

217/782-2113

CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT

PERMITTEE

Soyland Power Cooperative, Inc.  
Attn: Randy Fisher, Supt. Illinois Generation  
P.O. Box 10  
Pearl, Illinois 62361

<u>Application No.:</u> 95080060	<u>I.D. No.:</u> 149817AAB
<u>Applicant's Designation:</u>	<u>Date Received:</u> August 15, 1995
<u>Operation of:</u> Electrical Power Generation	
<u>Date Issued:</u> September 29, 2005	<u>Expiration Date</u> <sup>1</sup> : September 29, 2010
<u>Source Location:</u> Highway 100 South, Pearl (Pike County)	
<u>Responsible Official:</u> Randy Fisher, Supt. Illinois Generation	

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.

If you have any questions concerning this permit, please contact the Utility Unit at 217/782-2113 (217/782-9143 TDD).

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

DES:MN):jar

cc: Illinois EPA, FOS, Region 2  
USEPA

<sup>1</sup> Except as addressed in Condition 8.7 of this permit.

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1.0 INTRODUCTION

1.1 Source Identification

Pearl Station  
Highway 100  
Pearl, Illinois 62361  
217/829-4291

I.D. No.: 149817AAB

Standard Industrial Classification: 4911, Electrical Services

1.2 Owner/Parent Company

Soyland Power Cooperative, Inc.  
212 Locust Street  
P.O. Box 1266  
Harrisburg, Pennsylvania 17108-1266

1.3 Operator

Soyland Power Cooperative, Inc.  
P.O. Box 10  
Pearl, Illinois 62361

Randy Fisher, Environmental Contact  
217/829-4291

1.4 General Source Description

The Pearl power plant is located on State Highway 100 South of Pearl. The source operates one coal-fired boiler and one peaking turbine to produce electricity.

1.5 Title I Conditions

This CAAPP permit contains certain conditions for units at this source that address the applicability of permitting programs for the construction and modification of sources, which programs were established pursuant to Title I of the Clean Air Act (CAA) and regulations thereunder. These programs include 40 CFR 52.21, Prevention of Significant Deterioration (PSD) and 35 IAC Part 203, Major Stationary Sources Construction and Modification (MSSCAM), and are implemented by the Illinois EPA pursuant to Sections 9, 9.1, 39(a) and 39.5(7)(a) of Illinois' Environmental Protection Act (Act). These "Title I conditions" within this permit are specifically designated as "T1," if they reflect requirements established in construction permits issued for this source, "T1R" if they revise requirements established in such construction permits, or "T1N" if they are newly established in this CAAPP permit. These conditions continue in effect, notwithstanding the expiration date specified on the first page of this permit, as their authority derives from Titles I and V of the CAA, as well as Titles II and X of the Act. (See also Condition 8.7.)

2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT

acfm	actual cubic feet per minute
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
Gal	Gallon
°F	degrees Fahrenheit
ft	foot
ft <sup>3</sup>	cubic foot
HAP	Hazardous Air Pollutant
hr	Hour
IAC	Illinois Administrative Code
Illinois EPA	Illinois Environmental Protection Agency
Kg	kilogram
lb	Pound
m	meter
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)
OM	organic material
PM	Particulate Matter
PM <sub>10</sub>	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods
ppm	parts per million
PSD	Prevention of Significant Deterioration (40 CFR 52.21)
RMP	Risk Management Plan
SO <sub>2</sub>	Sulfur Dioxide
T	ton (2000 pounds)
T1	Title I - identifies Title I conditions that have been carried over from an existing permit
T1N	Title I New - identifies Title I conditions that are being established in this permit
T1R	Title I Revised - identifies Title I conditions that have been carried over from an existing permit and subsequently revised in this permit
USEPA	United States Environmental Protection Agency
VOC or 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:

None

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

None

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

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

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

Gas turbines and stationary reciprocating internal combustion engines of less than 112 kW (150 horsepower) power output [35 IAC 201.210(a)(15)].

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

Note: The heating of the 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 the boiler. Notwithstanding such status as an insignificant activity, the opacity of the exhaust from the boiler is at all times subject to the applicable opacity standard and the unit-specific conditions of this permit for the boiler that relate to opacity are applicable during maintenance and repair of the 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 215.182.
- 3.2.2 For each particulate matter process emission unit, other than units excluded by 35 IAC 212.323 and 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 215.301, which requires that organic material emissions not exceed 8.0 pounds per hour or do not qualify as photochemically reactive material as defined in 35 IAC 211.4690.

### 3.3 Addition of Insignificant Activities

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

4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE

Emission Unit	Description	Emission Control Equipment	Ref*
Boiler B1	Foster Wheeler Boiler Nominal 278 mmBtu/hr (1967)	Multiclone and Wet Scrubber	7.1
Coal Handling Equipment	Coal Receiving, Transfer and Storage Operations	Enclosure, Covers, and Dust Suppressant Application System	7.2
Crusher House	Coal Crushing Operations (Coal Mills A and B)	Enclosures and Covers	7.3
Fly Ash Equipment	Transfer System, Silo, and Loadout Operation	Enclosures and Dust Collection Devices	7.4
Lime Handling Equipment	Transfer System and Storage Silo	Enclosure and Filter	7.5
Turbine CT-1	Distillate Oil Fired Turbine Nominal 273 mmBtu/hr	None	7.6
Heating Boiler B-2	Distillate Oil Fired Boiler Nominal 3.5 mmBtu/hr	None	7.7

\* Reference to the Unit Specific Conditions in Section 7 of this permit.

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<sub>2</sub>, CO, NO<sub>x</sub>, PM and HAP emissions.

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) 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 Ozone Depleting Substances

The Permittee shall comply with the standards for recycling and emissions reduction of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, 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.

5.2.4 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. 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).

5.2.5 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.

5.2.6 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 EPA.

#### 5.2.7 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 pollutant-specific 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

None

Note: For individual emissions units and groups units, non-applicability of regulations is 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

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

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	4.40
Sulfur Dioxide (SO <sub>2</sub> )	8,316.34
Particulate Matter (PM)	152.14
Nitrogen Oxides (NO <sub>x</sub> )	1,344.82
HAP, not included in VOM or PM	78.6
Total	9,896.3

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 (e) of the Act:

- 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 boiler 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) and (f)

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 Illinois EPA or USEPA, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.
- b. The Permittee shall retrieve and print, on paper during normal source office hours, any records retained in an electronic format (e.g., computer) in response to an Illinois EPA or USEPA request for specific records during the course of a source inspection.
- 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)(iii) 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 unit-specific 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 including information for 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.

## 6.0 PROVISIONS FOR EMISSION TRADING PROGRAMS

This permit is issued based on the following market-based emission control programs, which provide for allocation and trading of emission allowances and trading units, not being applicable to this source because of its location and the age and size of the coal-fired boiler at the source:

The Acid Rain Control Program, pursuant to Title IV of the Clean Act, because although the coal-fired boiler is a utility unit, the boiler commenced commercial operation before November 15, 1990 and did not, as of November 15, 1990, and does not currently, serve an electrical generator with a nameplate capacity of greater than 25 MWe, as provided by 40 CFR 72.6(b) (2).

The Emissions Reduction Market System (ERMS), pursuant to 35 IAC Part 205, because the source is located outside of the Chicago ozone nonattainment area where the ERMS is applicable, as provided by 35 IAC 202.200.

The NOx Trading Program for Electrical Generating Units, pursuant to 35 IAC Part 217, Subpart W, because, although the coal-fired boiler is an electrical generating unit, it does not currently serve an electrical generator with a nameplate capacity of greater than 25 MWe, as provided by 35 IAC 217.454 and 217.754.

7.0 UNIT SPECIFIC CONDITIONS

7.1 Coal Fired Boiler

7.1.1 Description

The Permittee operates a coal-fired boiler for electric power generation. The boiler was built in 1967 and has a nominal capacity of 278 mmBtu/hour. In addition to coal, this boiler fires distillate fuel oil as auxiliary fuel during startup and for flame stabilization.

Particulate matter (PM) emissions from the boiler are controlled by a multiclone followed by a wet scrubber. Because of this wet scrubber, opacity monitoring is not considered practical for the boiler.

7.1.2 List of Emission Units and Air Pollution Control Equipment

These unit-specific conditions address the following emission units:

Boiler I.D.	Description	Emission Control Equipment
Boiler B1	Foster Wheeler Boiler Nominal 278 mmBtu/hr (1967)	Low-NOx Burners, Over-Fired Air, Multiclone and Wet Scrubber

7.1.3 Applicability Provisions

- a. An "affected boiler" for the purpose of these unit-specific conditions is the 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 the 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 212.202), and Condition 7.1.4(d) (35 IAC 216.121), during startup. This authorization is provided pursuant to 35 IAC 201.149, 201.161 and 201.262, as the Permittee has applied for such authorization in its application, generally describing the efforts that will be used "...to minimize startup emissions, duration of individual 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 the 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. Appropriate inspection of ash hopper system to ensure the proper operation of the multiclones to minimize emissions without damage or risk to personnel or equipment.
- iii. The Permittee shall fulfill applicable recordkeeping and reporting requirements of Conditions 7.1.9(c) and (e) 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 provisions, the Permittee is authorized to continue operation of the 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 212.202), and Condition 7.1.4(d) (35 IAC 216.121), in the event of a malfunction or breakdown of the affected boiler, including the associated control equipment (multiclone and wet scrubber) and support systems (coal bunkers, coal pulverizers, ash removal and handling system, etc.). This authorization is provided pursuant to 35 IAC 201.149, 201.161 and 201.262, as the Permittee has applied for such authorization in its application, generally explaining why such continued operation would be required to provide essential service or to prevent of injury to personnel or severe damage to equipment, and describing the measures that will be taken to minimize emissions from any malfunctions and breakdowns. This authorization supersedes the general prohibition in Condition 9.2.3 against continued operation in such circumstances.

- i. This authorization only allows such continued operation as necessary to provide essential service or 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(c) and (e), 7.1.10-2(a) 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 boiler 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 particulate matter from the affected boiler. Compliance with this standard shall be determined in accordance with USEPA Reference Method 9, as provided by 35 IAC 212.109.

- b. The emissions of PM from the affected boiler shall not exceed 0.10 lb/mmBtu of actual heat input in any one hour period, pursuant to 35 IAC 212.202.
- c. The emission of SO<sub>2</sub> from the affected boiler shall not exceed 6.8 lb/mmBtu of actual heat input, pursuant to 35 IAC 214.142.
- d. The emissions of CO from the affected boiler shall not exceed 200 ppm, corrected to 50 percent excess air, pursuant to 35 IAC 216.121.

7.1.5 Non-Applicability of Regulations of Concern

- a. i. The Permittee is shielded from the PM and SO<sub>2</sub> rules for combination of fuels, 35 IAC 212.207 and 35 IAC.214.162, for the affected boiler when the boiler is using solid fuel (coal) as its principal fuel. This is because incidental use of other fuels 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.
- ii. If the affected boiler is not using 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(a) (ii) (A), below shall substitute for Condition 7.1.4(b). For SO<sub>2</sub>, Condition 7.1.5(a) (ii) (B), below, shall supplement Condition 7.1.4(c):
  - A. The emissions of PM from the affected boiler in any one hour period shall not exceed the amount, in lb/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<sub>2</sub> from the affected boiler in any one hour period shall not exceed the amount, in lb/hr, allowed by the formula in 35 IAC 214.162. For this purpose, the applicable SO<sub>2</sub> 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.

