Statement of Basis

for the DRAFT CAAPP Permit for:

Source Name:

Northern Illinois University

Statement of Basis No.:	95060027-1305
I.D. No.:	037010AAT
Permit No.:	95060027
Date Prepared:	07/18/2013

Permitting Authority:

Illinois Environmental Protection Agency
Bureau of Air, Permit Section
217/785-1705

This Statement of Basis is being provided to USEPA and any interested parties as required by Section 39.5(8)(b) of the Illinois Environmental Protection Act.

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PREFACE

Reason For This Document

This document is a requirement of the permitting authority in accordance with 502(a) of the Clean Air Act, 40 CFR 70.7(a)(5), and Section 39.5(8)(b) of the Illinois Environmental Protection Act. Section 39.5(8)(b) of the Illinois Environmental Protection Act states the following:

> "The Agency shall prepare a …… statement that sets forth the legal and factual basis for the Draft CAAPP permit conditions, including references to the applicable statutory or regulatory provisions."

Purpose Of This Document

The purpose of this Statement of Basis is to provide discussion regarding the development of this Draft CAAPP Permit. This document would also provide the permitting authority, the public, the source, and the USEPA with the applicability and technical matters that form the basis of the Draft CAAPP Permit.

Summary Of Historical Actions Leading Up To Today's Permitting Action

Since the last Renewal CAAPP Permit issued on February 9, 2004, the source has not been issued any modifications or amendments.

Limitations

This Statement of Basis is not enforceable and only sets forth the legal and factual basis for the Draft CAAPP Permit Conditions (Chapters I and II). Chapter III contains supplemental material that would assist in educating interested parties about this source and the Draft CAAPP Permit. The Statement of Basis does not shield the source from enforcement actions or its responsibility to comply with existing or future applicable regulations. Nor does the Statement of Basis constitute a defense to a violation of the Federal Clean Air Act or the Illinois Environmental Protection Act including implementing regulations.

This document does not purport to establish policy or guidance.

INTRODUCTION

The Clean Air Act Permit Program (CAAPP) is the operating permit program established in Illinois for major stationary sources as required by Title V of the federal Clean Air Act and Section 39.5 of the Illinois Environmental Protection Act. The Title V Permit Program (CAAPP) is the primary mechanism to apply the various air pollution control requirements established by the Clean Air Act to major sources, defined in accordance with Title V of the Clean Air Act. The Draft CAAPP Permit contains conditions identifying the state and federal applicable requirements that apply to the source. The Draft CAAPP Permit also establishes the necessary monitoring and compliance demonstrations. The source must implement this monitoring to demonstrate that the source is operating in accordance with the applicable requirements of the permit. The Draft CAAPP Permit identifies all applicable requirements for the various emission units as well as establishes detailed provisions for testing, monitoring, recordkeeping, and reporting to demonstrate compliance with the Clean Air Act. Further explanations of the specific provisions of the Draft CAAPP Permit are contained in the following Chapters of this Statement of Basis.

In addition, the Illinois EPA has committed substantial resources and effort in the development of an acceptable Statement of Basis (this document) that would meet the expectations of USEPA, Region 5. As a result, this document contains discussions that address applicability determinations, periodic monitoring, streamlining, prompt reporting, and SSM authorizations (as necessary). These discussions involve, where necessary, a brief description and justification for the resulting conditions and terms in this Draft CAAPP Permit. This document begins by discussing the legal basis for the contents of the Draft CAAPP Permit, moves into the factual description of the permit, and ends with supplemental information that has been provided to further assist with the understanding of the background and genesis of the permit content.

It is Illinois EPA’s preliminary determination that this source’s Permit Application meets the standards for issuance of a “Final” CAAPP Permit as stipulated in Section 39.5(10)(a) of the Illinois Environmental Protection Act (see Chapter I – Section 1.2 of this document). The Illinois EPA is therefore initiating the necessary procedural requirements to issue a Final CAAPP Permit. The Illinois EPA has posted the Draft CAAPP permit and this Statement of Basis on USEPA website:

http://www.epa.gov/reg5oair/permits/ilonline.html

CHAPTER I – LEGAL BASIS FOR THE PERMIT AND PERMIT CONDITIONS

1.1 Legal Basis for Program

The Illinois EPA's state operating permit program for major sources established to meet the requirements of 40 CFR Part 70 are found at Section 39.5 of the Illinois Environmental Protection Act [415 ILCS 5/39.5]. The program is called the Clean Air Act Permitting Program (CAAPP). The underlying statutory authority is found in the Illinois Environmental Protection Act at 415 ILCS 5/39.5. The CAAPP was given final full approval by USEPA on December 4, 2001 (see 66 FR 62946).

1.2 Legal Basis for Issuance of CAAPP Permit

In accordance with Section 39.5(10)(a) of the Illinois Environmental Protection Act, the Illinois EPA may only issue a CAAPP Permit if all of the following standards for issuance have been met:

- The applicant has submitted a complete and certified application for a permit, permit modification, or permit renewal consistent with Sections 39.5(5) and (14) of the Illinois Environmental Protection Act, as applicable, and applicable regulations (Section a. below);

- The applicant has submitted with its complete application an approvable compliance plan, including a schedule for achieving compliance, consistent with Section 39.5(5) of the Illinois Environmental Protection Act and applicable regulations (Section b. below);

- The applicant has timely paid the fees required pursuant to Section 39.5(18) of the Illinois Environmental Protection Act and applicable regulations (Section c. below); and

- The applicant has provided any additional information as requested by the Illinois EPA (Section d. below).

a. Application Status

The source submitted an application for a Renewal CAAPP Permit on April 27, 2010. The source is currently operating under an application shield resultant from a timely and complete renewal application submittal. This Draft CAAPP Permit addresses application content and necessary revisions to meet the requirements for issuance of the permit.

b. Present Compliance Status

At the time of this Draft CAAPP Permit, there were no pending State or Federal enforcement actions against the source; therefore, a Compliance Schedule is not required for this source. The source submitted an approvable Compliance Plan as part of its Certified Permit Application. The source has certified compliance with all applicable rules and regulations. In addition, the draft permit requires the source to certify its compliance status on an annual basis.

c. Payment of Fees

The source is current on payment of all fees associated with operation of the emission units.

d. Additional Information

The source provided all the necessary additional application material as requested by the Illinois EPA.

