a)(i).
- ii. A maintenance and repair log for each affected turbine and associated equipment, listing activities performed with date.
- b. i. Distillate fuel usage for the affected turbines, gallons/month and gallons/year.
 - Hours of operation of each affected turbine during the ozone season, hours.
 - iii. Annual hours of operation of each affected turbine.
- c. The following records related to the sulfur content of the fuel oil supply and SO_2 emissions of the affected turbines:
 - i. Records for each shipment of fuel for the affected turbines, including date, supplier, quantity (in gallons), sulfur content, heat content, and whether the SO_2 emissions from the burning of such fuel would meet the standard in Condition 7.5.4(b).
- d. Pursuant to 35 IAC 201.263 and Sections 39.5(7)(a) and (e) of the Act, the following records related to startup of the affected turbines:
 - i. The Permittee's shall maintain written startup procedures for theeach affected turbinesturbine, as required by Condition 7.5.3(b) (ii), accompanied by the Permittee's estimate of opacity levels during a typical startup, with supporting information.
 - ii. The following information for each startup of an affected turbine:
 - A. Date, time, <u>and</u> duration and description of startup (e.g., scheduled or unscheduled startup).

- B. If stable operation with turbine systems operating to enable compliance with the applicable opacity standard is achieved within 24 minutes of initial firing of fuel, confirmation that the Permittee's startup procedures were followed.
- C. <u>+I</u>. If stable operation with turbine systems operating to enable compliance with the applicable opacity standard was not achieved within 24 minutes of initial firing of fuel: (1) The elapsed time from initial firing of fuel to achievement of such conditions, and (2) A detailed explanation why startup of the turbine could not be completed sooner.
 - 2<u>II</u>. If the Permittee's startup procedures were not followed, a detailed explanation why such procedures were not followed.
 - 3III. If the Permittee believes that compliance with an exceedance of 35 IAC 212.123 (Condition 7.5.4(a)) may have occurredlikely was not maintained during startup, a detailed explanation of the reasons for excess opacity and the estimated duration of excess opacity (minutes).
- D. If the startup of the turbine was observed, the nature of opacity, i.e., <u>qualitative or, if available,</u> <u>quantitative severity and duration,</u> during the startup and the nature of opacity at the conclusion of startup, if above normal.
- E. If operation of the turbine was scheduled or the operation of the turbine after completion of startup was otherwise observed, the observed condition of the turbine during normal operation, after completion of startup.
- e. Records for all opacity measurements made in accordance with USEPA_Reference Method 9 for the affected turbine that the Permittee conducts or that are conducted at its behest by individuals who are qualified to make such observations. 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.

- f. Records of emissions of NO_x from each affected turbine, with supporting data and calculations, tons/ozone season and tons/year.
- 7.5.10 Reporting Requirements
 - a. Reporting of Deviations

For each affected turbine, the Permittee shall promptly notify the Illinois EPA of deviations from permit requirements as followspecified below. At a minimum suchThese notifications shall include a description of such deviations, including whether they occurred during startup or malfunction/breakdown, and a discussion of the probable cause of such deviations, theany corrective actions taken, and theany preventative measures taken [Sections 39.5(7)(a) and (f) of the Act].

- A. The Permittee shall immediately notify i. the Illinois EPA's Regional Office, by telephone (voice, facsimile or electronic mail+, for each incident, other than during startup of a turbine, in which the opacity from an affected turbine exceeds the limit in have Condition 7.5.4(a) (30 percent) for threeeight or more 6-minute averaging periods within a two-hour period, unless the Permittee has begun the shutdown by such time. (Otherwise, if opacity during an incident only exceeds or may ha exceeded 30 percent for no more than one or twoseven 6-minute averaging periods, the Permittee need only report the in accordance with Condition 7.5.10(a)(iii)(A).)
 - B. Upon conclusion of such incident that is two hours or more in duration, the Permittee shall submit a written followup report to the Illinois EPA, Compliance Section and Regional Office, within 15 days providing a detailed explanation of the eventincident, an explanation why continued operation of the turbine was necessary, the length of time during which operation continued under such

