



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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217/782-2113

"RENWAL"

TITLE V - CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT

PERMITTEE:

Metropolitan Water Reclamation District of Greater Chicago
Attn: Osoth Jamjun, Chief of Maintenance & Operations
100 East Erie Street
Chicago, Illinois 60611-2803

I.D. No.: 031300AAL
Application No.: 95090075

Date Received: April 19, 2004
Date Issued: March 27, 2006
Expiration Date: March 27, 2011

Operation of: Stickney Water Reclamation Plant, Municipal Wastewater Treatment Plant

Source Location: 6001 Pershing Road, Cicero, Cook County, 60804-4112
Responsible Official: Osoth Jamjun, Chief of Maintenance & Operations

This permit is hereby granted to the above-designated Permittee to OPERATE a municipal wastewater treatment plant, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

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

Donald E. Sutton, P.E. MTR

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

DES:DGP:psj

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

1 This permit contains terms and conditions that address the applicability, and, if determined applicable, substantive requirements of Title I of the Clean Air Act (CAA) and regulations promulgated thereunder, including 40 CFR 52.21, Prevention of Significant Deterioration (PSD) and 35 IAC Part 203, Major Stationary Sources Construction and Modification. The authority for these provisions is found in these regulations and in the general authority provided to the Illinois EPA by Section 9.1 of the Environmental Protection Act (Act) and Sections 39(a) and 39.5(7) (a) of the Act, which authorize the Illinois EPA to include conditions in permits that are required to accomplish the purposes of the Act. Any such terms and conditions are specifically identified within this permit as T1 conditions. These terms and conditions continue in effect as provided by Condition 8.7 of this permit, notwithstanding the expiration date specified above, as their authority derives from Title I, as well as from Title V of the CAA.

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1.0 INTRODUCTION

1.1 Source Identification

Stickney Water Reclamation Plant  
6001 Pershing Road  
Cicero, Illinois 60804-4112  
708/588-4000

I.D. No.: 031300AAL

County: Cook

Standard Industrial Classification: 4952, Sanitary Services - Sewerage  
Systems

1.2 Owner/Parent Company

Metropolitan Water Reclamation District of Greater Chicago  
100 East Erie Street  
Chicago, Illinois 60611-2803

1.3 Operator

Metropolitan Water Reclamation District of Greater Chicago  
100 East Erie Street  
Chicago, Illinois 60611-2803

Osoth Jamjun  
312/751-5101

1.4 Source Description

The source treats domestic and industrial wastewater from the central part of Chicago and surrounding suburbs.

1.5 Title I Conditions

As generally identified below, this CAAPP permit contains certain conditions for emission units at this source that address the applicability of permitting programs for the construction and modification of sources, which programs were established pursuant to Title I of the Clean Air Act (CAA) and regulations thereunder. These programs include 40 CFR 52.21, Prevention of Significant Deterioration (PSD) and 35 IAC Part 203, Major Stationary Sources Construction and Modification (MSSCAM), and are implemented by the Illinois EPA pursuant to Sections 9, 9.1, 39(a) and 39.5(7)(a) of the Illinois Environmental Protection Act (Act). These conditions continue in effect, notwithstanding the expiration date specified on the first page of this permit, as their authority derives from Titles I and V of the CAA, as well as Titles II and X of the Act. (See also Condition 8.7.)

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
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
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:

Post-Digestion Centrifuge  
Pre-Digestion Centrifuge  
Sludge Cake Truck/Railcar Loading  
Southwest Side Scum Concentration Tanks  
Southwest Side Grit Channels Dewatering Tanks  
TARP Morning Glory  
West Side Grit Dewatering Tanks  
West Side Scum Concentration Tanks

- 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 organic liquids with a capacity of less than 10,000 gallons and an annual throughput of less than 100,000 gallons per year, provided the storage tank is not used for the storage of gasoline or any material listed as a HAP pursuant to Section 112(b) of the CAA [35 IAC 201.210(a)(10)].

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

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

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 218.301, 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 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 218.122, 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
01	Ozone System for Sludge Thickener Area OZG1 & OZG2 & Ozone System for Digester Holding Tanks, OZG3 & OZG4	OZG1 & OZG2 September 1998 OZG3 & OZG4 May 1990	None
02	One 10,000 Gallon Gasoline Storage Tank GT2	November 1996	Stage II Control System
03	Gas Boilers B1 & B2 (58.2 mmBtu/Hr Firing Rate)  Gas Boilers B3, B4, and B5 (94.15 mmBtu/Hr Firing Rate)  Gas Boiler B7 (94.15 mmBtu/Hr Firing Rate)	B1 & B2 March 2003  B3, B4, and B5 February 1985  B7 December 1997	None
04	Waste Gas Burner Units WGB1 (Six Identical Units), WGB2 (Six Identical Units with Maximum Firing Rate of 13.35 mmBtu/Hr)	WGB1 July 1990  WGB2 May 1990	None
05	Digester Holding Tanks (1-12)	1-4 - 1963 5-8 - 1968 9-12 - 1992	None
06	Gas Turbine DC-990 (Maximum Firing Rate 41.66 mmBtu/Hr)	July 1986	None

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>, VOM, CO and SO<sub>2</sub> emissions. The source became major for SO<sub>2</sub> and CO in 2003 due to the addition of boilers B1 and B2.

5.1.2 For purposes of the CAAPP, Stickney Water Reclamation Plant is considered a single source with Metropolitan Biosolids Management, LLC, I.D. No. 031051APL, located at 6001 West Pershing Road, Stickney. The Permittees have elected to obtain separate CAAPP permits for their operations.

5.2 Area Designation

5.2.1 This source is located in an area that is in non-attainment of the National Ambient Air Quality Standards for Ozone and PM<sub>2.5</sub> and attainment for all other pollutants.

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.
- c. Pursuant to 35 IAC 237.102, no person shall cause or allow open burning, except the Illinois EPA may grant permits for open burning in accordance with 35 IAC 237.201.

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. No later than upon the submittal for renewal of this permit, the owner or operator shall submit, as part of an application, the necessary information to address either the non-applicability of, or demonstrate compliance with all applicable regulations under 40 CFR Parts 60, 61, 62, or 63, or 35 IAC Subtitle B that were promulgated after the date issued of this permit.

#### 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.
- d. Any subsequent revisions of the plan shall also be sent to the Cook County Department of Environmental Control.

#### 5.4 Source-Wide Non-Applicability of Regulations of Concern

- 5.4.1 This source is not subject to the NESHAP for Organic Hazardous Air Pollutants from Synthetic Organic Chemical Manufacturing Industry Process Vents, Storage Vessels, Transfer Operations, and Wastewater, 40 CFR 63, Subpart G, because the source does not manufacture as a primary product one or more of the chemicals listed in table 1 of 40 CFR 63 Subpart F.
- 5.4.2 This source is not subject to the NSPS for Sewage Treatment Plants, 40 CFR 60 Subpart O, because there is no incinerator that combusts wastes containing more than 10 percent sewage sludge (dry basis) produced by municipal sewage treatment plants, or an incinerator that charges more than 1000 Kg (2205 Lb) per day municipal sewage sludge (dry basis) associated with these affected wastewater treatment operations.
- 5.4.3 This source is not subject to the NSPS for VOC Emissions from Petroleum Refinery Wastewater Systems, 40 CFR 60 Subpart QQQ, because the affected wastewater treatment operations are not located at a petroleum refinery.
- 5.4.4 This source is not subject to 35 IAC 218.443, Wastewater (Oil/Water) Separator, because the affected wastewater treatment operations are not located at a petroleum refinery.
- 5.4.5 This source is not subject to 35 IAC 218 Subpart TT, Other Emission Units, because the affected wastewater treatment

operations are exempted from the control requirements of 35 IAC 218 Subpart TT by 35 IAC 218.980(f)

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)	316.71
Sulfur Dioxide (SO <sub>2</sub> )	158.41
Particulate Matter (PM)	44.61
Nitrogen Oxides (NO <sub>x</sub> )	265.38
HAP, not included in VOM or PM	-----
Total	785.11

5.6.2 Emissions of Hazardous Air Pollutants

The emissions of HAPs from the source shall be less than 10 tons/year for each individual HAP and 25 tons/year for all HAPs combined. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total). This condition is being imposed so that the source is not a major source of HAP emissions. The Permittee shall fulfill the applicable testing, recordkeeping, and reporting requirements of Conditions 5.7.2, 5.9.2, and 5.10.2.