- iii. For the purpose of the above conditions, the affected boiler shall be considered to be using 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 the affected boiler changes to or from using 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.
- b. This permit is issued based on the affected boiler not being subject to the requirements of the NO<sub>x</sub> Trading Program for Electrical Generating Units, 35 IAC Part 217, Subpart W, because the nameplate capacity of the generator associated with the affected boiler, i.e., 22 MWe, is less than 25 MWe.
  - c. This permit is issued based on the affected boiler not being subject to the requirements of the Acid Rain Program because the affected boiler commenced commercial operation before November 15, 1990 and did not, as of November 15, 1990, and does not currently, serve a generator with a nameplate capacity of greater than 25 MWe, as provided by 40 CFR 72.6(b)(2).
  - d. This permit is issued based on the affected boiler not being eligible for an alternative limit for SO<sub>2</sub> emissions calculated pursuant to 35 IAC 214.183 or 214.184 at the time this permit was issued. This is because the Permittee had not demonstrated, as required by 35 IAC 214.186, that such an alternative SO<sub>2</sub> limit under either of these rules would not cause a violation of the SO<sub>2</sub> PSD increment, which is applicable in Pike County as the PSD baseline for SO<sub>2</sub> was triggered in this county when Soyland Power Coop submitted a PSD application for a proposed power plant in Pike County.

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

- a. As part of its operation and maintenance of the affected boiler, the Permittee shall perform formal "combustion evaluation" on the boiler on at least a semi-annual basis, pursuant to Section 39.5(7)(d) of the Act. These evaluations shall consist of diagnostic measurements of the concentration of CO in the flue gas of the affected boiler, with adjustments and preventative and corrective measures for the boiler's combustion systems to maintain efficient combustion.
- b. The Permittee shall perform detailed inspections of the multiclones and wet scrubber at least every 15 months while the affected boiler is out of service, with an initial inspection performed before any maintenance and repair activities are conducted during the period the boiler is out of service and a follow-up inspection performed after any such activities are completed. [Section 39.5(7)(a) of the Act]

7.1.7 Testing Requirements

- a. Pursuant to Section 39.5(7)(d)(ii) of the Act, the Permittee shall have the PM, CO and SO<sub>2</sub> emissions of the affected boiler measured as specified below:
  - i. A. PM emission measurements shall be made no later than two years after the effective date of this Condition 7.1.7(a). (Measurements made after December 31, 2003 may satisfy this requirement.)
  - B. PM emission measurements shall be made within 90 days of operating the affected boiler for more than 30 hours total in a calendar quarter at a load\* that is more than 5 percent higher than the greatest load on the boiler, during the most recent set of PM tests 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).

\* 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).

- C. Periodic PM emission measurements shall be made for the affected boiler 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)
- I. If the compliance margin is less than 15 percent, within 18 months of the previous measurement.
  - II. If the compliance margin is between 15 and 30 percent, within 30 months of the previous measurement.
  - III. If the compliance margin is greater than 30 percent, within 42 months of the previous measurement.
- D. Measurements of CO emissions shall be made:
- I. In conjunction with the initial measurement of PM emissions as required by Condition 7.1.7(a) (i) (A).
  - II. In conjunction with each subsequent measurement of PM emissions made pursuant to Condition 7.1.7(a) (i) (B) or (C).
- E.
  - I. If standard fuel (i.e., coal, fuel oil, and gas) is less than 97.0 percent by weight of the fuel supply to a boiler during a quarter, the Permittee shall have measurements of PM and CO emissions from the boiler made during the next quarter while firing alternative fuel or process waste in the boiler.
  - II. The Permittee shall conduct such measurements while firing the boiler with at least 1.25 times the greatest percentage of alternative fuel material or process waste in the calendar quarter that triggered the testing. This percentage at

which testing shall be conducted shall not exceed that allowed by the maximum design capacity of the alternative fuel handling system. If the boiler has been firing a mix of alternative fuel materials or process wastes, the mix of fuel during such measurements shall be approved by the Illinois EPA.

III. 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 to the boiler when previous emission measurements were conducted.

F. Measurements of PM, CO and SO<sub>2</sub> 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.

ii. A. These measurements shall be performed at the maximum operating load of the affected boiler 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.

B. Measurements shall be taken at an appropriate location in the ductwork or stack associated with the affected boiler.

C. The following test methods and procedures shall be used for these measurements. Refer to 40 CFR 60, Appendix A for USEPA Methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Flue Gas Weight	USEPA Method 3
Moisture	USEPA Method 4
Particulate Matter (PM)	USEPA Methods 5 and 202*
Sulfur Dioxide (SO <sub>2</sub> )	USEPA Method 6
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

\* Measurement 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.

- iii. 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.
  - A. The Permittee shall submit this test plan at least 60 days prior to the actual date of testing and the test plan shall include the information specified by Condition 8.6.2.
  - B. 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).
- iv. 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 EPA's ability to observe testing.
- v. 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:

- A. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.
  - B. A description of any minor deviations from the test plan, as provided by 35 IAC 283.230(a).
  - C. Detailed description of operating conditions during testing, including:
    - I. Source(s) of fuel and specifications (ash, sulfur and heat content).
    - II. 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 (percent), if a blend of fuels is burned.
    - III. Combustion system information, i.e., settings for distribution of primary and secondary combustion air, target level for O<sub>2</sub> in the flue gas, and levels of CO, CO<sub>2</sub> or O<sub>2</sub> in the flue gas, as determined by any diagnostic measurements.
    - IV. Control equipment information, i.e., equipment condition and operating parameters during testing.
    - V. Load during testing (gross megawatt output and steam flow).
  - D. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.
  - E. Opacity data (6-minute averages and hourly averages) measured during testing, if the condition of the plume allowed proper opacity observations to be made.
- b. The Permittee shall have the opacity of the exhaust from the affected boiler during representative weather and operating conditions determined by a qualified observer, as further specified below, pursuant to Section 39.5(7)(b) of the Act.
- i. The determination of opacity shall be made by a qualified observer in accordance with USEPA Test Method 9. In particular, as a visible steam plume is present from the stack of the

affected boiler, opacity observation shall be made in accordance with Paragraph 2.3.1 or 2.3.2 of Method 9 if the steam plume is attached to the stack and Paragraph 2.3.2 if the steam plume is detached from the stack.

- ii. Measurements shall be conducted within 15 calendar days of a written request from the Illinois EPA for such measurements or on the date agreed upon by the Illinois EPA, whichever is later.
- iii. The duration of opacity observations shall be at least one hour (ten 6-minute averages) unless the average opacities for the first 30 minutes of observations (five 6-minute averages) are all less than 15.0 percent.
- iv.
  - A. The Permittee shall notify the Illinois EPA at least 5 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).
  - B. The Permittee shall promptly notify the Illinois EPA of any changes in the time or date for testing.
- vi. The Permittee shall provide a copy of its observer's readings to the Illinois EPA at the time of testing, if Illinois EPA personnel are present.
- vii. The Permittee shall submit a written report for this testing within 15 days of the date of testing. This report shall include:
  - A. Date and time of testing.
  - B. Name and employer of qualified observer.
  - C. Copy of current certification.
  - D. Description of observation conditions and nature of the steam plume.
  - E. Operating data for the boiler and the associated wet scrubber during the period of observations.
  - F. Raw data.
  - G. Opacity determinations.
  - H. Conclusions.

#### 7.1.8 Monitoring Requirements

- a. Pursuant to the provisions for alternative monitoring at 35 IAC 201.402 and Section 35.9(7)(d) of the Act, the Permittee shall operate, calibrate and maintain devices to measure the water flow and pressure drop of the wet scrubber for the affected boiler, which shall be used to address compliance with the PM limit in Condition 7.1.4(b).
  - i. The Permittee shall operate these devices in accordance with good practice for continuous parametric monitoring.
  - ii. The Permittee shall keep records for the operation of these devices. (See also Condition 7.1.9(c).)
- b.
  - i. If the specifications for the sulfur content of the coal supply to the boiler provide for no more than 2.7 lb sulfur/mmBtu (equivalent to 80 percent of the allowable limit in Condition 7.1.4(c)), the Permittee shall sample and analyze the coal supply for sulfur and heat content on at least a monthly basis, in accordance with 35 IAC 214.101(e).
  - ii. If the specifications for the sulfur content of the coal supply to the boiler provide for more than 2.7 lb sulfur/mmBtu, the Permittee shall sample and analyze the coal supply for sulfur and heat content on at least a weekly basis until the Permittee demonstrates compliance with a 99 percent confidence level. At such time, the frequency for sampling and analysis may revert to monthly, as provided by Condition 7.1.8(b)(i).

#### 7.1.9 Recordkeeping Requirements

##### a. Operational Records for the Affected Boiler

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

- i. Load (in terms of either gross megawatts output or steam flow) on an hourly basis.
- ii. Records for each day when an alternative fuel (i.e., a fuel material other than coal, gas or oil) was burned, including the estimated amount of each such material burned.
- iii. Total operating hours (hours/month).
- iv. A. Amount of coal consumed (tons/month).

- B. Amount of each other fuel material consumed (tons, gallons, cubic feet per month, as appropriate).
  - v.
    - A. Records of agreements with suppliers of alternative fuel(s), 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 alternative fuels received at the source, which at a minimum shall include date, supplier name, type of material and amount (tons).
  - vi. An operating log, maintenance and repair log, or other records for the 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 adjustments and 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 records for the air pollution control equipment on the affected boiler:

- 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. Multiclones
  - A. Manufacturer/vendor or Permittee developed operating and maintenance procedures.
  - B. Operating log.
  - C. The maintenance and repair log for the multiclones shall also address activities related to the ash hoppers and ash removal system.
- iii. Wet Scrubber
  - A. Manufacturer/vendor or Permittee developed operating and maintenance procedures.

- B. Operating log, including changes to the setting(s) for the operating parameters of the scrubber
- iv. For the inspections of the multiclones and wet scrubber required by Condition 7.1.6(b):
- 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.
  - D. 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 emissions.
- c. Records for Operational Monitoring Systems

Pursuant to Sections 39.5(7)(e) of the Act, the Permittee shall maintain records related to the monitoring systems required by Condition 7.1.8(a) that as a minimum shall include:

- i. Operating records for each monitoring system, including:
  - A. Performance evaluations and other quality assurance/control activities.
  - B. Calibration checks.
  - C. Maintenance and adjustment performed.
  - D. Periods other than performance of quality assurance, calibration, and maintenance, as addressed above, when the device was inoperative, with reason.
  - E. Quarterly reports submitted in accordance with Condition 7.1.10-2(a).