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

- ii. Notification within 30 days for a deviation from Condition 7.5.4(b) or 7.5.6(a)(i), with a copy of the applicable records for the incident.
- iii. A. Reporting with the quarterly reports required by Condition 7.5.10(b) for other deviations from permit requirements not addressed by Condition 7.5.10(a)(i) or (ii), including deviations from applicable emission standards, inspection requirements and recordkeeping requirements.
 - B. With these reports, the Permittee shall also address other instances of deviations that occurred during the quarter that for which notifications or reports have been separately reportedprovided in writing to the Illinois EPA as provided bypursuant to Conditions 7.5.10 (a) (i) and (ii), with a listing of such deviations and identification of each such written notification or report. For this purpose, the Permittee need not resubmit the detailed information provided in the initial notifications and reports for such deviations.
- b. Quarterly Reports

The Permittee shall submit quarterly reports to the Illinois EPA that include the following information for startups of the affected turbines during each calendar quarter, pursuant to 35 IAC 201.263 and Sections 39.5(7) (a) and (f) of the Act. These reports shall be submitted with the quarterly reports submitted for the coal-fired boilers pursuant to Condition 7.1.10-2(a).

i. For each affected turbine, a listing of each startup, including date and description, accompanied by a copy of the records pursuant to Condition 7.5.9(d) (ii) (C) for each startup for which such records were required.

- ii. If there have been no startups of an affected turbine during the quarter, this shall be stated in the report.
- c. The Permittee shall submit a report by November 30 of each year₇ to the Illinois EPA that demonstrates that eachwhether the affected turbineturbines hashave complied with Condition 7.5.4(d)(i), pursuant to 35 IAC 217.712(d) or (e).
 - i. If the Permittee is demonstrating compliance on a unit-specific basis with Condition 7.5.4(d)(i)(A), this report shall contain the information specified by 35 IAC 217.712(d) including the heat input and NO_x emissions of the unitunits for the ozone control period.
 - ii. If the Permittee is demonstrating compliance by means of "NO_x averaging" as authorized by Condition 7.5.4 (d) (i) (B), this report shall contain the information specified by 35 IAC 217.712 (e) and other related information as follows:
 - A. In all cases, for each affected turbine or unit covered by this permit that is participating in the NO_x averaging demonstration, the Permittee shall report the following:
 - Identification of the other EGUEGUS that are participating in the demonstration, including identification of the source that is the lead party for the demonstration and that is also taking responsibility for submitting the information required by Condition 7.5.10(c)(ii)(B) below.
 - 2II. A statement confirming that the unit is eligible to participate in an averaging demonstration, i.e., the unit is included in only one demonstration _[35 IAC 217.708(d)] and the Permittee is complying with applicable recordkeeping and reporting requirements for the unit, pursuant to 35 IAC 217.708(c) and (g).
 - $\frac{3\,\text{III}}{2}$. The average NO_x emission rate for the unit, with calculations and

supporting information, as required by 35 IAC 217.712(e)(2) and (3), including the heat input and NO_x emissions of the unit for the ozone control period.

- 4<u>IV</u>. A statement whether the unit would show compliance on its own in the absence of averaging.
- B. If the Permittee is the lead party for a NO_x averaging demonstration that includes units operated by other companies, the Permittee shall report the following:
 - 4I. Copies of the information <u>submittedprovided</u> by other parties <u>to the lead party</u> for the EGU participating in the demonstration, which include all material required by Condition 7.5.10 (c) (ii) (A) above (unless or except as this information is provided with the submittal by a person who is a responsible official for the EGU participating in the demonstration).

<u>JIII</u>. A statement whether the demonstration shows compliance.

Note: Conditions 7.5.10(c)(ii)(A) and (B) are included in this permit pursuant to Section 39.5(7)(a) of the Act.

d. Submittal of Supplemental Information Related to NO_{x} Emissions during the Ozone Control Period

The Permittee shall submit copies of any records and data required by 35 IAC 217.712 to the Illinois EPA within 30 days after receipt of a written request from the Illinois EPA [35 IAC 217.712(g)].