5.6.3 Other Source-Wide Emission Limitations

Other source-wide emission limitations are not set for this source pursuant to the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21, state rules for Major Stationary Sources Construction and Modification, 35 IAC Part 203, or Section 502(b)(10) of the CAA. However, there may

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

#### 5.7 Source-Wide Testing Requirements

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

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

#### 5.7.2 HAP Testing to Verify Minor Source Status

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

- a. If in the previous calendar year, emissions of HAPs exceeded 80% of major source threshold for individual or total HAPs (greater than 8 tons of a single HAP or greater than 20 tons of total HAPs), then testing for HAPs using USEPA Method 311 shall be conducted as follows:
  - i. Test the influent wastewater for individual and total HAP concentrations.

- ii. Test the digester gas for individual and total HAP concentrations.
- b. The calculation as to whether the 80% of major source threshold was exceeded shall be based on records and procedures in Condition 5.9.2 and shall be completed by January 31 for the previous calendar year. If testing is required it shall be completed by March 15.
- 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 Records for HAP Emissions

- a. The Permittee shall maintain records of individual and combined HAP emissions on a monthly and annual basis for the emission units covered by Section 7 (Unit Specific Conditions for Specific Emission Units) of this permit to demonstrate compliance with Condition 5.6.2, pursuant to Section 39.5(7)(b) of the Act.
- b. If testing is required by Condition 5.7.2, the Permittee shall keep records of the testing, including the test date, conditions, methodologies, calculations, test results, and any discrepancies between the test results and formulation specifications of Condition 5.9.2(c) below.
- c. The Permittee shall keep records of semi annual influent analyzes of wastewater HAP concentrations. These analyzes may be used to make the calculation of HAP emissions required by Condition 5.7.2. At a minimum the influent shall be tested semiannually. For determining emissions involving wastewater influent the average of the semiannual HAP analyzes can be used along with the corresponding operating parameters.

### 5.9.3 Retention and Availability of Records

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

### 5.10 Source-Wide Reporting Requirements

#### 5.10.1 General Source-Wide Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the source with the permit requirements 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. 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

- a. 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.
- b. For the purpose of estimating fugitive VOM emissions from the wastewater treatment operations at the source, the use



of emission factors in the February 1998 Emission Reduction Market System (ERMS) application is acceptable. The JEIP system was developed by the South Coast Air Quality Management District (SCAQMD) based on SCAQMD Rule 1179 Emissions Inventory Report for JEIP.

- c. For the purpose of estimating fugitive PM emissions from the roadways and parking areas at the source, the emission factors found in "Section 13.2.1 and 13.2.2 of AP-42, Volume I, Supplement F" published by USEPA on the Technology Transfer Network bulletin board on December 2003 are acceptable.

## 6.0 CONDITIONS FOR EMISSIONS CONTROL PROGRAMS

### 6.1 Emissions Reduction Market System (ERMS)

#### 6.1.1 Description of ERMS

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

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

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

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

#### 6.1.2 Applicability

This source is considered a "participating source" for purposes of the ERMS, 35 IAC Part 205.

6.1.3 Obligation to Hold Allotment Trading Units (ATUs)

- a. Pursuant to 35 IAC 205.150(c)(1) and 35 IAC 205.720, and as further addressed by Condition 6.1.8, as of December 31 of each year, this source shall hold ATUs in its account in an amount not less than the ATU equivalent of its VOM emissions during the preceding seasonal allotment period (May 1 - September 30), not including VOM emissions from the following, or the source shall be subject to "emissions excursion compensation," as described in Condition 6.1.5.
  - i. VOM emissions from insignificant emission units and activities as identified in Section 3 of this permit, in accordance with 35 IAC 205.220;
  - ii. Excess VOM emissions associated with startup, malfunction, or breakdown of an emission unit as authorized in Section 7.0 of this permit, in accordance with 35 IAC 205.225;
  - iii. Excess VOM emissions to the extent allowed by a Variance, Consent Order, or Compliance Schedule, in accordance with 35 IAC 205.320(e)(3);
  - iv. Excess VOM emissions that are a consequence of an emergency as approved by the Illinois EPA, pursuant to 35 IAC 205.750; and
  - v. VOM emissions from certain new and modified emission units as addressed by Condition 6.1.8(b), if applicable, in accordance with 35 IAC 205.320(f).
- b. Notwithstanding the above condition, in accordance with 35 IAC 205.150(c)(2), if a source commences operation of a major modification, pursuant to 35 IAC Part 203, the source shall hold ATUs in an amount not less than 1.3 times its seasonal VOM emissions attributable to such major modification during the seasonal allotment period, determined in accordance with the construction permit for such major modification or applicable provisions in Section 7.0 of this permit.

6.1.4 Market Transactions

- a. The source shall apply to the Illinois EPA for and obtain authorization for a Transaction Account prior to conducting any market transactions, as specified at 35 IAC 205.610(a).
- b. The Permittee shall promptly submit to the Illinois EPA any revisions to the information submitted for its Transaction Account, pursuant to 35 IAC 205.610(b).

- c. The source shall have at least one account officer designated for its Transaction Account, pursuant to 35 IAC 205.620(a).
- d. Any transfer of ATUs to or from the source from another source or general participant must be authorized by a qualified Account Officer designated by the source and approved by the Illinois EPA, in accordance with 35 IAC 205.620, and the transfer must be submitted to the Illinois EPA for entry into the Transaction Account database.

#### 6.1.5 Emissions Excursion Compensation

Pursuant to 35 IAC 205.720, if the source fails to hold ATUs in accordance with Condition 6.1.3, it shall provide emissions excursion compensation in accordance with the following:

- a. Upon receipt of an Excursion Compensation Notice issued by the Illinois EPA, the source shall purchase ATUs from the ACMA in the amount specified by the notice, as follows:
  - i. The purchase of ATUs shall be in an amount equivalent to 1.2 times the emissions excursion; or
  - ii. If the source had an emissions excursion for the seasonal allotment period immediately before the period for the present emissions excursion, the source shall purchase ATUs in an amount equivalent to 1.5 times the emissions excursion.
- b. If requested in accordance with paragraph (c) below or in the event that the ACMA balance is not adequate to cover the total emissions excursion amount, the Illinois EPA will deduct ATUs equivalent to the specified amount or any remaining portion thereof from the ATUs to be issued to the source for the next seasonal allotment period.
- c. Pursuant to 35 IAC 205.720(c), within 15 days after receipt of an Excursion Compensation Notice, the owner or operator may request that ATUs equivalent to the amount specified be deducted from the source's next seasonal allotment by the Illinois EPA, rather than purchased from the ACMA.

#### 6.1.6 Quantification of Seasonal VOM Emissions

- a. The methods and procedures specified in Sections 5 and 7 of this permit for determining VOM emissions and compliance with VOM emission limitations shall be used for determining seasonal VOM emissions for purposes of the ERMS, with the following exceptions [35 IAC 205.315(b)]:

No exceptions

- b. The Permittee shall report emergency conditions at the source to the Illinois EPA, in accordance with 35 IAC 205.750, if the Permittee intends to deduct VOM emissions in excess of the technology-based emission rates normally achieved that are attributable to the emergency from the source's seasonal VOM emissions for purposes of the ERMS. These reports shall include the information specified by 35 IAC 205.750(a), and shall be submitted in accordance with the following:
  - i. An initial emergency conditions report within two days after the time when such excess emissions occurred due to the emergency; and
  - ii. A final emergency conditions report, if needed to supplement the initial report, within 10 days after the conclusion of the emergency.

#### 6.1.7 Annual Account Reporting

- a. For each year in which the source is operational, the Permittee shall submit, as a component of its Annual Emissions Report, seasonal VOM emissions information to the Illinois EPA for the seasonal allotment period. This report shall include the following information [35 IAC 205.300]:
  - i. Actual seasonal emissions of VOM from the source;
  - ii. A description of the methods and practices used to determine VOM emissions, as required by this permit, including any supporting documentation and calculations;
  - iii. A detailed description of any monitoring methods that differ from the methods specified in this permit, as provided in 35 IAC 205.337;
  - iv. If a source has experienced an emergency, as provided in 35 IAC 205.750, the report shall reference the associated emergency conditions report that has been approved by the Illinois EPA;
  - v. If a source's baseline emissions have been adjusted due to a Variance, Consent Order, or CAAPP permit Compliance Schedule, as provided for in 35 IAC 205.320(e)(3), the report shall provide documentation quantifying the excess VOM emissions during the season that were allowed by the Variance, Consent Order, or Compliance Schedule, in accordance with 35 IAC 205.320(e)(3); and
  - vi. If a source is operating a new or modified emission unit for which three years of operational data is not

yet available, as specified in 35 IAC 205.320(f), the report shall specify seasonal VOM emissions attributable to the new emission unit or the modification of the emission unit.