- ii. Records for the affected boiler that identify the 95% confidence interval (using a normal distribution and 1 minute averages) for the operating parameters monitored for the wet scrubber, considering an hour of operation, within which compliance with Condition 7.1.4(b) is assured, with supporting explanation and documentation, including results of historic emission tests. At a minimum, these records shall be reviewed and revised as necessary following performance of each subsequent PM emission test on the affected boiler. Copies of these records shall be submitted to the Illinois EPA in accordance with Condition 5.6.2(d).
  - iii. When the affected boiler is in operation, the data measured by each monitoring system, which shall be recorded:
    - A. At least every 10 minutes if the measured value of the parameter is within 20 percent of or outside of the boundary of the upper bound for the parameter specified pursuant to Condition 7.1.9(c) (iii).
    - B. At least every two hours when the measured value of the parameter is 20 percent or more away from the boundary of the upper bound for the parameter specified pursuant to Condition 7.1.9(c) (iii).
  - iv. Records to address compliance with Condition 7.1.4(b), that identify each hour when the affected boiler operated with the monitored value(s) of the operating parameter(s) of the scrubber outside of the upper bound, as specified above in Condition 7.1.9(c) (ii), with date, time, operating condition if startup, malfunction, breakdown, or shutdown, further explanation of the incident, and whether PM emissions may have exceeded the limit of Condition 7.1.4(b), with detailed explanation.
- d. Records Related to SO<sub>2</sub> Emissions

The Permittee shall maintain the following records related to the SO<sub>2</sub> emissions of the affected boiler, pursuant to Section 39.5(7) (e) of the Act

- i. The Permittee shall maintain records for the sampling and analysis of solid fuel for the boiler required by Condition 7.1.8(b) and any other sampling and analyses of the fuel supply that it conducts

ii. Records identifying any period of time when the sulfur content for the solid fuel (coal) supply burned in the affected boiler was above the level necessary for the affected boiler to comply with Condition 7.1.4(c), with supporting documentation, calculations, and explanation.

e. Records for Startups

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

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

ii. Records for each startup of the affected boiler that, as a minimum, include the following information:

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

B. The elapsed time from initial firing of auxiliary fuel to achievement of stable operation of the boiler with the principal fuel and with boiler systems and control devices operating to enable compliance with applicable standards for opacity and emissions of PM and CO.

C. If this elapsed time is more than 4 hours or if the Permittee's startup procedures are not followed:

I. A detailed explanation why startup of the boiler was not completed sooner or startup procedures were not followed.

II. Documentation for the startup procedures that were followed.

III. The elapsed time from initial firing of auxiliary fuel until firing of the principal fuel was begun.

IV. 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.

f. 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 the following records related to malfunction and breakdown of the affected boiler:

- i. Maintenance and repair log(s) for the affected boiler that, at a minimum, address aspects or components of the boiler 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 the affected boiler continued with excess opacity or emissions, including malfunction or breakdown as addressed by Condition 7.1.3(c), that, at a minimum, include the following information:
  - A. Date, time, duration and description of the incident.
  - B. The corrective actions used to reduce the quantity of emissions and the duration of the incident.
  - C. Confirmation of fulfillment of the requirements of Condition 7.1.10-3(a), as applicable, including copies of follow-up reports submitted pursuant to Condition 7.1.10-3(a) (ii).
  - D. If opacity 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, during the incident:
    - I. A detailed explanation why continued operation of the affected boiler was necessary.
    - II. 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 boiler and associated equipment and any changes to operating and maintenance procedures.

III. Estimates of magnitude of emissions of PM and CO during the incident, as emissions exceeded or may have exceeded any applicable hourly standard.

g. Records for Opacity Measurements

The Permittee shall keep records for all opacity measurements made in accordance with USEPA Method 9 for the affected boiler that it conducts or that are conducted on its behest by individuals who are qualified to make such observations. For each occasion on which such measurements are made, these records shall include the formal report for the measurements if conducted pursuant to Condition 7.1.7(b), or otherwise the identity of the observer, a description of the measurements that were made, the operating condition of the affected operations, the observed opacity, and copies of the raw data sheets for the measurements.

7.1.10-1 Reporting Requirements - Reporting of Deviations

a. Prompt Reporting of Deviations

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

- i. Notification and reporting as specified in Condition 7.1.10-3(a) for certain deviations from the PM limit in Condition 7.1.4(b).
- ii. Notification and reporting as specified in Condition 7.1.10-3(a) for certain deviations from the opacity limit in Condition 7.1.4(a).
- iii. Notification with the reports required by Conditions 7.1.10-2(b) and (c) for deviations from Condition 7.1.4(b) and (c) and from the requirements of Condition 7.1.8 for parametric monitoring.
- iv. 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., other applicable emission standards, 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 instances of deviations that have been reported in writing to the Illinois EPA as provided by Condition 7.1.10-1(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)(iii) or (iv), 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 otherwise required by Condition 8.6.1, the Permittee shall submit quarterly report 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 boiler during the period covered by the report:
  - A. The total operating hours for the affected boiler.
  - B. The greatest load achieved by the affected boiler (steam flow or gross megawatts).
  - C. A discussion of significant changes in the fuel supply to the affected boiler, 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) (iv) identifying the date and time that the upper bound, as specified 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.
  - ii.
    - A. These report shall include the information for SO<sub>2</sub> and PM emissions from the affected boiler during the reporting period and the operation of required continuous monitoring systems specified by Conditions 7.1.10-2(b) and (c).
    - B. These reports shall include a summary of the records required by Condition 7.1.9(g) for any opacity measurements made during the reporting period.
  - iii.
    - A. These reports shall be submitted after the end of every calendar quarter as follows:
 

Monitoring Period	Submittal Deadline
January - March	May 15
April - June	August 15
July - September	November 15
October - December	February 15
    - B. Notwithstanding the above, the first four quarterly reports required pursuant to this permit shall be submitted no later than 60 days after the end of each calendar quarter.
- b. Reporting of SO<sub>2</sub> Emissions

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

- i. A summary of the sampling and analysis conducted pursuant to Condition 7.1.8(b), including the specification for sulfur content of the coal(s) burned during the reporting period, in lb sulfur/mmBtu, the number of samples of coal(s) analyzed, and each incident in which required sampling or analysis was not conducted. When all required sampling and analysis was conducted, this shall be stated in the report.

- ii. The following information for each period when the sulfur content of the coal supply to the period was above the level necessary for SO<sub>2</sub> emissions to comply with the limit 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 incident.
  - B. The duration of the incident.
  - C. A copy of the records for the excess emissions, as maintained pursuant to Condition 7.2.9(d) (ii).
  - D. A detailed explanation of the cause of the exceedance.
  - E. A detailed explanation of corrective actions and actions taken to lessen the emissions.
- c. 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 the affected boiler to the Illinois EPA with its quarterly reports pursuant to Condition 7.2.10-2(a):

- i. Summary information on the performance of the operational monitoring systems, as required for a "Summary Report" in accordance with 40 CFR 60.7(d). When operating parameters were not outside the upper bound or the continuous operational monitoring system was not inoperative, repaired or adjusted except for zero and span checks, this shall be stated in the report.
- ii. The operating status of the operational monitoring system, including the dates and times of any periods during which it was inoperative, if requested by the Illinois EPA or the monitoring system downtime was more than 5 percent of the total operating time for the affected boiler during the reporting period.
- iii. The following information for each incident, when the affected boiler was operating, other than startup or shutdown, when an operating parameter was outside of the upper bound, as specified in records pursuant to Condition 7.1.9(c).

- A. The starting date and time of the incident.
  - B. The duration of the incident.
  - C. The values of all monitored operating parameters, hourly average, for each hour during the incident.
  - D. A detailed explanation of the cause of incident, if known, including whether it occurred during malfunction or breakdown.
  - E. A detailed explanation of corrective actions and actions taken to reestablish normal operation.
- iv. The following further information for each of the above incidents in which PM emissions were or may have exceeded limit in Condition 7.1.4(b). If there were no such exceedances during the reporting period, the quarterly report shall state.
- A. A summary of information for the period of exceedance that includes:
    - I. The starting date and time of the exceedance.
    - II. The duration of the exceedance.
    - III. The magnitude of the exceedance.
    - IV. The means by which the exceedance was indicated or identified.
    - VI. A detailed explanation of the cause of the exceedance, including whether the exceedance occurred during malfunction or breakdown.
    - VII. A detailed explanation of the corrective actions and actions taken to lessen the emissions.
  - B. Identification of the previous reports for the incidents 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.

7.1.10-3 Reporting Requirements - Notifications

- a. Reporting of Continued Operation 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, Compliance Section and Regional Office, concerning incidents when operation of the affected boiler continued with excess emissions, 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.

- i. The Permittee shall immediately notify the Illinois EPA's Regional Office, by telephone (voice, facsimile, or electronic) for each incident in which either (1) the applicable PM emission standard (Condition 7.1.4(b)) could be exceeded, (2) the operating parameter(s) of the scrubber have been outside the upper bound for more than three hours, or (3) the opacity from the boiler has been determined to exceed 30 percent for more than six consecutive 6-minute averaging periods. (Otherwise, as related to opacity, if opacity during an incident only exceeds 30 percent for no more than six 6-minute averaging periods in a row, the Permittee need only report the incident in accordance with Condition 7.1.10-2(a) and (c).)
- ii. Upon conclusion of each incident in which the applicable PM emission standard may have been exceeded or in which exceedances of the opacity standard is 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 that includes: a detailed description of the incident and its cause(s); an explanation why continued operation of the affected boiler was necessary; the length of time during which operation continued under such conditions, until repairs were completed or the boiler was taken out of service; a description of the measures taken to 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 the affected boiler 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; 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 40 CFR 52.21(a)(2); and to comply with other legal requirements that apply to such a change:

- a. Operation of additional air pollution control equipment, which is addressed by a separate construction permit.
- b. Firing of coal or a mix of coal from different suppliers.
- c. Firing of the following materials in conjunction with firing of standard fuels, provided that such materials can be accommodated with the existing fuel handling system and the burners in the affected boiler, 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:
  - i. 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, 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 firing of alternative fuels, such as Standards for Management of Used Oil, 35 IAC Pt 739.

- d.
  - i. This permit allows the use of petroleum coke as part of a demonstration project for a proprietary oxygen enhanced combustion process in conjunction with a permanent low-NOx combustion retrofit subject to the following requirements and limitations, as established by Construction Permit 03050084: [T1]
    - A. Use of petroleum coke is not authorized except on a demonstration basis. Temporary components associated with this project shall be promptly removed from the boiler.
    - B. The sulfur content of petroleum coke shall be such that SO<sub>2</sub> emissions, assuming 100 percent conversion of sulfur to SO<sub>2</sub> do not exceed 6.8 lb/mmBtu, pursuant to 35 IAC 214.142.

- C. Petroleum coke shall not be burned for more than 720 hours, total.
  - D. The Permittee shall continue to burn low-sulfur coal for one year after the date the demonstration project is concluded.
- ii. The Permittee shall maintain an operating log for the petroleum coke demonstration project, which shall include information to address the above requirements.
- iii.
    - A. The Permittee shall submit a semi-annual report describing the project status until such time as the Permittee notifies the Illinois EPA that the demonstration project is concluded.
    - B. The Permittee shall notify the Illinois EPA's Regional Office within 30 days of the initial startup of low-NOx combustion retrofit to allow the Illinois EPA to observe the operation of the retrofit.
    - C. Within six months of the initial startup of the low-NOx combustion retrofit, the Permittee shall submit a performance report to the Illinois EPA for the low-NOx burners and overfire air system discussing the system's effect on NOx emissions from the boiler and affects on emissions of carbon monoxide and particulate matter, and any effects on boiler efficiency or capacity.

#### 7.1.12 Compliance Procedures

- a. Compliance with the opacity and PM emission limitations of Conditions 7.1.4(a) and (b) is addressed by the testing, monitoring and recordkeeping requirements of Conditions 7.1.7, 7.1.8(a) and 7.1.9.
- b. Compliance with the SO<sub>2</sub> emission limit of Condition 7.1.4(c) is addressed by the solid fuel analysis in accordance with Condition 7.1.8(b) and the recordkeeping required by Condition 7.1.9(e). For this purpose, complete conversion of sulfur in fuel to SO<sub>2</sub> emissions shall be assumed, e.g., SO<sub>2</sub> emissions in lb/mmBtu are twice the sulfur content of the fuel supply, in lb/mmBtu.
- c. Compliance with the CO emission limit of Condition 7.1.4(d) is addressed by the required work practices in Condition 7.1.6(a), emission testing in accordance with Conditions 7.1.7(a) and the recordkeeping required by Condition 7.1.9.