7.5.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.5.12 Compliance Procedures

- a. Compliance with opacity limitations of Condition 7.5.4(a) is addressed by the <u>observations</u>, inspections, testing, and recordkeeping requirements inrequired by Conditions 7.5.6(b), 7.5.7-1, and 7.5.9(e).
- b. Compliance with Conditions 7.5.4(b) and 7.5.4(c) is addressed by the fuel oil sampling and analysis required by Condition 7.5.7-2 and records required by Condition 7.5.9(c). For this purpose, complete conversion of sulfur to SO₂ shall be assumed, e.g., SO₂ emissions in 1b/mmBtu are twice the sulfur content of the fuel supply, in 1b/mmBtu.

Note: Separate records are not being required for Condition 7.5.4(c) because stoichiometric combustion of oil to emit 0.3 lb SO_2 per million Btu (so as to exactly comply with Condition 7.5.4(b)) 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 7.5.4(c).

- c. Compliance with NO_x emission limitations of Conditions 7.5.4(d) is addressed by the monitoring and the recordkeeping required by Conditions 7.5.8 and 7.5.9(bf).
- d. Compliance with the requirements of Condition 7.5.6 is addressed by the recordkeeping required by Condition 7.5.9.

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

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.

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 6.3. To the extent that the federal regulations promulgated under Title IV of the CAA_T 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;
- 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 condition 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 Section 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);
- 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;
- 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
 - 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 Section 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 Section

Illinois Environmental Protection Agency Bureau of Air Compliance & Enforcement Section (MC 40) 1021 North Grand Avenue East P.O. Box 19276 Springfield, Illinois 62794-9276

ii. Illinois EPA - Air Regional Field Office

Illinois Environmental Protection Agency Division of Air Pollution Control 9511 West Harrison Des Plaines, Illinois 60016

iii. 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) 1021 North Grand Avenue East 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 Clean Air Act (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 combination of conditions of such previous permits and revisions to those conditions established in this CAAPP permit (T1R conditions). (See also Condition 1.5.)

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9.0 STANDARD PERMIT CONDITIONS

- 9.1 Effect of Permit
 - 9.1.1 The issuance of this permit does not release the Permittee from compliance with State and Federal regulations which are part of the Illinois State Implementation Plan, as well as with other applicable statutes and regulations of the United States or the State of Illinois or applicable ordinances, except as specifically stated in this permit and as allowed by law and rule [Section 39.5(7)(j)(iv) of the Act].
 - 9.1.2 In particular, this permit does not alter or affect the following:
 - 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 <u>aAcid</u> <u>rRain</u> <u>pP</u>rogram consistent with Section 408(a) of the CAA; and
 - d. The ability of USEPA to obtain information from a source pursuant to Section 114 (inspections, monitoring, and entry) of the CAA.
 - 9.1.3 Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance with, or violation of, any applicable requirement to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the Permittee, including, but not limited to, challenging the use of the USEPA's credible evidence rule in the context of any future proceeding consistent with Clean Air Implementation Project v. EPA, 150 F3d 1200 (D.C. Circuit 1998).
- 9.2 General Obligations of Permittee
 - 9.2.1 Duty to Comply

The Permittee must comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the CAA and the Act, and is grounds for any or all of the following: enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application. [Section 39.5(7)(0)(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 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 τ or activities shall not cause a violation of the Act or regulations promulgated thereunder.

9.3 Obligation to Allow Illinois EPA Surveillance

UponPursuant to Sections 4(b), 39.5(7)(a), and 39.5(7)(p)(ii) of the Act, 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 the emission unit is (s) are located; where any regulated equipment, operation, or or emissions-related activity is locatedconducted, 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 operational reasonable times any sourcesfacilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit₇.
- d. Sample or monitor any substances or parameters at any location:
 - i. AtAs authorized by the Clean Air Act at reasonable times, for the purposes of assuring permit compliance with this CAAPP permit or applicable requirements; or
 - ii. As otherwise authorized by the CAA or the Act+.