1.3 Legal Basis for Conditions in the CAAPP Permit

This industrial source is subject to a variety of Federal and SIP regulations, which are the legal basis for the conditions in this permit (see Sections a. and b. below). Also, the CAAPP provides the legal basis for additional requirements such as periodic monitoring, reporting, and recordkeeping. The following list summarizes those regulations that form the legal basis for the conditions in this Draft CAAPP Permit and are provided in the permit itself as the origin and authority.

a. Applicable Federal Regulations

This source operates emission units that are subject to the following Federal regulations.

40 CFR Part 60 – Subpart A, NSPS General Provisions
40 CFR Part 60 – Subpart IIII, Stationary Compression Ignition Internal Combustion Engines
40 CFR Part 60 – Subpart JJJJ, Stationary Ignition Internal Combustion Engines
40 CFR Part 61 – Subpart M, Standard of Asbestos
40 CFR Part 63 – Subpart A, NESHAP General Provisions
40 CFR Part 63 – Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

b. Applicable SIP Regulations

This source operates emission units that are subject to the following SIP regulations:

35 IAC Part 201 - Permits And General Provisions
35 IAC Part 212 – Visible And Particulate Matter Emissions
35 IAC Part 214 – Sulfur Limitations
35 IAC Part 215 - Organic Material Emission Standards And Limitations
35 IAC Part 216 – Carbon Monoxide Emissions
35 IAC Part 244 – Episodes
35 IAC Part 254 – Annual Emissions Report

c. Other Applicable Requirements

There are no other applicable requirements for this source.

CHAPTER II – FACTUAL BASIS FOR THE PERMIT AND PERMIT CONDITIONS

2.1 Source History

There is no significant source history warranting discussion for this source.

2.2 Description of Source

SIC Code: 8221
County: DeKalb

The source Northern Illinois University is a major source of NO_x emissions generated by boilers operated at the East and West Steam plants and used to produce steam, for the complex, and boilers used for the space heating purpose for other campus buildings. In addition, the university also operates a gasoline storage tank for dispensing operations.

The source contains the following processes:

Emission Units	*Description*
Natural Gas-Fired Boilers	Boilers located at East and West Steam Plants
Natural Gas-Fired Boilers	Boilers located at Convocation Center
Natural Gas-Fired Boilers	Boilers located at Monsanto Building
Gasoline Storage Tank	Gasoline Storage Tank and Dispensing Operations with Submerged Pipe

2.3 Single Source Status

This source does not have any collocated facilities that would be considered a single source with this facility based on information found in the certified application.

2.4 Ambient Air Quality Status for the Area

The source is located in an area that as of the date of permit issuance designated attainment or unclassifiable for the National Ambient Air Quality Standards for all criteria pollutants (carbon monoxide, lead, nitrogen dioxide, ozone, $PM_{2.5}$, PM_{10}, sulfur dioxide). (See 40 CFR Part 81 - Designation of Areas for Air Quality Planning Purposes)

2.5 Source Status

The source requires a CAAPP permit because this source is considered major (based on its PTE) for the following regulated pollutants: nitrogen oxides (NO_x), and green house gas (GHG).

This source is considered a natural minor for the following regulated pollutants: PM_{10}, $PM_{2.5}$, volatile organic material (VOM), carbon monoxide (CO), sulfur dioxide (SO_2) and/or hazardous air pollutant (HAP).

Based on available data, this source is a major source of emissions for GHG, with potential emissions of GHG that are more than 100,000 tons per year (CO_2e). Northern Illinois University submitted data in its application for which the Illinois EPA estimated the PTE of GHG emissions to be 454,671.61 tons per year. The emissions consist of 454,227.06 tons of CO_2, 265.02 tons of N_2O, and 179.53 tons of methane.

This source is not currently subject to any “applicable requirements,” as defined by Section 39.5(1) of the Act, for emissions of greenhouse gases (GHG) as defined by 40 CFR 86.1818-12(a), as referenced by 40 CFR 52.21(b)(49)(i). There are no GHG-related requirements under the Illinois Environmental Protection Act, Illinois’ State Implementation Plan, or the Clean Air Act that apply to this facility, including terms or conditions in a Construction Permit addressing emissions of GHG or BACT for emissions of GHG from a major project at this facility under the PSD rules. In particular, the USEPA’s Mandatory Reporting Rule for GHG emissions, 40 CFR Part 98, does not constitute an “applicable requirement” because it was adopted under the authority of Sections 114(a)(1) and 208 of the Clean Air Act. This permit also does not relieve the Permittee from the legal obligation to comply with the relevant provisions of the Mandatory Reporting Rule for this facility.

