

217/782-2113

"REVISED"
CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT

PERMITTEE

City of Waterloo
Attn: Tim Birk, Director of Public Works
100 West Fourth Street
Waterloo, Illinois 62298

I.D. No.: 133030AAO
Application No.: 95080032

Date Received: July 19, 2001
Date Issued: September 24, 2007
Expiration Date¹: September 24, 2012

Operation of: Waterloo City Light Plant, Electric Power Generation Facility
Source Location: 615 West Third Street, Waterloo, Monroe County, 62298
Responsible Official: Thomas Smith, Mayor

This permit is hereby granted to the above-designated Permittee to operate a power plant peaking station, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

Revision Date Received: March 13, 2008
Revision Date Issued: March 27, 2008
Purpose of Revision: Administrative Amendment

This administrative amendment changes responsible official. Because the changes in the permit were only administrative, no formal public notice was issued.

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

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

ECB:KKD:jws

cc: Illinois EPA, FOS Region 3
CES
Lotus Notes

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

CAAPP PERMIT
September 24, 2007

217/782-2113

RENEWAL
CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT

PERMITTEE:

City of Waterloo
Attn: Perry Schlemmer, Power Plant Superintendent
100 West Fourth Street
Waterloo, Illinois 62298

I.D. No.: 133030AAO
Application No.: 95080032

Date Received: July 19, 2001
Date Issued: September 24, 2007
Expiration Date¹: September 24, 2012

Operation of: Waterloo City Light Plant, Electric Power Generation Facility
Source Location: 615 West Third Street, Waterloo, Monroe County, 62298
Responsible Official: Emmett Rusteberg, Mayor

This permit is hereby granted to the above-designated Permittee to OPERATE a power plant peaking 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 Ross Cooper at 217/782-2113.

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

ECB:RWC:jws

cc: Illinois EPA, FOS, Region 3
CES
Lotus Notes

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

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1.0 INTRODUCTION

1.1 Source Identification

Waterloo City Light Plant
615 West Third Street
Waterloo, Illinois 62298
618/939-3930

I.D. No.: 133030AAO
County: Monroe County
Standard Industrial Classification: 4911, Electric Services

1.2 Owner/Parent Company

City of Waterloo
100 West Fourth Street
Waterloo, Illinois 62298

1.3 Operator

City of Waterloo
100 West Fourth Street
Waterloo, Illinois 62298

Tom Wetzler, Power Plant Superintendent
618/939-3930

1.4 Source Description

The source operates as a peaking station, generating electric power for the community and surrounding area when the normal sources of electric power are not available, due to planned repair and maintenance, unexpected breakdowns, or high levels of electricity consumption. In addition, the source operates eight diesel engine driven electric generators and one dual fuel fired turbine.

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

1.5 Title I Conditions

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

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

2.0 LIST OF ABBREVIATIONS AND ACRONYMS COMMONLY USED

ACMA	Alternative Compliance Market Account
Act	Illinois Environmental Protection Act [415 ILCS 5/1 et seq.]
AP-42	Compilation of Air Pollutant Emission Factors, Volume 1, Stationary Point and Other Sources (and Supplements A through F), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711
ATU	Allotment Trading Unit
BACT	Best Available Control Technology
BAT	Best Available Technology
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
CO	Carbon Monoxide
ERMS	Emissions Reduction Market System
HAP	Hazardous Air Pollutant
IAC	Illinois Administrative Code
I.D. No.	Identification Number of Source, assigned by Illinois EPA
ILCS	Illinois Compiled Statutes
Illinois EPA	Illinois Environmental Protection Agency
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
MSSCAM	Major Stationary Sources Construction and Modification (35 IAC 203, New Source Review for non-attainment areas)
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO _x	Nitrogen Oxides
NSPS	New Source Performance Standards
PM	Particulate Matter
PM ₁₀	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods
PM _{2.5}	Particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 microns as measured by applicable test or monitoring methods
PSD	Prevention of Significant Deterioration (40 CFR 52.21, New Source Review for attainment areas)
RMP	Risk Management Plan
SO ₂	Sulfur Dioxide
T1	Title I - identifies Title I conditions that have been carried over from an existing permit
T1N	Title I New - identifies Title I conditions that are being established in this permit
T1R	Title I Revised - identifies Title I conditions that have been carried over from an existing permit and subsequently revised in this permit
USEPA	United States Environmental Protection Agency
VOM	Volatile Organic Material

3.0 CONDITIONS FOR INSIGNIFICANT ACTIVITIES

3.1 Identification of Insignificant Activities

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

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

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 between 112 kW and 1,118 kW (150 and 1,500 horsepower) power output that are emergency or standby units [35 IAC 201.210(a)(16)].

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

3.2 Compliance with Applicable Requirements

Insignificant activities are subject to applicable requirements notwithstanding status as insignificant activities. In particular, in addition to regulations of general applicability, such as 35 IAC

212.301 and 212.123 (Condition 5.3.2), the Permittee shall comply with the following requirements, as applicable:

- 3.2.1 For each particulate matter process emission unit, the Permittee shall comply with the applicable particulate matter emission limit of 35 IAC 212.321 or 212.322 (see Attachment 2) and 35 IAC Part 266. For example, the particulate matter emissions from a process emission unit shall not exceed 0.55 pounds per hour if the emission unit's process weight rate is 100 pounds per hour or less, pursuant to 35 IAC 266.110.
- 3.2.2 For each organic material emission unit that uses organic material, e.g., a mixer or printing line, the Permittee shall comply with the applicable VOM emission limit of 35 IAC 215.301, which requires that organic material emissions not exceed 8.0 pounds per hour or, if no odor nuisance exists, do not qualify as photochemically reactive material as defined in 35 IAC 211.4690.
- 3.2.3 For each open burning activity, the Permittee shall comply with 35 IAC Part 237, including the requirement to obtain a permit for open burning in accordance with 35 IAC 237.201, if necessary.

3.3 Addition of Insignificant Activities

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

4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE

Emission Unit	Description	Date Constructed	Emission Control Equipment
Engine #2 (Group 1)	Fairbanks-Morse 31A8-1/2 Distillate: 286 KW, 3.15 mmBtu/hr	1954	None
Engine #3 (Group 1)	Fairbanks-Morse 32E-14 Distillate: 2100 KW, 2.20 mmBtu/hr	1945	None
Engine #5 (Group 1)	Fairbanks-Morse 33E-14 Distillate: 556 KW, 6.12 mmBtu/hr	1949	None
Engine #6 (Group 1)	Fairbanks-Morse 33E-14 Distillate: 556 KW, 6.12 mmBtu/hr	1949	None
Engine #8 (Group 1)	Fairbanks-Morse 38TD8-1/8 Distillate: 3000 KW, 33.0 mmBtu/hr	1973	None
IEMA #3 (Group 3)	Caterpillar 6516B Distillate: 1825 KW, 17.6 mmBtu/hr	1996	None
IEMA #4 (Group 3)	Caterpillar 6516B Distillate: 1825 KW, 17.6 mmBtu/hr	1996	None
IEMA #5 (Group 3)	Caterpillar 6516B Distillate: 1825 KW, 17.6 mmBtu/hr	1996	None
Engine #1 (Group 2)	Nordberg FSG-1316-HSC Distillate: 3100 KW, 34.1 mmBtu/hr Natural Gas: 3100 KW, 31.0 mmBtu/hr	1970	None
Engine #4 (Group 2)	Fairbanks-Morse 38TDD8- 1/8 Distillate: 2050 KW, 22.55 mmBtu/hr Natural Gas: 2050 KW, 20.50 mmBtu/hr	1964	None
Engine #7 (Group 2)	Nordberg FSG-1312-HSC Distillate: 1700 KW, 18.7 mmBtu/hr Natural Gas: 1700 KW, 17.0 mmBtu/hr	1958	None
GT #1	Taurus 70S-10301 74.49mmBtu/hr	2001	Dry Low NO _x Combustors

5.0 OVERALL SOURCE CONDITIONS

5.1 Applicability of Clean Air Act Permit Program (CAAPP)

5.1.1 This permit is issued based on the source requiring a CAAPP permit as a major source of NO_x, CO, and SO₂ emissions.

5.2 Area Designation

This permit is issued based on the source being located in an area that, as of the date of permit issuance, is designated attainment or unclassifiable for the National Ambient Air Quality Standards for all criteria pollutants (CO, lead, NO₂, ozone, PM_{2.5}, PM₁₀, SO₂).

5.3 Source-Wide Applicable Provisions and Regulations

5.3.1 Specific emission units at this source are subject to particular regulations as set forth in Section 7 (Unit-Specific Conditions for Specific Emission Units) of this permit.

5.3.2 In addition, emission units at this source are subject to the following regulations of general applicability:

- a. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 IAC 212.301 and 212.314.
- b. Pursuant to 35 IAC 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, except as allowed by 35 IAC 212.123(b) and 212.124.