Obtain and remove samples of any discharge or emission of pollutants authorized by this permit; and

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- e. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any activity, discharge or emission at the source authorized by this permit.

9.4 Fees

The Permittee shall 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] Fees shall be paid by check sent to the Fiscal Services Section, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, Illinois 62794-9276.

9.5 Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege [Section 39.5(7)(0)(iv) of the Act].

- 9.6 Recordkeeping
 - 9.6.1 Control Equipment Maintenance Records

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

9.6.2 Records of Changes in Operation

A record shall be kept describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions

- 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, <u>ComplianceAir Quality Planning</u> Section no later than May 1 of the following year, as required by 35 IAC Part 254 and Section 4(b) of the Act.

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: (1) the Illinois EPA, Air Compliance Section, (2) the Illinois EPA, Air Regional Field Office, and (3) USEPA Region 5 - Air Branch. (The addresses for the submittal of these compliance certifications are provided in Condition 8.6.4.)

- a. The certification shall include the identification of each term or condition of this permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, both currently and over the reporting period consistent with the conditions of this permit.
- b. All compliance certifications shall be submitted to USEPA Region 5 in Chicago as well as to the Illinois EPA.

c. All compliance reports required to be submitted shall include a certification in accordance with Condition 9.9.

9.9 Certification

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

9.10 Defense to Enforcement Actions

9.10.1 Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit [Section 39.5(7) (o) (ii) of the Act].

- 9.10.2 Emergency Provision
 - a. An emergency shall be an affirmative defense to an action brought for noncompliance with the technologybased emission limitations under this permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence:

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.

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; and

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 this permit, other portions of this 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 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

10.1 Attachment 1 Emissions of Particulate Matter from New Process Emission Units

35 IAC 212.321 - Process Emission Units forFor Which Construction or Modification Commenced On or After April 14, 1972

- a-) Except as further provided in this part, Neno 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 this Section.
- b-) Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321this Section 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,

 $\frac{1}{1}$ Up to process weight rates of 408 MgG/hr (450 T/hr):

| | Metric | English |
|---|--------|-----------------------|
| P | Mg/hr | T/hr |
| E | kg/hr | lb <mark>s</mark> /hr |
| A | 1.214 | 2.54 |
| В | 0.534 | 0.534 |
| | | |

i::2) For process weight rate greater than or equal
 to 408 Mg/hr (450 T/hr):

| Metric P Mg/hr 0.05 0.1 0.2 0.3 0.4 0.5 0.7 0.9 1.8 2.7 3.6 4.5 9.0 13.0 13.0 18.0 23.0 27.0 32.0 36.0 | E kg/hr 0.25 0.29 0.42 0.64 0.74 0.84 1.00 1.15 1.66 2.1 2.4 2.7 3.9 4.8 5.7 6.5 7.1 7.7 8.2 | English P T/hr 0.05 0.10 0.20 0.30 0.40 0.50 0.75 1.00 2.00 3.00 4.00 5.00 10.00 15.00 20.00 30.00 35.00 40.00 | E lb <u>s</u> /hr 0.55 0.77 1.10 1.35 1.58 1.75 2.40 2.60 3.70 4.60 5.35 6.00 8.70 10.80 12.50 14.00 15.60 17.00 18.20 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 | | 15.00 | 10.80 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| 41. 0 45. 0 | 8.8 9.3 | 45.00 50.00 | 19.20 20.50 |
| 43. 0 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 |

where:

P = Process weight rate in metric or T/hr, and

E = Allowable emission rate in kg/hr or lbs/hr.

c. Limits for Process Emission Units For Which Construction or Modification Commenced On or After April 19, 1972[35

IAC 212.321(c)]:

1-2

10.2 Attachment 2 Emissions of Particulate Matter from Existing Process Emission Units

35 IAC 212.322 - Process Emission Units forFor Which Construction or Modification Commenced Prior to April 14, 1972

- a-) Except as further provided in this Part, Neno 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)]this Section.
- b-) Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321this Section 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,

i.1) Up toFor process weight rates up to 27.2 Mg/hr
 (30 T/hr):

| Metric | English |
|--------|-------------------------|
| Mg/hr | T/hr |
| kg/hr | lb <mark>s</mark> /hr |
| 1.985 | 4.10 |
| 0.67 | 0.67 |
| 0 | 0 |
| | Mg/hr kg/hr 1.985 |

ii.2) For process weight rates in excess of 27.2
Mg/hr (30 T/hr):

| | Metric | English |
|---|--------|-----------------------|
| P | Mg/hr | T/hr |
| E | kg/hr | lb <mark>s</mark> /hr |
| A | 25.21 | 55.0 |
| В | 0.11 | 0.11 |
| С | -18.4 | -40.0 |

| Metric | <u>Metric</u> | English | |
|------------------|---------------|--------------|-----------------------|
| P | E | P | E |
| Mg/hr | kg/hr | T/hr | lb <mark>s</mark> /hr |
| 0.05 | 0.27 | 0.05 | 0.55 |
| 0.1 | 0.42 | 0.10 | 0.87 |
| 0.2 | 0.68 | 0.2 <u>0</u> | 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 |

c+) Limits for Process Emission Units For Which Construction
or Modification Commenced Prior to April 14, 1972-[35
IAC 212.322(c)]:

where:

P = Process weight rate in Mg/hr or T/hr, and

E = Allowable emission rate in kg/hr or lbs/hr.

10.3 Attachment 3 Example Certification by a Responsible Official

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

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

10.4 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 (CAAPP Form-199).

Application For A Construction Permit Form (CAAPP Form-199):

www.epa.state.il.us/air/caapp/199-caapp.pdf

10.5 Attachment 5 Acid Rain Program Permit

217-782-2113

ACID RAIN PROGRAM PERMIT

Midwest Generation <u>EME</u>, LLC. Attn: <u>Dasil G. ConstantelosMark Nagel</u>, <u>Designated Representative</u> 440 South LaSalle, <u>Suite 3500401</u> East Greenwood Avenue <u>ChicageWaukegan</u>, Illinois <u>60690-076760087-5197</u> <u>Designated Representative: Mark Nagel/Station Director</u> <u>Alternate Designated Representative: Donald E. Claybaugh/VP Operations-Midwest</u>

| Oris No.: | 883 |
|------------------|-------------------------------------|
| IEPA I.D. No.: | 097190AAC |
| Source/Unit: | Waukegan Station/Units 7, 8, and 17 |
| Date Received: | January 22, 2004 |
| Date Issued: | March 18, 2005 |
| Effective Date: | January 1, 2005 |
| Expiration Date: | December 31, 2009 |

STATEMENT OF BASIS:

In accordance with Titles IV and V of the Clean Air Act, the Illinois Environmental Protection Agency is issuing this Acid Rain Program permit to the Midwest Generation, LLC for its Waukegan Station.

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

| | SO ₂ Allowances, | 2005 | 2006 | 2007 | 2008 | 2009 |
|---------|-------------------------------------------------|-------------------------------------------------------------|-------|--------------------------------------------------------------------------------|-------|-------|
| עאדיד 7 | under Tables 2, 3, or 4 of 40 CFR Part 73 | 8,212 | 8,212 | 8,212 | 8,212 | 8,212 |
| | NO_x Limit | See Provisions for NO _x Early Election, Below | | 0.40 lb/mmBtu (Standard limit for Phase II Tangentially Fired Boiler) | | |

| | SO ₂ Allowances, | 2005 | 2006 | 2007 | 2008 | 2009 |
|--------|-------------------------------------------------|-------------------------------------------------------------|-------|-----------------|-------------------------------------------------------------|-------|
| UNIT 8 | under Tables 2, 3, or 4 of 40 CFR Part 73 | 7,838 | 7,838 | 7,838 | 7,838 | 7,838 |
| UNIT 0 | NO_x limit | See provisions for NO _x Early Election, below | | limit tanger | mmBtu (Standard for Phase II ntially fired boiler) | |