- d. Compliance with the work practices 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.

## 7.2 Coal Handling Equipment

### 7.2.1 Description

The Permittee transfers and stores coal in a series of operations, including truck unloading, various conveyor belts (with associated hoppers, diverters, and transfer points), storage piles (with stackers and feeders), and bunkers. These operations first handle coal, as supplied by the 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 measures including the moisture content of the coal and enclosures and covers.

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

#### Coal Receiving Operations

Truck Unloading  
Coal Transfer Conveyors  
Enclosure and Covers

#### Coal Crushing House

Coal Transfer Conveyors  
Enclosure and Covers

#### Coal Storage Operations

Outdoor Storage Piles  
Coal Transfer Conveyors  
Coal Storage Bunkers  
Enclosure and Covers

### 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.

### 7.2.4 Applicable Emission Standards

- a. 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, pursuant to 35 IAC 212.301.
- b. The affected operations shall comply with the opacity standard, i.e., 30 percent opacity, in Condition 5.2.2(b), which generally addresses the opacity of the emission of smoke or other particulate matter from emission units, pursuant to 35 IAC 212.123.

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.

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

- a.
  - i. The Permittee shall implement and maintain control measures for the affected operations, such as enclosure, natural surface moisture, application of dust suppressant, and use of dust collection devices, that minimize visible emissions of particulate matter and provide assurance of compliance with the applicable emission control requirements 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 identified in the records required by Condition 7.2.9(b).

7.2.7 Opacity Testing 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 USEPA Test Method 9, as further specified below, pursuant to Section 39.5(7) (d) of the Act.
    - A. If stack or fugitive emissions are normally visible during the operation of any affected operation, as determined by USEPA Method 22, testing shall be conducted at least every 12 months. For this purpose, testing shall first be conducted within three months of the effective date of this condition.
    - B. If testing must be conducted for other emission units at the source, tested of affected operations shall also be conducted.
    - C. Upon written request by the Illinois EPA, such testing shall be conducted for specific affected operation(s) within 45 calendar days of the request or on the date agreed upon 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 than 10.0 percent.
- iii. A. 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).
- B. The Permittee shall promptly notify the Illinois EPA of any changes in the time or date for testing.
- iv. The Permittee shall provide a copy of its observer's readings to the Illinois EPA at the time of testing, if Illinois EPA personnel are present.
- v. The Permittee shall submit a written report for this testing within 15 days of the date of testing. This report shall include:
  - A. Date and time of testing.
  - B. Name and employer of qualified observer.
  - C. Copy of current certification.
  - D. Description of observation condition, including recent weather.
  - E. Description of the operating conditions of the affected operations.
  - F. Raw data.
  - G. Opacity determinations.
  - H. 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 inspections shall be performed with personnel not directly involved in the day-to day operation of the affected operations and 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 at least once during each calendar month. [Sections 39.5(7) (a) and (d) of the Act.]

- b. The Permittee shall perform detailed inspections of any dust collection equipment for the affected operations at least every 15 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]

#### 7.2.9 Recordkeeping Requirements

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:

- a. The Permittee shall keep the following file(s) and log(s):
  - i. 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 any dust collection equipment associated with the affected operations, including the design control efficiency or performance specifications and maximum design particulate matter emissions, gr/dscf.
    - B. The maximum operating capacity of each affected operation, (ton/hour).
- b. The Permittee shall maintain a record, which shall be kept up to date, of the control measures currently being implemented for the affected operations pursuant to Condition 7.2.6(a). These control measures are referred to as the "established control measures" in this subsection of this permit. Copies of these records shall be submitted to the Illinois EPA in accordance with Condition 5.6.2(d).
- c. 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:
  - i. For inspections required by Condition 7.2.8(a):
    - A. Date and time the inspection was performed and name(s) of inspection personnel.

- B. The observed condition of the control measures for each affected operation, including the presence of any visible emissions or atypical accumulations of coal fines in the vicinity of the process.
  - C. A description of any maintenance or repair associated with established control measures 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.
  - 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.
  - D. 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 emissions.
- e. The Permittee shall maintain records of the following for each incident when any affected operation operated without the established control measures:
- i. The date of the incident and identification of the affected operations that were 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; other control measures or mitigation measures that were implemented, if any; and the magnitude of the PM emissions during the incident.
  - 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 established control measures were in place or the operations were shutdown (to resume operation only after established control measures were in place) and, if this time was more than one hour, an explanation 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 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.
  - vii. A discussion whether any applicable emissions standards as listed in Condition 7.2.4 may have been violated during the incident, with supporting explanation as needed.
- f. The Permittee shall keep a maintenance and repair log for each item of air pollution control equipment, i.e., each dust suppressant application system and each dust collection device, associated with affected operations. This log shall list the date and nature of maintenance and repair activities performed on the item of equipment. (See also Condition 9.6.1, Control Equipment Maintenance Records.)
- g. The Permittee shall keep records for all opacity measurements made in accordance with USEPA Method 9 for the affected operations that it conducts or that are conducted on its behalf by individuals who are qualified to make such observations. For each occasion on which such measurements are made, these records shall include the formal report for the measurements if conducted pursuant to Condition 7.2.7, or otherwise the identity of the observer, a description of the measurements that were made, the operating condition of the affected operations, the observed opacity, and copies of the raw data sheets

for the measurements.

#### 7.2.10 Reporting Requirements

- a. Reporting of Deviations For the affected operations, the Permittee shall promptly notify the Illinois EPA of deviations from permit requirements as follows. Such notifications shall include a description of each incident 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. The Permittee shall provide the following notifications and reports to the Illinois EPA concerning incidents when operation of continued with excess emissions, including continued operation during malfunction or breakdown of equipment.
    - A. The Permittee shall immediately notify the Illinois EPA's Regional Office, by telephone (voice, facsimile or electronic) for each incident in which the opacity from an affected operation exceeds or may have exceeded the applicable opacity standard for three or more 6-minute averaging periods. (Otherwise, if opacity during a malfunction or breakdown incident only exceeds or may have exceeded the applicable standard for one or two 6-minute averaging periods, the Permittee need only report the incident in accordance with Condition 7.2.10(a)(iii).)
    - B. Upon conclusion of each such incident for which notification is required, the Permittee shall submit a written follow-up notice to the Illinois EPA, Compliance Section and Regional Office, within 15 days providing a detailed description of the incident and its cause(s), an explanation why continued operation of an affected operation was necessary, the length of time during which operation continued under such conditions, the measures taken by the Permittee to minimize and correct deficiencies with chronology, and when the repairs were completed or when the affected operation was taken out of service.
  - ii. Notification within 30 days for operation of an affected operation that did not fulfill the applicable requirements in Conditions 7.2.6(a) that continued for more than 12 operating hours from the time that it was identified. Such notifications shall be accompanied by a

copy of the records for the incident required by Condition 7.2.9(e).

- iii. A. Notification with the next deviation report required by Condition 7.1.10-1(a)(iv) for other deviations not addressed by Conditions 7.2.10(a)(i) and (ii), including deviations from applicable emission standards, inspection requirements and recordkeeping requirements.
- B. With the deviation report, the Permittee shall also address deviations that occurred during the reporting period 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 the initial notifications and reports for such deviations.

#### 7.2.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change 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 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 PM 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 Conditions 7.2.4(a) and (b) is addressed by the control, testing, inspection, 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, 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 boiler with crushers that reduce the size of the coal. Associated particulate matter (PM) emissions are controlled by various control measures including moisture content of the coal, and enclosures and covers.

7.3.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Crusher House	Coal Crushing Operation	Enclosures and Covers
Coal Mill A	Coal Crushing Operation	Enclosures and Covers
Coal Mill B	Coal Crushing Operation	Enclosures and Covers

7.3.3 Applicability Provisions

- a. An "affected process" for the purpose of these unit-specific conditions, 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.

7.3.4 Applicable Emission Standards

- a. The affected processes 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, pursuant to 35 IAC 212.301.
- b. The affected processes shall comply with the opacity standard, i.e., 30 percent opacity, in Condition 5.2.2(b), which generally addresses the opacity of the emission of smoke or other particulate matter from emission units, pursuant to 35 IAC 212.123.
- c. The affected processes shall comply with 35 IAC 212.322(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 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 35 IAC 212.322(c) [35 IAC 212.322(a)]. (See also Attachment 2)

7.3.5 Non-Applicability of Regulations of Concern

None

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

- a. i. The Permittee shall implement and maintain control measures for the affected processes, such as enclosure, natural surface moisture, application of dust suppressant, and use of dust collection devices, that minimize visible emissions of particulate matter and provide assurance of compliance with the applicable emission standards in Conditions 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 identified in the records required by Condition 7.3.9(b) (i).

7.3.7 Opacity 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 Test Method 9, as further specified below, pursuant to Section 39.5(7) (d) of the Act.
  - A. If stack or fugitive emissions are normally visible during the operation of any affected process, as determined by USEPA Method 22, testing for the affected processes shall be conducted at least annually. For this purpose, testing shall first be conducted within three months of effective date of this Condition 7.3.7(a).
  - B. If testing must be conducted for other emission units at the source, tested of the affected processes shall also be conducted.
  - C. Upon written request by the Illinois EPA, such testing shall be conducted for specific affected process(es) within 45 calendar days of the request or on the date agreed upon 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 than 10.0 percent.
- iii. A. 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).

- B. The Permittee shall promptly notify the Illinois EPA of any changes in the time or date for testing.
- iv. The Permittee shall provide a copy of its observer's readings to the Illinois EPA at the time of testing, if Illinois EPA personnel are present.
- v. The Permittee shall submit a written report for this testing within 15 days of the date of testing. This report shall include:
  - A. Date and time of testing.
  - B. Name and employer of qualified observer.
  - C. Copy of current certification.
  - D. Description of observation condition, including recent weather.
  - E. Description of the operating conditions of the affected processes.
  - F. Raw data.
  - G. Opacity determinations.
  - H. Conclusions.
- b.
  - i. Within 90 days of 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 Method 5 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 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. 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 each affected process on at least a monthly basis, including associated control measures, to confirm compliance with the requirements of Condition 7.3.6(a). These inspections shall be performed with personnel not directly involved in the day-to-day operation of the affected processes. [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 15 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]

#### 7.3.9 Recordkeeping Requirements

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:

- 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 associated with the affected processes, including the performance specifications for filter material and maximum design particulate matter emissions, gr/dscf.
    - B. The maximum operating capacity of each element of the affected process, (ton/hr).
  - ii. Operating log(s) for the affected processes, which shall include information for any incident in which the operation of the process continued during malfunction or breakdown, including: date, time, and duration; a description of the incident; whether emissions exceeded or may have exceeded any applicable standard; a description of the corrective actions taken to reduce emissions and the duration of the incident; and a description of the preventative actions taken.
  - iii. A maintenance and repair log for the process, including each item of air pollution control equipment, which lists the date and nature of maintenance and repair activities performed. (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 processes pursuant to Condition 7.3.6(a). These control measures are referred to as the "established control measures" in this subsection of this permit.

