

Statement of Basis

for the DRAFT CAAPP Permit for:

Source Name:

Gerresheimer Glass, Inc.

Statement of Basis No.: 95090043-2013/11

I.D. No.: 031045AAJ

Permit No.: 95090043

Date Prepared: February 3, 2014

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 significant modification for CAAPP Permit issued on April 16, 2001, the ownership of the source had been changed in 2007 from the Kimble Glass Container, Inc to Gerresheimer Glass, Inc. An acknowledgement of name/ownership change was issued on 09/10/2007 by the Illinois EPA.

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.

The Illinois EPA has focused in on key elements of the permit that relate to the requirements of the CAAPP Program:

- Emission units:
 - Glass Melting Furnace
 -
- Emission units of historical importance:
 - Glass Melting Furnace

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 July 18, 2005. 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., b., and c. 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 provided in the permit itself as the origin and authority.

a. Applicable Federal Regulations

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

- 40 CFR Part 61 - Subpart M, Standard of Asbestos
- 40 CFR Part 63 - Subpart A, NESHAP General Provisions
- 40 CFR Part 63 - Subpart SSSSSS, NESHAP for Glass Manufacturing Area Sources
- 40 CFR Part 82 - Subpart F, Ozone Depleting Substances

b. Applicable SIP Regulations

This source operates the 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 218 - Organic Material Emission Standards And Limitations
- 35 IAC Part 244 - Episodes
- 35 IAC Part 254 - Annual Emissions Report

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: 3221
County: Cook

The source is a container glass manufacturing facility, which includes a glass melting furnace and number of supporting operations for glass products manufacturing.

The source contains the following processes:

<i>Emission Units</i>	<i>Description</i>
Raw Material Handling	Transporting, handling, storage and unloading soybeans.
Cullet Processing System	Storage, handling and crushing
Glass Melting Furnace	Oxy Fuel-fired furnace "B"
Lehrs and Forehearths	Lehrs are used for controlled cooling and drying. Forehearths are used to transport molten glass to forming machines
B-Bottle Forming Machines	Used for forming glass containers
Hot End Surface Treatment Units	Tin chlorides are applied for increasing surface durability

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 is currently designated nonattainment for the National Ambient Air Quality Standards for ozone (moderate nonattainment and PM_{2.5} and attainment or unclassifiable for all other criteria pollutants (carbon monoxide, lead, nitrogen dioxide, ozone, PM₁₀, sulfur dioxide).

2.5 Source Status

The source requires a CAAPP Permit because the source is subject to a standard, limitation, or other requirement under Section 112 (HAPs) of the CAA for which USEPA requires a CAAPP Permit. Specifically, this source is subject to requirements for obtaining a CAAPP permit pursuant to 40 CFR 63.11449(e) of Subpart SSSSSS, Glass Manufacturing Area Sources.

This source is considered a natural minor for all the following regulated pollutants: PM₁₀, PM_{2.5}, volatile organic material (VOM), nitrogen oxides (NO_x), carbon monoxide (CO), sulfur dioxide (SO₂), and hazardous air pollutant (HAP).

Based on available data, this source is not a major source of emissions for GHG. The source voluntarily submitted data on its emissions of GHG in its 2008-2012 AER, reporting actual annual emissions of GHG of less than 12,500 tons per

each year.

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:

<i>Pollutant</i>	2012	2011	2010	2009	2008
CO	4.35	5.36	5.13	6.10	5.90
NO _x	49.30	51.8	50.20	54.60	52.70
PM	7.66	9.27	9.60	9.50	8.90
SO ₂	4.16	4.30	4.20	4.50	4.30
VOM	2.49	2.80	2.80	3.10	3.10
CO _{2E}	10,709.00	12,042.00	10,926.00	11,700.00	5,030.00
HAP (HCL)	0.01	0.016	0.01	0.014	0.007

2.7 Fee Schedule

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

<i>Pollutant</i>	<i>Tons/Year</i>
Volatile Organic Material (VOM)	11.50
Sulfur Dioxide (SO ₂)	6.69
Particulate Matter (PM)	31.80
Nitrogen Oxides (NO _x)	80.72
HAP, not included in VOM or PM (HAP)	0.01
Total	130.72

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") program¹ 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.