| | SO ₂ Allowances, | 2005 | 2006 | 2007 | 2008 | 2009 |
|---------|-------------------------------------------------|-------|-------|-------|-------|-------|
| UNIT 17 | under Tables 2, 3, or 4 of 40 CFR Part 73 | 3,104 | 3,104 | 3,104 | 3,104 | 3,104 |

| | None (Pur | suant to 40 | CFR | 76.6(a)(2), | Cyclone Fire | d |
|-----------------------|-------------|-------------|-------|-------------|--------------|----|
| NO _x Limit | Boiler with | Steam Flow | Less | Than 1,060, | in Thousands | of |
| | | Lb/Hou | ır at | 100% Load) | | |

NO_x EARLY ELECTION COMPLIANCE PLAN

Pursuant to 40 CFR 76.8(d)(2), in December 1998, the Illinois EPA approved a NO_x emissions early election compliance plan that includes the Waukegan Units 7 and 8, effective for calendar years 2000 through 2007 (attached). Under this plan, the annual average NO_x emission rate for Waukegan Units 7 and 8 each, determined in accordance with 40 CFR Part 75, shall not exceed the applicable emission limitation, under 40 CFR 76.5(a)(1), of 0.45 lb/mmBtu for Phase I tangentially fired boilers. If the affected units are in compliance with its applicable emission limitation for each year of the plan, then the units shall not be subject to the applicable emission limitation, under 40 CFR 76.7(a)(1), of 0.40 lb/mmBtu for Phase II tangentially fired boilers until calendar year 2008.

PERMIT APPLICATION: The permit application, including the NO_x compliance plan, 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 sulfur dioxide (SO_2) emissions and requires the owners and operators to hold SO_2 allowances to account for SO_2 emissions. An allowance is a limited authorization to emit up to one ton of SO_2 during or after a specified calendar year. 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 requiring affected units to comply with applicable emission limitations for NO_x under the Acid Rain program. Pursuant to 40 CFR 76.8(d) (2), in December 1998, the Illinois EPA approved NO_x early election compliance plan for Waukegan Units 7 and 8. The compliance plan is effective for calendar years 2000 through 2007. Under the compliance plan, the annual average NO_x emission rate for Waukegan Units 7 and 8 each, determined in accordance with 40 CFR Part 75, shall not exceed the applicable emission limitation, under 40 CFR 76.5(a) (1), of 0.45 lb/mmBtu for Phase I tangentially fired boilers. The Waukegan Units 7 and 8 shall be subject to the applicable NO_x emission limitation, under 40 CFR 76.7(a) (1), of 0.40 lb/mmBtu for Phase II tangentially fired boilers for calendar years 2008 and 2009.

In addition to the described NO_x compliance plan, each unit shall comply with all other applicable requirements of 40 CFR Part 76, including, the duty to reapply for a NO_x compliance plan, and requirements covering excess emissions.

This permit does not affect the source's responsibility to meet all other applicable local, state and federal requirements, including state requirements under 35 Ill. Adm. Code Part 217 Subpart W, which addresses NO_x emissions from Waukegan Units 7, 8, and 17.

If you have any questions regarding this permit, please contact Kunj Patel at 217-782-2113.

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

DESREP:KMP:jar

cc: Cecilia Mijares, USEPA Region V Harish Narayan, IEPA Region 1

Formatted

CMB No. 2060-0258

000883

TL ONIS Code

State



United Otates Environmental Protection Agoncy Acid Rain Program

Acid Rain Permit Application

For more information, see instructions and refer to 40 CFR 72.30 and 72.34

Inter submession (s: 🖉 New 🗌 Keyland

Pant Name Wookegon

STEP 1

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

STEP 2

•

| Enter the unit ID# |
|--------------------------|
| for every affected |
| unit at the affected |
| source in column "a." |
| For new units, enter the |
| requested information in |
| columns "c" and "d." |

| a | ь | c | ٥ |
|----------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| Unii ID# | Unit Will Hold Allowances in Accordance with 40 CFR 72.0(o)(1) | New Units Commonce Operation Date | New Units Monitor Cartification Deadline |
| 7 | 705 | 6 | I STATE I |
| 8 | Yea | - Martin Main | The shift |
| 17 | Yes | | |
| | Yes | | ar and |
| 1 A 1999 | Yes | | |
| | Yes | A States of the | |
| | Yee | 100 and | |
| - 11 Mar | 705 | | |
| | Yes | | |
| | Yes | | |
| | Yes | | |
| | Yao | | |
| | Y | | |
| | THE | | |
| | Yos | | The second second |
| A. 35. | Yus | | and the second |
| | Yes | | |
| | Yes | 10000 | |