2.6 Annual Emissions

The following table lists annual emissions (tons) of criteria pollutants for this source, as reported in the Annual Emission Reports (AER) sent to the Illinois EPA:

Pollutant	*2011*	*2010*	*2009*
CO	25.37	45.81	28.07
NO_x	84.54	155.41	93.58
PM	2.3	2.30	2.3
SO_2	0.16	0.32	0.20
VOM	1.67	3.04	1.84
CO_{2E}	36,227.46	66,729.00	40,102.00
HAP	----	----	----

2.7 Fee Schedule

The following table lists the approved annual fee schedule (tons) submitted in the Source’s permit application:

Pollutant		*Tons/Year*
Volatile Organic Material	(VOM)	8.9
Sulfur Dioxide	(SO_2)	7.9
Particulate Matter	(PM)	25.21
Nitrogen Oxides	(NO_x)	154.64
HAP, not included in VOM or	(HAP)	----
Total		196.65

2.8 SIP Permit Facts (T1 Limits)

CAAPP Permits must address all “applicable requirements,” which includes the terms and conditions of preconstruction permits issued under regulations approved by USEPA in accordance with Title I of the CAA (*See* definition of applicable requirements in Section 39.5(1) of the Illinois Environmental Protection Act). Preconstruction permits, commonly referred to in Illinois as Construction Permits, derive from the New Source Review (“NSR”) permit programs required by Title I of the CAA. These programs include the two major NSR permit programs: (1) the Prevention of Significant Deterioration (“PSD”) program[1] and (2) the nonattainment NSR program.[2] These programs also encompass state construction permit programs for projects that are not major.

In the CAAPP or Illinois's Title V permit program, the Illinois EPA's practice is to identify requirements that are carried over from an earlier Title I permit into a New or Renewed CAAPP Permit as "TI" conditions (i.e., Title I conditions). Title I Conditions that are revised as part of their incorporation into a CAAPP Permit are further designated as "TIR". Title I Conditions that are newly established through a CAAPP Permit are designated as "TIN". It is important that Title I Conditions be identified in a CAAPP Permit because these conditions will not expire when the CAAPP Permit expires. Because the underlying authority for Title I Conditions comes from Title I of the CAA and their initial establishment in Title I Permits, the effectiveness of T1 Conditions derives from Title I of the CAA rather than being linked to Title V of the A. For "changes" to be made to Title I Conditions, they must either cease to be applicable based on obvious circumstances, e.g., the subject emission unit is permanently shut down, or appropriate Title I procedures must be followed to change the conditions.

- There are no previously issued Construction Permits required to be incorporated into the CAAPP Permit.

- The Illinois EPA has not recently issued Construction Permits for this source.

- The Illinois EPA incorporated CO and NO_x limits for boilers described in Section 4.2 and 4.3 of the CAAPP permit. Those boilers were not constructed with a valid construction permit and initial version of the CAAPP permit issued on February 9, 2004, with appropriate CO and NO_x limits established as T1N.

- There are no newly issued Construction Permits for projects not yet constructed for this source.

- There are no extraneous or obsolete T1 conditions for the source.

CHAPTER III – SUPPLEMENTAL DISCUSSIONS REGARDING THE PERMIT

The information provided in this Chapter of the Statement of Basis is being provided to assist interested parties in understanding what additional information may have been relied on to support this draft CAAPP permit.

3.1 Environmental Justice Discussions

This location has not been identified as a potential concern for Environmental Justice consideration.

3.2 Emission Testing Results

The source, at the time of this draft permit, has not been required to perform any emissions testing.

3.3 Compliance Reports (Annual Certifications, Semiannual Monitoring, NESHAP, etc.)

A review of the source's compliance reports demonstrates the sources ability to comply with all applicable requirements.

3.4 Field Inspection Results

A review of the source's latest field inspection report dated October 07, 2011 demonstrates the source's ability to comply with all applicable requirements.

3.5 Historical Non-Compliance

- IPCB 5-5-2011, Case PCB 11-64. From February 9, 2009, Northern Illinois University failed to obtain and operates without the requisite CAAPP permit issued by IEPA allowing the operation of an unpermitted major source. Northern Illinois shall at all times operate its facility in compliance with all of the terms and conditions of the operating permit.

3.6 Source Wide Justifications and Rationale

Applicable Requirements Summary		
Applicable Requirement	Type	Location
Fugitive Particulate Matter (35 IAC 212.301 and 35 IAC 212.314)	Applicable Standard	See the Permit, Condition 3.1(a)

Visible Emissions (i.e., Opacity)

✓ Monitoring as follows (Condition 3.1(a)(ii))
- o If required, daily observations for a week for PM emissions.

✓ Recordkeeping as follows (Condition 3.1(a)(ii)):
- o Records of observation

✓ Reporting as follows (Condition 3.5(a)(A)):
- o Prompt Reporting (reports of deviation) within 30 days.

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient because:

- There is a small likelihood of an exceedance.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.

Non-Applicability Discussion

Complex source-wide non-applicability determinations were not made for this source.

Prompt Reporting Discussion

Prompt reporting of deviations for source wide emission units has been established as 30 days. See rationale in Chapter III Section 3.9.

3.7 Emission Unit Justifications and Rationale

a. Natural Gas Fired Boilers East and West Steam		
Applicable Requirements Summary		
Applicable Requirement	Type	Location
Opacity Requirements (35 IAC 212.123(a))	Applicable Standard	See the Permit, Condition 4.1.2(a)
CO Requirements 35 IAC 216.121 Requirement	Applicable Standard	See the Permit, Condition 4.1.2(b)

Visible Emissions (i.e., Opacity)

✓ Monitoring as follows (Condition 4.1.2(a)(ii)(A))
- o Annual Method 22 observations
- o If required, Method 9 measurements
- o Inspections

✓ Recordkeeping as follows (Condition 4.1.2(a)(ii)(B)):
- o Records of each Method 22 observation
- o If required, records of each Method 9 measurement

✓ Reporting as follows (Condition 4.1.5(a)):
- o Prompt reporting within 30 day. See rationale in Chapter III Section 8

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for these emission units because:

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- Emissions are considered negligible
- Annual observations of opacity, including records of these observations, are sufficient to verify compliance with the 30% opacity limit for boiler that combust natural gas. The likelihood of natural gas boiler violating opacity is small. It should also be noted that the source is also

required to maintain the type of fuel used, maintain inspection records, and maintain maintenance and repair logs of the natural gas boiler. These records would help the Illinois EPA determine if the natural gas boiler are being operated properly and therefore would result in opacity being minimized.

