

217/782-2113

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

PERMITTEE:

CenterPoint Energy - Mississippi River Transmission, LLC  
Attn: Lacey A. Ivey, Environmental Specialist  
Post Office Box 21734  
Shreveport, Louisiana 71151

I.D. No.: 119818AAA  
Application No.: 95120153

Date Received: February 10, 2004  
Date Issued: June 14, 2011  
Expiration Date<sup>1</sup>: June 14, 2016

Operation of: CenterPoint Energy - Mississippi River Transmission  
Corporation, Natural Gas Compressor Station  
Source Location: Summerfield Road, St. Jacob, Madison County, 62281  
Responsible Official: Frank J. Antoine, Jr., VP - Midstream Operations

This permit is hereby granted to the above-designated Permittee to OPERATE a natural gas compressor 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.  
Manager, Permit Section  
Division of Air Pollution Control

ECB:RWC:psj

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

1 Except as provided in Condition 8.7 of this permit.

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**1.0 INTRODUCTION**

1.1 Source Identification

CenterPoint Energy - Mississippi River Transmission, LLC  
Summerfield Road  
St. Jacob, Illinois 62281  
Jeff Giger, 618/644-3741

I.D. No.: 119818AAA  
County: Madison  
Standard Industrial Classification: 4922, Natural gas transmission

1.2 Owner/Parent Company

CenterPoint Energy - Mississippi River Transmission, LLC  
Post Office Box 21734  
Shreveport, Louisiana 71151

1.3 Operator

CenterPoint Energy - Mississippi River Transmission, LLC  
Post Office Box 21734  
Shreveport, Louisiana 71151

Lacey A. Ivey, Environmental Specialist  
(318) 429-3297

1.4 Source Description

The source compresses natural gas for pipeline transmission and/or underground storage using two natural gas fired reciprocating engines and a natural gas fired gas turbine.

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

**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 <sub>x</sub>	Nitrogen Oxides
NSPS	New Source Performance Standards
PM	Particulate Matter
PM <sub>10</sub>	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods
PM <sub>2.5</sub>	Particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 microns as measured by applicable test or monitoring methods
PSD	Prevention of Significant Deterioration (40 CFR 52.21, New Source Review for attainment areas)
RMP	Risk Management Plan
SO <sub>2</sub>	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:

Blowdown Stack

- 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.
- 3.2.4 For each storage tank that has a storage capacity greater than 946 liters (250 gallons) and, if no odor nuisance exists, that stores an organic material with a vapor pressure exceeding 2.5 psia at 70°F, the Permittee shall comply with the applicable requirements of 35 IAC 215.122, which requires use of a permanent submerged loading pipe, submerged fill, or a vapor recovery system.

### 3.3 Addition of Insignificant Activities

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

**4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE**

Emission Unit	Description	Date Constructed	Emission Control Equipment
SN-01	Worthington 550 Hp (#58-2)	1965	None
SN-02	White-Superior 500 Hp (#6G825)	1973	None
SN-03	Natural Gas-Fired Turbine, Allison Model 501 kB	1975	None
Dehy	Underground Natural Gas Storage and Dehydrator	1999	Scrubber and Condenser
QTA-150	Natural Gas-Fired Emergency Engine	02/2010	Catalytic Converter

## 5.0 OVERALL SOURCE CONDITIONS

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

5.1.1 This permit is issued based on the source requiring a CAAPP permit as a major source of NO<sub>x</sub> and CO emissions.

### 5.2 Area Designation

This permit is issued based on the source being located in an area that, as of the date of permit issuance, is designated attainment or unclassifiable for the National Ambient Air Quality Standards for all criteria pollutants (CO, lead, NO<sub>2</sub>, ozone, PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>).

### 5.3 Source-Wide Applicable Provisions and Regulations

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

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

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

#### 5.3.3 Ozone Depleting Substances

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

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

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

#### 5.3.4 Risk Management Plan (RMP)

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

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

#### 5.3.5 Future Emission Standards

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

#### 5.3.6 Episode Action Plan

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

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

5.4 Source-Wide Non-Applicability of Regulations of Concern

Source-wide non-applicability of regulations of concern are not set for this source. However, there may be 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 may be 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)	4.75
Sulfur Dioxide (SO <sub>2</sub> )	----
Particulate Matter (PM)	1.49
Nitrogen Oxides (NO <sub>x</sub> )	216.51
HAP, not included in VOM or PM	----
Total	222.75

5.6.2 Other Source-Wide Production and Emission Limitations

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

unit specific emission limitations set forth in Section 7 of this permit pursuant to these rules.

#### 5.7 Source-Wide Testing Requirements

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

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

#### 5.8 Source-Wide Monitoring Requirements

Source-wide monitoring requirements are not set for this source. However, there may be 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 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 may be 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 Natural Gas Fired Engines

7.1.1 Description

Natural gas fired engines used for running compressors for pipeline transmission and/or underground storage.

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
SN-01	Worthington 550 Hp (#58-2)	1965	None
SN-02	White-Superior 500 Hp (#6G825)	1973	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. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to excess 2000 ppm [35 IAC 214.301].
- d. Pursuant to 35 IAC 214.304, the emissions from the burning of fuel at process emission sources located in the Chicago

or St. Louis (Illinois) major metropolitan areas shall comply with applicable sections of 35 IAC 214 Subparts B through F.

Note: There are no applicable standards for gaseous fuel burning in 35 IAC 214 Subparts B through F.

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 engines in accordance with written procedures prepared by the Permittee and maintained at the facility, in the control room 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.
  - B. The Permittee shall follow normal work practices and proper operation of compressors to minimize the number of shutdowns and in turn minimize the number of startups.
- iii. The Permittee shall fulfill applicable recordkeeping and reporting requirements of Condition 7.1.9(b) and 7.1.10(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.