5.3.3 Ozone Depleting Substances

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

- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

5.3.4 Risk Management Plan (RMP)

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

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

5.3.5 Future Emission Standards

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

5.3.6 Episode Action Plan

- a. Should this stationary source become subject to 35 IAC 244.141, 244.142, and 244.143, the Permittee shall maintain at the source and have on file with the Illinois EPA a written episode action plan (plan) for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with safe operating procedures. The plan shall contain the information specified in 35 IAC 244.144 and is incorporated by reference into this permit.

- b. The Permittee shall immediately implement the appropriate steps described in this plan should an air pollution alert or emergency be declared by the Director of the Illinois EPA or his or her designated representative.
- c. If an operational change occurs at the source which invalidates the plan, a revised plan shall be submitted to the Illinois EPA for review within 30 days of the change, pursuant to 35 IAC 244.143(d). Such plans shall be further revised if disapproved by the Illinois EPA.

5.4 Source-Wide Non-Applicability of Regulations of Concern

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

5.5 Source-Wide Control Requirements and Work Practices

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

5.6 Source-Wide Production and Emission Limitations

5.6.1 Permitted Emissions for Fees

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

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	89.89
Sulfur Dioxide (SO ₂)	8.58
Particulate Matter (PM)	10.10
Nitrogen Oxides (NO _x)	378.70
HAP, not included in VOM or PM	-----
Total	487.27

5.6.2 Emissions of Hazardous Air Pollutants

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

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total). This condition is being imposed so that the source is not a major source of HAP emissions. The Permittee shall fulfill the applicable testing, recordkeeping, and reporting requirements of Conditions 5.7.2, 5.9.2, and 5.10.2.

5.6.3 Other Source-Wide Production and Emission Limitations

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

5.7 Source-Wide Testing Requirements

5.7.1 Pursuant to 35 IAC 201.282 and Section 4(b) of the Act, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:

- a. Testing by Owner or Operator: The Illinois EPA may require the owner or operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the Illinois EPA, at such reasonable times as may be specified by the Illinois EPA and at the expense of the owner or operator of the emission source or air pollution control equipment. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The Illinois EPA shall have the right to observe all aspects of such tests [35 IAC 201.282(a)].
- b. Testing by the Illinois EPA: The Illinois EPA shall have the right to conduct such tests at any time at its own expense. Upon request of the Illinois EPA, the owner or operator of the emission source or air pollution control equipment shall provide, without charge to the Illinois EPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary [35 IAC 201.282(b)].
- c. Any such tests are also subject to the Testing Procedures of Condition 8.5 set forth in the General Permit Conditions of Section 8.

5.7.2 HAP Testing to Verify Minor Source Status

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

- a. If in the previous calendar year, emissions of HAPs exceeded 80% of major source threshold for individual or total HAPs (greater than 8 tons of a single HAP or greater than 20 tons of total HAPs), then testing for HAPs shall be conducted as follows:
 - i. Testing shall be conducted using methods that would be acceptable under the federal National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 CFR 63 Subpart ZZZZ. Specifically, the testing procedures detailed at 40 CFR 63.6620 of the performance tests section shall be used. The Permittee shall at a minimum test the largest affected engine from each manufacture at the source (i.e., Fairbanks-Morse, Caterpillar, Nordberg), which makes the largest contributions to individual and total HAP emissions.
 - ii. Testing shall be conducted using methods that would be acceptable under the federal National Emissions Standards for Hazardous Air Pollutants for Stationary Combustion Turbines, 40 CFR 63 Subpart YYYY. Specifically, the testing procedures detailed at 40 CFR 63.6120 of the performance tests section shall be used. The Permittee shall at a minimum test the largest turbine, which makes the largest contributions to individual and total HAP emissions.
- b. The calculation as to whether the 80% of major source threshold was exceeded shall be based on records and procedures in Condition 5.9.2 and shall be completed by January 31 for the previous calendar year. If testing is required it shall be completed by May 1st.
- c. Any such tests are also subject to the Testing Procedures of Condition 8.5 set forth in the General Permit Conditions of Section 8.

5.8 Source-Wide Monitoring Requirements

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

5.9 Source-Wide Recordkeeping Requirements

5.9.1 Annual Emission Records

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

5.9.2 Records for HAP Emissions

- a. The Permittee shall maintain records of individual and combined HAP emissions on a monthly and annual basis for the emission units covered by Section 7 (Unit Specific Conditions for Specific Emission Units) of this permit to demonstrate compliance with Condition 5.6.2, pursuant to Section 39.5(7)(b) of the Act.

At a minimum, the records shall contain individual and combined HAP emissions and calculations based from:

- i. HAP emission factors listed in the emission unit's appropriate AP-42 section.
 - ii. HAP emission data available from previous testing.
- b. If testing is required by Condition 5.7.2, the Permittee shall keep records of the testing, including the test date, conditions, methodologies, calculations, test results, and any discrepancies between the test results and formulation specifications of Condition 5.9.2(c) below.

5.9.3 Retention and Availability of Records

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

5.10 Source-Wide Reporting Requirements

5.10.1 General Source-Wide Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the source with the permit requirements within 30 days, pursuant to Section 39.5(7)(f)(ii)

of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken. There are also reporting requirements for unit specific emission units set forth in Section 7 of this permit.

5.10.2 Annual Emissions Report

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

5.11 Source-Wide Operational Flexibility/Anticipated Operating Scenarios

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

5.12 Source-Wide Compliance Procedures

5.12.1 Procedures for Calculating Emissions

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

6.0 CONDITIONS FOR EMISSIONS CONTROL PROGRAMS

This section is reserved for emissions control programs. As of the date of issuance of this permit, there are no such programs applicable to this source.

7.0 UNIT SPECIFIC CONDITIONS FOR SPECIFIC EMISSION UNITS

7.1 Dual Fuel Fired Engines (Distillate oil and natural gas)

7.1.1 Description

The Permittee operates eleven (11) internal combustion engines for peak electric generation or emergency electric generation as well as periodically "exercised" to confirm the engine will operate when needed. There are eight (8) engines that are only fired with distillate fuel oil, and three (3) engines that are dual fuel fired with natural gas and distillate fuels. Among the distillate fuel engines, five (5) are owned and operated by the city of Waterloo, while three (3) are owned by the Illinois Municipal Electric Agency (IMEA) and operated by the city of Waterloo.

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

7.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
Engine #2 (Group 1)	Fairbanks-Morse 31A8-1/2 Distillate: 286 KW, 3.15 mmBtu/hr	1954	None
Engine #3 (Group 1)	Fairbanks-Morse 32E-14 Distillate: 2100 KW, 2.20 mmBtu/hr	1945	None
Engine #5 (Group 1)	Fairbanks-Morse 33E-14 Distillate: 556 KW, 6.12 mmBtu/hr	1949	None
Engine #6 (Group 1)	Fairbanks-Morse 33E-14 Distillate: 556 KW, 6.12 mmBtu/hr	1949	None
Engine #8 (Group 1)	Fairbanks-Morse 38TD8-1/8 Distillate: 3000 KW, 33.0 mmBtu/hr	1973	None
IMEA #3 (Group 3)	Caterpillar 6516B Distillate: 1825 KW, 17.6 mmBtu/hr	1996	None
IMEA #4 (Group 3)	Caterpillar 6516B Distillate: 1825 KW, 17.6 mmBtu/hr	1996	None
IMEA #5 (Group 3)	Caterpillar 6516B Distillate: 1825 KW, 17.6 mmBtu/hr	1996	None
Engine #1 (Group 2)	Nordberg FSG-1316-HSC Distillate: 3100 KW, 34.1 mmBtu/hr Natural Gas: 3100 KW, 31.0 mmBtu/hr	1970	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
Engine #4 (Group 2)	Fairbanks-Morse 38TDD8-1/8 Distillate: 2050 KW, 22.55 mmBtu/hr Natural Gas: 2050 KW, 20.50 mmBtu/hr	1964	None
Engine #7 (Group 2)	Nordberg FSG-1312-HSC Distillate: 1700 KW, 18.7 mmBtu/hr Natural Gas: 1700 KW, 17.0 mmBtu/hr	1958	None

7.1.3 Applicable Provisions and Regulations

- a. The "affected engines" for the purpose of these unit-specific conditions, are engines described in Conditions 7.1.1 and 7.1.2.
- b. Pursuant to 35 IAC 212.123,
 - i. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit.
 - ii. The emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 1000 ft radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.
- c. Pursuant to 35 IAC 214.301, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to excess 2000 ppm.
- d. Fuels with a sulfur content greater than 0.05 weight percent on an annual average, shall not be fired in the affected engines, pursuant to the Permittee's representation that the engines are exempt from the Acid Rain Program by meeting the new unit exemption requirement of 40 CFR 72.7(a). As a consequence, those engines are only subject to the Acid Rain Program provisions of 40 CFR 72.2 through 72.7 and 72.10 through 72.13.

e. Startup Provisions

Subject to the following terms and conditions, the Permittee is authorized to operate an affected engine in violation of the applicable standards in Condition 7.1.3(b) during startup. This authorization is provided pursuant to 35 IAC 201.149, 201.161 and 201.262, as the Permittee has applied for such authorization in its application, generally describing the efforts that will be used "...to minimize startup emissions, duration of individual starts, and frequency of startups."