Carbon Monoxide Emissions

✓ Monitoring as follows (Condition 4.1.2(b)(ii)(A))
- o Biennially inspections/tune-ups of the boilers

✓ Recordkeeping as follows (Condition 4.1.2(b)(ii)(B), (C) and 4.1.2(c)):
- o Type of fuel used
- o Records of each inspection and tune-ups

✓ Reporting as follows (Condition 4.1.5(a)):
- o Prompt reporting within 30 days. See rationale in Chapter III Section 8.

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for these emission units because:

- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- The likelihood of natural gas boilers with regular tune-ups of the burners will keep the burning process stable and efficient, in line with the manufacturer requirements therefore would result in CO being minimized.

Non-Applicability Discussion

Complex non-applicability determinations were not made for this emission unit. All non-applicability discussions can be found in the Draft CAAPP Permit.

Prompt Reporting Discussion

Prompt reporting of deviations has been established as 30 days. See rationale in Chapter III Section 8.

b. Natural Gas Fired Boilers , Convocation Center		
Applicable Requirements Summary		
Applicable Requirement	Type	Location
Opacity Requirements (35 IAC 212.123(a))	Applicable Standard	See the Permit, Condition 4.2.2(a)
CO Requirements 35 IAC 216.121 Requirement	Applicable Standard and limit	See the Permit, Condition 4.2.2(b)
NO_x Requirements	Applicable limit	See the Permit, Condition 4.2.2(c)
Operational and Production Requirement	Applicable limit	See the Permit, Condition 4.2.2(d)

Visible Emissions (i.e., Opacity)

✓ Monitoring as follows (Condition 4.2.2(a)(ii)(A))
- o Annual Method 22 observations
- o If required, Method 9 measurements

✓ Recordkeeping as follows (Condition 4.2.2(a)(ii)(B)):
- o Records of each Method 22 observation
- o If required, records of each Method 9 measurement

✓ Reporting as follows (Condition 4.2.5(a)):
- o Prompt reporting within 30 day. See rationale in Chapter III Section 8

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for these emission units because:

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- Emissions are considered negligible
- Annual observations of opacity, including records of these observations, are sufficient to verify compliance with the 30% opacity limit for boiler that combust natural gas. The likelihood of natural gas boiler violating opacity is small. It should also be noted that the source is also required to maintain the type of fuel used, maintain inspection records, and maintain maintenance and repair logs of the natural gas boiler. These records would help the Illinois EPA determine if the natural gas boiler are being operated properly and therefore would result in opacity being minimized.

Carbon Monoxide Emissions

✓ Monitoring as follows (Condition 4.2.2(b)(ii)(A)and (B))
- o Biennially Inspections/tune-ups of the boilers

✓ Recordkeeping as follows (Condition 4.2.2(b)(ii)(C) and 4.2.2(d)(ii)(A)):
- o Type of fuel used
- o Records of each inspection/tune-up
- o Monthly and annual records of CO emissions with supporting calculations

✓ Reporting as follows (Condition 4.2.5(a)):
- o Prompt reporting within 30 days. See rationale in Chapter III Section 8.

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for these emission units because:

- Emissions do not vary significantly under normal operation and/or vary slowly with time.

- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- The likelihood of natural gas boilers with regular tune-ups of the burners will keep the burning process stable and efficient, in line with the manufacturer requirements therefore would result in CO being minimized.

Nitrogen Oxides Emissions

✓ Monitoring as follows (Condition 4.2.2(b)(ii)(A))
  - o Biennially Inspections/tune-ups of the boilers

✓ Recordkeeping as follows (Condition 4.2.2 (c)(ii)(A), and (d)(ii)(A):
  - o Type of fuel used
  - o Records of each inspection/tune-up
  - o Monthly and annual records of NO_x emissions with supporting calculations

✓ Reporting as follows (Condition 4.1.5(a)):
  - o Prompt reporting within 30 days. See rationale in Chapter III Section 8.

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for these emission units because:

- There is a small likelihood of an exceedance.
- Source has not exhibited a history of non-compliance.
- Monitoring exceed compliance with other sources in this source category.
- Monthly and annual records are sufficient to demonstrate compliance for the NO_x emissions limitation.

Non-Applicability Discussion

Complex non-applicability determinations were not made for this emission unit. All non-applicability discussions can be found in the Draft CAAPP Permit.