7.1.4 Non-Applicability of Regulations of Concern

- a. The affected engines are not subject to the New Source Performance Standards (NSPS) for Compression Ignition Internal Combustion Engines, 40 CFR Part 60, Subpart IIII, because the affected engines are by definition, 40 CFR 60.4219, spark ignition engines rather than compression ignition engines.
- b.
  - i. The affected engines are not subject to 40 CFR Part 63, Subpart HHH, National Emission Standards for Hazardous Air Pollutants (NESHAP), Natural Gas Transmission and Storage Facilities, because the affected engines are not dehydration units pursuant to 40 CFR 63.1270(b).
  - ii. The affected engines are excluded from certain requirements of the National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines 40 CFR Part 63, Subpart ZZZZ, because the affected engines are subject pursuant to 40 CFR 63.6590(a)(1)(iii).
- c. The affected engines are not subject to 35 IAC 212.321 or 212.322, due to the nature of such units, a process weight rate cannot be set so that such rules cannot reasonably be applied, pursuant to 35 IAC 212.323.
- d. The affected engines are not subject to 35 IAC 216.121 because the affected landfill gas engines are not fuel combustion units, as defined by 35 IAC 211.2470.
- e. The affected engines are not subject to 35 IAC 217.141 because the affected engines are not fuel combustion units, as defined by 35 IAC 211.2470.
- f. Each affected engine is not subject to the requirements of 35 IAC 219.143 because the blowdown emissions associated with engines are not considered to be vapor blowdown pursuant to 35 IAC 219.143.
- g. 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.

7.1.5 Control Requirements and Work Practices

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

7.1.6 Production and Emission Limitations

Production and emission limitations are not set for the affected engines. However, there are source-wide production and emission limitations set forth in Condition 5.6.

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 affected 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.

#### 7.1.8 Monitoring Requirements

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

Note: The "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 of 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 the affected engines to demonstrate compliance with Conditions 5.6.1 and 7.1.3, pursuant to Section 39.5(7) (b) of the Act:

- a. i. The Permittee shall keep onsite records of the results of periodic inspections, routine maintenance, and repair of defects. Upon request, these documents shall be made available for inspection and copying by the Illinois EPA.
  - ii. An operating log for each affected engine, which shall include the following information:
    - A. 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.
- b. The Permittee shall keep monthly records of the following items for the affected engine:
  - i. Natural gas usage rates per affected engine, mmscf/mo and mmscf/year.

- ii. Pollutant emissions with supporting calculations based from the record keeping as required by this condition and the emissions factors required in Condition 7.1.12(b).
- c. Records for Startup

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

- i. The following information for each startup of the affected engines:
  - A. Date and duration of the startup, i.e., start time and time normal operation achieved.
  - B. If normal operation was not achieved within 10 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 normal work practices and proper operation was performed.
  - D. An explanation why normal work practices and proper operation and other established startup procedures could not be performed, if not performed.
  - E. Whether exceedance of Condition 5.3.2 and 7.1.3(b) 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 engine, listing each activity performed with date.

#### 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 engines with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- i. Emissions from the affected engines in excess of the limits specified in Condition 7.1.3 within 30 days of such occurrence.
  - ii. Operation of the affected engines in excess of the limits specified in Condition 7.1.5 within 30 days of such occurrence.
- b.
  - i. Natural gas usage rates per affected engine, mmscf/month and mmscf/year.
  - ii. Pollutant emissions with supporting calculations based from the record keeping as required by this condition and the emissions factors required in Condition 7.1.12(b).
- 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 engines during the reporting period:

- i. A list of the startups of the affected engines, including the date, duration and description of each startup, accompanied by a copy of the records pursuant to Condition 7.1.9(b) for each startup for which such records were required.
- ii. If there have been no startups of an affected engines 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), the testing requirements in Condition 7.1.7(a), the monitoring requirements of Condition 7.1.8(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 SO<sub>2</sub> emission limitation of Condition 7.1.3(c) is addressed by the requirements of Condition 7.1.5, and the records and reports required in Conditions 7.1.9 and 7.1.10.

- ii. For this purpose, complete conversion of sulfur into SO<sub>2</sub> shall be assumed, e.g., SO<sub>2</sub> emissions in lb/mmBtu are twice the sulfur content of the fuel supply, in lb/mmBtu, using the following equation:

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

Note: Stoichiometric combustion of natural gas with the maximum available sulfur content, i.e., 1.0 grain per 100 scf (1.36E-3 lb/mmBtu), would result in an SO<sub>2</sub> concentration in the exhaust that is well below the 2000 ppm limit in Condition 7.2.3(c), i.e., only about 2 ppm, based on 8,710 scf/mmBtu, the F-factor for natural gas in USEPA's Reference Method 19.

- c. Compliance with the emission limits in Conditions 5.6 is addressed by the records required in Condition 7.1.9(a) and the emission factors and formulas listed below:
  - i. Emission factors for the affected engines:

<u>Pollutant</u>	<u>Emission Factors</u>	
	<u>Engine Worthington (SN-01) (lb/mmBtu)</u>	<u>White Superior (SN-02) (lb/mmBtu)</u>
VOM	2.96E-02	2.96E-02
PM	9.50E-03	9.50E-03
SO <sub>2</sub>	5.88E-04	5.88E-04
CO	3.72	3.72
	<u>(lb/hr)</u>	<u>(lb/hr)</u>
NO <sub>x</sub> *	13.52	24.00

The emission factors for VOM, PM, SO<sub>2</sub>, and CO are from AP-42 Section 3.2 (dated July 2000). The emission factor for NO<sub>x</sub> is based from source test data, multiplied by engineering safety factor (1.5 for SN-01 and 1.2 for SN-02) for operational and test variations.

#### 7.1.13 State-Only Conditions

Pursuant to 35 IAC 217.386(a)(2)(A), the Permittee shall comply with applicable requirements of these rules for the affected engines, including:

- a. Compliance with the applicable NO<sub>x</sub> emission standard(s), pursuant to 35 IAC 217.388.

- b. When using an emissions averaging plan, show compliance with the applicable emissions averaging plan pursuant to 35 IAC 217.390.
- c. Certifying to the Illinois EPA that the affected engine will be in compliance with the applicable emission limitation(s) of 35 IAC 217.388 by the applicable compliance dates in 35 IAC 217.392.
- d. Compliance with the applicable testing and monitoring in accordance with 35 IAC 217.394.
- e. Compliance with the applicable recordkeeping and reporting in accordance with 35 IAC 217.396.

7.2 Natural Gas Fired Turbine

7.2.1 Description

Natural gas fired turbine used to provide power to for running a compressor for pipeline transmission and/or underground storage.

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
SN-03	Natural Gas-Fired Turbine, Allison Model 501 kB	1975	None

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. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to excess 2000 ppm [35 IAC 214.301].
- d. Pursuant to 35 IAC 214.304, the emissions from the burning of fuel at process emission sources located in the Chicago or St. Louis (Illinois) major metropolitan areas shall comply with applicable sections of 35 IAC 214 Subparts B through F.