- ii. Accompanying this record, the Permittee shall maintain a demonstration that confirms that the above established control measures 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 addressed by Condition 7.3.9(a) (i) or testing of an affected process is conducted in accordance with Condition 7.3.7(b), this demonstration shall be developed using emission factors for uncontrolled PM emissions, efficiency of control measures, and controlled PM emissions published by USEPA.
  - iii. Copies of these records shall be submitted to the Illinois EPA in accordance with Condition 5.6.2(d).
- c. The Permittee shall maintain records of the following for the inspections required by Condition 7.3.8:
- i. For inspections required by Condition 7.4.8(a):
    - A. Date and time the inspection was performed and name(s) of inspection personnel.
    - B. The observed condition of the established control measures for the inspected area or operations.
    - C. A description of any maintenance or repair associated with established control measures 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.
    - D. A summary of the observed implementation or status of actual control measures compared to the established control measures.
  - ii. For inspections required by Condition 7.4.8(b):
    - 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.
  - D. 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 emissions.
- d. The Permittee shall maintain records of the following for each incident when any affected process operated without the established control measures:
- i. The date of the incident and identification of the affected process(es) that were 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; other control measures or mitigation measures that were implemented, if any; and the magnitude of the PM emissions during the incident.
  - 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) continued to operate before established control measures were in place or the operations were shutdown (to resume operation only after established control measures were in place) and, if this time was more than one hour, an explanation 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) ran without established control measures and the estimated amount of coal processed 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 standards, as listed in, Condition 7.3.4 may have been violated during the incident, with supporting explanation as needed.
- e. The Permittee shall keep a maintenance and repair log for each item of air pollution control equipment, i.e., each dust suppressant application system and each dust collection device, associated with affected process(es). This log shall list the date and nature of maintenance and repair activities performed on the item of equipment. (See also Condition 9.6.1, Control Equipment Maintenance Records.)
  - f. The Permittee shall keeps records for all opacity measurements for the affected processes that it makes in accordance with USEPA Method 9 or that are conducted on its behest by individuals who are qualified to make such observations. For each occasion on which such measurements are made, these records shall include the formal report for the measurements if conducted pursuant to Condition 7.3.7, or otherwise the identity of the observer, a description of the measurements that were made, the operating condition of the affected process, the observed opacity, and copies of the raw data sheets for the measurements.

#### 7.3.10 Reporting Requirements

##### a. Reporting of Deviations

For the affected processes, the Permittee shall promptly notify the Illinois EPA of deviations from permit requirements as follows. At a minimum, these 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 deviations, any corrective actions taken, and any preventative measures taken. [Sections 39.5(7) (a) and (f) of the Act]

- i. The Permittee shall provide the following notifications and reports to the Illinois EPA concerning incidents when operation continued with excess emissions, including continued operation of an affected process during malfunction or breakdown of equipment.
  - A. The Permittee shall immediately notify the Illinois EPA's Regional Office, by telephone (voice, facsimile or electronic) for each incident in which the opacity from an affected process exceeds or may have exceeded 30 percent for three or more

6-minute averaging periods. (Otherwise, if opacity during an incident only exceeds or may have exceeded 30 percent for one or two 6-minute averaging periods, the Permittee need only report the incident in accordance with Condition 7.3.10(a)(iii).)

- B. Upon conclusion of each such incident for which notification is required, the Permittee shall submit a written follow-up notice to the Illinois EPA, Compliance Section and Regional Office, within 15 days providing a detailed description of the incident and its case(s), an explanation why continued operation was necessary, the length of time during which operation continued under such conditions, the measures taken by the Permittee to minimize and correct deficiencies with chronology, and when the repairs were completed or when the affected operation was taken out of service.
- ii. Notification within 30 days for operation of an affected process that was not in compliance with applicable requirements in Conditions 7.3.6(a) that continued for more than 12 operating hours from the time that it was identified. Such notifications shall be accompanied by a copy of the records for the incident required by Condition 7.3.9(e).
  - iii. A. Notification with the next deviation report required for the coal-fired boiler by Condition 7.1.10-1(a)(iv) for other deviations from permit requirements not addressed by Conditions 7.3.10(a)(i) and (ii), including deviations from applicable emission standards, inspection requirements and recordkeeping requirements.
  - B. With these deviation reports, the Permittee shall also address instances of deviation that occurred during the reporting period that have been separately reported in writing to the Illinois EPA, as provided by Condition 7.3.10(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 but may elect to supplement such material.

#### 7.3.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change 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 PM 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 Conditions 7.3.4 is addressed by the control, testing, inspection, and recordkeeping required by Conditions 7.3.6(a), 7.3.7(a), 7.3.8, and 7.3.9, respectively.
- b. Compliance with Condition 7.3.6(a) is addressed by testing, inspection, 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 equipment to handle and store fly ash from the coal-fired boiler in dry form if there is a market for such material. This dry ash is recovered by the multiclone control system on the boiler. When there is not a market for dry ash, the recovered fly ash is slurried with water and sent to the ash pond, along with the wastewater from the wet scrubber.

The particulate matter (PM) emissions from the handling of dry fly ash are controlled by enclosure and a filter-type dust collection device.

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

Unit I.D.	Description	Emission Control Equipment
SS 1	Ash Transfer, Storage Silo and Loadout	Baghouse BGH 12

### 7.4.3 Applicability Provisions

- a. An "affected process" for the purpose of these unit-specific conditions, is the process emission unit as described in Conditions 7.4.1 and 7.4.2.

### 7.4.4 Applicable Emission Standards

- a. The affected process 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, pursuant to 35 IAC 212.301.
- b. The affected process shall comply with the standard in Condition 5.2.2(b), i.e. 30 percent opacity, which generally addresses the opacity of the emissions of smoke or other particulate matter from emission units, 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 35 IAC 212.321(c). (See also Attachment 1.) [35 IAC 212.321(a)]

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 ash.

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

- a. i. The Permittee shall implement and maintain control measures for the affected process, including enclosure and filter-type dust collection device(s) that minimize visible emissions of particulate matter and provide assurance of compliance with the applicable emission standards 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 identified in the records required by Condition 7.4.9(b).

7.4.7 Opacity and Emission Testing Requirements

- a. i. The Permittee shall have the opacity of the emissions from the affected process during representative weather and operating conditions determined by a qualified observer in accordance with USEPA Test Method 9, as further specified below, pursuant to Section 39.5(7) (d) of the Act.
  - A. If the stack emissions of the affected process are normally visible when it is in operation, as determined by USEPA Reference Method 22, opacity testing shall be conducted at least once every 12 months of operation. For this purpose, if testing is required, the initial testing shall be conducted within 3 months after the effective date of this Condition 7.4.7(a).
  - B. Upon written request by the Illinois EPA, opacity testing shall be conducted for the affected process within 45 calendar days of the request or on the date agreed upon by the Illinois EPA, whichever is later.
  - C. Periods when the affected process is inactive, i.e., neither receiving dry fly ash from the boiler nor loading out fly ash, shall not be considered when determining the timing of required testing.

- 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 than 5.0 percent.
- iii.
  - A. 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).
  - B. The Permittee shall promptly notify the Illinois EPA of any changes in the time or date for testing.
- iv. The Permittee shall provide a copy of its observer's readings to the Illinois EPA at the time of testing, if Illinois EPA personnel are present.
- v. The Permittee shall submit a written report for this testing within 15 days of the date of testing. This report shall include:
  - A. Date and time of testing.
  - B. Name and employer of qualified observer.
  - C. Copy of current certification.
  - D. Description of observation condition, including recent weather.
  - E. Description of the operating conditions of the affected process.
  - F. Raw data.
  - G. Opacity determinations.
  - H. Conclusions.
- b.
  - i. The Permittee shall have the particulate matter emissions at the stacks or vents of the affected process) during representative operating conditions measured within 90 days of a written request from the Illinois EPA, as specified by such request, pursuant to Section 39.5(7)(d) of the Act.
  - ii.
    - A. Testing shall be conducted using appropriate USEPA Reference Test Methods, including Method 5 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 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 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:
  - 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 an inspection of the affected process, including associated control measures, while the process is in operation, at least bi-weekly, 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 process. [Sections 39.5(7) (a) and (d) of the Act].
- b. The Permittee shall perform detailed inspections of the dust collection equipment for the affected process while the process is out of service, at least once every nine months, 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]
- c. Periods when the affected process is inactive shall not be considered when determining the timing of required inspections. (See also Conditions 7.4.7(a) (i) (C) and 7.4.9(a) (ii).)

7.4.9 Recordkeeping Requirements

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

- a. The Permittee shall keep the following file(s) and log(s):
  - i. File(s) containing the following information for the affected process, with supporting information, which information shall be kept up to date:
    - A. Information related to the dust collection equipment associated with the affected processes, including the performance specifications for filter material and maximum design particulate matter emissions, gr/dscf.
    - B. The maximum operating capacity of each element of the affected process, (ton/hr).
  - ii. Operating log(s) for the affected process, which shall include the following information:
    - A. Each time the status of the process changes from active to inactive or vice versa, with explanation.

- B. Information for any incident in which the operation of the process continued during malfunction or breakdown, including: date, time, and duration; a description of the incident; whether emissions exceeded or may have exceeded any applicable standard; a description of the corrective actions taken to reduce emissions and the duration of the incident; and a description of the preventative actions taken.
- iii. A maintenance and repair log for the process, including each item of air pollution control equipment, which lists the date and nature of maintenance and repair activities performed. (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, for the control measures currently being implemented for the affected process pursuant to Condition 7.4.6(a). These control measures, as defined by the Permittee through these records, are referred to as the "established control measures" in this section of this permit.
  - ii. Accompanying this record, the Permittee shall maintain a demonstration that confirms that the above established control measures are sufficient to assure compliance with Condition 7.4.4(c) at the maximum process weight rates at which ash can be received from the boiler and loaded out (tons ash/hour), with supporting calculations and documentation for the emission factors and the efficiency of the control measures being relied upon by the Permittee. Except as addressed by Condition 7.4.9(a) (i) (A) or testing of an affected process is conducted in accordance with Condition 7.4.7(b), this demonstration shall be developed using emission factors for uncontrolled PM emissions, efficiency of control measures, and controlled PM emissions published by USEPA.
  - iii. Copies of these records shall be submitted to the Illinois EPA in accordance with Condition 5.6.2(d).
- c. The Permittee shall maintain records of the following for the inspections required by Condition 7.4.8:
    - i. For inspections required by Condition 7.4.8(a):
      - A. Date and time the inspection was performed and name(s) of inspection personnel.

- B. The observed condition of the control measures for the process, including the presence of any visible emissions or accumulations of fly ash in the vicinity of the process.
  - C. A description of any maintenance or repair associated with established control measures 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.
  - D. A summary of the observed implementation or status of actual control measures, as compared to the established control measures.
- ii. For inspections required by Condition 7.4.8(b):
- 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.
  - D. 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 emissions.
- d. The Permittee shall maintain records of the following for each incident when the affected process operated without the established control measures:
- i. The date of the incident.
  - ii. A description of the incident, including: the element(s) of the process that were involved and the established control measures that were not present or implemented; the established control measures that were present, if any; other control measures or mitigation measures that were implemented, if any; and the magnitude of the PM emissions during the incident.