- i. This authorization does not relieve the Permittee from the continuing obligation to demonstrate that all reasonable efforts are made to minimize startup emissions, duration of individual startups and frequency of startups.
- ii. The Permittee shall conduct startup of the engine in accordance with written procedures prepared by the Permittee and maintained at the facility for the engines, that are specifically developed to minimize emissions from startups and that include, at a minimum, the following measures:
 - A. The Permittee shall conduct startup of an affected engine in accordance with the manufacturer's written instructions or other written instructions prepared by the Permittee and maintained on site.
- iii. The Permittee shall fulfill applicable recordkeeping and reporting requirements of Condition 7.1.9(e) and 7.1.10(d).
- 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.

f. Malfunction and Breakdown Provisions

Subject to the following terms and conditions, the Permittee is authorized to continue operation of the affected engines in violation of the applicable standards in Condition 7.1.3(b) in the event of a malfunction or breakdown of the affected engines(s), including relevant associated systems and air pollution control equipment. This authorization is provided pursuant to 35 IAC 201.149, 201.161 and 201.262, as the Permittee has applied for such

authorization in its application, generally explaining why such continued operation would be required to provide essential service or to prevent risk of injury to personnel or severe damage to equipment, and describing the measures that will be taken to minimize emissions from any malfunctions and breakdowns. This authorization supersedes the general prohibition in Condition 9.2.3 against continued operation in such circumstances.

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

7.1.4 Non-Applicability of Regulations of Concern

- a. The affected engines owned by the Illinois Municipal Electric Agency (IMEA #3-#5) are excluded from certain requirements of the Acid Rain Program, because the affected engines meet the new unit exemption requirements, pursuant to 40 CFR 72.7(a). Requirements necessary to maintain the exclusion, and therefore compliance with that Part, are found within this Section.
- b. The affected engines are not subject to the National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines 40 CFR Part 63, Subpart ZZZZ, because the affected engines (RICE) are not located at a major source of HAP emissions, pursuant to 40 CFR 63.6585.
- c. The affected engines are not subject to 35 IAC 212.321 or 212.322, due to the unique nature of such units, a process weight rate can not be set so that such rules can not reasonably be applied, pursuant to 35 IAC 212.323.
- d. The affected engines are not subject to 35 IAC 217.141 or 35 IAC 216.121 because the affected engines are not fuel combustion units, as defined by 35 IAC 211.2470.
- e. The affected engines are not subject to 35 IAC Part 217, Subpart W, the NO_x Trading Program for Electrical Generating Units, because the affected engine's capacities are each less than 25 MWe.
- f. The affected engines are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected engines do not use an add-on control device to achieve compliance with an emission limitation or standard.
- g. The eight (8) affected engines owned by the City of Waterloo (Engine #1-#8) are not subject the Acid Rain Program requirements, because the affected engines commenced commercial operation before November 15, 1990 and that did not, as of November 15, 1990, and does not currently, serve a generator with a nameplate capacity of greater than 25 MWe, pursuant to 40 CFR Part 72.6(b)(2).

7.1.5 Control Requirements and Work Practices

- a. The Permittee shall follow good operating practices for the affected engines, including periodic inspection, routine maintenance and prompt repair of defects.
- b. Natural gas or distillate fuel oil as appropriate shall be the only fuels fired in the affected engine.

- c. The Illinois EPA shall be allowed to sample all fuels stored at the source.
- d. Distillate fuel oil with a sulfur content greater than 0.05 weight percent shall not be fired in the affected engines (IMEA #3-#5), pursuant to the Permittee's representation that the units are exempt from the Acid Rain Program by meeting the new units exemption requirement of 40 CFR 72.7(a). The affected engines are subject to the Acid Rain Program Provisions of 40 CFR 72.2 through 72.7 and 72.10 through 72.13 which are the requirements applying to exempt units.
- e. Combined operation of the affected engines IMEA #3-#5 shall not exceed more than 1,373 hours per year. Compliance with this limit shall be determined from a running total of 12 months of data.

7.1.6 Production and Emission Limitations

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

- a. i. Emissions from the affected engines IMEA #3-#5 shall not exceed the following limits:

<u>Pollutant</u>	<u>Emissions</u>	
	<u>Per Engine (Pounds/Hour)</u>	<u>Combined (Tons/Year)</u>
SO ₂	3.6	2.5
NO _x	56.8	39.0
CO	15.0	10.3

- ii. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].
- vii. The above limitations were established in Permit 96050128, pursuant to PSD. These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for PSD [T1].

7.1.7 Testing Requirements

- a. i. Upon written request by the Illinois EPA, the Permittee shall have the opacity of the exhaust from the affected engine(s) tested during representative operating conditions as determined by a qualified

observer in accordance with USEPA Test Method 9, as further specified below, pursuant to Section 39.5(7)(d) of the Act.

- ii. Such testing shall be conducted for specific engine(s) within 70 calendar days of the request, or on the date engine(s) next operates, or on the date agreed upon by the Illinois EPA, whichever is later.
 - iii. The duration of opacity observations for each test shall be at least 30 minutes (five 6-minute averages) unless the average opacities for the first 12 minutes of observations (two six-minute averages) are both less than 10.0 percent.
 - iv. The Permittee shall notify the Illinois EPA at least 7 days in advance of the date and time of these tests, in order to allow the Illinois EPA to witness testing. This notification shall include the name and employer of the qualified observer(s).
 - v. The Permittee shall promptly notify the Illinois EPA of any changes in the time or date for testing.
 - vi. The Permittee shall provide a copy of its observer's readings to the Illinois EPA at the time of testing, if Illinois EPA personnel are present.
 - vii. The Permittee shall submit a written report for this testing within 15 days of the date of testing. This report shall include:
 - A. Date and time of testing.
 - B. Name and employer of qualified observer.
 - C. Copy of current certification.
 - D. Description of observation conditions.
 - E. Description of engine operating conditions.
 - F. Raw data.
 - G. Opacity determinations.
 - H. Conclusions.
- b. i. In the event that the fuel oil supplier is unable to provide the sulfur content of the fuel oil supply for the affected engines, the Permittee shall have the sulfur content of the oil supply to the affected engines, in lbs/mmBtu, determined from an analysis of

representative sample of the oil supply, as follows, pursuant to Section 39.5(7)(d) of the Act:

- A. From a sample taken no later than 90 days after first operating the affected engines pursuant to this permit, provided, however, that if such sample is taken following operation of the affected engines, the sample shall be taken prior to adding more oil to the storage tank.
 - B. From a sample taken no later than 30 days after acceptance of a shipment of fuel whose sulfur content would not meet Condition 7.1.3(c) based upon supplier data, provided however, that if the affected engines are operated following acceptance of such a shipment, the sample shall be taken prior to adding a subsequent shipment of oil to the relevant storage tank.
 - C. From a sample taken no later than 30 days after a request for such a sample is made by the Illinois EPA, provided, however, that such sample shall be taken prior to adding more oil to the relevant storage tank.
- ii. Sampling and analysis, including that which forms the basis for the suppliers' data, shall be conducted using methods that would be acceptable under the federal New Source Performance Standards for Stationary Gas Turbines, 40 CFR 60.335(b)(2) and (c) or the federal Acid Rain Program, 40 CFR 75, Appendix D, Optional SO₂ Emissions Data Protocol for Gas-Fired and Oil-Fired Units e.g., ASTM D4057-88 and ASTM D129-91.

Note: Condition 7.1.7(b)(ii) is for fuel testing methodology only, and is in no way intended to subject the source to those provisions.

7.1.8 Monitoring Requirements

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

months, the operation and opacity of the affected engine shall be formally observed as provided above each time the Permittee carries out a scheduled exercise of the affected engine.

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

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

7.1.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for each affected engine to demonstrate compliance with Conditions 5.6.1 and 7.1.3(b)-(f), pursuant to Section 39.5(7)(b) of the Act:

- a. i. An operating log for each affected engine, which shall include the following information:
 - A. Information for each time the affected engine is operated, with date, time, duration, and purpose (i.e., exercise or power service). Monthly and annual records of hours of operation of each engine and total hours of operation.
 - B. Information for the observations conducted pursuant to Condition 7.1.8(a) or 7.1.7(a), with date, time, personnel, and findings.
 - I. The Permittee shall keep records for all opacity measurements made in accordance with USEPA Method 9 for an affected engine that it conducts or that are conducted on its behalf by individuals who are qualified to make such observations for Condition 7.1.7(a). For each occasion on which such observations

are made, these records shall include the identity of the observer, a description of the various observations that were made, the observed opacity, and copies of the raw data sheets for the observations.