- b. This report shall be submitted by October 31 of each year, for the preceding seasonal allotment period.

6.1.8 Allotment of ATUs to the Source

- a.
  - i. The allotment of ATUs to this source is 255 ATUs per seasonal allotment period.
  - ii. This allotment of ATUs reflects the Illinois EPA's determination that the source's baseline emissions were 25.4776 tons per season.
  - iii. The source's allotment reflects 88% of the baseline emissions (12% reduction), except for the VOM emissions from specific emission units excluded from such reduction, pursuant to 35 IAC 205.405, including units complying with MACT or using BAT, as identified in Condition 6.1.10 of this permit.
  - iv. ATUs will be issued to the source's Transaction Account by the Illinois EPA annually. These ATUs will be valid for the seasonal allotment period during issuance and, if not retired in this season, the next seasonal allotment period.
  - v. Condition 6.1.3(a) becomes effective beginning in the seasonal allotment period during the initial issuance of ATUs by the Illinois EPA into the Transaction Account for the source.

- b. Contingent Allotments for New or Modified Emission Units

The source was not issued a construction permit prior to January 1, 1998 for the following new or modified emission units:

None

- c. Notwithstanding the above, part or all of the above ATUs will not be issued to the source in circumstances as set forth in 35 IAC Part 205, including:
  - i. Transfer of ATUs by the source to another participant or the ACMA, in accordance with 35 IAC 205.630;
  - ii. Deduction of ATUs as a consequence of emissions excursion compensation, in accordance with 35 IAC 205.720; and

- iii. Transfer of ATUs to the ACMA, as a consequence of shutdown of the source, in accordance with 35 IAC 205.410.

6.1.9 Recordkeeping for ERMS

The Permittee shall maintain copies of the following documents as its Compliance Master File for purposes of the ERMS [35 IAC 205.700(a)]:

- a. Seasonal component of the Annual Emissions Report;
- b. Information on actual VOM emissions, as specified in detail in Sections 5 and 7 of this permit and Condition 6.1.6(a); and
- c. Any transfer agreements for the purchase or sale of ATUs and other documentation associated with the transfer of ATUs.

6.1.10 Exclusions from Further Reductions

- a. VOM emissions from the following emission units shall be excluded from the VOM emissions reductions requirements specified in 35 IAC 205.400(c) and (e) as long as such emission units continue to satisfy the following [35 IAC 205.405(a)]:
  - i. Emission units that comply with any NESHAP or MACT standard promulgated pursuant to the CAA;
  - ii. Direct combustion emission units designed and used for comfort heating purposes, fuel combustion emission units, and internal combustion engines; and
  - iii. An emission unit for which a LAER demonstration has been approved by the Illinois EPA on or after November 15, 1990.

The source has demonstrated in its ERMS application and the Illinois EPA has determined that the following emission units qualify for exclusion from further reductions because they meet the criteria as indicated above [35 IAC 205.405(a) and (c)]:

Boiler B-1  
Boiler B-2  
Boiler B-3  
Boiler B-4  
Boiler B-5  
Boiler B-7  
Gas Turbine

- b. VOM emissions from emission units using BAT for controlling VOM emissions shall not be subject to the VOM emissions reductions requirement specified in 35 IAC 205.400(c) or (e) as long as such emission unit continues to use such BAT [35 IAC 205.405(b)].

The source has demonstrated in its ERMS application and the Illinois EPA has determined that the following emission units qualify for exclusion from further reductions because these emission units use BAT for controlling VOM emissions as indicated above [35 IAC 205.405(b) and (c)]:

Wastewater Liquid Treatment Process  
Waste Gas Burner WGB-1  
Waste Gas Burner WGB-2



7.0 UNIT SPECIFIC CONDITIONS FOR SPECIFIC EMISSION UNITS

7.1 Ozone System

7.1.1 Description

The ozone systems generate ozone that is used to control odor from holding tanks and sludge concentration tanks. Ozone from these units is injected into the air exhausted from the holding tanks and sludge concentration tanks prior to passing through a contact chamber.

7.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
01	Ozone System for Sludge Thickener Area OZG1 & OZG2 & Ozone System for Digester Holding Tanks, OZG3 & OZG4	OZG1 & OZG2 September 1998 OZG3 & OZG4 May 1990	None

7.1.3 Applicable Provisions and Regulations

- a. The "affected ozone system" for the purpose of these unit-specific conditions, are the ozone system described in Conditions 7.1.1 and 7.1.2.
- b. The affected ozone system is subject to 35 IAC 214.301, which provides that:

No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2,000 ppm [35 IAC 214.301].

7.1.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected ozone system not being subject to the requirements of 35 IAC 212.321 or 212.322 because due to the unique nature of these units, a process weight rate cannot be set so that such rules cannot reasonably be applied.
- b. The affected ozone system is not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected ozone system does not use an add-on control device to achieve compliance with an emission limitation or standard.

7.1.5 Control Requirements and Work Practices

Control requirements are not set for the affected ozone system. However, there may be requirements for source-wide control requirements set forth in Condition 5.5.

7.1.6 Production and Emission Limitations

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

- a. Emissions from the affected ozone system shall not exceed the following limits:

Emission Unit	Emissions NO <sub>x</sub> (Ton/Yr)	Emissions SO <sub>2</sub> (Ton/Yr)
OZG1 and OZG2	0.15	13.12
OZG3 and OZG4	0.46	3.94

The above limitations were established in Permit 95090075, pursuant to 35 IAC Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically 35 IAC Part 203 [T1].

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].

7.1.7 Testing Requirements

Testing requirements are not set for the affected ozone system. However, there are source-wide testing requirements in Condition 5.7 and general testing requirements in Condition 8.5.

7.1.8 Monitoring Requirements

Monitoring requirements are not set for the affected ozone system. However, there may be provisions for source-wide monitoring requirements set forth in Condition 5.8 of this permit.

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 ozone system to demonstrate compliance with Conditions 5.6.1 and 7.1.6, pursuant to Section 39.5(7) (b) of the Act:

- a. Quantity of ozone produced, lb/mo and ton/vr
- b. Monthly and annual aggregate NO<sub>x</sub> and SO<sub>2</sub> emissions from each affected ozone system, based on ozone production and the applicable emission factors, with supporting calculations.

- c. Monthly hydrogen sulfide measurements in ppm to determine SO<sub>2</sub> concentration.

7.1.10 Reporting Requirements

- a. The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected ozone system with the permit requirements, 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.

7.1.11 Operational Flexibility/Anticipated Operating Scenarios

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

7.1.12 Compliance Procedures

- a. Compliance with the emission limits in Condition 5.5 and 7.1.6 from the affected ozone systems is addressed by the records required in Condition 7.1.9 and the special emission factors and formula listed below:

Table 1. Emission Factors for OZG1 and OZG2

Pollutant Type	Emission Factor (Lb/Lb Ozone)
NO <sub>x</sub>	0.03

Table 2. Emission Factors for OZG3 and OZG4

Pollutant Type	Emission Factor (Lb/Lb Ozone)
NO <sub>x</sub>	0.03

The above NO<sub>x</sub> emission factors came from the, Design Guidance Manual for Ozone Systems, 1990, Chapter 5, Ozone Destruction.

NO<sub>x</sub> Emissions (tons) = ozone produced, lb x applicable emission Factor x conversion factor, ton/2000 lb

SO<sub>2</sub> emissions shall be calculated using the following equation.

SO<sub>2</sub> Emissions (lb/hr) = (H<sub>2</sub>S concentration, ppm) x (air flow rate, cfm) x (molecular weight H<sub>2</sub>S) x (M.W. SO<sub>2</sub>/M.W. H<sub>2</sub>S) x (1.56E-7)

Where:

Molecular weight  $\text{H}_2\text{S}$  = 34  
Molecular weight  $\text{SO}_2$  = 64  
OZG1 and OZG2 Air flow rate = 60,000 cfm  
OZG3 and OZG4 Air flow rate = 17,000 cfm

7.2 Gasoline Storage Tank

7.2.1 Description

Gasoline storage tank for non-retail dispensing operations for use in various facility vehicles and equipment.