- Previously Incorporated Construction Permits:

<i>Permit No.</i>	<i>Date Issued</i>	<i>Subject</i>
94080035	1995	"B" Furnace Oxy-Fuel Melter
86080039	1986	Surface Treatment Exhaust

- Newly Issued Construction Permits:

<i>Permit No.</i>	<i>Date Issued</i>	<i>Subject</i>
None	None	None

- The Illinois EPA has not established any T1R or T1N Limits in this Draft CAAPP permit.
- 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 has performed the following emission testing after issuance of the initial CAAPP permit for Glass Melting Furnace "B":

<i>Emission Unit</i>	<i>Date</i>	<i>Pollutant</i>	<i>Results of Run #1</i>	<i>Results of Run #2</i>	<i>Results of Run #3</i>	<i>3-Run Average</i>	<i>Over-compliance Margin %*</i>
Furnace "B"	02/17/06	PM	0.25 lb/hr	0.22 lb/hr	0.20 lb/hr	0.23 lb/hr	84
Furnace "B"	02/17/06	SO ₂	0.12 lb/hr	0.15 lb/hr	0.17 lb/hr	0.14 lb/hr	91
Furnace "B"	02/17/06	NO _x	12.61 lb/hr	13.05 lb/hr	12.33 lb/hr	12.67 lb/hr	25
Furnace "B" (4 ESP fields)	06/02/06	PM	0.20	0.18	0.21	0.20	85
Furnace "B" (3 ESP fields)	06/02/06	PM	0.39	0.39	0.41	0.40	71
Furnace "B"	06/23/09	NO _x	13.01 lb/hr	11.77 lb/hr	11.66 lb/hr	12.15 lb/hr	28

* Over-compliance with emission limits established in the CAAPP

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

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

3.4 Field Inspection Results

A review of the source's latest field inspection report dated June 14, 2012 (actual inspection was conducted May 10, 2012), demonstrates the source's ability to comply with all applicable requirements. No non-compliance issues had been discovered or established during this inspection.

3.5 Historical Non-Compliance

The following violation notices had been initiated since initial CAAPP was issued:

- VN A-2002-00302: Failure to submit Annual Compliance Certification (ACC) for year 2001. The issue was resolved by submission of ACC and Compliance

Commitment Agreement was accepted by the Agency on 10/18/2002.

- VN A-2006-00103: Failure to timely apply for CAAPP renewal. This issue (Illinois EPA misunderstanding, CAAPP renewal application was mail stamped on 07/16/05 - exactly 9 month before an expiration date) was resolved by accepting CCA on 06/14/2006.
- VN A-2006-00030: Non-compliance with 30% opacity standard (35 IAC 212.123). This issue was resolved by accepting ACC and USEPA Administrative Consent Order dated 09/27/06. Order requires installation/operation of COMS after Furnace "B" cold rebuild. This Order had expired two years after issuance (paragraph 32 of this Order) and, as a result, the source does not need to equip Furnace "B" with COMS.

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)(i)
Fugitive Operating Program (35 IAC 212.309)	Applicable Work Practice Requirements	See the Permit, Condition 3.2(a)

Visible Emissions (i.e., Opacity)

- ✓ Monitoring as follows (Condition 3.1(a)(ii))
 - o Visible emission observations beyond the property line will be conducted upon the IEPA request
- ✓ Recordkeeping as follows (Condition 3.1(a)(ii)):
 - o Records of such observations
- ✓ Reporting as follows (Condition 3.5(a)(i)):
 - o 30-day deviation report

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for source-wide requirement 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.
- Individual emission units/operations (which may contribute to fugitive emissions) do have strict opacity standards and regular opacity observations (See Section 4 of the CAAPP).

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 established as 30 days. See rationale in Chapter III Section 3.9.

3.7 Emission Unit Justifications and Rationale

a. Raw Material Handling		
Applicable Requirements Summary		
Applicable Requirement	Type	Location
Opacity Requirement (35 IAC 212.123(a))	Applicable Standard	See the Permit, Condition 4.1(2)(a)(i)(A)
PM Requirement (35 IAC 212.321(a))	Applicable Standard	See the Permit, Condition 4.1(2)(b)(i)(A)

Visible Emissions (i.e., Opacity)

- ✓ Monitoring as follows (Condition 4.1(2)(a)(ii)):
 - o Quarterly visible emission observations by using Method 22.
 - o If visible emissions observed, then opacity reading shall be performed by using Method 9.
- ✓ Recordkeeping as follows (Condition 4.1(2)(a)(ii)):
 - o Records of visible emissions observations and opacity reading.
- ✓ Reporting as follows (Condition 4.1(5)(a)(i)):
 - o 30-day deviation reports

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for these emission units/operations 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.