- II. The Permittee shall keep records for all formal observations of opacity conducted pursuant to Condition 7.1.8(a). For each occasion on which observations are made, these records shall include the date, time, identity of the observer, a description of the various observations that were made, whether or not the affected engine was running properly, and whether or not corrective action is necessary and was subsequently initiated.

C. Information identifying any deviation from Condition 7.1.5(b).

- ii. A maintenance and repair log for each affected engine and associated equipment, listing activities performed with date.
 - iii. The Permittee shall keep records of good operating practices for each affected engine, as defined in Condition 7.1.5(a).
- b. Fuel usage for the affected engines:
- i. Total usage of fuel oil for the affected engines, gallons/month and gallons/year.
 - ii. Total usage of natural gas for the affected engines, million scf/mo and million scf/year.
 - iii. Usage of fuel oil for Group 2 affected engines, gal/mo, as determined from fuel oil usage logs, or calculated from the usage of natural gas, i.e., approximated by the amount of fuel oil that would be used in conjunction with the total amount of natural gas used (gallons of fuel oil/scf of natural gas), with supporting calculations.
 - iv. Usage of fuel oil for Group 1 affected engines, determined as the total usage less usage for Group 2 affected engines.
- c. The following records related to the sulfur content of the oil fuel supply and SO₂ emissions of the affected engines:
- i. Records for each shipment of fuel for the affected engines, including date, supplier, quantity (in

gallons), sulfur content, and whether the SO₂ emissions from the burning of such fuel would meet the standard in Condition 7.1.3(c).

- ii. The Permittee shall maintain records of the sulfur content of the fuel oil supply to the engines, based on the weighted average of material in the storage tank, or the sulfur content of the supply shall be assumed to be the highest sulfur content in any shipment in the tank.
- d. Emissions from each engine (i.e., NO_x, CO, SO₂, VOM, and PM) in tons/month and tons/year with supporting calculations and data as required by Condition 7.1.9.
- e. Records for Startup

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

- i. The following information for each startup of the affected engine(s):
 - A. Date and duration of the startup, i.e., start time and time normal operation achieved.
 - B. If normal operation was not achieved within forty five (45) minutes, an explanation why startup could not be achieved within this time.
 - C. A detailed description of the startup, including reason for operation and whether startup of an affected engine occurred in accordance with the manufacturer's written instructions or other written instructions were performed.
 - D. An explanation why other established startup procedures could not be performed, if not performed.
 - E. Whether exceedance of Condition 5.3.2 may have occurred during startup. If an exceedance may have occurred, an explanation of the nature of opacity, i.e., severity and duration, during the startup and the nature of opacity at the conclusion of startup.
- f. Records for Malfunctions and Breakdowns

The Permittee shall maintain records, pursuant to 35 IAC 201.263, of continued operation of an affected engine

subject to Condition 7.1.3(b) during malfunctions and breakdown, which as a minimum, shall include:

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

7.1.10 Reporting Requirements

a. Reporting of Deviations

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

- i. Emissions of opacity, SO₂, from the affected engine in excess of the limits specified in Conditions 7.1.3 within 30 days of such occurrence.
 - ii. Operation of the affected engine in excess of the limits specified in Condition 7.1.6(a) within 30 days of such occurrence.
- b. The Permittee shall provide a written notification to the Illinois EPA within 10 days, if the affected engines IMEA#3-#5 as a group operate for more than 1,000 hours total. With this notification, the Permittee shall:
- i. Address the likelihood, if any, that it would want to operate for more than 1,373 hours/year (39.0 tons NO_x per year); and
 - ii. Submit an appropriate request for revision to this permit if necessary.

c. Reporting of Malfunctions and Breakdowns

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

- i. A. The Permittee shall notify the Illinois EPA's regional office by telephone as soon as possible during normal working hours, but no later than three (3) days, upon the occurrence of noncompliance due to malfunction or breakdown.
 - B. Upon achievement of compliance, the Permittee shall give a written follow-up notice within 15 days to the Illinois EPA, Air Compliance Unit and Regional Field Office, providing a detailed explanation of the event, an explanation why continued operation of the affected engine 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 engine was taken out of service.
 - C. If compliance is not achieved within 5 working days of the occurrence, the Permittee shall submit interim status reports to the Illinois EPA, Air Compliance Unit and Regional Field Office, within 5 days of the occurrence and every 14 days thereafter, until compliance is achieved. These interim reports shall provide a brief explanation of the nature of the malfunction or breakdown, corrective actions accomplished to date, actions anticipated to occur with schedule, and the expected date on which repairs will be complete or the affected engine will be taken out of service.
- ii. In accordance with the due dates in Condition 8.6.1, the Permittee shall submit semi-annual malfunction and breakdown reports to the Illinois EPA pursuant to Sections 39.5(7)(a) and (f) of the Act. These reports may be submitted along with other semi-annual reports and shall include the following information for malfunctions and breakdowns of the affected engine during the reporting period:
 - A. A listing of malfunctions and breakdowns, in chronological order, that includes:

- I. The date, time, and duration of each incident.
 - II. The identity of the affected operation(s) involved in the incident.
 - B. Dates of the notices and reports of Conditions 7.1.10(c)(i).
 - C. Any supplement information the Permittee wishes to provide to the notices and reports of Conditions 7.1.10(c)(i).
 - D. The aggregate duration of all incidents during the reporting period.
 - E. If there have been no such incidents during the reporting period, this shall be stated in the report.
- d. Reporting of Startups

In accordance with the due dates in Condition 8.6.1, the Permittee shall submit semi-annual startup reports to the Illinois EPA pursuant to Sections 39.5(7)(a) and (f) of the Act. These reports may be submitted along with other semi-annual reports and shall include the following information for startups of the affected engine during the reporting period:

- i. A list of the startups of the affected engine, including the date, duration and description of each startup, accompanied by a copy of the records pursuant to Condition 7.1.9(e) for each startup for which such records were required.
- ii. If there have been no startups of an affected engine during the reporting period, this shall be stated in the report.

7.1.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected engines.

7.1.12 Compliance Procedures

- a. Compliance with the PM emission limitations of Conditions 7.1.3(b) is addressed by the requirements of Condition 7.1.5(a) and 7.1.8(f), the testing requirements in Condition 7.1.7(a), the records required in Condition 7.1.9(a), and the reports required in Condition 7.1.10(a).

- b. i. Compliance with the SO₂ emission limitation of Condition 7.1.3(c) is addressed by the requirements of Condition 7.1.5, the testing requirements in Condition 7.1.7(b), and the records and reports required in Conditions 7.1.9(b) and (c) and 7.1.10(a).
- ii. For this purpose, complete conversion of sulfur into SO₂ shall be assumed, e.g., SO₂ emissions in lb/mmBtu are twice the sulfur content of the fuel supply, in lb/mmBtu, using the following equation:

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

Note: Stoichiometric combustion of distillate oil with the maximum available sulfur content, i.e., 1.0 percent, would result in an SO₂ concentration in the exhaust that is well below the 2000 ppm limit in Condition 7.5.4(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 emission limits in Conditions 5.6 and 7.1.6(a)(i) are addressed by the records and reports required in Conditions 7.1.9 and 7.1.10 and the emission factors and formulas listed below:
 - i. A. Emission factors for the affected engines when fired by distillate fuel oil alone (Group 1 and Group 3):

<u>Pollutant</u>	<u>Emission Factors</u>
	<u>(lb/mmBtu)</u>
VOM	0.09
PM	0.0697
SO ₂	1.01S _{FO}
NO _x	3.2
CO	0.85

Where S_{FO} represents the percent sulfur in the fuel oil. The heat content of distillate fuel oil shall be assumed to be 137,030 Btu/gal as per AP-42.

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

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

- B. Emission factors for the affected engines when fired by distillate fuel oil and natural gas (Group 2):

<u>Pollutant</u>	<u>Emission Factors</u> <u>(lb/mmBtu)</u>
VOM	0.8
PM	0.0697
SO ₂	0.05S _{FO} + 0.895S _{NG}
NO _x	2.7
CO	1.16

Where S_{FO} = the % sulfur in the fuel oil and S_{NG} = the % sulfur in the natural gas. The heat content of the fuels shall be assumed to be 137,030 Btu/gal for distillate fuel oil and 1050 Btu/scf for natural gas unless specification for the fuels are lower, as shown on purchasing records.

Emission formula for the affected engine when fired by distillate fuel oil:

Emissions = (Fuel Oil Usage x Heat Content of Distillate Fuel Oil + Natural Gas Usage x Heat Content of Natural Gas) x Emission Factor

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

- c. Total emissions are to be determined by combining the results of A and B above.

7.2 Dual Fuel Fired Turbines (Distillate oil and natural gas)

7.2.1 Description

The Permittee operates one (1) dual fuel-fired turbine for peak electric generation or emergency electric generation as well as periodically "exercised" to confirm the turbine will operate when needed.