7.2.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
02	One 10,000 Gallon Gasoline Storage Tank GT2	November 1996	Stage II Control System

7.2.3 Applicable Provisions and Regulations

- a. The "affected tank" for the purpose of these unit-specific conditions, is the gasoline storage tank described in Conditions 7.2.1 and 7.2.2.
- b. No person shall cause or allow the loading of any organic material into any stationary tank having a storage capacity of greater than 946 l (250 gal), unless such tank is equipped with a permanent submerged loading pipe or an equivalent device approved by the Agency according to the provisions of 35 Ill. Adm. Code 201, and further processed consistent with Section 218.108 of this Part, or unless such tank is a pressure tank as described in Section 218.121(a) or is fitted with a recovery system as described in Section 218.121(b) (2) [35 IAC 218.122(b)].
- c. The affected tank is subject to 35 IAC 218.583 (c), which provides no person shall cause or allow the transfer of gasoline from any delivery vessel into any stationary storage tank at a gasoline dispensing operation unless:
  - i. The tank is equipped with a submerged loading pipe [35 IAC 218.583(a) (1)]; and
  - ii. The vapors displaced from the storage tank during filling are processed by a vapor control system that includes one or more of the following:
    - A. A vapor collection system that meets the requirements of Condition 7.2.5(c) (see also 35 IAC 218.583(d) (4)) [35 IAC 218.583(a) (2) (A)]; or
    - B. A refrigeration condensation system or any other system approved by the Illinois EPA and approved by the USEPA as a SIP revision, that recovers at least 90 percent weight of all

vaporized organic material from the equipment being controlled [35 IAC 218.583(a)(2)(B)]; and

- C. The delivery vessel displays the appropriate sticker pursuant to the requirements of Section 218.584(b) or (d) [35 IAC 218.583(a)(2)(C)]; and
- iii. All tank vent pipes are equipped with pressure/vacuum relief valves with the pressure/vacuum relief valve shall be set to resist a pressure of at least 3.5 inches water column and to resist a vacuum of no less than 6.0 inches water column [35 IAC 218.583(a)(3)].
- d. The affected tank is subject to 35 IAC 218.585, which provides that:
  - i. No person shall sell, offer for sale, dispense, supply, offer for supply, or transport for use in Illinois gasoline whose Reid vapor pressure exceeds the applicable limitations set forth in subsections (b) and (c) of this Section during the regulatory control periods, which shall be May 1 to September 15 for retail outlets, wholesale purchaser-consumer operations, and all other operations [35 IAC 218.585(a)].
  - ii. The Reid vapor pressure of gasoline, a measure of its volatility, shall not exceed 9.5 psi (65.5 kPa) during the regulatory control period in 1990 and each year thereafter [35 IAC 218.585(b)].
  - iii. The Reid vapor pressure of ethanol blend gasoline shall not exceed the limitations for gasoline set forth in Condition 7.2.3(d)(ii) of this Section by more than 1.0 psi (6.9 kPa). Notwithstanding this limitation, blenders of ethanol blend gasoline whose Reid vapor pressure is less than 1.0 psi above the base stock gasoline immediately after blending with ethanol are prohibited from adding butane or any product that will increase the Reid vapor pressure of the blended gasoline [35 IAC 218.585(c)].
- e. The affected tank is subject to 35 IAC 218.586, which provides that:
  - i. The provisions of 35 IAC 218.586(c) below shall apply to any gasoline dispensing operation which dispenses an average monthly volume of more than 10,000 gallons of motor vehicle fuel per month. Compliance shall be demonstrated in accordance with the schedule provided in 35 IAC 586(d) below (7.2.12) [35 IAC 218.586(b)].

- ii. No owner or operator of a gasoline dispensing operation subject to the requirements of 35 IAC 281.586(b) above shall cause or allow the dispensing of motor vehicle fuel at any time from a motor fuel dispenser unless the dispenser is equipped with and utilizes a vapor collection and control system which is properly installed and operated as provided below [35 IAC 218.586(c)]:
  - A. Any vapor collection and control system installed, used or maintained has been CARB certified [35 IAC 218.586(c) (1)].
  - B. Any vapor collection and control system utilized is maintained in accordance with the manufacturer's specifications and the certification [35 IAC 218.586(c) (2)].
  - C. No elements or components of a vapor collection and control system are modified, removed, replaced or otherwise rendered inoperative in a manner which prevents the system from performing in accordance with its certification and design specifications [35 IAC 218.586(c) (3)].
  - D. A vapor collection and control system has no defective, malfunctioning or missing components [35 IAC 218.586(c) (4)].
  - E. Operators and employees of the gasoline dispensing operation are trained and instructed in the proper operation and maintenance of a vapor collection and control system [35 IAC 218.586(c) (5)].
  - F. Instructions are posted in a conspicuous and visible place within the motor fuel dispensing area and describe the proper method of dispensing motor vehicle fuel with the use of the vapor collection and control system [35 IAC 218.586(c) (6)].

7.2.4 Non-Applicability of Regulations of Concern

- a. The affected tank is not subject to the NSPS for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced after July 23, 1984, 40 CFR 60 Subpart Kb, because the affected tanks have a capacity less than 40 m<sup>3</sup>.
- b. The affected tank is not subject to the limitations of 35 IAC 218.120, Control Requirements for Storage Containers of

VOL, pursuant to 35 IAC 218.119, because the affected tanks are used to store a petroleum liquid and the capacity is less than 151 m<sup>3</sup> (40,000 gal).

- c. The affected tank is not subject to the requirements of 35 IAC 218.121, Storage Containers of VPL, pursuant to 35 IAC 218.123(a)(2), which exempts storage tanks with a capacity less than 151.42 m<sup>3</sup> (40,000 gal).
- d. The affected tank is not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected tank does not have potential pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

#### 7.2.5 Control Requirements and Work Practices

- a. The affected tank shall only be used for the storage of gasoline.
- b. Pursuant to 35 IAC 218.583(ċ), each owner of a gasoline dispensing operation shall:
  - i. Install all control systems and make all process modifications required by Condition 7.2.3(b) (see also 35 IAC 218.583(a) [35 IAC 218.583(c)(1)];
  - ii. Provide instructions to the operator of the gasoline dispensing operation describing necessary maintenance operations and procedures for prompt notification of the owner in case of any malfunction of a vapor control system [35 IAC 218.583(c)(2)]; and
  - iii. Repair, replace or modify any worn out or malfunctioning component or element of design [35 IAC 218.583(c)(3)].
- c. Pursuant to 35 IAC 218.583(d), each operator of a gasoline dispensing operation shall:
  - i. Maintain and operate each vapor control system in accordance with the owner's instructions [35 IAC 218.583(d)(1)];
  - ii. Promptly notify the owner of any scheduled maintenance or malfunction requiring replacement or repair of a major component of a vapor control system [35 IAC 218.583(d)(2)];
  - iii. Maintain gauges, meters or other specified testing devices in proper working order [35 IAC 218.583(d)(3)]; and



- iv. Operate the vapor collection system and delivery vessel unloading points in a manner that prevents:
  - A. A reading equal to or greater than 100 percent of the lower explosive limit (LEL measured as propane) when tested in accordance with the procedure described in EPA 450/2-78-051 Appendix B [35 IAC 218.583(d)(4)(A)]; and
  - B. Avoidable leaks of liquid during the filling of storage tanks [35 IAC 218.583(d)(4)(B)].

7.2.6 Production and Emission Limitations

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

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

Emission Unit	Emissions VOM (Lb/Mo)	Emissions VOM (Ton/Yr)
GT2	126.0	0.76

The above limitations were established in Permit 95090075, pursuant to 35 IAC Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically 35 IAC Part 203 [T1].

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].

7.2.7 Testing Requirements

- a. Pursuant to 35 IAC 218.583(a)(4), no person shall cause or allow the transfer of gasoline from any delivery vessel into any stationary storage tank at a gasoline dispensing operation unless the owner or operator of a gasoline dispensing operation demonstrates compliance with Condition 7.2.3(c)(iii) (see also 35 IAC 218.583(a)(3)), by March 15, 1995 or 30 days after installation of each pressure/vacuum relief valve, whichever is later, and at least annually thereafter, by measuring and recording the pressure indicated by a pressure/vacuum gauge at each tank vent pipe. The test shall be performed on each tank vent pipe within two hours after product delivery into the respective storage tank. For manifold tank vent systems, observations at any point within the system shall be adequate. The

owner or operator shall maintain any records required by this condition for a period of three years.