Note: There are no applicable standards for gaseous fuel burning in 35 IAC 214 Subparts B through F.

e. 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 7.1.3(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 affected turbine (SN-03) in accordance with written procedures prepared by the Permittee and maintained at the facility, in the control room for the affected turbine (SN-03), 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 shall follow normal work practices and proper operation of compressors to minimize the number of shutdowns and in turn minimize the number of startups.
- iii. The Permittee shall fulfill applicable recordkeeping and reporting requirements of Condition 7.2.9(b) 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. i. The affected turbines are not subject to the New Source Performance Standards (NSPS) for Stationary Combustion Turbines, 40 CFR Part 60, Subpart GG, because the affected turbine did not commence construction, modification, or reconstruction after February 18, 2005 pursuant to 40 CFR 60.4305(a).
- ii. The affected turbines are not subject to the New Source Performance Standards (NSPS) for Stationary Combustion Turbines, 40 CFR Part 60, Subpart KKKK, because the affected turbines did not commence construction, modification, or reconstruction after February 18, 2005 pursuant to 40 CFR 60.4305(a), and are therefore subject to 40 CFR Part 60, Subpart GG for Stationary Gas Turbines.

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

- b. i. The affected turbine is not subject to 40 CFR Part 63, Subpart HHH, National Emission Standards for Hazardous Air Pollutants (NESHAP), Natural Gas Transmission and Storage Facilities, because the affected turbine is not a dehydration unit pursuant to 40 CFR 63.1270(b).
- ii. The affected turbine is not subject to the National Emissions Standards for Hazardous Air Pollutants for Stationary Combustion Turbines, 40 CFR Part 63, Subpart YYYY, because the affected turbines 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 cannot be set so that such rules cannot reasonably be applied, pursuant to 35 IAC 212.323.
- d. The affected turbines are not subject to 35 IAC 216.121 because the affected turbines are not fuel combustion units, as defined by 35 IAC 211.2470.
- e. i. The affected turbines are not subject to 35 IAC Part 217, Subpart V: Electric Power Generation, because the affected turbines neither serve a generator that has a nameplate capacity greater than 25 MWe and produces electricity for sale nor have any unit with a maximum design heat input that is greater than 250 mmBtu/hr that commenced operation on or after January 1, 1999, serving at any time a generator that has a nameplate capacity of 25 MWe or less and has

the potential to use more than 50% of the potential electrical output capacity of the unit, pursuant to 35 IAC 217.704.

- ii. The affected turbines are not subject to 35 IAC 217.141 because the affected turbines are not fuel combustion units, as defined by 35 IAC 211.2470.
- f. Each affected engine is not subject to the requirements of 35 IAC 219.143 because the blowdown emissions associated with engines are not considered to be vapor blowdown pursuant to 35 IAC 219.143.
- g. The affected turbine is not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected turbine does 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. The Permittee shall follow good operating practices for the affected turbine, including periodic inspection, routine maintenance and prompt repair of defects.
- b. Natural gas shall be the only fuel fired in the affected turbine.

#### 7.2.6 Production and Emission Limitations

Production and emission limitations are not set for the affected turbine. However, there are source-wide production and emission limitations set forth in Condition 5.6.

#### 7.2.7 Testing Requirements

- a. i. Upon written request by the Illinois EPA, the source owner or operator shall have the opacity of the exhaust from the affected turbine(s) tested during representative operating conditions as determined by a qualified observer in accordance with USEPA Test Method 9, as further specified below, pursuant to Section 39.5(7) (d) of the Act.
- ii. Such testing shall be conducted for specific turbine(s) within 90 calendar days of the request, or on the date turbine(s) next operates, or on the date agreed upon by the Illinois EPA, whichever is later.
- iii. The duration of opacity observations for each test shall be at least 30 minutes (five 6-minute averages) unless the average opacities for the first 12 minutes of observations (two six-minute averages) are both less than 10.0 percent.

- iv. The source owner or operator shall notify the Illinois EPA at least 7 days in advance of the date and time of these tests, in order to allow the Illinois EPA to witness testing. This notification shall include the name and employer of the qualified observer(s).
- v. The source owner or operator shall promptly notify the Illinois EPA of any changes in the time or date for testing.
- vi. The source owner or operator shall provide a copy of its observer's readings to the Illinois EPA at the time of testing, if Illinois EPA personnel are present.
- vii. The source owner or operator shall submit a written report for this testing within 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.

#### 7.2.8 Monitoring Requirements

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

each time the source owner or operator carries out a scheduled exercise of the affected turbine.

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

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

#### 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 turbine to demonstrate compliance with Conditions 5.6.1 and 7.2.3, pursuant to Section 39.5(7)(b) of the Act:

- a.
  - i. The Permittee shall keep onsite records of the results of periodic inspections, routine maintenance, and repair of defects. Upon request, these documents shall be made available for inspection and copying by the Illinois EPA.
  - ii. An operating log for each affected engine, which shall include the following information:
    - A. 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 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 turbine was running properly, and whether or not corrective action is necessary and was subsequently initiated.

b. The Permittee shall keep monthly records of the following items for the affected turbine:

- i. Natural gas usage rates per affected turbine, mmscf/mo and mmscf/year.
- ii. Pollutant emissions with supporting calculations based from the record keeping as required by this condition and the emissions factors required in Condition 7.2.12(b).

c. 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(b), which at a minimum shall include:

- i. The following information for each startup of the affected turbine:
  - A. Date and duration of the startup, i.e., start time and time normal operation achieved.
  - B. If normal operation was not achieved within 10 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 normal work practices and proper operation was performed.
  - D. An explanation why normal work practices and proper operation and other established startup procedures could not be performed, if not performed.
  - E. Whether exceedance of Condition 5.3.2 and 7.2.3(b) 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 the 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 turbine with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- i. Emissions from the affected turbine in excess of the limits specified in Condition 7.2.3 within 30 days of such occurrence.
  - ii. Operation of the affected turbines in excess of the limits specified in Condition 7.2.5 within 30 days of such occurrence.
- b. i. Natural gas usage rates per affected turbine, mmscf/mo and mmscf/year.
  - ii. Pollutant emissions with supporting calculations based from the record keeping as required by this condition and the emissions factors required in Condition 7.2.12(b).

##### 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 turbine during the reporting period:

- i. A list of the startups of the affected turbine, including the date, duration and description of each startup, accompanied by a copy of the records pursuant to Condition 7.2.9(b) 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

Operational flexibility is not set for the affected turbine. However, there may be provisions for source-wide operational flexibility set forth in Condition 5.11 of this permit.