Particulate Matter Emissions

- ✓ Monitoring as follows (Condition 4.1(2)(b)(ii))
 - o Annual inspections of baghouse.
- ✓ Recordkeeping as follows (Condition 4.1(2)(b)(ii)):
 - o Records of PM emissions
 - o Records of inspections
- ✓ Reporting as follows (Condition 4.1(5)(a)(i)):
 - o 30-day deviation reports

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for these emission units because:

- These emission units have not exhibited a history of non-compliance.
- Monitoring (inspections and recordkeeping) is consistent with other sources in this source category.

Non-Applicability Discussion

Complex non-applicability determinations were not made for these emission units. All non-applicability discussion was established in the proposed CAAPP Permit.

Prompt Reporting Discussion

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

b. Cullet Processing System		
Applicable Requirements Summary		
Applicable Requirement	Type	Location
Opacity Requirement (35 IAC 212.123(a))	Applicable Standard	See the Permit, Condition 4.2(2)(a)(i)(A)
PM Requirements (35 IAC 212.321 and 212.322)	Applicable Standard	See the Permit, Condition 4.2(2)(b)(i)(A) and (B)

Visible Emissions (i.e., Opacity)

- ✓ Monitoring as follows (Condition 4.2(2)(a)(ii))
 - o Quarterly visible emission observations by using Method 22.
 - o If visible emissions observed, then opacity reading shall be performed by using Method 9.
- ✓ Recordkeeping as follows (Condition 4.2(2)(a)(ii)):
 - o Records of visible emissions observations and opacity reading.
- ✓ Reporting as follows (Condition 4.2(5)(a)(i)):
 - o 30-day deviation reports

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for these emission units/operations because:

- Emissions do not vary significantly under normal operation and/or vary slowly with time.
- The emission unit has not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.

Particulate Matter Emissions

- ✓ Recordkeeping as follows (Condition 4.2(2)(b)(ii)):
 - o Records of PM emissions
- ✓ Reporting as follows (Condition 4.2(5)(a)(i)):
 - o 30-day deviation reports

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for these emission units because:

- The emission units had not exhibited a history of non-compliance.
- Monitoring is consistent with other sources in this source category.

Non-Applicability Discussion

Complex non-applicability determinations not being established for these emission units. All non-applicability discussions addressed in the proposed CAAPP Permit.

Prompt Reporting Discussion

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

c. Glass Melting Furnace		
Applicable Requirements Summary		
Applicable Requirement	Type	Location
Opacity Requirement (35 IAC 212.123(a))	Applicable Standard	See the Permit, Condition 4.3(2)(a)(i)(A)
PM Requirements (35 IAC 212.321)	Applicable Standard	See the Permit, Condition 4.3(2)(b)(i)(A)
PM Requirements (CP #94080035)	Applicable Limit	See the Permit, Condition 4.3(2)(b)(i)(B)
SO ₂ Requirements (CP #94080035)	Applicable Limit	See the Permit, Condition 4.3(2)(c)(i)(A)
NO _x Requirements (CP #94080035)	Applicable Limit	See the Permit, Condition 4.3(2)(d)(i)(A)
HAP Emission Standard Requirements (40 CFR Part 63, Subpart SSSSSS)	Applicable Standards	See the Permit, Condition 4.3(2)(e)(i)
Work Practice Requirements (40 CFR Part 63, Subpart SSSSSS)	Applicable Standards	See the Permit, Condition 4.3(2)(f)(i)
Production Requirements (CP #94080035)	Applicable Limit	See the Permit, Condition 4.3(2)(g)(i)

Visible Emissions (i.e., Opacity)

- ✓ Monitoring as follows (Condition 4.3(2)(a)(ii))
 - o Quarterly visible emission observations by using Method 22.
 - o If visible emissions observed, then opacity reading shall be performed by using Method 9 for six consecutive days to ensure that compliance with a standard is completely achieved for each run of opacity reading.
- ✓ Recordkeeping as follows (Condition 4.3(2)(a)(ii)):
 - o Records of visible emissions observations and opacity reading.
- ✓ Reporting as follows (Condition 4.3(5)(a)(i)):
 - o 30-day deviation reports