- b. Within 15 business days after discovery of the leak by the owner, operator, or the Agency, repair and retest a vapor collection system which exceeds the limits of Condition 7.2.5(c)(4)(A) (see also 35 IAC 218.583(d)(4)(A)) [35 IAC 218.583(d)(5)].
- c. Upon reasonable request by the Illinois EPA, pursuant to Section 39.5(7)(b) of the Act, the Reid vapor pressure of gasoline and the ethanol content of ethanol blend gasoline shall be determined according to the methods specified below:
  - i. Pursuant to 35 IAC 218.585(d), all sampling of gasoline required pursuant to the provisions of Conditions 7.2.7(c)(ii) and (c)(iii) (see also 35 IAC 218.585(e) and (f)) shall be conducted by one or more of the following approved methods or procedures:
    - A. For manual sampling, AST D4057 [35 IAC 218.585(d)(1)];
    - B. For automatic sampling, ASTM D4177 [35 IAC 218.585(d)(2)]; or
    - C. Sampling procedures for Fuel Volatility, 40 CFR 80 Appendix D [35 IAC 218.585(d)(3)].
  - ii. The Reid vapor pressure of gasoline shall be measured in accordance with either test method ASTM D323 or a modification of ASTM D323 known as the "dry method" as set forth in 40 CFR 80, Appendix E. For gasoline - oxygenate blends which contain water-extractable oxygenates, the Reid vapor pressure shall be measured using the dry method test [35 IAC 218.585(e)].
  - iii. The ethanol content of ethanol blend gasoline shall be determined by use of one of the approved testing methodologies specified in 40 CFR 80, Appendix F [35 IAC 218.585(f)].

#### 7.2.8 Monitoring Requirements

Monitoring requirements are not set for the affected tank. However, there may be provisions for source-wide monitoring requirements set forth in Condition 5.8 of this permit.

#### 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 tank to demonstrate compliance with Conditions 5.6.1 and 7.2.6, pursuant to Section 39.5(7)(b) of the Act:

- a. Records of the testing of the affected tanks pursuant to Condition 7.2.7, which include the following [Section 39.5(7)(e) of the Act]:
  - i. The date, place and time of sampling or measurements;
  - ii. The date(s) analyses were performed;
  - iii. The company or entity that performed the analyses;
  - iv. The analytical techniques or methods used;
  - v. The results of such analysis; and
  - vi. The operating conditions as existing at the time of sampling or measurement.
- b. Each storage vessel with a design capacity less than 40,000 gallons is subject to no provisions of this Part other than those required by maintaining readily accessible records of the dimensions of the storage vessel and analysis of the capacity of the storage vessel [35 IAC 218.129(f)].
- c. Design information for the tank showing the presence of a permanent submerged loading pipe;
- d. Maintenance and repair records for the tank, as related to the repair or replacement of the loading pipe;
- e. The throughput of the affected tanks, gal/mo and gal/yr;  
and
- f. The annual VOM emissions from the affected tanks based on the material stored, the tank throughput, and the applicable emission factors and formulas with supporting calculations.
- g. Records and reports required pursuant to 35 IAC 218.586 shall be made available to the Agency upon request. Records and reports which shall be maintained by the owner or operator of the gasoline dispensing operation shall clearly demonstrate [35 IAC 218.586(g)(2)]:
  - i. That a certified vapor collection and control system has been installed and tested to verify its performance according to its specifications [35 IAC 218.586(g)(2)(A)].
  - ii. That proper maintenance has been conducted in accordance with the manufacturer's specifications and requirements [35 IAC 218.586(g)(2)(B)].

- iii. The time period and duration of all malfunctions of the vapor collection and control system [35 IAC 218.586(g) (2) (C)].
- iv. The motor vehicle fuel throughput of the operation for each calendar month of the previous year [35 IAC 218.586(g) (2) (D)].
- v. That operators and employees are trained and instructed in the proper operation and maintenance of the vapor collection and control system and informed as to the potential penalties associated with the violation of any provision of this Section [35 IAC 218.586(g) (2) (E)].

7.2.10 Reporting Requirements

- a. The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected tank 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. Any storage of VOL in an affected tank that is not in compliance with the requirements of Conditions 7.2.3(b) and (c)(i) (see also 35 IAC 218.122(b) and 218.583(a)(1)), e.g. no "permanent submerged loading pipe," within five days of becoming aware of the non-compliance status. This notification shall include a description of the event, the cause for the non-compliance, actions taken to correct the non-compliance, and the steps taken to avoid future non-compliance;
  - ii. Any storage of VOL in an affected tanks that is out of compliance with the requirements of Conditions 7.2.3(b) and (c)(I) (see also 35 IAC 218.122(b) and 218.583(a)(1)) due to damage, deterioration, or other condition of the loading pipe, within 30 days of becoming aware of the non-compliance status. This notification shall include a description of the event, the cause of non-compliance, actions taken to correct the non-compliance, and the steps to be taken to avoid future non-compliance;
  - iii. Upon request by the Illinois EPA, the owner or operator of a gasoline dispensing operation which claims to be exempt from the requirements of 35 IAC 218.586 shall submit records to the Illinois EPA within 30 calendar days from the date of the request which demonstrate that the gasoline dispensing operation is in fact exempt; and

- iv. The storage of any VOL or VPL other than the material specified in Condition 7.2.5(a) within 30 days of becoming aware of the non-compliance status. This notification shall include a description of the event, the cause for the non-compliance, actions taken to correct the non-compliance, and the steps taken to avoid future non-compliance.

#### 7.2.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected tank. 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. To determine compliance with Conditions 5.6.1 and 7.2.6, VOM emissions from the storage tank(s) shall be calculated based on the following equation and standard emission factor for a Stage II vapor control systems established in AP-42, Table 5.2-7, Evaporative Emissions from Gasoline Service Station Operations:

Emissions (lb) = Gasoline throughput (gal) × 3.1 lb/1000 gal throughput

For the purpose of estimating VOM emissions from breathing and standing losses, the current version of the TANKS program is acceptable.

### 7.3 Boilers

#### 7.3.1 Description

Six natural gas/digester gas fired boilers used to generate steam for heating, cooling, and process heat. A hydrogen sulfide removal system is used to help prevent clogging of the boilers, and therefore is not considered control equipment.

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

Emission Unit	Description	Date Constructed	Emission Control Equipment
03	Gas Boilers B1 & B2 (58.2 mmBtu/Hr Firing Rate)	B1 & B2 March 2003	None
	Gas Boilers B3, B4, and B5 (94.15 mmBtu/Hr Firing Rate)	B3, B4, and B5 February 1985	
	Gas Boiler B7 (94.15 mmBtu/Hr Firing Rate)	B7 December 1997	

#### 7.3.3 Applicable Provisions and Regulations

- a. The "affected boilers" for the purpose of these unit-specific conditions, are the boilers described in Conditions 7.3.1 and 7.3.2.
- b. Affected boilers B1, B2 and B7 are subject to the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR Subpart Dc because the boilers are constructed after June 9, 1989 and the firing rates of the affected boiler is less than 100 mmBtu/hr and greater than 10 mmBtu/hr.
- c. No person shall cause or allow the emission of carbon monoxide (CO) into the atmosphere from the affected boilers to exceed 200 ppm, corrected to 50 percent excess air [35 IAC 216.121].

#### 7.3.4 Non-Applicability of Regulations of Concern

- a. The affected boilers B3, B4 and B5 are not subject to NSPS, 40 CFR 60 Subpart Dc, Industrial- Commercial-Institutional Steam Generating Units, because each steam generating unit was constructed, modified, or reconstructed prior to the applicability date of June 9, 1989.
- b. The affected boilers are not subject to 35 IAC 217.121, New Emission, since the actual heat input of each boiler is less than 73.2 MW (250 mmBtu/hr).

- c. The affected boilers are not subject to 35 IAC 215.301, because the affected boilers are fuel combustion emission units and are exempt pursuant to 35 IAC 215.303.
- d. The affected boilers are not subject to 35 IAC 214.301, 212.321, or 212.322 because the affected boilers are not by definition considered to be process emission units, reference 35 IAC 211.510 Process Unit.
- e. The affected boilers are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected boilers do not use an add-on control device to achieve compliance with an emission limitation or standard.

7.3.5 Control Requirements and Work Practices

- a. Natural gas or digester gas shall be the only fuel fired in the affected boilers.

7.3.6 Production and Emission Limitations

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

- a. Operations and emissions of affected boilers B3, B4, and B5 shall not exceed the following limits:

PM (Ton/Mo)	SO <sub>2</sub> (Ton/Mo)	NO <sub>x</sub> (Ton/Mo)	VOM (Ton/Mo)	CO (Ton/Mo)
0.925	8.575	12.250	0.688	10.288

PM (Ton/Yr)	SO <sub>2</sub> (Ton/Yr)	NO <sub>x</sub> (Ton/Yr)	VOM (Ton/Yr)	CO (Ton/Yr)
7.4	68.6	98.0	5.5	82.3

The above limitations were established in Permit 85010073, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

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].