FPA From 7816-18 (nov. 12-03)

Waukegan Plant Name (from Step 1)

Permit Requirements

STEP 3

(1) The designated representative of each affected source and each affected unit at the source shall

Read the standard requirements

(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 deav an Acid Rain permit. (2) The owners and operators of each affected source and each affected unit at the

Acid Rain - Page 2

source shall: (i) Operate the unit in compliance with a complete Acid Rain permit application or a suppreseding 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

(3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of the 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(o)), 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 suffur dioxide for the previous celeodar user from the unit and.

73.35(b)(3), not less than the total annual emissions of suffur dioxide for the previous calendar year from the unit; and
(ii) Comply with the applicable Acid Rain emissions is mitations for sulfur dioxide.
(2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissiona 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 contification under 40 CFR 72.6(a)(3).
(4) Allowarces 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 allocated.
(6) An allowance allocated by the Administrator under the Acid Rain Program is a limited

(d) 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 or property dight.

constitute a property right.

FPA Form 7610,16 days 12,030

wankagan Plant Name (from Step 1)

Acid Rain - Page 3

STEP 3, Cont'd.

Nitrogen Oxides Requirements The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements

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.
 The owners and operators of an affected unit that has excess emissions in any

(i) He owners shall: (i) Hey 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. permitting authority

(i) The certificate of representation for the designated representative for the source and coch offseted unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 GFR 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 epresentative;

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 72.6, 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,
(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.

FPA From 7610-16 (see: 12-03)

Wackegan Plant Name drom Step 13

Acid Rain - Page 4

Liability, Cont'd. Step 3, 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 (including a provision applicable to the designated representative of 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, averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.16, 75.

and that is located at a source of which undy all not on other of operative, 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;

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.

Certification STEP 4

Read the certificat sign, and

EDA Com JAN

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. of fine or imprisonment.

| Name | Bas.1 | G. Const | tantelos | | | |
|------------|-------|----------|--------------|------|----------|--------|
| Signatur | · Jan | 1 21 | n to: | the | Date | 111/04 |
| (mr 12-03) | 1 | 1 | <u>s. p.</u> | quer | 1 Dave / | |