7.2.12 Compliance Procedures

- a. Compliance with the PM emission limitations of Conditions 7.2.3(b) is addressed by the requirements of Condition 7.2.5(a), the testing requirements in Condition 7.2.7(a), the monitoring requirements of Condition 7.2.8(a), the records required in Condition 7.2.9(a), and the reports required in Condition 7.2.10(a).
- b.
  - i. Compliance with the SO<sub>2</sub> emission limitation of Condition 7.2.3(c) is addressed by the requirements of Condition 7.2.5, and the records and reports required in Conditions 7.2.9 and 7.2.10.
  - ii. For this purpose, complete conversion of sulfur into SO<sub>2</sub> shall be assumed, e.g., SO<sub>2</sub> emissions in lb/mmBtu are twice the sulfur content of the fuel supply, in lb/mmBtu, using the following equation:

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

Note: Stoichiometric combustion of natural gas with the maximum available sulfur content, i.e., 1.0 grain per 100 scf (1.36E-3 lb/mmBtu), would result in an SO<sub>2</sub> concentration in the exhaust that is well below the 2000 ppm limit in Condition 7.2.3(c), i.e., only about 2 ppm, based on 8,710 scf/mmBtu, the F-factor for natural gas in USEPA's Reference Method 19.

- c. Compliance with the emission limits in Conditions 5.6 and 7.2.3(c) and (e) are addressed by the records required in Condition 7.1.9(a) and the emission factors and formulas listed below:
  - i. Emission factors for the affected turbine:

<u>Pollutant</u>	Emission Factors	
	Engine Worthington (SN-01) <u>(lb/mmBtu)</u>	
VOM	2.1E-03	
PM	6.6E-03	
SO <sub>2</sub>	3.4E-03	
CO	8.2E-02	

(lb/hr)

NO<sub>x</sub>\*

19.18

The emission factors for VOM, PM, SO<sub>2</sub>, and CO are from AP-42 Section 3.1 (dated April 2000). The emission factor for NO<sub>x</sub> is based from source test data, multiplied by engineering safety factor (1.2 for SN-03) for operational and test variations.

7.2.13 State-Only Conditions

Pursuant to 35 IAC 217.386(a)(2)(B), the Permittee shall comply with applicable requirements of these rules for the affected engines, including:

- a. Compliance with the applicable NO<sub>x</sub> emission standard(s), pursuant to 35 IAC 217.388.
- b. When using an emissions averaging plan, show compliance with the applicable emissions averaging plan pursuant to 35 IAC 217.390.
- c. Certifying to the Illinois EPA that the affected engine will be in compliance with the applicable emission limitation(s) of 35 IAC 217.388 by the applicable compliance dates in 35 IAC 217.392.
- d. Compliance with the applicable testing and monitoring in accordance with 35 IAC 217.394.
- e. Compliance with the applicable recordkeeping and reporting in accordance with 35 IAC 217.396.

### 7.3 Intentionally Left Blank

#### 7.4 Underground Natural Gas Storage and Dehydrator

##### 7.4.1 Description

Underground natural gas storage dehydration process prior to being sent out on the pipeline. The process uses triethyleneglycol (TEG) and a natural gas fired reboiler (0.75 mmBtu/hr) to drive off the vapor.

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

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

Emission Unit	Description	Date Constructed	Emission Control Equipment
Dehy	Natural Gas Dehydrator	1999	Scrubber and Condenser

##### 7.4.3 Applicable Provisions and Regulations

- a. The "affected dehydrator" for the purpose of these unit-specific conditions, is a dehydrator described in Conditions 7.4.1 and 7.4.2.
- b. Pursuant to 35 IAC 219.301, no person shall cause or allow the discharge of more than 8 lbs/hr of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 219.302, 219.303, 219.304 and the following exception: If no odor nuisance exists the limitation of this Subpart shall apply only to photochemically reactive material.

##### 7.4.4 Non-Applicability of Regulations of Concern

- a. The affected dehydrator is not subject to 40 CFR Part 63, Subpart HHH, National Emission Standards for Hazardous Air Pollutants (NESHAP), Natural Gas Transmission and Storage Facilities, because the affected turbine does not transport or store natural gas prior to entering the pipeline to a local distribution company or to a final end user (if there are no local distribution company) at a major sources of hazardous air pollutants (HAP) emissions as defined in 40 CFR 63.1271, pursuant to 40 CFR 63.1270(a).
- b. The affected dehydrator is not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected dehydrator does not have potential pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

7.4.5 Control Requirements and Work Practices

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

7.4.6 Production and Emission Limitations

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

- a. The affected dehydrator shall not exceed 7,050 gal/year of methanol and 3,680,000 gallons/year for triethylene glycol usage. 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 limit was established in Permit 96020085 [T1].
- b. VOM emissions from the affected natural gas storage and transmission operations shall not exceed nominal emission rates of 1.3 lb/hour and 2.3 tons/year. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total). These limits were established in Permit 96020085 [T1].

7.4.7 Testing Requirements

Testing requirements are not set for the affected dehydrator.

7.4.8 Monitoring Requirements

Monitoring requirements are not set for the affected dehydrator.

7.4.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected dehydrator to demonstrate compliance with Conditions 5.6.1, 7.4.3, and 7.4.6, pursuant to Section 39.5(7)(b) of the Act:

- a. Amount of natural gas dehydrated, mmscf/mo and mmscf/year.
- b. Usage of methanol and triethylene glycol (gallon or lb/month).
- c. Emissions of VOM and HAPs (ton/mo and ton/yr).

7.4.10 Reporting Requirements

a. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected dehydrator 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 VOM from the affected dehydrator in excess of the limits specified in Conditions 7.4.3 or 7.4.6 within 30 days of such occurrence.
- ii. Operation of the affected dehydrator in excess of the limits specified in Condition 7.4.6 within 30 days of such occurrence.

7.4.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected dehydrator.

7.4.12 Compliance Procedures

- a. Compliance with Condition 7.4.3(b) is addressed by the requirements of Condition 7.4.5(a), and the records required in Condition 7.4.9.
- b. Compliance with the VOM emission limitation of Condition 7.4.6(b) is addressed by the records required in Condition 7.4.9.