- b. Operations and emissions of affected boiler B7 shall not exceed the following limits:

PM (Ton/Mo)	SO <sub>2</sub> (Ton/Mo)	NO <sub>x</sub> (Ton/Mo)	VOM (Ton/Mo)	CO (Ton/Mo)
0.325	3.038	4.325	0.238	3.638

PM (Ton/Yr)	SO <sub>2</sub> (Ton/Yr)	NO <sub>x</sub> (Ton/Yr)	VOM (Ton/Yr)	CO (Ton/Yr)
2.6	24.3	34.6	1.9	29.1

Monthly and annual limits are based on the maximum firing rate of the boiler, maximum hours of operation, and the emission factors in Condition 7.3.12(b).

The above limitations contain revisions to previously issued construction permit 97100018. The source has requested that the Illinois EPA establish conditions in this permit that allow various refinements from the conditions of this construction permit, consistent with the information provided in the CAAPP application. The source has requested these revisions and has addressed the applicability and compliance of Title I of the CAA, specifically 35 IAC Part 203, Major Stationary Sources Construction and Modification and/or 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits continue to ensure that the construction and/or modification addressed in this construction permit does not constitute a new major source or major modification pursuant to these rules. These limits are the primary enforcement mechanism for the equipment and activities permitted in this construction permit and the information in the CAAPP application contains the most current and accurate information for the source. Specifically, the emission limitations in this construction permit have been updated to reflect the latest emission factors found in the AP-42 publication. In addition, boilers B3, B4, and B5 have been assigned emission limits to avoid PSD. [T1R]

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].

- c. Emissions from boilers B1 and B2 shall not exceed the following limits:

Pollutant	Lb/Hour	Ton/Year	Ton/Year Combined
NO <sub>x</sub>	5.82	15.64	31.28
SO <sub>2</sub>	4.07	10.95	21.90
PM	0.45	1.20	2.40
CO	4.89	13.14	26.28
VOM	0.33	0.87	1.74



These limits are based on the maximum firing rate, maximum operating hours (5,376 hours/year), and the use of the worst case emissions from fuel (natural gas, and digester gas) [T1].

The above limitations were established in Permit 02120033, pursuant to 35 IAC Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically 35 IAC Part 203 [T1].

Annual fuel usage for affected boilers B1 and B2 combined shall not exceed the following limits. These limits are based on information on maximum fuel usage in the application.

- i. Natural Gas: 42 million scf/month and 312.8 million scf/year;
- ii. Digester Gas: 70.0 million scf/month and 521.2 million scf/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) [T1].

#### 7.3.7 Testing Requirements

Testing requirements are not set for the affected boilers. However, there are source-wide testing requirements in Condition 5.7 and general testing requirements in Condition 8.5.

#### 7.3.8 Monitoring Requirements

Monitoring requirements are not set for the affected boilers. However, there may be provisions for source-wide monitoring requirements set forth in Condition 5.8 of this permit.

#### 7.3.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected boilers to demonstrate compliance with Conditions 5.6.1 and 7.3.6, pursuant to Section 39.5(7)(b) of the Act:

- a. The type and amount of fuel combusted each day in each boiler;
- b. Total natural gas usage in the affected boilers (ft<sup>3</sup>/month and ft<sup>3</sup>/year);

- c. Total digester gas usage in the affected boilers (ft<sup>3</sup>/month and ft<sup>3</sup>/year) (tons/month, tons/year and average nitrogen content, by weight); and
- d. Annual NO<sub>x</sub>, PM, SO<sub>2</sub>, CO, and VOM emissions from the affected boilers, (tons/month, tons/year) complied at least quarterly based on fuel usage and the applicable emission factors, with supporting calculations.

7.3.10 Reporting Requirements

- a. The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected boilers with the permit requirements, 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.

7.3.11 Operational Flexibility/Anticipated Operating Scenarios

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

7.3.12 Compliance Procedures

- a. Compliance with Condition 7.3.3(c) is demonstrated under inherent operating conditions of the boilers, so that no compliance procedures are set in this permit addressing this requirement.
- b. Compliance with the emission limits in Condition 7.3.6 shall be based on the recordkeeping requirements in Condition 7.3.9 and the appropriate emission factors and the formula listed below:
  - i. Emissions from burning natural gas shall be calculated based on emission factors from the latest stack test on the boiler or the following emission factors:

Pollutant	Emission Factor Lb/mmscf
PM	7.6
SO <sub>2</sub>	0.6
VOM	5.5
NO <sub>x</sub>	100.0
CO	84.0

These are the emission factors for natural gas combustion in small boilers (< 100 mmBtu/hr), Tables 1.4-1 and 1.4-2, AP-42, Volume I, Supplement D, March, 1998.

- ii. Emissions from burning digester gas shall be calculated based on emission factors from the latest stack test on the boiler or the following emission factors:

Pollutant	Emission Factor Lb/mm scf
PM	4.6
SO <sub>2</sub>	42.0
VOM	3.3
NO <sub>x</sub>	60.0
CO	50.4

Emission factors are based on the maximum firing rate of an individual boiler, Tables 1.4-1 and 1.4-2, AP-42, Fifth Edition, Volume I, July 1998 and adjusted for the heat content of digester gas of 600 BTU/scf. Digester gas SO<sub>2</sub> emission factor is generated from the special report EBMUD, AB2588 Air Emissions Inventory Report 1991, emissions from boilers that burn digester gas.

- iii. Boiler Emissions (tons) = [natural gas usage (ft<sup>3</sup>) x the appropriate emission factor + digester gas (ft<sup>3</sup>) x the appropriate emission factor]/2000.

## 7.4 Waste Gas Burners

### 7.4.1 Description

The waste gas burners are used as flares to combust excess digester gas. Waste digester gas is generated from the sludge digestion process. Combustion of the waste gas is necessary in order to reduce the hazard of explosion.

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

Emission Unit	Description	Date Constructed	Emission Control Equipment
04	Waste Gas Burner Units WGB1 (Six Identical Units), WGB2 (Six Identical Units with Maximum Firing Rate of 13.35 mmBtu/Hr)	WGB1 July 1990 WGB2 May 1990	None

### 7.4.3 Applicable Provisions and Regulations

- a. The "affected flares" for the purpose of these unit-specific conditions, are the waste gas burner units described in Conditions 7.4.1 and 7.4.2.
- b. The affected flares are subject to 35 IAC 214.301, which provides that:

No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2,000 ppm [35 IAC 214.301].

### 7.4.4 Non-Applicability of Regulations of Concern

- a. The affected flares are not subject to the requirements of 35 IAC 212.321 or 212.322 because due to the unique nature of these units, a process weight rate cannot be set so that such rules cannot reasonably be applied.
- b. The affected flares are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected flares do not use an add-on control device to achieve compliance with an emission limitation or standard.

### 7.4.5 Control Requirements and Work Practices

Control requirements are not set for the affected flares. However, there may be requirements for source-wide control requirements set forth in Condition 5.5.

7.4.6 Production and Emission Limitations

- a. Operation and emissions of each affected flare within units WGB1 and WGB2 shall not exceed the following limits:

Emission Unit	VOM		NO <sub>x</sub>	
	(Lb/Mo)	(Ton/Yr)	(Lb/Mo)	(Ton/Yr)
Each Flare	1365	8.19	585	3.51

The above limitations were established in Permit 95090075, pursuant to 35 IAC Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically 35 IAC Part 203. In addition, the above limitations contain revisions to previously issued Permit 88040052, as reflected in this Title V permit issued on February 7, 2000. Specifically, original limitations of 0.4 ton/yr (NO<sub>x</sub>) and 0.1 Ton/yr (CO) were established in Construction Permit 88040052. Limits for NO<sub>x</sub>, have been increased to limitations shown in Condition 7.4.6(a) which are contained in the CAAPP application [T1].

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].

7.4.7 Testing Requirements

Testing requirements are not set for the affected flares. However, there are source-wide testing requirements in Condition 5.7 and general testing requirements in Condition 8.5.

7.4.8 Monitoring Requirements

Monitoring requirements are not set for the affected flares. However, there may be provisions for source-wide monitoring requirements set forth in Condition 5.8 of this permit.