Prompt Reporting Discussion

Prompt reporting of deviations has been established as 30 days. See rationale in Chapter III Section 8.

c. Natural Gas Fired Boilers , Monsanto Building		
Applicable Requirements Summary		
Applicable Requirement	Type	Location
Opacity Requirements (35 IAC 212.123(a))	Applicable Standard	See the Permit, Condition 4.3.2(a)
CO Requirements 35 IAC 216.121 Requirement	Applicable Standard and limit	See the Permit, Condition 4.3.2(b)
NO_x Requirements	Applicable limit	See the Permit, Condition 4.3.2(c)
Operational and Production Requirement	Applicable limit	See the Permit, Condition 4.3.2(d)

Visible Emissions (i.e., Opacity)

- ✓ Monitoring as follows (Condition 4.3.2(a)(ii)(A))
  - o Annual Method 22 observations
  - o If required, Method 9 measurements

- ✓ Recordkeeping as follows (Condition 4.3.2(a)(ii)(B)):
  - o Records of each Method 22 observation
  - o If required, records of each Method 9 measurement

- ✓ Reporting as follows (Condition 4.3.5(a)):
  - o Prompt reporting within 30 day. See rationale in Chapter III Section 8

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for these emission units because:

- There is a small likelihood of an exceedance.
- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- Emissions are considered negligible
- Annual observations of opacity, including records of these observations, are sufficient to verify compliance with the 30% opacity limit for boiler that combust natural gas. The likelihood of natural gas boiler violating opacity is small. It should also be noted that the source is also required to maintain the type of fuel used, maintain inspection records, and maintain maintenance and repair logs of the natural gas boiler. These records would help the Illinois EPA determine if the natural gas boiler are being operated properly and therefore would result in opacity being minimized.

Carbon Monoxide Emissions

- ✓ Monitoring as follows (Condition 4.3.2(b)(ii)(A) and (d)(ii)(A))
  - o Biennially Inspections/tune-ups of the boilers

- ✓ Recordkeeping as follows (Condition 4.3.2(b)(ii)(B) and 4.2.2(d)):
  - o Type of fuel used
  - o Records of each inspection/tune-up
  - o Monthly and annual records of CO emissions with supporting calculations

- ✓ Reporting as follows (Condition 4.3.5(a)):
  - o Prompt reporting within 30 days. See rationale in Chapter III Section 8.

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for these emission units because:

- Emissions do not vary significantly under normal operation and/or vary slowly with time.

- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.
- Monitoring is consistent with other sources in this source category.
- The likelihood of natural gas boilers with regular tune-ups of the burners will keep the burning process stable and efficient, in line with the manufacturer requirements therefore would result in CO being minimized.

Nitrogen Oxides Emissions

✓ Monitoring as follows (Condition 4.1.2(c)(ii)(A) and (d)(ii)(A))
  - o Biennially inspections/tune-ups of the boilers

✓ Recordkeeping as follows (Condition 4.2.2 (b)(ii)(A), 4.2.2(d)(ii)(A) and (c)(ii)(A):
  - o Type of fuel used
  - o Records of each inspection
  - o Monthly and annual records of NO_x emissions with supporting calculations

✓ Reporting as follows (Condition 4.1.5(a)):
  - o Prompt reporting within 30 days. See rationale in Chapter III Section 8.

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for these emission units because:

- There is a small likelihood of an exceedance.
- Source has not exhibited a history of non-compliance.
- Monitoring exceed compliance with other sources in this source category.
- Monitoring and annual records are sufficient to demonstrate compliance for the NO_x emissions limitation.

Non-Applicability Discussion

Complex non-applicability determinations were not made for this emission unit. All non-applicability discussions can be found in the Draft CAAPP Permit.

Prompt Reporting Discussion

Prompt reporting of deviations has been established as 30 days. See rationale in Chapter III Section 8.

d. Gasoline Storage Tank and Dispensing Operations		
Applicable Requirements Summary		
Applicable Requirement	Type	Location
State Work Practice Requirements (35 IAC Part 215)	Applicable Work Practice Requirements	See the Permit, Condition 4.4.2(a)(i)
Federal Work Practice Requirements (40 CFR 63 Subpart CCCCCC)	Applicable Work Practice Requirements	See the Permit, Condition 4.4.2(b)(i)
Section 39.5(7) of the Act	Operational Limits	See the Permit, Condition 4.4.2(c)(i)

Visible Emissions (i.e., Opacity)

✓ Monitoring as follows (Condition 4.4.2(a)(ii)(A)):
- o Annual measurement and recording the pressure indicated by a pressure/vacuum gauge at each tank vent pipe.
- o Semi-annual inspections of the gasoline storage tank and dispensing operations.

✓ Recordkeeping as follows (Condition 4.4.2(a)(ii)(B)):
- o Records of conducted inspections.

✓ Reporting as follows (Condition 4.4.5(a)):
- o Deviation report within 30 days

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for this emission unit because:

- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.

Federal Work Practice Requirements

✓ Monitoring as follows (Condition 4.4.2(b)(ii)(A))
- o Semi-annual inspections of the gasoline storage tank and dispensing operations.

✓ Recordkeeping as follows (Condition 4.4.2(b)(ii)(B)):
- o Records of conducted inspections.
- o Written operating procedures.

✓ Reporting as follows (Condition 4.4.5(a)):
- o Prompt Reporting (reports of deviation) within 30 days.

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for these emission units because:

- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.

Operational Limit

✓ Monitoring as follows (Condition 4.4.2(c)(ii)(A))
- o Records of monthly and annual gasoline throughput.

✓ Reporting as follows (Condition 4.4.5(a)):
- o Deviation report within 30 days

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for this emission unit because:

- Monitoring is consistent with other sources in this source category.

Non-Applicability Discussion

Complex non-applicability determinations were not made for this emission unit. All non-applicability discussions can be found in the Draft CAAPP Permit.

Prompt Reporting Discussion

Prompt reporting of deviations has been established as 30 days. See rationale in Chapter III Section 3.9.

3.8 Insignificant Activities Discussion

Applicable Requirements Summary		
Applicable Requirement	Type	Location
NSPS Requirement (40 CFR 60 Subpart IIII) NESHAP Requirement (40 CFR 63 Subpart ZZZZ)	Applicable limits and Work Practices	See the Permit, Condition 6.1(a)

National Emission Standards for Hazardous Air Pollutants (NSPS)

- Source has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- Compliance with 40 CFR 63 Subpart ZZZZ is achieved by compliance with 40 CFR 60 Subpart IIII.