7.5 Natural Gas-Fired Emergency Engine(s) (Subject to NESHAP - 40 CFR 63 Subpart ZZZZ and NSPS - 40 CFR 60 Subpart JJJJ)

7.5.1 Description

The engine(s) are process emission units used for driving a generator for onsite or backup electrical needs. The engine(s) fire natural gas.

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

7.5.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
QTA-150 <sup>1</sup>	Backup/Onsite Electric Generation	02/2010	Catalytic Converter

<sup>1</sup> Please see section 3.1.3 as this emission unit is also considered an insignificant activity.

7.5.3 Applicable Provisions and Regulations

- a. The "affected natural gas engine(s) natural gas engine(s)" for the purpose of these unit-specific conditions, are natural gas engine(s) described in Conditions 7.5.1 and 7.5.2.
- b. Pursuant to 40 CFR 60.4230(a)(4), the affected natural gas engine(s) are subject to the NSPS for Spark Ignition Internal Combustion Engines, 40 CFR Part 60, Subpart JJJJ, because the Permittee is an owner or operator of a stationary SI ICE that commenced construction after June 12, 2006, where the stationary SI ICE is manufactured:

On or after January 1, 2009, for emergency engines with a maximum engine power greater than 25 HP, pursuant to 40 CFR 60.4230(a)(4)(iv).

Pursuant to 40 CFR 60.4233(e), owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1, below, to this subpart for their stationary SI ICE. For owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 100 HP (except gasoline and rich burn engines that use LPG) manufactured prior to January 1, 2011 that were certified to the certification emission standards in 40 CFR part 1048 applicable to engines that are not severe duty engines, if such stationary SI ICE was certified to a carbon monoxide (CO) standard above the standard in Table 1

to this subpart, then the owners and operators may meet the CO certification (not field testing) standard for which the engine was certified.

Table 1 to Subpart JJJJ of Part 60-NO<sub>x</sub>, CO, and VOC Emission Standards for Stationary Non-Emergency SI Engines ≥ 100 HP (Except Gasoline and Rich Burn LPG), Stationary SI Landfill/Digester Gas Engines, and Stationary Emergency Engines >25 HP

Engine Type And Fuel	Maximum Engine Power	Manufacture Date	Emission Standards <sup>a</sup>					
			g/HP-hr			ppmvd at 15% O <sub>2</sub>		
			NO <sub>x</sub>	CO	VOC <sup>d</sup>	NO <sub>x</sub>	CO	VOC <sup>d</sup>
Emergency	HP ≥ 130	1/1/2009	2.0	4.0	1.0	160	540	86

<sup>a</sup> Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O<sub>2</sub>.

<sup>d</sup> For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

- c. 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.
- d. i. Pursuant to 35 IAC 214.301, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to excess 2000 ppm.
- ii. Pursuant to 35 IAC 214.304, the emissions from the burning of fuel at process emission sources located

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

#### 7.5.4 Non-Applicability of Regulations of Concern

- a. The affected natural gas engine(s) are not subject to the New Source Performance Standards (NSPS) for Compression Ignition Internal Combustion Engines, 40 CFR Part 60, Subpart IIII, because the affected natural gas engine(s) are by definition, 40 CFR 60.4219, spark ignition engines rather than compression ignition engines.
- b. The affected natural gas engine(s) are excluded from certain requirements of the National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines 40 CFR Part 63, Subpart ZZZZ, because the affected natural gas engine(s) are new or reconstructed spark ignition engines at an area or major source less than or equal to 500 BHP pursuant to 40 CFR 63.6590(c). Requirements necessary to maintain the exclusion, and therefore compliance with that Part, are found within this Section. Specifically, those requirements are not becoming an affected source pursuant to 40 CFR 63.6590.
- c. The affected natural gas engine(s) are not subject to the Acid Rain Program, 40 CFR 72, because each of the affected natural gas engine(s) serves one or more generators with the total nameplate capacity of 25 MWe or less, pursuant to 40 CFR 72.7(a)(1).
- d. The affected natural gas engine(s) are not subject to 35 IAC 212.321 or 212.322, due to the unique nature of such units, a process weight rate cannot be set so that such rules cannot reasonably be applied, pursuant to 35 IAC 212.323.
- e. The affected natural gas engine(s) are not subject to 35 IAC 216.121 because the affected natural gas engine(s) are not fuel combustion units, as defined by 35 IAC 211.2470.
- f.
  - i. The affected natural gas engine is not subject to 35 IAC Part 217, Subpart Q: Stationary Reciprocating Internal Combustion Engines and Turbines, because the affected natural gas engine is used as an emergency

or standby unit as defined by 35 Ill. Adm. Code 211.1920, pursuant to 35 IAC 217.386(b) (1).

- ii. The affected natural gas engine(s) are not subject to 35 IAC 217.141 because the affected natural gas engines are not fuel combustion units, as defined by 35 IAC 211.2470.
- g. The affected natural gas engine(s) are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected natural gas engine(s) are subject to a NSPS proposed after November 15, 1990, pursuant to 40 CFR 64.2(b) (1) (i).

#### 7.5.5 Control Requirements and Work Practices

- a. At all times, including periods of startup, shutdown, and malfunction, the source owner or operator shall, to the extent practicable, maintain and operate any affected natural gas engine(s) in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA or the USEPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source [40 CFR 60.11(d)].
- b. Natural gas shall be the only fuel fired in the affected natural gas engine(s).
- c. The Illinois EPA shall be allowed to sample all fuels stored at the source.
- d. For purposes of being considered an emergency or standby unit(s) pursuant to 35 IAC 201.210(a) (16) and 35 IAC 211.1920, the affected natural gas engine(s) shall not exceed 500 hours of operation per year.
- e. Pursuant to 40 CFR 60.4243(d), emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100

hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.

- f. Pursuant to 40 CFR 60.4243(g), it is expected that air-to-fuel ratio (AFR) controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.
- g. 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].

#### 7.5.6 Production and Emission Limitations

Production and emission limitations are not set for the affected natural gas engine(s).