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 flares to demonstrate compliance with Conditions 5.6.1 and 7.4.6, pursuant to Section 39.5(7)(b) of the Act:

- a. Digester gas usage for the affected flares, mmscf/mo and mmscf/yr.
- b. Annual aggregate NO<sub>x</sub>, PM, SO<sub>2</sub>, and VOM emissions from the affected flares, based on fuel consumption and the applicable emission factors, with supporting calculations.

- c. Monthly NO<sub>x</sub> and VOM emissions from each affected flare, based on fuel consumption and the applicable emission factors, with supporting calculations.

7.4.10 Reporting Requirements

- a. The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected flares with the permit requirements, 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.

7.4.11 Operational Flexibility/Anticipated Operating Scenarios

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

7.4.12 Compliance Procedures

- a. Compliance with Conditions 5.6.1 and 7.4.6 is addressed by the records required in Condition 7.4.9 and the emission factors and formulas listed below:

Table 1. For digester gas fired flares with firing rate greater than 10 mmBtu/hr and less than 100 mmBtu/hr.

Pollutant Type	Emission Factor (lb/mmscf)
NO <sub>x</sub>	36
CO	330
VOM	84
PM	0
SO <sub>2</sub>	42

Emissions are determined using the special emission factors provided above. The SO<sub>2</sub> Emission Factor comes from the report, EDMUD, AB2588 Air Emissions Inventory Report 1991, emissions from boilers that burn digester gas with the remaining emission factors from the Texas Air Control Board.

Emission (ton) = individual flare's gas usage (mmscf) x the applicable emission factor (lb/mmscf) x conversion factor (ton/2000 lb).

7.5 Holding Tanks

7.5.1 Description

Digester holding tanks store sludge before and after anaerobic digestion.

7.5.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
05	Digester Holding Tanks (1-12)	1-4 - 1963 5-8 - 1968 9-12 - 1992	None

7.5.3 Applicable Provisions and Regulations

- a. The "affected holding tanks" for the purpose of these unit-specific conditions, are the holding tanks described in Conditions 7.5.1 and 7.5.2.
- b. No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from any emission unit, except as provided in Section 218.302, 218.303, 218.304 of this Part and the following exception: If no odor nuisance exists the limitation of this Subpart shall apply only to photochemically reactive material [35 IAC 218.301].

7.5.4 Non-Applicability of Regulations of Concern

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

7.5.5 Control Requirements and Work Practices

Control requirements are not set for the affected holding tanks. However, there may be requirements for source-wide control requirements set forth in Condition 5.5.

7.5.6 Production and Emission Limitations

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

- a. Emissions from the holding tanks shall not exceed the following limits:

VOM Emissions (Lb/Mo)	VOM Emissions (Ton/Yr)
1,483	8.9

The above limitations were established in Permit 95090075, pursuant to 35 IAC Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically 35 IAC Part 203 [T1].

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].

7.5.7 Testing Requirements

Testing requirements are not set for the affected holding tanks. However, there are source-wide testing requirements in Condition 5.7 and general testing requirements in Condition 8.5.

7.5.8 Monitoring Requirements

Monitoring requirements are not set for the affected holding tanks. However, there may be provisions for source-wide monitoring requirements set forth in Condition 5.8 of this permit.

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 the affected holding tanks to demonstrate compliance with Conditions 5.6.1 and 7.5.6, pursuant to Section 39.5(7)(b) of the Act:

- a. The influent wastewater flow, million gal/day; and
- b. The annual VOM emissions from the affected holding tanks based on the influent wastewater flow and the applicable emission factors and formulas with supporting calculations.

7.5.10 Reporting Requirements

- a. The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected holding tanks with the permit requirements, 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.



7.5.11 Operational Flexibility/Anticipated Operating Scenarios

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

7.5.12 Compliance Procedures

Compliance with the emission limits in Condition 5.6.1 and 7.5.6 from the affected holding tanks shall be based on the recordkeeping requirements in Condition 7.5.9 and the emission factors and formulas listed below:

- a. For the purpose of estimating VOM emissions from the affected holding tanks, the JEIP emission factor of 14.8 lbs/yr/mgd, defined in the February 1998 Emission Reduction Marketing System (ERMS) application, will be used to estimate emissions. The JEIP system was developed by the South Coast Air Quality Management District (SCAQMD) based on SCAQMD Rule 1179 Emissions Inventory Report for JEIP.

VOM Emissions (ton/yr) = (influent flow (mgd)\*14.8  
lb/yr\*mgd)/2000 lb/ton.

7.6 Gas Turbine

7.6.1 Description

A gas turbine is used to power an electric generator and provide electricity at the source. The gas turbine is a digester gas fired turbine. A hydrogen sulfide removal system is used to help prevent clogging of turbine, and therefore is not considered control equipment.

7.6.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
06	Gas Turbine DC-990 (Maximum Firing Rate 41.66 mmBtu/Hr)	July 1986	None

7.6.3 Applicable Provisions and Regulations

- a. The "affected gas turbine" for the purpose of these unit-specific conditions, is the gas turbine described in Conditions 7.6.1 and 7.6.2.
- b. An "affected gas turbine" for the purpose of these unit-specific conditions is a gas turbine that is subject to the NSPS for Stationary Gas Turbines, 40 CFR 60 Subparts A and GG, because the heat input at peak load is equal to or greater than 10.7 gigajoules per hour (10 mmBtu/hr), based on the lower heating value of the fuel fired and the gas turbine commenced construction, modification, or reconstruction after October 3, 1977, and that has a peak load less than or equal to 107.2 gigajoules per hour (100 mmBtu/hr). The Illinois EPA administers the NSPS for subject sources in Illinois pursuant to a delegation agreement with the USEPA.
- c. i. Standard for Nitrogen Oxide
  - A. Pursuant to 40 CFR 60.332 (a) (2), no owner or operator of an affected gas turbine shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of:

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

Where:

STD = Allowable NO<sub>x</sub> emissions (percent by volume at 15 percent oxygen and on a dry basis).

- Y = Manufacturer's rated heat rate at manufacturer's rated peak load (kilojoules per watt hour), or actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour.
- F = NO<sub>x</sub> emission allowance for fuel-bound nitrogen as defined in paragraph (a)(3) of this section.

Fuel-bound nitrogen (percent by weight)	F (NO <sub>x</sub> percent by volume)
$N \leq 0.015$	0
$0.015 < N \leq 0.1$	0.04 (N)
$0.1 < N \leq 0.25$	$0.04 + 0.0067(N-0.1)$
$N > 0.25$	0.005

Where:

N = The nitrogen content of the fuel (percent by weight) determined in accordance with Condition 7.6.8.

ii. Standard for Sulfur Dioxide

- A. No owner or operator subject to the provisions of 40 CFR 60 Subpart GG shall cause to be discharged into the atmosphere from any stationary gas turbine any gases which contain sulfur dioxide in excess of 0.015 percent by volume at 15 percent oxygen and on a dry basis [40 CFR 60.333(a)].
- B. No owner or operator subject to the provisions of 40 CFR 60 Subpart GG shall burn in any stationary gas turbine any fuel which contains sulfur in excess of 0.8 percent by weight [40 CFR 60.333(b)].
- C. No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from any emission unit, except as provided in Section 218.302, 218.303, 218.304 of this Part and the following exception: If no odor nuisance exists the limitation of this Subpart shall apply only to photochemically reactive material [35 IAC 218.301].

#### 7.6.4 Non-Applicability of Regulations of Concern

- a. The affected turbine is not subject to 35 IAC 216.121, emissions of carbon monoxide from fuel combustion emission units, because the affected gas turbine is not by definition a fuel combustion emission unit.
- b. The affected gas turbine is not subject to 35 IAC 217.121, emissions of nitrogen oxides from new fuel combustion emission sources, because the actual heat input of each unit is less than 73.2 MW (250 mmBtu/hr) and the affected gas turbine is not by definition a fuel combustion emission unit.
- c. The affected gas turbine is not subject to 35 IAC 212.321 because due to the unique nature of this process, such rules cannot reasonably be applied.
- d. 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 have potential pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

#### 7.6.5 Control Requirements and Work Practices

Control requirements are not set for the affected turbine. However, there may be requirements for source-wide control requirements set forth in Condition 5.5.

- a. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate any affected gas turbine 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. The affected gas turbine shall only be fired with digester gas.