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

7.2.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
GT #1	Taurus 70S-10301 74.49mmBtu/hr	2001	Dry Low NO _x Combustors

7.2.3 Applicable Provisions and Regulations

- a. The "affected turbine" for the purpose of these unit-specific conditions, is a turbine described in Conditions 7.2.1 and 7.2.2.
- b. Pursuant to 35 IAC 212.123,
 - i. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit.
 - ii. The emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 1000 ft radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.
- c. Pursuant to 35 IAC 214.301, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to excess 2000 ppm.
- d.
 - i. Pursuant to 40 CFR 60.332(a)(2), no owner or operator of an affected turbine shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of:

$$\text{STD} = 0.0150 \left(\frac{14.4}{Y} \right) + F$$

Where:

STD = Allowable ISO corrected (if required as given in 40 CFR 60.335(b)(1)) NO_x emission concentration (percent by volume at 15 percent oxygen and on a dry basis).

Y = Manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour.

F = NO_x emission allowance for fuel-bound nitrogen as defined in paragraph (a)(4) of this section.

- ii. Pursuant to 40 CFR 60.322(a)(3), The use of F in 40 CFR 60.332(a)(2) is optional. That is, the owner or operator may choose to apply a NO_x allowance for fuel-bound nitrogen and determine the appropriate F-value in accordance with 40 CFR 60.332(a)(4) or may accept an F-value of zero.
- iii. Pursuant to 40 CFR 60.322(a)(4), if the owner or operator elects to apply a NO_x emission allowance for fuel-bound nitrogen, F shall be defined according to the nitrogen content of the fuel during the most recent performance test required under 40 CFR 60.8 as follows:

Fuel-bound nitrogen (percent by weight)	F (NO _x percent by volume)
N ≤ 0.015	0
0.015 < N ≤ 0.1	0.04(N)
0.1 < N ≤ 0.25	0.004+0.0067(N-0.1)
N > 0.25	0.005

Where:

N = the nitrogen content of the fuel (percent by weight).

- iv. Pursuant to 40 CFR 60.332(k), stationary gas turbines with a heat input greater than or equal to 10.7 gigajoules per hour (10 million Btu/hour) when fired with natural gas are exempt from 40 CFR 60.332(a)(2), above, when being fired with an emergency fuel.

- e. Every owner or operator of an affected turbine shall comply with one or the other of the following conditions:
 - i. No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine any gases which contain sulfur dioxide in excess of 0.015 percent by volume at 15 percent oxygen and on a dry basis [40 CFR 60.333(a)].
 - ii. No owner or operator subject to the provisions of this subpart shall burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 percent by weight (8000 ppmw) [40 CFR 60.333(b)].
- f. Fuels with a sulfur content greater than 0.05 weight percent on an annual average, shall not be fired in the affected turbine, pursuant to the Permittee's representation that the turbine is exempt from the Acid Rain Program by meeting the new unit exemption requirement of 40 CFR 72.7(a). As a consequence, those turbines are only subject to the Acid Rain Program provisions of 40 CFR 72.2 through 72.7 and 72.10 through 72.13.
- g. Startup Provisions

Subject to the following terms and conditions, the Permittee is authorized to operate an affected turbine in violation of the applicable standards in Condition 7.2.3(b) during startup. This authorization is provided pursuant to 35 IAC 201.149, 201.161 and 201.262, as the Permittee has applied for such authorization in its application, generally describing the efforts that will be used "...to minimize startup emissions, duration of individual starts, and frequency of startups."

- i. This authorization does not relieve the Permittee from the continuing obligation to demonstrate that all reasonable efforts are made to minimize startup emissions, duration of individual startups and frequency of startups.
- ii. The Permittee shall conduct startup of the affected turbine in accordance with written procedures prepared by the Permittee and maintained at the facility for the affected turbine, that are specifically developed to minimize emissions from startups and that include, at a minimum, the following measures:
 - A. The Permittee shall conduct startup of an affected turbine in accordance with the manufacturer's written instructions or other

written instructions prepared by the Permittee and maintained on site.

- B. The Permittee is authorized to operate the affected turbine in excess of 7.2.3(b) during startup pursuant to 35 IAC 201.262, provided that all reasonable efforts are made to minimize startup emissions. This authorization only extends for a period of up to 30 minutes following the initial firing of fuel during each startup event or the end of startup, whichever occurs first.
- iii. The Permittee shall fulfill applicable recordkeeping and reporting requirements of Condition 7.2.9(i) and 7.2.10(c).
- iv. As provided by 35 IAC 201.265, an authorization in a permit for excess emissions during startup does not shield a Permittee from enforcement for any violation of applicable emission standard(s) that occurs during startup and only constitutes a prima facie defense to such an enforcement action provided that the Permittee has fully complied with all terms and conditions connected with such authorization.

7.2.4 Non-Applicability of Regulations of Concern

- a. The affected turbine is excluded from certain requirements of the Acid Rain Program, because the affected turbine meets the new unit exemption requirements, pursuant to 40 CFR 72.7(a). Requirements necessary to maintain the exclusion, and therefore compliance with that Part, are found within this Section.
- b. The affected turbine is not subject to the National Emissions Standards for Hazardous Air Pollutants for Stationary Combustion Turbines, 40 CFR Part 63, Subpart YYYYY, because the affected turbine is not located at a major source of HAP emissions, pursuant to 40 CFR 63.6085.
- c. The affected turbine is not subject to 35 IAC 212.321 or 212.322, due to the unique nature of such units, a process weight rate can not be set so that such rules can not reasonably be applied, pursuant to 35 IAC 212.323.
- d. The affected turbine is not subject to 35 IAC 217.141 or 35 IAC 216.121 because the affected engines are not fuel combustion units, as defined by 35 IAC 211.2470.
- e. The affected turbines are not subject to 35 IAC Part 217, Subpart W, the NO_x Trading Program for Electrical Generating Units, because the affected turbine's capacities are each less than 25 MWe.

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

7.2.5 Control Requirements and Work Practices

- a. At all times, the Permittee shall maintain and operate the affected turbines in a manner consistent with good air pollution control practice for minimizing emissions, pursuant to the NSPS, 40 CFR 60.11(d).
- b.
 - i. The affected turbines shall be equipped, operated, and maintained with Dry low NO_x combustors to control NO_x emissions.
 - ii. Each affected turbine shall be equipped, operated, and maintained with a meter for fuel consumption.

Note: As the affected turbines do not use water injection for the control of NO_x, this meter does not have to be equipped with a recording device but can be read manually.

- c. Each affected turbine shall be operated in a manner consistent with good air pollution control practice to minimize emissions during startup and shutdown including the following:
 - i. The Permittee shall operate the affected turbines in accordance with written operating procedures that shall include at a minimum the following measures:
 - A. Review of operating parameters of the unit during startup or shutdown as necessary for the proper operation of the affected turbine with appropriate adjustments to reduce emissions.
 - B. Implementation of inspection and repair procedures for a affected turbine prior to attempting startup following repeated trips.
 - ii. The Permittee shall maintain the affected turbines in accordance with written procedures that shall include at a minimum the following measures:
 - A. Monthly inspection of emissions-related components.
 - B. Repair and routine replacement of emissions-related components.

- iii. The above procedures may incorporate the manufacturer's written instruction for operation and maintenance of the affected turbines and associated control systems. The Permittee shall review these procedures at least every two years and shall revise or enhance them if necessary to be consistent with good air pollution control practice based on the actual operating experience and performance of the source.
- d. i. A. The Illinois EPA shall be allowed to sample all fuels stored at the source.
- B. The only fuels fired in the affected turbines shall be natural gas and distillate fuel oil.
- C. Distillate fuel oil shall only be used as an emergency fuel, i.e., in circumstances such as natural gas curtailment or breakdown of the delivery system that makes it impossible to fire natural gas.
- D. Fuels with a sulfur content greater than 0.05 weight percent on an annual basis, as determined below, shall not be fired in each affected turbine, pursuant to the Permittee's representation that the units are exempt from the Acid Rain Program by meeting the new units exemption requirement of 40 CFR 72.7(a). The affected turbines are subject to the Acid Rain Program provisions of 40 CFR 72.2 through 72.7 and 72.10 through 72.13.
- I. The Permittee shall use the following equation to address compliance with the sulfur limitation of Condition 7.2.3(f) and 7.2.5(d), pursuant to 40 CFR 72.7(d)(3):

$$\% S_{\text{annual}} = \frac{\sum_{n=1}^{\text{last}} \% S_n M_n d_n}{\sum_{n=1}^{\text{last}} M_n d_n}$$

Where:

$\% S_{\text{annual}}$ = Annual average sulfur content of the fuel burned during the year by the unit, as a percentage by weight.