#### 7.5.7 Testing Requirements

- a.
  - i. Upon written request by the Illinois EPA, the Permittee shall have the opacity of the exhaust from the affected natural gas 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 affected natural gas engine(s) (s) within 60 calendar days of the request, or on the date the affected natural gas 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. Pursuant to 40 CFR 60.4243(f), if you are an owner or operator of a stationary SI internal combustion engine that is less than or equal to 500 HP and you purchase a non-certified engine or you do not operate and maintain your certified stationary SI internal combustion engine and control device according to the manufacturer's written emission-related instructions, you are required to perform initial performance testing as indicated, but you are not required to conduct subsequent performance testing unless the stationary engine is rebuilt or undergoes major repair or maintenance. A rebuilt stationary SI ICE means an engine that has been rebuilt as that term is defined in 40 CFR 94.11(a).
- c. Pursuant to 40 CFR 60.4244, owners and operators of stationary SI ICE who conduct performance tests must follow the procedures below:
  - i. Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in

40 CFR 60.8 and under the specific conditions that are specified by Table 2 of 40 CFR 60 Subpart JJJJ, pursuant to 40 CFR 60.4244(a).

Note: Table 2 of 40 CFR 60 Subpart JJJJ, Requirements for Performance Tests, is found in Section 7.5.13

- ii. You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in 40 CFR 60.8(c). If your stationary SI internal combustion engine is non-operational, you do not need to startup the engine solely to conduct a performance test; however, you must conduct the performance test immediately upon startup of the engine, pursuant to 40 CFR 60.4244(b).
- iii. You must conduct three separate test runs for each performance test required in this section, as specified in 40 CFR 60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour, pursuant to 40 CFR 60.4244(c).
- iv. Pursuant to 40 CFR 60.4244(d), to determine compliance with the NO<sub>x</sub> mass per unit output emission limitation, convert the concentration of NO<sub>x</sub> in the engine exhaust using Equation 1 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{HP - hr} \quad (\text{Eq. 1})$$

Where:

ER = Emission rate of NO<sub>x</sub> in g/HP-hr.

C<sub>d</sub> = Measured NO<sub>x</sub> concentration in parts per million by volume (ppmv).

1.912 × 10<sup>-3</sup> = Conversion constant for ppm NO<sub>x</sub> to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, horsepower-hour (HP-hr).

- v. Pursuant to 40 CFR 60.4244(e), to determine compliance with the CO mass per unit output emission

limitation, convert the concentration of CO in the engine exhaust using Equation 2 of this section:

$$ER = \frac{C_d \times 1.164 \times 10^{-3} \times Q \times T}{HP - hr} \quad (\text{Eq. 2})$$

Where:

ER = Emission rate of CO in g/HP-hr.

C<sub>d</sub> = Measured CO concentration in ppmv.

1.164 × 10<sup>-3</sup> = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP- hr.

- vi. A. Pursuant to 40 CFR 60.4244(f), for purposes of this subpart, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of this section:

$$ER = \frac{C_d \times 1.833 \times 10^{-3} \times Q \times T}{HP - hr} \quad (\text{Eq. 3})$$

Where:

ER = Emission rate of VOC in g/HP-hr.

C<sub>d</sub> = VOC concentration measured as propane in ppmv.

1.833 × 10<sup>-3</sup> = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

- B. Pursuant to 40 CFR 60.4244(g), if the owner/operator chooses to measure VOC emissions using either Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of this section. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of this section.

$$RF_i = \frac{C_{M_i}}{C_{A_i}} \quad (\text{Eq. 4})$$

Where:

$RF_i$  = Response factor of compound i when measured with EPA Method 25A.

$C_{M_i}$  = Measured concentration of compound i in ppmv as carbon.

$C_{A_i}$  = True concentration of compound i in ppmv as carbon.

$$C_{i\text{corr}} = RF_i \times C_{i\text{meas}} \quad (\text{Eq. 5})$$

Where:

$C_{i\text{corr}}$  = Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.

$C_{i\text{meas}}$  = Concentration of compound i measured by EPA Method 320, ppmv as carbon.

$$C_{\text{Prp}} = 0.6098 \times C_{i\text{corr}} \quad (\text{Eq. 6})$$

Where:

CPEq = Concentration of compound i in mg  
of propane equivalent per DSCM.

#### 7.5.8 Monitoring Requirements

- a. i. If an affected natural gas engine is routinely operated or exercised to confirm that the affected natural gas engine will operate when needed, the operation and opacity of the affected natural gas engine shall be formally observed by operating personnel for the affected natural gas engine or a member of Permittee's environmental staff on a regular basis to assure that the affected natural gas engine is operating properly, which observations shall be made at least every six months.
- ii. If an affected natural gas engine is not routinely operated or exercised, i.e., the time interval between operation of an affected natural gas engine is typically greater than six months, the operation and opacity of the affected natural gas engine shall be formally observed as provided above each time the Permittee carries out a scheduled exercise of the affected natural gas engine.
- iii. The Permittee shall also conduct formal observations of operation and opacity of an affected natural gas 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 natural gas 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 natural gas engine who would be able to make a determination based from the observed opacity as to whether or not the affected natural gas engine was running properly, and subsequently initiate a corrective action if necessary.

#### 7.5.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for each affected natural gas engine to demonstrate compliance with Conditions 5.6.1 and 7.5.3, pursuant to Section 39.5(7)(b) of the Act:

- a. i. An operating log for each affected natural gas engine, which shall include the following information:
  - A. Information for each time the affected natural gas 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 affected natural gas engine and total hours of operation.
  - B. Information for the observations conducted pursuant to Condition 7.5.8(a) or 7.5.7(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 natural gas engine that it conducts or that are conducted on its behalf by individuals who are qualified to make such observations for Condition 7.5.7(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 7.5.8(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 natural gas engine was running properly, and whether or not corrective action is necessary and was subsequently initiated.
  - C. Information identifying any deviation from Condition 7.5.5(b).
- ii. A maintenance and repair log for each affected natural gas engine and associated equipment, listing activities performed with date.
- iii. The Permittee shall keep records of good operating practices for each affected natural gas, as defined in Condition 7.5.5(a).

- b. Fuel usage for the affected natural gas engine(s):
  - i. Total usage of natural gas, scf/month and scf/year.
  - ii. Total usage of propane, scf/month and scf/year.
- c. i. Pursuant to 40 CFR 60.4245(a), owners and operators of all stationary SI ICE must keep records of the information below:
  - A. All notifications submitted to comply with 40 CFR 60 Subpart JJJJ and all documentation supporting any notification, pursuant to 40 CFR 60.4245(a)(1).
  - B. Maintenance conducted on the engine, pursuant to 40 CFR 60.4245(a)(2).
  - C. If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR Parts 90, 1048, 1054, and 1060, as applicable, pursuant to 40 CFR 60.4245(a)(3).
  - D. If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to 40 CFR.4243(a)(2), documentation that the engine meets the emission standards, pursuant to 40 CFR 60.4245(a)(4).
- ii. Pursuant to 40 CFR 60.4245(b), for all stationary SI emergency ICE greater than or equal to 500 HP manufactured on or after July 1, 2010, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than or equal to 130 HP and less than 500 HP manufactured on or after July 1, 2011 that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are

spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

- d. Emissions from each affected natural gas engine (i.e., NO<sub>x</sub>, CO, SO<sub>2</sub>, VOM, and PM) in tons/month and tons/year with supporting calculations and data as required by Condition 7.5.9.