3.9 Prompt Reporting Discussion

Among other terms and conditions, CAAPP Permits contain reporting obligations to assure compliance with applicable requirements. These reporting obligations are generally four-fold. More specifically, each CAAPP Permit sets forth any reporting requirements specified by state or federal law or regulation, requires prompt reports of deviations from applicable requirements, requires reports of deviations from required monitoring and requires a report certifying the status of compliance with terms and conditions of the CAAPP Permit over the calendar year.

The number and frequency of reporting obligations in any CAAPP Permit is source-specific. That is, the reporting obligations are directly related to factors, including the number and type of emission units and applicable requirements, the complexity of the source and the compliance status. This four-fold approach to reporting is common to virtually all CAAPP Permits as described below. Moreover, this is the approach established in the Draft CAAPP Permit for this source.

Regulatory Reports

Many state and federal environmental regulations establish reporting obligations. These obligations vary from rule-to-rule and thus from CAAPP source to CAAPP source and from CAAPP Permit to CAAPP Permit. The variation is found in the report triggering events, reporting period, reporting frequency

and reporting content. Regardless, the CAAPP makes clear that all reports established under applicable regulations shall be carried forward into the CAAPP Permit as stated in Section 39.5(7)(b) of the Illinois Environmental Protection Act. Generally, where sufficiently detailed to meet the exacting standards of the CAAPP, the regulatory reporting requirements are simply restated in the CAAPP Permit. Depending on the regulatory obligations, these regulatory reports may also constitute a deviation report as described below.

The Draft CAAPP Permit for this source would embody all regulatory reporting as promulgated under federal and state regulations under the Clean Air Act and the Illinois Environmental Protection Act. Depending on the frequency of the report, the regulatory report may also satisfy the prompt reporting obligations discussed below. These reports must be certified by a responsible official.

These reports are generally found in the reporting sections for each emission unit group. The various regulatory reporting requirements are summarized in the table at the end of this Reporting Section.

Deviation Reports (Prompt Reporting)

Section 39.5(7)(f)(ii) of the Illinois Environmental Protection Act mandates that each CAAPP Permit require prompt reporting of deviations from the permit requirements.

Neither the CAAPP nor the federal rules upon which the CAAPP is based and was approved by USEPA define the term “prompt”. Rather, 40 CFR Part 70.6(a)(3)(iii)(B) intended that the term have flexibility in application. The USEPA has acknowledged for purposes of administrative efficiency and clarity that the permitting authority (in this case, Illinois EPA) has the discretion to define “prompt” in relation to the degree and type of deviation likely to occur at a particular source. The Illinois EPA follows this approach and defines prompt reporting on a permit-by-permit basis. In instances where the underlying applicable requirement contains “prompt” reporting, the Illinois EPA typically incorporates the pre-established timeframe in the CAAPP permit (e.g. a NESHAP or NSPS deviation report). Where the underlying applicable requirement fails to explicitly set forth the timeframe for reporting deviations, the Illinois EPA generally uses a timeframe of 30 days to define prompt reporting of deviations.

This approach to prompt reporting of deviations as discussed herein is consistent with the requirements of Section 39.5(7)(f)(ii) of the Illinois Environmental Protection Act as well as 40 CFR Part 70 and the CAA. The reporting arrangement is designed so that the source will appropriately notify the Illinois EPA of those events that might warrant attention. The timing for these event-specific notifications is necessary and appropriate as it gives the source enough time to conduct a thorough investigation into the causes of an event, collecting any necessary data, and developing preventive measures, to reduce the likelihood of similar events, all of which must be addressed in the notification for the deviation, while at the same time affording regulatory authority and the public timely and relevant information. The approach also affords the Illinois EPA and USEPA an opportunity to direct investigation and follow-up activities, and to make compliance and enforcement decisions in a timely fashion.

The Draft CAAPP Permit for this source would require prompt reporting as required by the Illinois Environmental Protection Act in the fashion described in this subsection. In addition, pursuant to Section 39.5(7)(f)(i) of the

Illinois Environmental Protection Act, this Draft CAAPP Permit would also require the source to provide a summary of all deviations with the Semi-Annual Monitoring Report. These reports must be certified by a responsible official, and are generally found in the reporting sections for each emission unit group.

Semi-Annual Monitoring Reports

Section 39.5(7)(f)(i) of the Illinois Environmental Protection Act mandates that each CAAPP Permit require a report relative to monitoring obligations as set forth in the permit. Depending upon the monitoring obligation at issue, the semi-annual monitoring report may also constitute a deviation report as previously discussed. This monitoring at issue includes instrumental and non-instrumental emissions monitoring, emissions analyses, and emissions testing established by state or federal laws or regulations or as established in the CAAPP Permit. This monitoring also includes recordkeeping. Each deviation from each monitoring requirement must be identified in the relevant semi-annual report. These reports provide a timely opportunity to assess for compliance patterns of concern. The semi-annual reports shall be submitted regardless of any deviation events. Reporting periods for semi-annual monitoring reports are January 1 through June 30 and July 1 through December 31 of each calendar year. Each semi-annual report is due within 30 days after the close of reporting period. The reports shall be certified by a responsible official. The Draft CAAPP Permit for this source would require such reports at Condition 3.5(b).

Annual Compliance Certifications

Section 39.5(7)(p)(v) of the Illinois Environmental Protection Act mandates that each CAAPP Permit require a source to submit a certification of its compliance status with each term and condition of its CAAPP Permit. The reports afford a broad assessment of a CAAPP sources compliance status. The CAAPP requires that this report be submitted, regardless of compliance status, on an annual basis. Each CAAPP Permit requires this annual certification be submitted by May 1 of the year immediately following the calendar year reporting period. The report shall be certified by a responsible official. The Daft CAAPP Permit for this source would require such a report at Condition 2.6(a).