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for these emission units because:

- Furnace has exhibited a history of non-compliance with an opacity standard in 2006. Compliance was achieved through implementation of Administrative Consent Order (See Section III.3.5 of this document).
- Monitoring (opacity reading in the event of presence of visible emissions) is more stringent than many other sources in this source category using ESP as a control and not using COMs. Six days in a row of compliance of each opacity reading run is sufficient to demonstrate a stable compliance with applicable opacity standard.
- Opacity standards had not been established for the glass melting furnaces subject to Subpart SSSSSS and no COMs is required by Subpart SSSSSS either.

Particulate Matter Emissions

- ✓ Monitoring as follows (Conditions 4.3(2)(b)(ii), 4.3(2)(e), and 4.3(2)(f))
 - o Testing of PM emissions by using Methods 5 or 17
 - o Using CPMS for monitoring the secondary voltage and secondary electrical current of ESP

- o Annual visual inspections of ESP
 - o Bi-annual inspections of ESP's interior
 - o Utilized air pollution control equipment is subject to CAM requirements established in Section 7.5 of the CAAPP
- ✓ Recordkeeping as follows (Condition 4.3(2)(b)(ii) and 4.3(2)(f)(ii)):
 - o Records of maintenance activities
 - o Records of scheduled/unscheduled inspections
 - o Records of CPMS of ESP
 - o Records of PM emissions
 - ✓ Reporting as follows (Condition 4.3(5)(a)(i)):
 - o 30-day deviation reports
 - ✓ Federal Reporting (Condition 4.3(5)(b)(i)):
 - o Notification of Compliance Status after the performance test

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for these emission units because:

- All applicable MACT requirements have been carried over into the CAAPP.
- The furnace has not exhibited a history of non-compliance and nothing beyond the applicable MACT requirements are needed to be included into the proposed CAAPP.
- Monitoring is consistent with other sources in this source category subject to MACT.

Sulfur Dioxide Emissions

- ✓ Monitoring as follows (Condition 4.3(2)(c)(ii)):
 - o Testing of SO₂ emissions by using Method 6 within 48 months from the issuance of CAAPP
- ✓ Recordkeeping as follows (Condition 4.3(2)(c)(ii)):
 - o Records of SO₂ emissions and stack test results
- ✓ Reporting as follows (Condition 4.3(5)(a)(i)):
 - o 30-day deviation reports

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for these emission units because:

- Monitoring is consistent with other sources in this source category.
- Recently performed test demonstrates a healthy margin of compliance and no more stringent frequency of testing is justified.

Nitrogen Oxide Emissions

- ✓ Monitoring as follows (Condition 4.3(2)(d)(ii)):
 - o Testing of NO_x emissions by using Methods 7/7E within 48 months from the issuance of CAAPP
- ✓ Recordkeeping as follows (Condition 4.3(2)(d)(ii)):
 - o Records of NO_x emissions and stack test results
- ✓ Reporting as follows (Condition 4.3(5)(a)(i)):

- o 30-day deviation reports

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for these emission units because:

- Monitoring is consistent with other sources in this source category.
- Recently performed test demonstrates a healthy margin of compliance and no more stringent frequency of testing is justified.

HAP or PM Emissions (under Subpart SSSSSS)

- ✓ Monitoring as follows (Condition 4.3(2)(e)(ii)):
 - o If the source decides to comply with HAP option, Method 29 shall be used for testing HAP emissions
 - o If the source decides to comply with PM option, Methods 5/17 shall be used for testing PM emissions

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for these emission units because:

- Monitoring is consistent with other sources in this source category.
- Monitoring is implemented in accordance with the MACT standard and future initial test (margin of compliance) will dictate the frequencies or the possibilities of the follow-up tests.