- $\% S_n$ = Sulfur content of the nth sample of the fuel delivered during the year to the unit, as a percentage by weight.
- M_n = Mass of the nongaseous fuel in a delivery during the year to the unit of which the nth sample is taken, in lb; or for fuel delivered during the year to the unit continuously by pipeline, mass of the nongaseous fuel delivered starting from when the nth sample of such fuel is taken until the next sample of such fuel is taken, in lb.
- d_n = Density of the nth sample of the fuel delivered during the year to the unit, in lb per gallon.
- n = Each sample taken of the fuel delivered during the year to the unit, taken at least once for each delivery; or, for fuel that is delivered during the year to the unit continuously by pipeline, at least once each quarter during which the fuel is delivered.

7.2.6 Production and Emission Limitations

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

- a. The total fuel consumption of the affected turbines shall not exceed 768 million standard cubic feet per year. For purposes of determining compliance with this limit, 1000 gallon of fuel oil shall be considered equivalent to 537,000 scf of gas. Compliance with this limit shall be determined from a running total of 12 months of data. Following completion of emission testing in accordance with Condition 7.2.7, the Illinois EPA may at the request of the Permittee based on the results of emissions testing, revise the limitation on fuel usage in conjunction with appropriate revisions to the applicable short-term emission limits for the affected turbines. These limits was established in Permit 01040072 [T1].

- b. i. Hourly emissions from the turbine shall not exceed the following limits, except during startup and shutdown. These emission limits are based on the data provided in the application for maximum emissions. These limits are based on information provided in the permit application.

Turbine/ Fuel	<u>NO_x</u> (Lb/Hr)	<u>CO</u> (Lb/Hr)	<u>PM/PM₁₀</u> (Lb/Hr)	<u>VOM</u> (Lb/Hr)	<u>SO₂</u> (Lb/Hr)
GT #1/Gas	7.42	9.04	0.45	2.55	0.25
GT #1/Oil	27.28	8.65	0.83	2.48	2.29

- ii. The total annual emissions from the affected turbine shall not exceed the following limitations. Compliance with these annual limitations shall be determined from a running total of 12 months of emission data.

Pollutant	<u>NO_x</u> (T/Yr)	<u>CO</u> (T/Yr)	<u>PM/PM₁₀</u> (T/Yr)	<u>VOM</u> (T/Yr)	<u>SO₂</u> (T/Yr)
	39.00	47.55	2.35	14.41	1.33

- iii. For purposes of determining compliance with the above limitations:
- A. Emissions from an affected turbine shall be determined from emission factors developed from testing in accordance with Condition 7.2.7 (NO_x), standard emission factors (CO, VOM and PM/PM₁₀) and analysis of fuel sulfur content or standard factors (SO₂).
 - B. In addition, unless an alternative factor is established for NO_x, emissions of NO_x from an affected turbine for an hour that includes a startup shall be presumed to be at the applicable hourly limit in Condition 7.2.6(b)(i) multiplied by a startup factor of 1.25. The NO_x emissions for GT# 1 each hour that includes a startup, beginning with the startup, shall be assumed to be at the rate of 9.28 pounds (1.25 x 7.42 = 9.28).
 - C. The establishment of the above procedures for determining compliance with the annual emission limits shall not shield the Permittee from responsibility for all emissions from the source, including emissions during startup or upset conditions, as other credible information may demonstrate that the above procedures do not adequately account for the actual emissions of the source.

- iv. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].
- v. The above limitations were established in Permit 01040072, pursuant to PSD. These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for PSD [T1].

7.2.7 Testing Requirements

- a. The nitrogen oxides (NO_x) emissions, and the oxygen (O₂) concentration and opacity of exhaust shall be measured for the affected turbines at the Permittee's expense by an independent testing service approved by the Illinois EPA as follows to determine compliance with applicable emission limits.
 - i. Within 60 days after operating an affected turbine at the greatest load at which it will normally be operated but not later than 180 days after its initial startup.
 - ii. If a spare turbine is installed pursuant to the operational flexibility allowed by Condition 7.2.11 that has not previously been tested, within 60 days after operating the spare turbine at the greatest load at which it will normally be operated but not later than 180 days after its initial startup.
 - iii. Within 120 days after a written request from the Illinois EPA, for such pollutants listed above as specified by the request.
 - iv. Any extension to these time periods that may be provided at its discretion by the Illinois EPA shall not alter the Permittee's obligation to perform emission testing for purposes of the NSPS in a timely manner as specified by 40 CFR 60.8.
- b. The following methods and procedures shall be used for testing of emissions:
 - i. The USEPA Reference Test Methods shall be used including the following:

Opacity	USEPA Method 9
Nitrogen Oxides	USEPA Method 20

- ii. Measurements for NO_x shall be conducted in accordance with 40 CFR 60.335, as specified below, unless alternative testing procedures are approved by USEPA pursuant to 40 CFR 60.8(b):
 - A. The NO_x emissions shall be computed for each run using the equation in 40 CFR 60.335(c)(1).
 - B. The span values for Method 20 shall be 300 ppm of NO_x and 21 percent O₂, pursuant to 40 CFR 60.335(c)(3).
 - C. The NO_x emissions shall be determined at four points in the normal operating range of the turbines, including the minimum point in the range and peak load, pursuant to 40 CFR 60.331(i) and 60.335(c)(2).
 - D. All loads shall be corrected to ISO conditions using the appropriate equations supplied by the manufacturer, pursuant to 40 CFR 60.335(c)(2).
- c. At least 60 days prior to the actual date of testing, a written test plan shall be submitted to the Illinois EPA for review. This plan shall describe the specific procedures for testing and shall include as a minimum:
 - i. The person(s) who will be performing sampling and analysis and their experience with similar tests.
 - ii. The specific conditions under which testing shall be performed including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the turbine will be tracked and recorded.
 - iii. The specific determinations of emissions that are intended to be made, including sampling and monitoring locations; the test method(s) that will be used, with the specific analysis method, if the method can be used with different analysis methods. The Permittee may also propose a plan for testing across the normal operating range of the affected turbines.
- d. The Illinois EPA shall be notified prior to these tests to enable the Illinois EPA to observe these tests. Notification of the expected date of testing shall be submitted a minimum of thirty (30) days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of five (5) working days prior to the actual date of the test. The Illinois EPA may, at its discretion, accept

notifications with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe the testing.

- e. The Final Report for these tests shall be submitted to the Illinois EPA within 60 days after the date of the tests. The Final Report shall include as a minimum:
 - i. A summary of results.
 - ii. General information.
 - iii. Description of test method(s), including description of sampling points, sampling train, analysis equipment and test schedule.
 - iv. Detailed description of test conditions, including:
 - A. Fuel consumption (standard ft³).
 - B. Firing rate (million Btu/hr).
 - C. Turbine/Generator output rate (MW).
 - v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.
- f. U.S. EPA approved custom fuel monitoring schedule. The Custom monitoring plan requirements apply only when pipeline quality natural gas is being burned. When fuel other than pipeline quality natural gas is being burned, monitoring is required in accordance with 40 CFR 60.334, see Condition 7.2.7(f)(iii).
 - i. NO_x monitoring: U.S. EPA will waive nitrogen monitoring for pipeline quality natural gas since there is no fuel-bound nitrogen and since the free nitrogen does not contribute appreciably to NO_x emissions. The Permittee shall maintain a record documenting a constant supplier and source of the fuel.
 - ii. Sulfur monitoring, no less stringent than the following:
 - A. Initial samples must be collected and analyzed twice a month for six months. If six months of bi-monthly sampling and analysis indicate that the sulfur concentrations are below the applicable standard with low variability, the

sampling frequency can be reduced to quarterly monitoring.

- B. If six quarters of quarterly sampling and analysis indicate sulfur concentrations are below the applicable standard with low variability, the sampling frequency can be reduced to semi-annual monitoring.
 - C. If any analyses indicate noncompliance with the applicable sulfur limit of 0.8 weight percent in 40 CFR 60.333(b), samples must be collected and analyzed on a weekly basis while the custom fuel monitoring schedule is re-examined.
- iii. The Permittee shall, when fuel other than pipeline quality natural gas is being burned, sample and analyze for sulfur and nitrogen content of the natural gas being fired in the affected turbine in accordance with 40 CFR 60.334(b).
- g.
 - i. Upon written request by the Illinois EPA, the Permittee shall have the opacity of the exhaust from the affected turbine(s) tested during representative operating conditions as determined by a qualified observer in accordance with USEPA Test Method 9, as further specified below, pursuant to Section 39.5(7)(d) of the Act.
 - ii. Such testing shall be conducted for specific turbine(s) within 45 calendar days of the request, or on the date turbine(s) next operates, or on the date agreed upon by the Illinois EPA, whichever is later.
 - iii. The duration of opacity observations for each test shall be at least 30 minutes (five 6-minute averages) unless the average opacities for the first 12 minutes of observations (two six-minute averages) are both less than 10.0 percent.
 - iv. The Permittee shall notify the Illinois EPA at least 7 days in advance of the date and time of these tests, in order to allow the Illinois EPA to witness testing. This notification shall include the name and employer of the qualified observer(s).
 - v. The Permittee shall promptly notify the Illinois EPA of any changes in the time or date for testing.
 - vi. The Permittee shall provide a copy of its observer's readings to the Illinois EPA at the time of testing, if Illinois EPA personnel are present.