Prompt reporting of deviations is critical in order to have timely notice of deviations and the opportunity to respond, if necessary. The effectiveness of the permit depends upon, among other important elements, timely and accurate reporting. The Illinois EPA, USEPA, and the public rely on timely and accurate reports submitted by the source to measure compliance and to direct investigation and follow-up activities. Prompt reporting is evidence of the source’s good faith in disclosing deviations and describing the steps taken to return to compliance and prevent similar incidents.

Any occurrence that results in an excursion from any emission limitation, operating condition, or work practice standard as specified in this Draft CAAPP Permit is a deviation subject to prompt reporting. Additionally, any failure to comply with any permit term or condition is a deviation of that permit term or condition and must be reported to the Illinois EPA as a permit deviation. The deviation may or may not be a violation of an emission limitation or standard. A permit deviation can exist even though other indicators of compliance suggest that no emissions violation or exceedance has occurred. Reporting permit deviations does not necessarily result in enforcement action. The Illinois EPA has the discretion to take enforcement

action for permit deviations that may or may not constitute a deviation from an emission limitation or standard or the like, as necessary and appropriate.

As a result, the Illinois EPA's approach to prompt reporting of deviations as discussed herein is consistent with the requirements of Section 39.5(7)(f)(ii) of the Illinois Environmental Protection Act as well as 40 CFR Part 70 and the CAA. This reporting arrangement is designed so that the source will appropriately notify the Illinois EPA of those events that might warrant individual attention.

3.10 Greenhouse Gas Provisions

On June 3, 2010, USEPA adopted rules for the initial permitting of major sources of emissions of greenhouse gases (GHG). *See*, 75 FR 31514-31608. Prompted by the earlier adoption of GHG emissions standards for motor vehicles under Title II of the CAA, the USEPA's rules implement a two-phased program for permitting major sources of GHG under Title V permit programs.[3] As Illinois EPA is planning to issue a permit to this source during the second phase of the rules, GHG emissions must be addressed during this CAAPP permitting action.[4] Annual Emission Reports submitted to the Illinois EPA by this source and/or estimated GHG emissions by the Illinois EPA, which detail the source's actual annual emissions of GHG, provide the necessary data to appropriately address emissions of GHG in the Draft CAAPP Permit. The data in these reports clearly show the source is a major source for emissions of GHG.

The new federal rules also require subject Title V sources to comply with any applicable GHG-related requirements that arise from other CAA programs.[5] However, there are currently no emission standards or other regulatory obligations relating to GHG that constitute "applicable requirements" for this source. For this reason, the Draft CAAPP Permit for this source does not contain any substantive requirements for GHG. At the federal level, the only venue that could potentially establish GHG-related requirements at this time is the PSD program. As of January 2, 2011, sources triggering PSD must evaluate GHG emissions resulting from projects that trigger the major source or major modification rules.[6] This source has neither constructed such a project, nor received a permit authorizing such a project, since January 2, 2011, to the present, and therefore has not triggered any GHG-related requirements under the PSD program.

There are no other GHG-related requirements established under the CAA that are applicable to this source at this time. In particular, the mandatory reporting rule for GHG promulgated by USEPA in 2009 [*see generally*, 40 CFR Part 98] is not an applicable requirement and therefore would not be included in the Draft CAAPP Permit for this source. There are also no GHG-related requirements under the Illinois Environmental Protection Act or contained within Illinois' SIP that apply to the source at this time. Other state laws or regulations in Illinois relating to GHG, including efforts to reduce emissions of GHG under authority other that the Illinois Environmental Protection Act, do not constitute applicable requirements under the CAAPP.

3.11 Incorporation by Reference Discussion

Based on guidance found in White Paper 2 and past petition responses by the Administrator, it is recognized that Title V permit authorities may, within their discretion, incorporate plans by reference. As recognized in the *White*

Paper 2, permit authorities can effectively streamline the contents of a Title V permit, avoiding the inevitable clutter of restated text and preventing unnecessary delays where, as here, permit issuance is subject to a decision deadline.[7] However, it is also recognized that the benefits of incorporation of plans must be carefully balanced by a permit authority with its duty to issue permits in a way that is "clear and meaningful" to the Permittee and the public.[8]

The criteria that are mentioned in USEPA Administrator Petition Responses stress the importance of identifying, *with specificity*, the object of the incorporation.[9] The Illinois EPA agrees that such emphasis is generally consistent with USEPA's pronouncements in previous guidance.

For each condition incorporating a plan, the Illinois EPA is also briefly describing the general manner in which the plan applies to the source. Identifying the nature of the source activity, the regulatory requirements or the nature of the equipment associated with the plan is a recommendation of the *White Paper 2*[10]. The Illinois EPA has stopped short of enumerating the actual contents of a plan, as restating them in the permit would plainly defeat the purpose of incorporating the document by reference and be contrary to USEPA guidance on the subject.[11]

Plans may need to be revised from time to time, as occasionally required by circumstance or by underlying rule or permit requirement. Except where expressly precluded by the relevant rules, this Draft CAAPP Permit allows the Permittee to make future changes to a plan without undergoing formal permit revision procedures. This approach will allow flexibility to make required changes to a plan without separately applying for a revised permit and, similarly, will lessen the impacts that could result for the Illinois EPA if every change to a plan's contents required a permitting transaction.[12] Changes to the incorporated plans during the permit term are automatically incorporated into the Draft CAAPP Permit unless the Illinois EPA expresses a written objection. The exception to this practice is the PM_{10} Contingency Measure Plan, for which a permit revision is needed for any changes to the plan.[13]

The Draft CAAPP Permit incorporates by reference the following plan: Episode Action Plan.[14]

CHAPTER IV - CHANGES FROM PREVIOUSLY ISSUED CAAPP PERMITS

4.1 Major Changes Summary

This renewal CAAPP draft is presented in a new format. The new format is the result of recommendations by the USEPA, comments made by sources, and interactions with the public.