#### 7.6.6 Production and Emission Limitations

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

- a. Operations and emissions of the affected gas turbine shall not exceed the following limits:

PM (Ton/Mo)	SO <sub>2</sub> (Ton/Mo)	NO <sub>x</sub> (Ton/Mo)	VOM (Ton/Mo)	CO (Ton/Mo)
0.515	1.60	4.875	0.456	3.650

PM (Ton/Yr)	SO <sub>2</sub> (Ton/Yr)	NO <sub>x</sub> (Ton/Yr)	VOM (Ton/Yr)	CO (Ton/Yr)
4.12	12.80	39.0	3.65	29.20

The above limitations were established in Permit 88030009, pursuant to 35 IAC Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically 35 IAC Part 203. In addition, the above limitations contain revisions to previously issued Permit 95090075, as reflected in this Title V permit issued on February 7, 2000. Specifically, original limitations of 30.3 ton/yr (NO<sub>x</sub>), 2.5 ton/yr (VOM) and 20.2 ton/yr (CO) were established in Construction Permit 88030009. These limits have been changed to reflect emission limits in the Title V application without a PSD violation. The monthly limits were also revised to give the Permittee more flexibility in operation. The above limits represent uncontrolled emissions from the affected gas turbine [T1].

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].

#### 7.6.7 Testing Requirements

- a. To compute the nitrogen oxides emissions, the owner or operator shall use analytical methods and procedures that are accurate to within 5 percent and are approved by the Administrator to determine the nitrogen content of the fuel being fired [40 CFR 60.335(a)].
- b. To meet the requirements of Condition 7.6.8 (see also 40 CFR 60.334(b)), the owner or operator shall use the methods specified in Conditions 7.6.7(a) (see also 40 CFR 60.335(a) and (d)) to determine the nitrogen and sulfur contents of the fuel being burned. The analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency [40 CFR 60.335(e)].

#### 7.6.8 Monitoring Requirements

Pursuant to 40 CFR 60.334(b), the Permittee shall monitor sulfur content and nitrogen content of the fuel being fired in an affected gas turbine. The frequency of determination of these values shall be as follows:

- a. For digester gas, which is supplied without intermediate bulk storage the values shall be determined and recorded according to the custom fuel monitoring schedule approved by the Illinois EPA and USEPA [40 CFR 60.334(b)(2)]. The Permittee was granted a custom fuel monitoring schedule in a letter dated April 27, 2004 from the USEPA and is incorporated by reference into this permit.

#### 7.6.9 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 7.6.6, pursuant to Section 39.5(7)(b) of the Act:

- a. An operating log for the affected gas turbine that includes the information required by Condition 5.7.3(a).
- b. A file that includes the information required by Condition 5.7.3(b), including the nitrogen content of the fuel relied upon, if greater than zero, to determine the applicable standard pursuant to Condition 7.6.3(b)(i) and show compliance with such standard and the emission limit pursuant to Condition 7.6.6.
- c. Digester gas fuel usage for the affected gas turbine, mmscf/mo and mmscf/yr.
- d. The nitrogen content of the fuel to be used in the gas turbine as follows:
  - i. For digester gas, this shall be recorded on a daily basis, except as provided in Condition 7.6.8.
  - e. The sulfur content of the fuel to be used in the affected gas turbine as monitored pursuant to Condition 7.6.8.
- f. Monthly and annual aggregate NO<sub>x</sub>, PM, SO<sub>2</sub>, CO and VOM emissions from the affected gas turbine shall be maintained, based on fuel consumption and the applicable emission factors in Condition 7.6.12, with supporting calculations.

#### 7.6.10 Reporting Requirements

- a. 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:

- b. Pursuant to 40 CFR 60.334(c), periods of excess emissions that shall be reported are defined as follows:

i. Nitrogen Oxides

Any period in which the fuel-bound nitrogen of the fuel is greater than the maximum nitrogen content allowed by the fuel-bound nitrogen allowance used during the performance test required by Condition 7.6.7(a). Each report shall include the average fuel consumption, ambient conditions, gas turbine load, and nitrogen content of the fuel during the period of excess emissions, and the graphs or figures developed under Condition 7.6.7(a) (see also 40 CFR 60.335(a) [40 CFR 60.334(c)(1)]).

ii. Sulfur Dioxide

Any daily period during which the sulfur content of the fuel being fired in the gas turbine may not comply with Condition 7.6.3(b)(ii) [40 CFR 60.334(c)(2)].

- c. Emissions of NO<sub>x</sub> from the affected gas turbine in excess of the limits specified in Condition 7.6.6 based on the current month's records plus the preceding 11 months within 30 days of such an occurrence.

7.6.11 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.

7.6.12 Compliance Procedures

- a. Compliance with Condition 7.6.3(b)(ii) is assumed to be achieved by the normal work practices and maintenance activities inherent in the operation of a gas fired turbine.
- b. Compliance with the emission limits in Condition 7.6.6 is addressed by the recordkeeping requirements in Condition 7.6.9 and the emission factors and formulas listed below:

Digester Gas Combustion Emissions

To determine compliance with Condition 5.5.1, the digester gas combustion emissions from the affected gas turbine shall be calculated based on the following special emission factors based upon the heat content of digester gas of 600 Btu/scf. CO, NO<sub>x</sub> and VOM emission factors are from a shop test as listed in a permit application dated 2/23/88. The SO<sub>2</sub> emission factor is from a report EBMUD, AB2588 Air

Emissions Inventory Report 1991, emissions from boilers that burn digester gas. Particulate matter emission factor is from AP-42 Emission factors for Large Uncontrolled Gas Turbines for condensable particulate matter.

Pollutant	Emission Factor (lb/mmscf)
NO <sub>x</sub>	144
PM	13.6
CO	96
SO <sub>2</sub>	42
VOM	12

Emissions (lb) = (Digester Gas Consumed, ft<sup>3</sup>) x (Heat Content, BTU/ft<sup>3</sup>) x (The appropriate Emission Factor, lb/mmBtu)



## 8.0 GENERAL PERMIT CONDITIONS

### 8.1 Permit Shield

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

This permit shield does not extend to applicable requirements which are promulgated after January 10, 2006 (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  
9511 West Harrison  
Des Plaines, Illinois 60016

iv. USEPA Region 5 - Air Branch

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

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

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

8.7 Obligation to Comply with Title I Requirements

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

## 9.0 STANDARD PERMIT CONDITIONS

### 9.1 Effect of Permit

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

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

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

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

### 9.2 General Obligations of Permittee

#### 9.2.1 Duty to Comply

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

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

9.2.2 Duty to Maintain Equipment

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

9.2.3 Duty to Cease Operation

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

9.2.4 Disposal Operations

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

9.2.5 Duty to Pay Fees

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

9.3 Obligation to Allow Illinois EPA Surveillance

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

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

practices, or operations regulated or required under this permit;

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

#### 9.4 Obligation to Comply with Other Requirements

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

#### 9.5 Liability

##### 9.5.1 Title

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

##### 9.5.2 Liability of Permittee

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

##### 9.5.3 Structural Stability

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

##### 9.5.4 Illinois EPA Liability

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

##### 9.5.5 Property Rights

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



## 9.6 Recordkeeping

### 9.6.1 Control Equipment Maintenance Records

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

### 9.6.2 Records of Changes in Operation

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

### 9.6.3 Retention of Records

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

## 9.7 Annual Emissions Report

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

## 9.8 Requirements for Compliance Certification

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

- a. The certification shall include the identification of each term or condition of this permit that is the basis of the

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

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

#### 9.9 Certification

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

#### 9.10 Defense to Enforcement Actions

##### 9.10.1 Need to Halt or Reduce Activity Not a Defense

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

##### 9.10.2 Emergency Provision

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

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

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

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

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

- iv. During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission limitations, standards, or regulations in this permit.
  
- b. This provision is in addition to any emergency or upset provision contained in any applicable requirement. This provision does not relieve a Permittee of any reporting obligations under existing federal or state laws or regulations [Section 39.5(7)(k)(iv) of the Act].

#### 9.11 Permanent Shutdown

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

#### 9.12 Reopening and Reissuing Permit for Cause

##### 9.12.1 Permit Actions

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

##### 9.12.2 Reopening and Revision

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

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

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

#### 9.12.3 Inaccurate Application

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

#### 9.12.4 Duty to Provide Information

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

#### 9.13 Severability Clause

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

#### 9.14 Permit Expiration and Renewal

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

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

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

9.15 General Authority for the Terms and Conditions of this Permit

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

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

10.0 ATTACHMENTS

Attachment 1 Example Certification by a Responsible Official

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

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Official Title: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Date Signed: \_\_\_\_\_

Attachment 2 Emissions of Particulate Matter from Process Emission Units

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

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

where:

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

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

	<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		English	
<u>P</u>	<u>E</u>	<u>P</u>	<u>E</u>
<u>Mg/hr</u>	<u>kg/hr</u>	<u>T/hr</u>	<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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