- 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 process continued to operate before established control measures were in place or the process was shutdown (to resume operation only after established control measures were in place) and, if this time was more than one hour, a detailed explanation 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 process ran without established control measures and the estimated amount of material handled during the incident.
  - vi. A discussion of the probable cause of the incident and any preventative measures taken.
  - vii. A discussion whether applicable emissions standards, 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. The Permittee shall keep records for all opacity measurements made in accordance with USEPA Method 9 for the affected process that it conducts or that are conducted on its behalf by an individual who is qualified to make such observations. For each occasion on which such measurements are made, these records shall include the formal report for the measurements if conducted pursuant to Condition 7.4.7(a), or otherwise the identity of the observer, a description of the measurements that were made, the operating condition of the process, the observed opacity, and copies of the raw data sheets.

#### 7.4.10 Reporting Requirements

##### a. Reporting of Deviations

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

- i. The following notifications and reports concerning incidents when operation continued with excess emissions, including continued operation of the affected process during malfunction or breakdown of equipment.
  - A. The Permittee shall immediately notify the Illinois EPA's Regional Office, by telephone (voice or facsimile) for each incident in which the opacity from the affected process exceeds or may have exceeded the applicable standard for two or more consecutive 6-minute averaging periods. (Otherwise, if opacity during a malfunction or breakdown incident only exceeds or may have exceeded the applicable standard for one 6-minute averaging period, the Permittee need only report the incident in accordance with Condition 7.4.10(a)(iii).)
  - B. Upon conclusion of each such incident for which notification is required, the Permittee shall submit a written follow-up notice to the Illinois EPA, Compliance Section and Regional Office, within 15 days providing a detailed description of the incident and its cause(s), an explanation why continued operation was necessary, the length of time during which operation continued under such conditions, the measures taken by the Permittee to minimize and correct deficiencies with chronology, and when the repairs were completed or when the affected process was taken out of service.
- ii. Notification within 30 days for operation of the affected process that was not in compliance with applicable requirements in Conditions 7.4.6(a) that continued for more than two operating hours from the time that it was identified. Such notifications shall be accompanied by a copy of the records for the incident required by Condition 7.4.9(d).
- iii.
  - A. Notification with the next deviation report required by Condition 7.1.10-1(a)(iv) for other deviations not addressed by Conditions 7.4.10(a)(i) and (ii), including deviations from applicable emission standards, inspection requirements, and recordkeeping requirements.
  - B. With the deviation report, the Permittee shall also address deviations that occurred during the reporting period 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 the initial notifications and reports for such deviations.

#### 7.4.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected process 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 for an activity for which a permit is required pursuant to 35 IAC 201.142.

- a. Operation of additional dust suppressant systems.
- b. Operation of replacement dust collection equipment that is of equal or greater effectiveness in controlling PM emissions than the device(s) being replaced, as recognized in a Construction Permit for such system or equipment.

#### 7.4.12 Compliance Procedures

- a. Compliance with Condition 7.4.4 is addressed by the control, testing, inspection, and recordkeeping required by Conditions 7.4.6(a), 7.4.7, 7.4.8, and 7.4.9, respectively.
- b. Compliance with Condition 7.4.6(a) is addressed by the testing, inspection, 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 Lime Handling Equipment

7.5.1 Description

The Permittee operates equipment to handle and store lime, which is used to neutralize the acidic wastewater from the wet scrubber. The lime is received by truck. Associated particulate matter (PM) emissions are controlled by enclosure and a filter control device.

7.5.2 List of Emission Units and Air Pollution Control Equipment

Unit I.D.	Description	Control Equipment
SS 2	Lime Receiving and Storage Silo	Baghouse BGH 2

7.5.3 Applicability Provisions

- a. The "affected process" for the purpose of these unit-specific conditions is the emission unit described in Condition 7.5.1 and 7.5.2.

7.5.4 Applicable Emission Standards

- a. The affected process 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, pursuant to 35 IAC 212.301.
- b. The affected process shall comply with the standard, i.e., 30 percent opacity, in Condition 5.2.2(b), pursuant to 35 IAC 212.123.
- c. The affected process 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 operations 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 35 IAC 212.321(c) (See also Attachment 1.) [35 IAC 212.321(a)]

7.5.5 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected process not being subject to the NSPS for Nonmetallic Mineral Processing Plants, 40 CFR 60 Subpart 000. This is because lime is not a nonmetallic mineral for purposes of this subpart, under the definition of nonmetallic mineral at 40 CFR 60.671.

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

- a. i. The Permittee shall implement and maintain control measures for the affected process, including enclosure and filter-type dust collection devices, that minimize visible emissions of particulate matter and provide assurance of compliance with the applicable emission standards in Condition 7.5.4, pursuant to Section 39.5(7) (a) of the Act.
- ii. The Permittee shall operate and maintain each affected operations with the control measures identified in the records required by Condition 7.5.9(b) (i).

7.5.7 Opacity and Emission Testing Requirements

- a. i. If visible emissions normally occur during receiving of lime, as determined by USEPA Method 22, the Permittee shall have the opacity of such emissions from the affected process during representative weather and operating conditions determined by a qualified observer in accordance with USEPA Test Method 9, as further specified below, pursuant to Section 39.5(7) (d) of the Act.
  - A. Testing of opacity shall be conducted at least every 18 months. For this purpose, if testing is required, the initial testing shall be conducted within nine months after the effective date of this Condition 7.5.7(a).
  - B. Upon written request by the Illinois EPA, such testing shall be conducted within 45 calendar days of the request or on the date agreed upon 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 than 5.0 percent.
- iii.
  - A. 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).
  - B. The Permittee shall promptly notify the Illinois EPA of any changes in the time or date for testing.

- iv. The Permittee shall provide a copy of its observer's readings to the Illinois EPA at the time of testing, if Illinois EPA personnel are present.
- v. The Permittee shall submit a written report for this testing within 15 days of the date of testing. This report shall include:
  - A. Date and time of testing.
  - B. Name and employer of qualified observer.
  - C. Copy of current certification.
  - D. Description of observation condition, including recent weather.
  - E. Description of the operating conditions of the affected processes.
  - F. Raw data.
  - G. Opacity determinations.
  - H. Conclusions.
- b.
  - i. Within 90 days of a written request from the Illinois EPA, the Permittee shall have the PM emissions at the stacks or vents of the affected process, 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 Method 5 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 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 a complete Test Report to the Illinois EPA, no later than 90 days after the date of testing. This report shall include the information specified in Condition 8.6.3 and the following information:
  - 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 operation 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 averages) measured during testing.

#### 7.5.8 Inspection Requirements

- a. The Permittee shall perform inspections of the affected process, including associated control measures, at least every six months, while lime is being received, to confirm compliance with the requirements of Condition 7.5.6(a). These inspections shall be performed by personnel who are not directly involved in the day-to-day operation of the affected process. [Sections 39.5(7) (a) and (d) of the Act]
- b. The Permittee shall perform detailed inspections of the dust collection equipment for the affected process at least every 24 months while the process is 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]

#### 7.5.9 Recordkeeping Requirements

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

- a. The Permittee shall keep the following file(s) and logs:
  - i. File(s) containing the following information for the affected process, with supporting information, which shall be kept up to date:
    - A. Information related to the dust collection equipment associated with the affected processes, including the performance specifications for filter material and maximum design particulate matter emissions, gr/dscf.
    - B. The maximum operating capacity of each element of the affected process, (ton/hr).
  - ii. Operating log(s) for the affected process, which shall include information for any incident in which the operation of the process continued during malfunction or breakdown, including: date, time, and duration; a description of the incident; whether emissions exceeded or may have exceeded any applicable standard; a description of the corrective actions taken to reduce emissions and the duration of the incident; and a description of the preventative actions taken.
  - iii. A maintenance and repair log for the process, including each item of air pollution control equipment, which lists the date and nature of maintenance and repair activities performed. (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 process pursuant to Condition 7.5.6(a). These control measures, as defined by these records, are referred to as the "established control measures" in this section of this permit.
  - ii. Accompanying this record, the Permittee shall maintain a demonstration that confirms that the above established control measures are sufficient to assure compliance with Condition 7.5.4(c) at the maximum process weight rate at which lime can be received and handled (tons/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 addressed by Condition 7.5.9(a)(i) or testing of an affected process is conducted in accordance with Condition 7.5.7(b), this demonstration shall developed using published emission factors for uncontrolled PM emissions, efficiency of control measures, and controlled PM emissions.

- iii. Copies of these records shall be submitted to the Illinois EPA in accordance with Condition 5.6.2(d).
- c. The Permittee shall maintain records of the following for the inspections required by Condition 7.5.8:
  - i. For inspections required by Condition 7.4.8(a):
    - A. Date and time the inspection was performed and name(s) of inspection personnel.
    - B. The observed condition of the control measures for the affected process, including the presence of any visible emissions or accumulations of lime in the vicinity of the process.
    - C. A description of any maintenance or repair associated with established control measures 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.
    - D. A summary of the observed implementation or status of actual control measures, as compared to the established control measures.
  - ii. For inspections required by Condition 7.5.8(b):
    - 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.

- D. 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 emissions.
- d. The Permittee shall maintain records of the following for each incident when the affected process operated without the established control measures:
- i. The date of the incident.
  - ii. A description of the incident, including the element(s) of the process that were involved and the established control measures that were not present or implemented; the established control measures that were present, if any; other control measures or mitigation measures that were implemented, if any; and the magnitude of the PM emissions during the incident.
  - 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 continued to operate before established control measures were in place or the operations were shutdown (to resume operation only after established control measures were in place) and, if this time was more than one hour, an explanation 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 ran without established control measures and the estimated amount of material handled during the incident.
  - vi. A discussion of the probable cause of the incident and any preventative measures taken.
  - vii. A discussion whether applicable emission standards, as listed in Condition 7.5.4, may have been violated during the incident, with supporting explanation.

- e. The Permittee shall keep records for all opacity measurements made in accordance with USEPA Method 9 for the affected process that it conducts or that are conducted on its behalf by individuals who are qualified to make such observations. For each occasion on which such measurements are made, these records shall include the formal report for the measurements if conducted pursuant to Condition 7.5.7(a), or otherwise the identity of the observer, a description of the measurements that were made, the operating condition of the process operation, the observed opacity, and copies of the raw data sheets.

#### 7.5.10 Reporting Requirements

##### a. Reporting of Deviations

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

- i. The following notifications and reports concerning incidents when operation continued with excess emissions, including continued operation of the affected process during malfunction or breakdown of equipment.
  - A. The Permittee shall immediately notify the Illinois EPA's Regional Office, by telephone (voice, facsimile or electronic) for each incident in which the opacity from the affected process exceeds or may have exceeded 30 percent for three or more 6-minute averaging periods. (Otherwise, if opacity during a malfunction or breakdown incident only exceeds or may have exceeded 30 percent for no more than one or two 6-minute averaging periods, the Permittee need only report the incident in accordance with Condition 7.5.10(a)(iii).)
  - B. Upon conclusion of each such incident for which notification is required, the Permittee shall submit a written follow-up notice to the Illinois EPA, Compliance Section and Regional Office, within 15 days providing a detailed description of the incident and its cause(s), an explanation why continued operation was necessary, the length of time during which operation continued under such conditions, the measures taken by the Permittee to

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

- ii. Notification within 30 days for operation of the affected process that was not in compliance with applicable requirements in Conditions 7.5.6(a) that continued for more than 12 operating hours from the time that it was identified. Such notifications shall be accompanied by a copy of the records for the incident required by Condition 7.5.9(d).
- iii. A. Notification with the deviation reports required for the coal-fired boiler by Condition 7.1.10-1(a)(iv) for other deviations not addressed by Conditions 7.5.10(a)(i) and (ii), including deviations from the applicable PM emission standard, inspection requirements, and recordkeeping requirements.  
B. With these deviation reports, the Permittee shall also address deviations that occurred during the reporting period 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 the initial notifications and reports for such deviations.