	Previous CAAPP Permit Layout	*New CAAPP Permit Layout*
Section 1	Source Identification	Source Information
Section 2	List Of Abbreviations/Acronyms	General Permit Requirements
Section 3	Insignificant Activities	Source Requirements
Section 4	Significant Emission Units	Emission Unit Requirements
Section 5	Overall Source Conditions	Title I Requirements
Section 6	Emission Control Programs	Insignificant Activities
Section 7	Unit Specific Conditions	Other Requirements
Section 8	General Permit Conditions	State Only Requirements
Section 9	Standard Permit Conditions	---
Section 10	Attachments	Attachments

4.2 Specific Permit Condition Changes

Section 4.1.1

- The Boilers #1 and #2 on West Steam Plant are updated to the correct value of 50 mmBtu/hr instead of 75 mmBtu/hr.

Section 6 Insignificant Activities

- A back-up generator is incorporated under insignificant emission unit.

Endnotes

[1] The federal PSD program, 40 CFR 52.21, applies in Illinois. The Illinois EPA administers PSD permitting for major projects in Illinois pursuant to a delegation agreement with USEPA.

[2] Illinois has a state nonattainment NSR program, pursuant to state rules, Major Stationary Sources Construction and Modification ("MSSCM"), 35 IAC Part 203, which have been approved by USEPA as part of the State Implementation Plan for Illinois.

[3] The new rules apply the first phase of permitting to sources already subject to Title V by virtue of their conventional, non-GHG pollutants. As noted above, these sources are expected to address GHG in their permitting applications and to comply with any substantive requirements for GHG that have been established through other CAA programs such as PSD. The second phase of permitting that begins July 1, 2011, essentially applies the same requirements to sources who will become subject to Title V based on their GHG emissions alone (i.e., existing or newly constructed sources with a potential to emit of equal to or greater than 100,000 tons per year of CO_2e and 100 tons per year of GHG on a mass basis).

[4] USEPA has stated that the first phase of its new rules requires existing Title V sources to address GHG in their Title V applications by citing to any pollutants for which the Title V source is major and to all regulated air pollutants. *See,* PSD and Title V Permitting Guidance for Greenhouse Gases, prepared by the Office of Air Quality Planning and Standards, page 51 (November 2010).

[5] *See generally,* PSD and Title V Permitting Guidance for GHG at pages 53-56.

[6] A major source subject to PSD based on potential emissions of a non-GHG pollutant and potential emissions of GHG equal or greater than 75,000 tons per year of CO_2e is required to address GHG emissions in evaluating control options and associated monitoring, reporting, etc, for any construction of a new major source or a major modification of an existing major source.

[7] Among other things, USEPA observed that the stream-lining benefits can consist of "reduced cost and administrative complexity, and continued compliance flexibility…". *White Paper 2,* page 41.

[8] See, In the Matter of Tesoro Refining and Marketing, Petition No. IX-2004-6, Order Denying in Part and Granting in Part Petition for Objection to Permit, at page 8 (March 15, 2005); see also, White Paper 2 at page 39 ("reference must be detailed enough that the manner in which any referenced materials applies to a facility is clear and is not reasonably subject to misinterpretation").

[9] The Order provides that permit authorities must ensure the following: "(1) referenced documents be specifically identified; (2) descriptive information such as the title or number of the document and the date of the document be included so that there is no ambiguity as to which version of the document is being referenced; and (3) citations, cross references, and incorporations by reference are detailed enough that the manner in which any referenced material applies to a facility is clear and is not reasonably subject to

misinterpretation." See, Petition Response at page 43, citing White Paper 2 at page 37.

[10] See, White Paper 2 at page 39.

[11] Nothing in USEPA guidance, including the White Paper 2 or previous orders responding to public petitions, supports the notion that permit authorities incorporating a document by reference must also restate contents of a given plan in the body of the Title V permit. Such an interpretation contradicts USEPA recognition that permit authorities need not restate or recite an incorporated document so long as the document is sufficiently described. White Paper 2 at page 39; see also, In the matter of Consolidated Edison Co. of New York, Inc., 74th St. Station, Petition No. II-2001-02, Order Granting in Part and Denying in Part Petition for Objection to Permit at page 16 (February 19, 2003).

[12] This approach is consistent with USEPA guidance, which has previously embraced a similar approach to certain SSM plans. *See,* Letter and Enclosures, dated May 20, 1999, from John Seitz, Director of Office of Air Quality Planning and Standards, to Robert Hodanbosi and Charles Lagges, STAPPA/ALAPCO, pages 9-10 of Enclosure B.

[13] The PM_{10} Contingency Measure Plan is not being provided the same flexibility with respect to revising the plan's contents, as the underlying SIP rule treats the contents of the plan as federally enforceable. Any future revisions to this plan during the permit term are required to undergo procedures for permit modification. *See,* Condition 5.3.3(d).

[14] Each incorporated plan addressed by this Section of the Statement of Basis is part of the source's permit file. As such, these plans are available to any person interested in viewing the contents of a given plan may do so at the public repository during the comment period or, alternatively, may request a copy of the same from the Illinois EPA under the Freedom of Information Act. See also 71 FR 20447.