- vii. The Permittee shall submit a written report for this testing within 15 days of the date of testing. This report shall include:
 - A. Date and time of testing.
 - B. Name and employer of qualified observer.
 - C. Copy of current certification.
 - D. Description of observation conditions.
 - E. Description of turbine operating conditions.
 - F. Raw data.
 - G. Opacity determinations.
 - H. Conclusions.

- h. i. In the event that the fuel oil supplier is unable to provide the sulfur content of the fuel oil supply for the affected turbines, the Permittee shall have the sulfur content of the oil supply to the affected turbines, 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 turbines pursuant to this permit, provided, however, that if such sample is taken following operation of the affected turbines, the sample shall be taken prior to adding more oil to the storage tank.
 - B. From a sample taken no later than 30 days after acceptance of a shipment of fuel whose sulfur content would not meet Condition 7.1.3(c) based upon supplier data, provided however, that if the affected turbines are operated following acceptance of such a shipment, the sample shall be taken prior to adding a subsequent shipment of oil to the relevant storage tank.
 - C. From a sample taken no later than 30 days after a request for such a sample is made by the Illinois EPA, provided, however, that such sample shall be taken prior to adding more oil to the relevant storage tank.

- ii. Sampling and analysis, including that which forms the basis for the suppliers' data, shall be conducted using methods that would be acceptable under the federal New Source Performance Standards for

Stationary Gas Turbines, 40 CFR 60.335(b)(2) and (c) or the federal Acid Rain Program, 40 CFR 75, Appendix D, Optional SO₂ Emissions Data Protocol for Gas-Fired and Oil-Fired Units e.g., ASTM D4057-88 and ASTM D129-91.

7.2.8 Monitoring Requirements

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

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

7.2.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected turbines to demonstrate compliance with Conditions 5.6.1 and 7.6.6, pursuant to Section 39.5(7)(b) of the Act:

- a. The Permittee shall maintain records of the following items:
 - i. Heat content of the natural gas (Btu/ft³) being fired during the quarter, with supporting documentation on at least a quarterly basis.
 - ii. The sulfur content of the natural gas used to fire the turbines as determined in accordance with Condition 7.2.7(f). (If the standard emissions factor is used, records shall be kept for any measurements or data on actual sulfur content of natural gas.)
 - iii. Fuel consumption for each turbine as monitored in accordance with Condition 7.2.5(b)(ii).
 - iv. A copy of the Final Report(s) for emission testing conducted pursuant to Condition 7.2.7.
 - v. Copies of opacity determinations taken for the source by qualified observer(s) using USEPA Method 9.
 - vi. Records documenting its periodic review of its operating procedures as required by Condition 7.2.5(c).
- b. The Permittee shall maintain the following records for the source:
 - i. Records for each shipment of fuel oil received, the amount received, sulfur content, and supplier.
 - ii. Records of the sulfur content of the fuel oil supply to the turbine, with supporting calculations using the equation in Condition 7.2.5(d)(i)(D).
 - iii. Records of operation of a turbine with an oil in excess of 0.05 percent by weight sulfur, with date, duration, sulfur content of oil, and explanation.
- c. The Permittee shall maintain the following operating records for the turbines:
 - i. Operating logs for each turbine, which at a minimum shall include daily information for operating hours; and fuel consumption.
 - ii. Operating hours for each turbine on a monthly basis.
- d. The Permittee shall maintain the following records related to each startup and shutdown of the turbines:

- i. The following information for each startup of the turbines:
 - A. Date and time of startup.
 - B. Whether operating personnel for the turbines or air environmental staff are on site during startup.
 - C. A description of the startup, if written operating procedures are not followed during the startup or significant problems occur during the startup, including detailed explanation.

- ii. The following information for each shutdown of a turbine:
 - A. Date and time of shutdown.
 - B. A description of the shutdown, if written operating procedures are not followed during the shutdown or significant problems occur during the shutdown, including detailed explanation.

- iii. The following information for the turbines when above normal opacity has been observed by source personnel:
 - A. Name of observer, position and reason for being at site.
 - B. Date and duration of above normal opacity, including affected turbine, start time and time normal operation was achieved.
 - C. If normal operation was not achieved within 30 minutes, an explanation why startup could not be achieved within this time.
 - D. A detailed description of the startup, including reason for operation.
 - E. An explanation why established startup procedures could not be performed, if not performed.
 - F. The nature of opacity following the end of startup or 30 minutes of operation, whichever occurs first, and duration of operation until achievement of normal opacity or shutdown.
 - G. Whether an exceedance of Condition 7.2.3(b), i.e., 30 percent opacity, may have occurred

during startup, with explanation if qualified observer was on site.

- e. i. The Permittee shall keep inspection, maintenance and repair logs with dates and nature of such activities for each turbine.
- ii. The Permittee shall keep records of good operating practices for each turbine.
- f. The Permittee shall maintain the following records related to emissions of the turbines:
 - i. Other data not addressed above, used or relied upon by the Permittee to determine emissions.
 - ii. Fuel consumption and number of startups for each turbine.
 - iii. The emissions of NO_x, SO₂, PM, VOM and CO from the turbines for each month since the previous record with supporting calculation, which shall be compiled on at least a semi-annual basis.
 - iv. Total, monthly and annual emissions of NO_x, CO, VOM, PM and SO₂ from the turbines, which shall be compiled on at least a semi-annual basis.
- g. The Permittee shall maintain records that identify any day in which emission exceeded an applicable standard or limit.
- h. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be available for inspection and copying by the Illinois EPA upon request. Any record retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.
- i. Records for Startup

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

 - i. The following information for each startup of the affected turbines:
 - A. Date and duration of the startup, i.e., start time and time normal operation achieved.

- B. If normal operation was not achieved within one (1) hour, an explanation why startup could not be achieved within this time.
 - C. A detailed description of the startup, including reason for operation and whether all reasonable efforts are made to minimize startup emissions was performed.
 - D. An explanation why the established startup procedures could not be performed, if not performed.
 - E. Whether exceedance of Condition 5.3.2 may have occurred during startup. If an exceedance may have occurred, an explanation of the nature of opacity, i.e., severity and duration, during the startup and the nature of opacity at the conclusion of startup.
- ii. A maintenance and repair log for each affected turbine, listing each activity performed with date.

7.2.10 Reporting Requirements

a. Reporting of Deviations

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

- i. Emissions from the affected turbines in excess of the limits specified in Conditions 7.2.3 and 7.2.6 within 30 days of such occurrence.
 - ii. Operation of the affected turbines in excess of the limits specified in Condition 7.2.5 and 7.2.6 within 30 days of such occurrence.
- b. In conjunction with the Annual Emission Report required by 35 IAC Part 254, the Permittee shall provide the operating hours for each affected turbine, the total number of startups, and the total fuel consumption during the preceding calendar year.
 - c. Reporting of Startups

In accordance with the due dates in Condition 8.6.1, the Permittee shall submit semi-annual startup reports to the Illinois EPA pursuant to Sections 39.5(7)(a) and (f) of the Act. These reports may be submitted along with other semi-

annual reports and shall include the following information for startups of the affected turbines during the reporting period:

- i. A list of the startups of the affected turbines, including the date, duration and description of each startup, accompanied by a copy of the records pursuant to Condition 7.2.9(i) for each startup for which such records were required.
- ii. If there have been no startups of an affected turbine during the reporting period, this shall be stated in the report.

7.2.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected turbines without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

- a. Pursuant to this permit, the Permittee is also authorized to construct and operate a "substitute turbine" in the place of affected turbine GT #1 or GT #2 when it is out of service, subject to the following:
 - i. For this purpose, a substitute turbine means a model of turbine that is identical or similar to affected turbines GT #1 or GT #2, as appropriate, that is provided by the turbine supplier as part of its original contractual agreement with the Permittee.
 - ii. The Permittee shall notify the Illinois EPA within 30 days of installing a substitute turbine. This notification shall describe the circumstances of the turbine that is out of service and the nature of the maintenance or repairs that are to be performed, and provide the date that the substitute turbine is expected to be or was installed and the date that the original turbine is expected to be returned to service. This notification shall also include a copy of the emission test report for the substitute turbine, if emission testing has previously been performed on the substitute turbine.
 - iii. The authorization to operate a substitute turbine extends for a period of up to six months for each incident in which an affected turbine is out of service, beginning with the date that the substitute turbine first operates at the source. The Permittee must obtain a separate Construction Permit to

continue to operate beyond this period, which permit may impose additional requirements upon the substitute turbine as appropriate for such continued operation.