#### 7.5.10 Reporting Requirements

##### a. Reporting of Deviations

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

- i. Emissions of opacity, SO<sub>2</sub>, NO<sub>x</sub>, CO, or VOC, from the affected natural gas engine(s) in excess of the limits specified in Conditions 7.5.3 within 30 days of such occurrence.
  - ii. Operation of the affected natural gas engine(s) in noncompliance with the requirements specified in Condition 7.5.5 within 30 days of such occurrence.
- b. Pursuant to 40 CFR 60.4245(c), owners and operators of stationary SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission standards in 40 CFR 60.4231 must submit an initial notification as required in 40 CFR 60.7(a)(1). The notification must include the information:
- i. Name and address of the owner or operator, pursuant to 40 CFR 60.4245(c)(1).
  - ii. The address of the affected source, pursuant to 40 CFR 60.4245(c)(2).
  - iii. Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement, pursuant to 40 CFR 60.4245(c)(3).
  - iv. Emission control equipment, pursuant to 40 CFR 60.4245(c)(4).
  - v. Fuel used, pursuant to 40 CFR 60.4245(c)(5).
- d. Pursuant to 40 CFR 60.4245(d), owners and operators of stationary SI ICE that are subject to performance testing

must submit a copy of each performance test as conducted in 40 CFR 60.4244 within 60 days after the test has been completed.

7.5.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected natural gas engine(s).

7.5.12 Compliance Procedures

- a. Compliance with the emission limitations of Conditions 7.5.3(b) is addressed by the requirements of Condition 7.5.5, the testing requirements in Condition 7.5.7(b)-(d), the monitoring requirements of Condition 7.5.8, the records required in Condition 7.5.9(c) (ii) and (iii), and the reports required in Condition 7.5.10, and the below:
  - i. Pursuant to 40 CFR 60.4243(a) (1), if you operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, you must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if you are an owner or operator.
  - ii. Pursuant to 40 CFR 60.4243(a) (2), if you do not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, your engine will be considered a non-certified engine, and you must demonstrate compliance according as follows:
    - A. Pursuant to 40 CFR 60.4243(a) (2) (i), if you are an owner or operator of a stationary SI internal combustion engine less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions, but no performance testing is required if you are an owner or operator.
    - B. Pursuant to 40 CFR 60.4243(a) (2) (ii), if you are an owner or operator of a stationary SI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air

pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test within 1 year of engine startup to demonstrate compliance.

C. Pursuant to 40 CFR 60.4243(a)(2)(iii), if you are an owner or operator of a stationary SI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test within 1 year of engine startup and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

iii. Pursuant to 40 CFR 60.4243(c), if you are an owner or operator of a stationary SI internal combustion engine that must comply with the emission standards specified in 40 CFR 40 CFR 60.4233(f), you must demonstrate compliance according to 40 CFR 60.4243(b)(2)(i) or (ii), below, except that if you comply according to 40 CFR 60.4243(b)(2)(i), you demonstrate that your non-certified engine complies with the emission standards specified in 40 CFR 60.4233(f).

A. Non-certified engine: Purchasing a non-certified engine according to the requirements specified in 40 CFR 60.4244, as applicable, and according to 40 CFR 60.4243(b)(2)(i) and (ii), below:

I. If you are an owner or operator of a stationary SI internal combustion engine greater than 25 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance, pursuant to 40 CFR 60.4243(b)(2)(i).

II. If you are an owner or operator of a stationary SI internal combustion engine greater than 500 HP, you must keep a

maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance, pursuant to 40 CFR 60.4243(b) (2) (ii).

- b. Compliance with the PM emission limitations of Conditions 7.5.3(c) is addressed by the requirements of Condition 7.5.5(a), the testing requirements in Condition 7.5.7(a), the monitoring requirements of Condition 7.5.8(a), the records required in Condition 7.5.9(a), and the reports required in Condition 7.5.10(a).
- c.
  - i. Compliance with the SO<sub>2</sub> emission limitation of Condition 7.5.3(d) (i) is addressed by the requirements of Condition 7.5.5, the testing requirements in Condition 7.5.7(b), and the records and reports required in Conditions 7.5.9(b) and (c) and 7.5.10(a).
  - ii. For this purpose, complete conversion of sulfur into SO<sub>2</sub> shall be assumed, e.g., SO<sub>2</sub> emissions in lb/mmBtu are twice the sulfur content of the fuel supply, in lb/mmBtu, using the following equation:

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

Note: Stoichiometric combustion of natural gas with the maximum available sulfur content, i.e., 1.0 grain per 100 scf (1.36E-3 lb/mmBtu), would result in an SO<sub>2</sub> concentration in the exhaust that is well below the 2000 ppm limit in Condition 7.5.3(d), i.e., only about 2 ppm, based on 8,710 scf/mmBtu, the F-factor for natural gas in USEPA's Reference Method 19.

- c. Compliance with the emission limits in Conditions 5.6 are addressed by the records and reports required in Conditions 7.5.9 and 7.5.10 and the emission factors and formulas listed below if suitable manufacture's emission rate data is not available:
  - i. Emission factors for the affected natural gas engine(s):

Pollutant	Emission Factors	
	(lb/mmBtu)	(g/hp-hr) <sup>1</sup>
	Fuel Input	Power Output
VOM	3.58E-01	0.156
PM	9.91E-03	-
SO <sub>2</sub>	5.88E-04	-
NO <sub>x</sub>	2.21	0.132
CO	3.72	2.592

1 Manufacture's emission rate data at the time of permit processing.

Emissions from fuel input = Natural Gas Usage x Heat Content of Natural Gas x Emission Factor

OR

Emissions from power output = Natural Gas Usage x BSFC x Emission Factor

The heat content of natural gas shall be assumed to be 1020 Btu/scf per AP-42.

The emission factors are for Natural Gas-fired Reciprocating Engines from Table 3.2-3 of AP-42 Section 3.2 (dated 7/00).