| | Phas | e II NO | x Com | pliance | e Plan | Page [] of | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|---------------------------------|---------|-----------------------------------------------------------------------------------|-----------------------|--|--|
| | | nation, see Instruction In In: 🖉 New 🗌 | ns and refer to 40 (Revised | FR 76.9 | | | | |
| STEP 1 Indicate plant name, State, and ORIC code from NADB, If applicable | Plani Nama | Warkeyas | | | IL State | 000 88 3 ORIS Code | | |
| STEP 2 | Identify each affected Group 1 and Group 2 boller using the boller ID# from NADB. if applicable, indicate boller type: "CB" for cell burner, "CY" for cyclone, "DBW" for dry bottom well-fred, "T" for tantgenesally fired, "Y" for vertically fired, and "WB" for wet bottom. Indicate free compliance option selected for each unit. | | | | | | | |
| | on 7 | 8 | D¥ | | 104 | | | |
| | Type | Туре | Туре | Туре | Туре | Туря | | |
| (a) Standard annual average Initiation Entitation of 0.45 Elementicu (for Phase 1 dry Bottom wall-fired Science) | | ο. | | | , 🗆 | | | |
| (b) Standard annual average entisation limitation of 0.45 Strandbu (for Finane) tangentially (feet BORFee) | 8 | 8 | | | $\square_{_{\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!$ | • 🗆 | | |
| (c) EPA approved early election plan under 40 CFR 19.3 throug 2011/1017 (also indicate through emission limit apoched in plan | 1. 53 | 8 | , D ' | D | • D | . 🗆 | | |
| or standard annual average amission light from of 0.45 latimBlue (for Phase of 0.45 content was-fired Science) | | | | | 1 1 | | | |
| (e) Standard annual average Anisaion Imfution of 0.44 (brandius (for Phase II Ingentially for Phase II | | | | | | | | |
| 07. Standard ennual everyon emission limitation of 0.51 Islamiblu (for cell burner ballers) | D | | | | | | | |
| (g) Standard armual average Entration Immunion of U.O. Ib/mmilitu (for cyclore bollers) | | | | | | | | |
| (h) Standard armual average entitation limitation of 0.80 NormBiu (for vertically find bollers) | | | | | | | | |
| (i) Standard annual average mission imitation of 0.84 (hyperBlu (for war buttom bollers) | | | | | | | | |
| III NO, Averaging Plan Unclude NO, Averaging formy | | 0 | | | | | | |
| (k) Common stack pursuant o 40 CFR 13-17 (av2x)(k4) check the standard defisition imitation box above for most stringert imitation applicable my unit utilizing stack) | • | | | | | | | |
| (I) Contrologi misch pursuant to . UFR 75. Then 21(1)(B) with NO, Averaging (chack the NO Averaging that say in the data NO, Averaging form) | | D | | | | 0 | | |

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| and the second | What Kegan Plani Name (hum Sho 1) | | | | | NO, Compliance - Page 2 Page 2 of 1 | |
|-------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-----------------|-------------|--------------|-------------|----------------------------------------|--|
| STEP 2, cont'd. | <mark>, 7</mark> ,,,, Т | 1.00 B Type⊤ | іся Тура | iLti Type | иле Тура | Lu | |
| (m) 60 A approved common stack apportunent method purguant to 40 CFB 75.17 Autolitical (autolitical) or (h)(2) | | | | | | | |
| (n) AEL (include Phase II AEL Demonstration Venco, Final AEL Petition, or AEL Renewal form as appropriate) | | | | | | | |
| (a) Petition for AEL demonstration period or Appl AEL under review by U.B. EPA or demonstration period ongoing | | | | | | | |
| (p) Repowering extension plan | | | | | | | |

STEP 3

certification, en

Standard Requirements

General: This source is subject to the standard requirements in 40 CFR 72.9 (consistent with 40 CFR 76.8/e)(19(6)). These requirements are tased in this source s AGO Han Petrol.

Special Provisions for Early Election Units

Process Provisions for Early election Units

<u>Ninogen Options</u>. A will that is governed by an approved early election pion shell be subject to an emissions
imitation for MO, as provided uncle 40 CFR 76 http://timesoin.com/ <u>Unitation for MO, as provided uncle 40 CFR 76 http://timesoind.com/</u> <u>Unitation for the pions of 40 CFR 76 http://timesoind.com/</u> <u>Status of the pions of 40 CFR 76 http://timesoind.com/</u> <u>Status of the pions of 40 CFR 76 http://timesoind.com/</u> <u>Status of the pions of 40 CFR 76 http://timesoind.com/</u> <u>Status of the pions of 40 CFR 76 http://timesoind.com/</u> <u>Status of the pions of 40 CFR 76 http://timesoind.com/</u> <u>Status of the pions of 40 CFR 76 http://timesoind.com/</u> <u>Status of the pions of 40 CFR 76 http://timesoind.com/</u> <u>Status of the pions of 40 CFR 76 http://timesoind.com/</u> <u>Status of the pions of 40 CFR 76 http://timesoind.com/</u> <u>Status of the pions of 40 CFR 76 http://timesoind.com/</u> <u>Status of the pions of 40 CFR 76 http://timesoind.com/</u> <u>Status of 40 CFR 72 http://timesoind.com/</u> <u>Status of 40 CF</u>

Certification

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