#### 7.5.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected process 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 for an activity for which a permit is required pursuant to 35 IAC 201.142.

- a. Operation of additional dust collection equipment.
- b. Operation of replacement dust collection equipment that is of equal or greater effectiveness in controlling PM emissions than the device(s) being replaced, as recognized in a Construction Permit for such system or equipment.

7.5.12 Compliance Procedures

- a. Compliance with Condition 7.5.4 is addressed by the control, testing, inspection, and recordkeeping required by Conditions 7.5.6(a), 7.5.7, 7.5.8, and 7.5.9, respectively.
- b. Compliance with Condition 7.5.6(a) is addressed by the inspection and recordkeeping required by Conditions 7.5.8, and 7.5.9, respectively.

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

7.6 Combustion Turbine

7.6.1 Description

The combustion turbine is a process emission unit that is operated as a peaking unit, to meet peak electrical demand and provide an emergency source of power. The turbine is fired with distillate oil.

7.6.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Control Equipment
Turbine CT-1	Distillate Oil Fired Turbine Nominal 273 mmBtu/hr	None

7.6.3 Applicability Provisions

- a. The "affected turbine" for the purpose of these unit-specific conditions, is the turbine described in Conditions 7.6.1 and 7.6.2.

7.6.4 Applicable Emission Standards

- a. The affected turbine shall comply with the standard in Condition 5.2.2(b), 30 percent opacity, pursuant to 35 IAC 212.123.
- b. The 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.

7.6.5 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected turbine not being subject to the requirements of 35 IAC 212.321 or 212.322 because, due to the nature of turbines, 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 turbine is not subject to 35 IAC 216.121 because the affected turbine is not a fuel combustion unit, as defined by 35 IAC 211.2470.
- c. The affected turbine is not subject to the federal Acid Rain Program pursuant to 40 CFR 72.6(b)(1), which provides that 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. i. This Permit is issued based on the affected turbine not being subject to the requirements of the NOx Trading Program, 35 IAC Part 217 Subpart W, because the nameplate capacity of the generator associated with the turbine is less than 25 MWe.

- ii. The Permittee shall keep records to confirm the nameplate capacity of the generator associated with the affected turbine.
- e. This permit is issued based on the affected turbine 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: The 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.

#### 7.6.6 Work Practices, Operational and Production Limits, and Emission Limitations

- a. Distillate fuel oil shall be the only fuel fired in the affected turbine.
- 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 turbine.

#### 7.6.7-1 Opacity Testing Requirements

- a. The Permittee shall have the opacity of the exhaust from the affected turbine during representative operating conditions determined by a qualified observer in accordance with USEPA Test Method 9, as further specified below, pursuant to Section 39.5(7)(d) of the Act.

- i. If the stack emissions of the turbine are normally visible during startup or operation of the turbine, as determined by USEPA Reference Method 22, testing of opacity shall be conducted at least once for every 1000 hours of operation. For this purpose, the initial testing shall first be conducted within the first 250 hours of operation of the turbine after this condition becomes effective.
  - ii. Upon written request by the Illinois EPA, Such testing shall be conducted within 45 calendar days of the request, or on the date that the turbine next operates, or on the date agreed upon by the Illinois EPA, whichever is later.
- 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 less than 10.0 percent.
- c.
- i. 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).
  - ii. The Permittee shall promptly notify the Illinois EPA of any changes in the time or date for testing.
  - iii. The Permittee shall provide a copy of its observer's readings to the Illinois EPA at the time of testing, if Illinois EPA personnel are present.
- d. The Permittee shall submit a written report for this testing within 15 days of the date of testing. This report shall include:
- i. Date and time of testing.
  - ii. Name and employer of qualified observer.
  - iii. Copy of current certification.
  - iv. Description of observation conditions.
  - v. Description of turbine operating conditions.
  - vi. Raw data.
  - vii. Opacity determinations.
  - viii. Conclusions.

7.6.7-2 Fuel Oil Sampling and Analysis

- a. i. The Permittee shall have the sulfur content of the oil supply to the affected turbine, in lb/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 turbine pursuant to this permit, provided, however, that if such sample is taken following operation of the affected turbine, 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 7.6.4(b) 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<sub>2</sub> Emissions Data Protocol for Gas-Fired and Oil-Fired Units e.g., ASTM D4057-88 and ASTM D129-91.

7.6.8 Emission Monitoring Requirements

None

7.6.9 Recordkeeping Requirements

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

- a. The following file(s), log(s) or other records for the turbine:

- i. A file containing: (1) The exhaust flow rate factor from the turbine, in scf/mmBtu fuel input, if the Permittee is relying on a factor higher than 10,320 scf/mmBtu, i.e., the factor in Table 19-1 of 40 CFR Part 60, Appendix, Method 19, for determining compliance with Condition 7.6.4(b), and (2) A copy of the turbine manufacturer's performance data for the turbine, including this factor, or other supporting documentation for such higher factor.
- ii. An operating log or other records for the 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 7.6.6(b), with date, time, personnel, and findings.
  - C. Information for any incident in which the operation of the turbine continued during malfunction or breakdown, including: date, time, and duration; a description of the incident; whether emissions exceeded or may have exceeded Condition 7.6.4(a); a description of the corrective actions taken to reduce emissions and the duration of the incident; and a description of the preventative actions taken.
  - D. Information identifying any deviation from Condition 7.6.6(a).
- ii. A maintenance and repair log for the affected turbine and associated equipment, listing activities performed with date.
- b. i. Distillate fuel usage for the affected turbine, gallons/mo and gallons/yr.
- ii. Operation of the affected turbine, hours/yr.
- c. The following records related to the sulfur content of the fuel oil supply and SO<sub>2</sub> 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<sub>2</sub> emissions from the burning of such fuel would meet the standard in Condition 7.6.4(b).

- d. Records for all opacity measurements made in accordance with USEPA Method 9 for an affected turbine that the Permittee conducts or that are conducted on its behalf 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.

#### 7.6.10 Reporting Requirements

##### a. Reporting of Deviations

For the affected turbine, the Permittee shall promptly notify the Illinois EPA of deviations from permit requirements as follows. At a minimum, such 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 deviations, any corrective actions taken and any preventative measures taken. [Sections 39.5(7) (a) and (f) of the Act]

- i.
  - A. The Permittee shall immediately notify the Illinois EPA's Regional Office, by telephone (voice, facsimile or electronic) for each incident in which the opacity from an affected turbine exceeds or may have exceeded the limit in Condition 7.6.4(a) (30 percent) for three or more 6-minute averaging periods. (Otherwise, if opacity during an incident only exceeds or may have exceeded 30 percent for no more than one or two 6-minute averaging periods, the Permittee need only report the incident in accordance with Condition 7.6.10(a) (iii) (A).)
  - B. Upon conclusion of such incident, the Permittee shall submit a follow-up report to the Illinois EPA, Compliance Section and Regional Office, within 15 days providing a detailed description of the incident and its cause(s), 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 7.6.4(b) or 7.6.6(a) (i), with a copy of the applicable records for the incident.

- iii. A. Reporting with the deviation reports required for the coal-fired boiler by Condition 7.1.10-1(a)(iv) for other deviations from permit requirements not addressed by Condition 7.6.10(a)(i) or (ii), including deviations from applicable emission standards, inspection requirements, and recordkeeping requirements.
- B. With these deviation reports, the Permittee shall also address other instances of deviations that occurred during the reporting period that have been separately reported in writing to the Illinois EPA as provided by Conditions 7.6.10(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 written notifications and reports for such deviations.

7.6.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.6.12 Compliance Procedures

- a. Compliance with opacity limitations of Condition 7.6.4(a) is addressed by the inspection, testing, and recordkeeping requirements in Conditions 7.6.6(b), 7.6.7, and 7.6.9(d).
- b. i. Compliance with Condition 7.6.4(b) is addressed by the operating requirements in Condition 7.6.6(a) and the recordkeeping required by Condition 7.6.9.
- ii. For this purpose, complete conversion of sulfur into SO<sub>2</sub> shall be assumed, e.g., SO<sub>2</sub> emissions in lb/mmBtu are twice the sulfur content of the fuel supply, in lb/mmBtu, using the following equation:

$$\text{SO}_2 \text{ ppm} = \text{Fuel sulfur content (lb/mmBtu)} \times 2 \times 1/64 \times 385.2 \times 1,000,000 \text{ Turbine exhaust rate factor (scf/mmBtu)}$$

Note: Stoichiometric combustion of distillate oil with the maximum available sulfur content, i.e., 1.0 percent, would result in an SO<sub>2</sub> concentration in the exhaust that is well below the 2000 ppm limit in Condition 7.6.4(b), i.e., only about 500 ppm, based on 10,320 scf/mmBtu, the F-factor for oil in USEPA's Reference Method 19.

- c. Compliance with the requirements of Condition 7.6.6 is addressed by the recordkeeping required by Condition 7.6.9.

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

7.7 Heating Boiler

7.7.1 Description

The boiler is a fuel combustion emission unit used to provide heat. The boiler is fueled by distillate fuel.

7.7.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Control Equipment
Boiler B-2	Distillate Oil-Fired Fired Boiler Nominal 3.5 mmBtu/hr	None

7.7.3 Applicability Provisions

The "affected boiler" for the purpose of these unit-specific conditions, is the boiler described in Conditions 7.7.1 and 7.7.2.

7.7.4 Applicable Emission Standards

- a. The affected boiler shall comply with the standard in Condition 5.2.2(b), i.e., 30 percent opacity, pursuant to 35 IAC 212.123.
- b. The emissions of SO<sub>2</sub> from the affected boiler shall not exceed 0.3 lb/mmBtu of actual heat input, pursuant to 35 IAC 214.161(b).
- c. The emissions of PM from the affected boiler shall not exceed 0.10 lb/mmBtu of actual heat input, pursuant to 35 IAC 212.206.

7.7.5 Non-Applicability of Regulations of Concern

None

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

- a. i. As part of its operation and maintenance of the affected boiler, the Permittee shall perform formal "combustion evaluation" on the boiler in each calendar year in which the boiler operates for at least 100 hours\*, pursuant to Section 39.5(7)(d) of the Act. These evaluations shall consist of diagnostic measurements of the concentration of CO in the flue gas of the affected boiler, with adjustments and preventative and corrective measures for the boiler's combustion systems to maintain efficient combustion.

\* If the affected boiler does not operate for 100 hours in a calendar year, the interval between combustion evaluations shall be no greater than 100 hours of boiler operation.

- ii. Distillate fuel oil shall be the only fuel fired in the affected boiler.

#### 7.7.7-1 Opacity and Emission Testing Requirements

- a. The Permittee shall have the opacity of the exhaust from the affected boiler during representative weather and operating conditions determined by a qualified observer in accordance with USEPA Method 9, as further specified below, pursuant to Section 39.5(7) (d) of the Act.
  - i. Upon request by the Illinois EPA, testing shall be conducted within 60 calendar days, the date that the affected boiler next operates that is scheduled more than 10 days in advance, or on the date agreed to 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 than 5.0 percent.
  - iii.
    - A. 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) and identify any concerns for successful completion of observations, i.e., lack of suitable point for proper observation or inability to conduct observations under specified operating conditions. This condition supersedes the requirements of Condition 8.6.2.
    - B. The Permittee shall promptly notify the Illinois EPA of any changes in the time or date for testing.
  - iv. The Permittee shall provide a copy of its observer's readings to the Illinois EPA at the time of testing, if Illinois EPA personnel are present.
  - v. The Permittee shall submit a written report for this testing within 15 days of the date of testing. This report shall include relevant information specified in Condition 8.6.3 and the following information:
    - A. Date and time of testing.
    - B. Name and employer of qualified observer.