7.5.13 Table 2 to Subpart JJJJ of Part 60—Requirements for Performance Tests

**Table 2 to Subpart JJJJ of Part 60—Requirements for Performance Tests**

[As stated in 40 CFR 60.4244, you must comply with the following requirements for performance tests within 10 percent of 100 percent peak (or the highest achievable) load]

For each	Complying with the requirement to	You must	Using	According to the following requirements
1. Stationary SI internal combustion engine demonstrating compliance according to 40 CFR 60.4244.	a. limit the concentration of NO <sub>x</sub> in the stationary SI internal combustion engine exhaust.	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR Part 60, Appendix A or ASTM Method D6522-00 (2005) <sup>a</sup> .	(a) If using a control device, the sampling site must be located at the outlet of the control device.

For each	Complying with the requirement to	You must	Using	According to the following requirements
	ii. Determine the O <sub>2</sub> concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3B <sup>b</sup> of 40 CFR Part 60, Appendix A or ASTM Method D6522-00 (2005) <sup>a</sup> .	(b) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurements for NO <sub>x</sub> concentration.	
	iii. Determine the exhaust flowrate of the stationary internal combustion engine exhaust;	(3) Method 2 or 19 of 40 CFR Part 60.		
	iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(4) Method 4 of 40 CFR Part 60, Appendix A, Method 320 of 40 CFR Part 63, Appendix A, or ASTM D6348-03 (incorporated by reference, see 40 CFR 60.17).	(c) Measurements to determine moisture must be made at the same time as the measurement for NO <sub>x</sub> concentration.	
	v. Measure NO <sub>x</sub> at the exhaust of the stationary internal combustion engine.	(5) Method 7E of 40 CFR Part 60, Appendix A, Method D6522-00 (2005) <sup>a</sup> , Method 320 of 40 CFR Part 63, Appendix A, or ASTM D6348-03 (incorporated by reference, see 40 CFR 60.17).	(d) Results of this test consist of the average of the three 1-hour or longer runs.	

For each	Complying with the requirement to	You must	Using	According to the following requirements
	b. limit the concentration of CO in the stationary SI internal combustion engine exhaust.	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR Part 60, Appendix A.	(a) If using a control device, the sampling site must be located at the outlet of the control device.
	ii. Determine the O <sub>2</sub> concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3Bb of 40 CFR Part 60, Appendix A or ASTM Method D6522-00(2005) <sup>a</sup> .	(b) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurements for CO concentration.	
	iii. Determine the exhaust flowrate of the stationary internal combustion engine exhaust;	(3) Method 2 or 19 of 40 CFR Part 60.		
	iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(4) Method 4 of 40 CFR Part 60, Appendix A, Method 320 of 40 CFR Part 63, Appendix A, or ASTM D6348-03 (incorporated by reference, see 40 CFR 60.17).	(c) Measurements to determine moisture must be made at the same time as the measurement for CO concentration.	

For each	Complying with the requirement to	You must	Using	According to the following requirements
	v. Measure CO at the exhaust of the stationary internal combustion engine.	(5) Method 10 of 40 CFR Part 60, Appendix A, ASTM Method D6522-00(2005) <sup>a</sup> , Method 320 of 40 CFR Part 63, Appendix A, or ASTM D 6348-03 (incorporated by reference, see 40 CFR 60.17).	(d) Results of this test consist of the average of the three 1-hour or longer runs.	
	c. Limit the concentration of VOC in the stationary SI internal combustion engine exhaust.	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR Part 60, Appendix A.	(a) If using a control device, the sampling site must be located at the outlet of the control device.
	ii. Determine the O <sub>2</sub> concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3B <sup>b</sup> of 40 CFR Part 60, Appendix A or ASTM Method D6522-00(2005) <sup>a</sup> .	(b) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurements for VOC concentration.	
	iii. Determine the exhaust flowrate of the stationary internal combustion engine exhaust;	(3) Method 2 or 19 of 40 CFR Part 60.		

For each	Complying with the requirement to	You must	Using	According to the following requirements
	iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(4) Method 4 of 40 CFR Part 60, Appendix A, Method 320 of 40 CFR Part 63, Appendix A, or ASTM D6348-03 (incorporated by reference, see 40 CFR 60.17).	(c) Measurements to determine moisture must be made at the same time as the measurement for VOC concentration.	
	v. Measure VOC at the exhaust of the stationary internal combustion engine.	(5) Methods 25A and 18 of 40 CFR Part 60, Appendix A, Method 25A with the use of a methane cutter as described in 40 CFR 1065.265, Method 18 or 40 CFR Part 60, Appendix A, <sup>cd</sup> Method 320 of 40 CFR Part 63, Appendix A, or ASTM D6348-03 (incorporated by reference, see 40 CFR 60.17).	(d) Results of this test consist of the average of the three 1-hour or longer runs.	

<sup>a</sup> ASTM D6522-00 is incorporated by reference; see 40 CFR 60.17. Also, you may petition the Administrator for approval to use alternative methods for portable analyzer.

<sup>b</sup> You may use ASME PTC 19.10-1981, Flue and Exhaust Gas Analyses, for measuring the O<sub>2</sub> content of the exhaust gas as an alternative to EPA Method 3B.

<sup>c</sup> You may use EPA Method 18 of 40 CFR Part 60, Appendix A, provided that you conduct an adequate presurvey test prior to the emissions test, such as the one described in OTM 11 on EPA's Web site (<http://www.epa.gov/ttn/emc/prelim/otm11.pdf> ).

<sup>d</sup> You may use ASTM D6420-99 (2004), Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography/Mass Spectrometry as an alternative to EPA Method 18 for measuring total nonmethane organic.

## 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 November 11, 2010 (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, any Title I conditions that would be included in this permit in the future, which would be identified by a T1, T1N, or T1R designation, would 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 would 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) be 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 P <u>Mg/hr</u>	E <u>kg/hr</u>	English P <u>T/hr</u>	E <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

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

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](http://www.epa.state.il.us). This guidance includes instructions on applying for a revision or renewal of the CAAPP permit.

##### Guidance On Revising A CAAPP Permit:

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

##### Guidance On Renewing A CAAPP Permit:

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

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

[www.epa.state.il.us/air/caapp/index.html](http://www.epa.state.il.us/air/caapp/index.html)

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

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

[www.epa.state.il.us/air/permits/197-fee.pdf](http://www.epa.state.il.us/air/permits/197-fee.pdf)

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