- iv. If the original affected turbine undergoes reconstruction or modification while it is out of service, a separate construction permit may be required prior to reinstalling the original affected turbine, which permit may impose additional requirements upon the affected turbine as are then appropriate.

7.2.12 Compliance Procedures

- a. Compliance with the PM emission limitations of Conditions 7.2.3(b) is addressed by the requirements of Condition 7.2.5, and the records required in Condition 7.2.9(a), and the reports required in Condition 7.2.10(a).
- b. Compliance with the SO₂ emission limitations of Conditions 7.2.3(c) is addressed by the requirements of Condition 7.2.5, and the records required in Condition 7.2.9, and the reports required in Condition 7.2.10(a).
- c. Compliance with the NO_x emission limitations of Conditions 7.2.3(d) is addressed by the requirements of Condition 7.2.5, the testing requirements of 7.2.7(a)-(e), and the records required in Condition 7.2.9, and the reports required in Condition 7.2.10(a).
- d. Compliance with the SO₂ emission limitations of Conditions 7.2.3(e) is addressed by the requirements of Condition 7.2.5, the testing requirements of 7.2.7(f), the records required in Condition 7.2.9, and the reports required in Condition 7.2.10(a).
- e.
 - i. Compliance with the fuel limits in Condition 7.2.6(a) is addressed by the records and reports required in Conditions 7.2.9(a) and 7.2.10(b).
 - ii. Compliance with the emission limits in Conditions 5.6 and 7.2.6(b) is addressed by the records and reports required in Conditions 7.2.9 and 7.2.10 and from emission factors developed from the most recent approved stack test in accordance with Condition 7.2.7 (NO_x), standard emission factors (CO, VOM and PM/PM₁₀) and analysis of fuel sulfur content or standard factors (SO₂).

8.0 GENERAL PERMIT CONDITIONS

8.1 Permit Shield

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

This permit shield does not extend to applicable requirements which are promulgated after August 02, 2007 (the date of issuance of the proposed permit) unless this permit has been modified to reflect such new requirements.

8.2 Applicability of Title IV Requirements (Acid Deposition Control)

This source is 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].

8.4 Operational Flexibility/Anticipated Operating Scenarios

8.4.1 Changes Specifically Addressed by Permit

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

8.4.2 Changes Requiring Prior Notification

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

- a. The changes do not violate applicable requirements;
- b. The changes do not contravene federally enforceable permit terms or conditions that are monitoring (including test

methods), recordkeeping, reporting, or compliance certification requirements;

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

8.5 Testing Procedures

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

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

8.6 Reporting Requirements

8.6.1 Monitoring Reports

Reports summarizing required monitoring as specified in the conditions of this permit shall be submitted to the Illinois EPA

every six months as follows, unless more frequent submittal of such reports is required in Sections 5 or 7 of this permit [Section 39.5(7)(f) of the Act]:

<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 Unit with a copy sent to the Illinois EPA - Air Regional Field Office.
- b. As of the date of issuance of this permit, the addresses of the offices that should generally be utilized for the submittal of reports and notifications are as follows:

- i. Illinois EPA - Air Compliance Unit

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

- ii. Illinois EPA - Air Quality Planning Section

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

iii. Illinois EPA - Air Regional Field Office

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

iv. USEPA Region 5 - Air Branch

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

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

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

8.7 Title I Conditions

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

9.0 STANDARD PERMIT CONDITIONS

9.1 Effect of Permit

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

9.1.2 In particular, this permit does not alter or affect the following [Section 39.5(7)(j)(iv) of the Act]:

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

9.1.3 Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, pursuant to Section 39.5(7)(j) and (p) of the Act, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

9.2 General Obligations of Permittee

9.2.1 Duty to Comply

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

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

9.2.2 Duty to Maintain Equipment

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

9.2.3 Duty to Cease Operation

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

9.2.4 Disposal Operations

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

9.2.5 Duty to Pay Fees

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

9.3 Obligation to Allow Illinois EPA Surveillance

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

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

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

9.4 Obligation to Comply with Other Requirements

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

9.5 Liability

9.5.1 Title

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

9.5.2 Liability of Permittee

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

9.5.3 Structural Stability

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

9.5.4 Illinois EPA Liability

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

9.5.5 Property Rights

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

9.6 Recordkeeping

9.6.1 Control Equipment Maintenance Records

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

9.6.2 Records of Changes in Operation

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

9.6.3 Retention of Records

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

9.7 Annual Emissions Report

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

9.8 Requirements for Compliance Certification

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

- a. The certification shall include the identification of each term or condition of this permit that is the basis of the certification; the compliance status; whether compliance was

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

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

9.9 Certification

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

9.10 Defense to Enforcement Actions

9.10.1 Need to Halt or Reduce Activity Not a Defense

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

9.10.2 Emergency Provision

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

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

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

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

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

iv. During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission limitations, standards, or regulations in this permit.

b. This provision is in addition to any emergency or upset provision contained in any applicable requirement. This provision does not relieve a Permittee of any reporting obligations under existing federal or state laws or regulations [Section 39.5(7)(k)(iv) of the Act].

9.11 Permanent Shutdown

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

9.12 Reopening and Reissuing Permit for Cause

9.12.1 Permit Actions

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

9.12.2 Reopening and Revision

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

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

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

9.12.3 Inaccurate Application

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

9.12.4 Duty to Provide Information

The Permittee shall furnish to the Illinois EPA, within a reasonable time specified by the Illinois EPA any information that the Illinois EPA may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to the Illinois EPA copies of records required to be kept by this permit, or for information claimed to be confidential, the Permittee may furnish such records directly to USEPA along with a claim of confidentiality [Section 39.5(7)(o)(v) of the Act].

9.13 Severability Clause

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

9.14 Permit Expiration and Renewal

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

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

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

9.15 General Authority for the Terms and Conditions of this Permit

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

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

10.0 ATTACHMENTS

Attachment 1 Example Certification by a Responsible Official

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

Signature: _____

Name: _____

Official Title: _____

Telephone No.: _____

Date Signed: _____

Attachment 2 Emissions of Particulate Matter from Process Emission Units

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

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

where:

P = Process weight rate; and
 E = Allowable emission rate; and,

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

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

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

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

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

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

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

b. Existing Process Emission Units for Which Construction or Modification Prior to April 14, 1972 [35 IAC 212.322].

i. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission units at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 [35 IAC 212.322(a)].

ii. Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321 shall be determined by using the equation [35 IAC 212.322(b)]:

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

where:

P = Process weight rate; and
 E = Allowable emission rate; and,

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

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

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

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

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

Metric P <u>Mg/hr</u>	E <u>kg/hr</u>	English P <u>T/hr</u>	E <u>lb/hr</u>
0.05	0.27	0.05	0.55
0.1	0.42	0.10	0.87
0.2	0.68	0.2	1.40
0.3	0.89	0.30	1.83
0.4	1.07	0.40	2.22
0.5	1.25	0.50	2.58
0.7	1.56	0.75	3.38
0.9	1.85	1.00	4.10
1.8	2.9	2.00	6.52
2.7	3.9	3.00	8.56
3.6	4.7	4.00	10.40
4.5	5.4	5.00	12.00
9.0	8.7	10.00	19.20
13.0	11.1	15.00	25.20
18.0	13.8	20.00	30.50
23.0	16.2	25.00	35.40
27.2	18.15	30.00	40.00
32.0	18.8	35.00	41.30
36.0	19.3	40.00	42.50
41.0	19.8	45.00	43.60
45.0	20.2	50.00	44.60
90.0	23.2	100.00	51.20
140.0	25.3	150.00	55.40
180.0	26.5	200.00	58.60
230.0	27.7	250.00	61.00
270.0	28.5	300.00	63.10
320.0	29.4	350.00	64.90
360.0	30.0	400.00	66.20
400.0	30.6	450.00	67.70
454.0	31.3	500.00	69.00

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

Attachment 3 Compliance Assurance Monitoring (CAM) Plan

There are no specific emission units that require a CAM plan as identified in the Monitoring Requirements of Subsection 8 for each Section 7, Unit Specific Conditions for Specific Emission Units.

Attachment 4 Guidance

The Illinois has prepared guidance for sources on the Clean Air Act Permit Program (CAAPP) that is available on the Internet site maintained by the Illinois EPA, www.epa.state.il.us. This guidance includes instructions on applying for a revision or renewal of the CAAPP permit.

Guidance On Revising A CAAPP Permit:

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

Guidance On Renewing A CAAPP Permit:

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

The application forms prepared by the Illinois EPA for the CAAPP are also available from the Illinois EPA's Internet site:

www.epa.state.il.us/air/caapp/index.html

These CAAPP application forms should also be used by a CAAPP source when it applies for a construction permit. For this purpose, the appropriate CAAPP application forms and other supporting information, should be accompanied by a completed Application For A Construction Permit form (199-CAAPP) and Fee Determination for Construction Permit Application form (197-FEE):

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

www.epa.state.il.us/air/permits/197-fee.pdf

RWC:jws