- C. Copy of current certification.
  - D. Description of observation condition, including recent weather.
  - E. Description of the operating conditions of the affected processes.
  - F. Raw data.
  - G. Opacity determinations.
  - H. Conclusions.
- b. i. Within 90 days of a written request from the Illinois EPA, the Permittee shall have the PM emissions of the affected boiler, 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 Method 5 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 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. 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 boiler during testing, including: firing rate (mmBtu/hr); and combustion system information, i.e., settings for distribution of combustion air, target level for O<sub>2</sub> in the flue gas, and levels of O<sub>2</sub> in the flue gas, as determined by diagnostic measurements.
- 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.

#### 7.7.7-2 Fuel Oil Sampling and Analysis

- a. i. The Permittee shall have the sulfur content of the oil supply to the affected boiler, in lb/mmBtu, determined from an analysis of representative sample of the oil supply, as follows, pursuant to Section 39.5(7)(d) of the Act:
  - A. From a sample taken no later than 90 days after first operating the affected boiler pursuant to this permit, provided, however, that if such sample is taken following operation of the affected boiler, 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 7.7.4(b) based upon supplier data, provided however, that if the affected boiler 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 Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60.46c(d) or the federal Acid Rain Program, 40 CFR 75, Appendix D, Optional SO<sub>2</sub> Emissions Data Protocol for Gas-Fired and Oil-Fired Units e.g., ASTM D4057-88 and ASTM D129-91.

7.7.8 Emission Monitoring Requirements

None

7.7.9 Recordkeeping Requirements

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

- a. i. An operating log or other records for the affected boiler that, at a minimum, shall include the following information:
  - A. Information for each startup and shutdown of the boiler, including date, time and duration.
  - B. Information documenting the performance of the combustion evaluation required by Condition 7.7.6(a), including the date of the evaluation, the concentrations of CO measured at the start and conclusion of the evaluation, and a description of adjustments and preventative and corrective measures undertaken for the combustion systems of the boiler
  - C. Information for any incident in which the operation of the affected boiler continued during malfunction or breakdown, including: date, time, and duration; a description of the incident; whether emissions exceeded or may have exceeded any applicable standard; a description of the corrective actions taken to reduce emissions and the duration of the incident; and a description of the preventative actions taken.
  - D. Information identifying any deviation from Condition 7.7.6(a).
- ii. An inspection, maintenance and repair log for the affected boiler, listing activities performed with date and description.

- b. Records for the sulfur content of each shipment or lot of fuel oil received for the affected boiler, including date, supplier, quantity (in gallons), data on maximum sulfur content and minimum heat content as guaranteed by the supplier, calculated maximum sulfur content in lb/mmBtu, and whether the SO<sub>2</sub> emission rate from the burning of such fuel would meet the standard in Condition 7.7.4(c).
- c. The following records for the operation of the affected boiler:
  - i. Usage of fuel (gallons/month and gallons/year).
  - ii. Operating hours (hours/quarter).
- d. Records for all opacity measurements made in accordance with USEPA Method 9 for the affected boiler that the Permittee conducts or that are conducted on its behalf by individuals who are qualified to make such observations. For each occasion on which such measurements are made, these records shall include the formal report for the measurements if conducted pursuant to Condition 7.7.7(a), or otherwise the identity of the observer, a description of the measurements that were made, the operating condition of the affected boiler, the observed opacity, and copies of the raw data sheets for the measurements.

#### 7.7.10 Reporting Requirements

- a. For the affected boiler, the Permittee shall promptly notify the Illinois EPA of deviations from permit requirements as follows. At a minimum, these notifications shall include a description of the deviations, including whether it occurred during startup or malfunction/breakdown, and a discussion of the probable cause of such deviations, any corrective actions taken and any preventative measures taken. [Sections 39.5(7) (a) and (f) of the Act]
  - i. The following notifications and reports concerning incidents when operation of the affected boiler continued with excess opacity, including continued operation of the affected boiler during malfunction or breakdown of equipment, other than during shutdown of the boiler.
    - A. The Permittee shall immediately notify the Illinois EPA's Regional Office, by telephone (voice, facsimile or electronic) for each incident in which the opacity from the affected boiler exceeds or may have exceeded 30 percent for four or more 6-minute averaging periods unless the Permittee has begun the shutdown of the

affected boiler by such time. (Otherwise, if opacity during an incident only exceeds or may have exceeded 30 percent for no more than three 6-minute averaging periods, the Permittee need only report the incident in accordance with Condition 7.7.10(c).

- B. Following the conclusion of each such incident for which notification is required, the Permittee shall submit a written follow-up report to the Illinois EPA, Compliance Section and Regional Office, within 15 days providing a detailed description of the incident and its cause(s), an explanation why continued operation of the affected boiler was necessary, the length of time during which operation continued under such conditions, the measures taken by the Permittee to minimize and correct deficiencies with chronology, and when the repairs were completed or when the affected boiler was taken out of service.
  - ii. Notification within 30 days for operation of the affected boiler that was not in compliance with Conditions 7.7.4(b) or 7.7.6(a) (ii), with a copy of the applicable records for the incident required by Condition 7.7.9(a) (i).
  - iii. A. Notification with the quarterly reports required for the coal-fired boiler by Condition 7.1.10-1(a) for other deviations not addressed by Condition 7.7.10(a) (i) or (ii), including deviations from applicable emission standards, inspection requirements, and recordkeeping requirements.
    - B. With these reports, the Permittee shall also address deviations that occurred during the quarter that have been separately reported in writing to the Illinois EPA, with a summary of such deviations. For this purpose, the Permittee need not resubmit the detailed information provided in the initial notifications and reports for such deviations.

#### 7.7.11 Operational Flexibility/Anticipated Operating Scenarios

None

#### 7.7.12 Compliance Procedures

- a. Compliance with opacity standard of Condition 7.7.4(a) is addressed by the testing and recordkeeping required by Conditions 7.7.7 and 7.7.9.

- b. Compliance with PM limit of Condition 7.7.4(b) is addressed by the work practices and fuel restriction in Condition 7.7.6(a) and the records required by Condition 7.7.9.
- c. Compliance with the SO<sub>2</sub> emission limit of Condition 7.7.4(c) is addressed by work practice, testing and recordkeeping required by Conditions 7.7.6(a), 7.7.7(b) and 7.7.9, respectively. For this purpose, complete conversion of sulfur to SO<sub>2</sub> shall be assumed, e.g., SO<sub>2</sub> emissions in lb/mmBtu are twice the sulfur content of the fuel supply, in lb/mmBtu.
- d. Compliance with the work practices and fuel restriction required by Condition 7.7.6(a) is addressed by the recordkeeping required by Condition 7.7.9.

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 not an affected source under Title IV of the CAA and is not subject to requirements pursuant to Title IV of the CAA.

### 8.3 Emissions Trading Programs

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

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

### 8.4 Operational Flexibility/Anticipated Operating Scenarios

#### 8.4.1 Changes Specifically Addressed by Permit

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

#### 8.4.2 Changes Requiring Prior Notification

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

- a. The changes do not violate applicable requirements;
- b. The changes do not contravene federally enforceable permit terms or conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements;

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

## 8.5 Testing Procedures

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

<u>Monitoring Period</u>	<u>Report Due Date</u>
January - June	September 1
July - December	March 1

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

#### 8.6.2 Test Notifications

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

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

#### 8.6.3 Test Reports

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

- a. The name and identification of the affected unit(s);
- b. The date and time of the sampling or measurements;

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

#### 8.6.4 Reporting Addresses

- a. Unless otherwise specified in the particular provision of this permit or in the written instructions distributed by the Illinois EPA for particular reports, reports and notifications shall be sent to the Illinois EPA - Air Compliance 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 (MC 40)  
 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  
 2009 Mall Street  
 Collinsville, Illinois 62234
  - 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.)

9.0 STANDARD PERMIT CONDITIONS

9.1 Effect of Permit

9.1.1 The issuance of this permit does not release the Permittee from compliance with State and Federal regulations which are part of the Illinois State Implementation Plan, as well as with other applicable statutes and regulations of the United States or the State of Illinois or applicable ordinances, except as specifically stated in this permit and as allowed by law and rule. [Section 39.5(7)(j)(iv) of the Act]

9.1.2 In particular, this permit does not alter or affect the following:

- a. The provisions of Section 303 (emergency powers) of the CAA, including USEPA's authority under that Section;
- b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
- c. The applicable requirements of the acid rain program consistent with Section 408(a) of the CAA; and
- d. The ability of USEPA to obtain information from a source pursuant to Section 114 (inspections, monitoring, and entry) of the CAA.

9.1.3 Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance 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)(o)(i) of the Act]

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

9.2.2 Duty to Maintain Equipment

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

9.2.3 Duty to Cease Operation

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

9.2.4 Disposal Operations

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

9.3 Obligation to Allow Illinois EPA Surveillance

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

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

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

#### 9.4 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) (o) (iv) of the Act]

#### 9.6 Recordkeeping

##### 9.6.1 Control Equipment Maintenance Records

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

##### 9.6.2 Records of Changes in Operation

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

##### 9.6.3 Retention of Records

- a. Records of all monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. [Section 39.5(7) (e) (ii) of the Act]
- b. Other records required by this permit 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, Compliance 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 technology-based emission limitations under this permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence:

- i. An emergency occurred as provided in Section 39.5(7)(k) of the Act and the Permittee can identify the cause(s) of the emergency;

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 issuance of a renewal permit. [Sections 39.5(5)(1) and (o) of the Act]

Note: Pursuant to Sections 39.5(5)(h) and (n) of the Act, upon submittal of a timely and complete renewal application, the permitted source may continue to operate until final action is taken by the Illinois EPA on the renewal application, provided, however, that this protection shall cease if the applicant fails to submit any additional information necessary to evaluate or take final action on the renewal application as requested by the Illinois EPA in writing. For a renewal application to be timely, it must be submitted no later than 9 months prior to the date of permit expiration.

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

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

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

10.0 ATTACHMENTS

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

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

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

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

Where:

P = Process weight rate; and

E = Allowable emission rate; and,

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

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

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

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

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

Metric		English	
P	E	P	E
Mg/hr	kg/hr	T/hr	lb/hr
0.05	0.25	0.05	0.55
0.1	0.29	0.10	0.77
0.2	0.42	0.2	1.10
0.3	0.64	0.30	1.35

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

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

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

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

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

Where:

P = Process weight rate; and

E = Allowable emission rate; and,

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

	Metric	English
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	1.985	4.10
B	0.67	0.67
C	0	0

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

	Metric	English
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	25.21	55.0
B	0.11	0.11
C	- 18.4	- 40.0

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

Metric		English	
P	E	P	E
Mg/hr	kg/hr	T/hr	lb/hr
0.05	0.27	0.05	0.55
0.1	0.42	0.10	0.87
0.2	0.68	0.2	1.40
0.3	0.89	0.30	1.83

Metric		English	
P	E	P	E
Mg/hr	kg/hr	T/hr	lb/hr
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

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](http://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](http://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](http://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](http://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](http://www.epa.state.il.us/air/caapp/199-caapp.pdf)