Work Practice and Control Requirements

- ✓ Monitoring as follows (Condition 4.3(2)(f)(ii)):
 - o Visual inspections of ESP every 12 months and interior inspections of ESP every 24 months
- ✓ Recordkeeping as follows (Condition 4.3(2)(f)(ii)):
 - o Records of maintenance activities and inspections
- ✓ Reporting as follows (Condition 4.3(5)(a)(i)):
 - o 30-day deviation reports

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for these emission units because:

- Monitoring is consistent with other sources in this source category subject to MACT (Subpart SSSSSS)
- Considering the history of the source and pretty strict monitoring restrictions, established by MACT and carried over into CAAPP, no more stringent monitoring requirements needed for this source

Production Requirements

- ✓ Recordkeeping as follows (Condition 4.3(2)(g)(ii)):
 - o Records of glass production
- ✓ Reporting as follows (Condition 4.3(5)(a)(i)):
 - o 30-day deviation reports

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for these emission units because:

- Recordkeeping is consistent with other sources in this source category and the only tool verifying production output at this source.

Non-Applicability Discussion

Complex non-applicability determinations had not been made for these emission units. All non-applicability discussions was established in the Proposed CAAPP Permit.

Prompt Reporting Discussion

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

d. Lehrs and Forehearth		
Applicable Requirements Summary		
Applicable Requirement	Type	Location
Opacity Requirement (35 IAC 212.123(a))	Applicable Standard	See the Permit, Condition 4.4(2)(a)(i)
PM Requirement (35 IAC 212.321(a))	Applicable Standard	See the Permit, Condition 4.4(2)(b)(i)(A)
SO ₂ Requirement (35 IAC 214.301)	Applicable Standard	See the Permit, Condition 4.4(2)(c)(i)(A)

Visible Emissions (i.e., Opacity)

- ✓ Monitoring as follows (Condition 4.4(2)(a)(ii))
 - o Quarterly visible emissions observations by using Method 22
 - o Method 9 opacity reading, if visible emissions being observed
- ✓ Recordkeeping as follows (Condition 4.4(2)(a)(ii)):
 - o Visible emissions observations
- ✓ Reporting as follows (Condition 4.4(5)(a)(i)):
 - o 30-day deviation report

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

Particulate Matter Emissions

- ✓ Recordkeeping as follows (Condition 4.4(2)(b)(ii)):
 - o PM emissions w/supporting calculations.
- ✓ Reporting as follows (Condition 4.4(5)(a)(i)):
 - o 30-day deviation report

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for these emission units because:

- Allowable PM emissions under process weight rule are extremely generous and mostly designed for the operations with much higher actual PM emission rates. Actual PM from these units are either the products of emissions from the fuel combustion or the traces of PM in the melted glass vapors being released
- 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.

Sulfur Dioxide Emissions

- ✓ Monitoring as follows (Condition 4.4(2)(c)(ii)):
 - o Pipeline quality natural gas
- ✓ Recordkeeping as follows (Condition 4.4(2)(c)(ii)):
 - o Certification that pipeline quality natural is only used
- ✓ Reporting as follows (Condition 4.4(5)(a)(i)):
 - o 30-day deviation report

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.
- Sulfur content in the pipeline natural gas is about 8 ppm (fraction from 2,000 ppm standard)

e. B-Bottle Forming Machines		
Applicable Requirements Summary		
Applicable Requirement	Type	Location
Opacity Requirement (35 IAC 212.123(a))	Applicable Standard	See the Permit, Condition 4.5(2)(a)(i)
PM Requirement (35 IAC 212.321(a))	Applicable Standard	See the Permit, Condition 4.5(2)(b)(i)(A)
VOM Requirement (35 IAC 218.301)	Applicable Standard	See the Permit, Condition 4.5(2)(c)(i)(A)
VOM Requirement (35 IAC 218.980(d))	Applicable Standard	See the Permit, Condition 4.5(2)(c)(i)(B)

Visible Emissions (i.e., Opacity)

- ✓ Monitoring as follows (Condition 4.5(2)(a)(ii))
 - o Quarterly visible emissions observations by using Method 22
 - o Method 9 opacity reading, if visible emissions being observed
- ✓ Recordkeeping as follows (Condition 4.5(2)(a)(ii)):
 - o Visible emissions observations
- ✓ Reporting as follows (Condition 4.5(5)(a)(i)):
 - o 30-day deviation report

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

Particulate Matter Emissions

- ✓ Recordkeeping as follows (Condition 4.5(2)(b)(ii)):
 - o PM emissions w/supporting calculations and comparison with allowable emissions attributed to process weight rule.
- ✓ Reporting as follows (Condition 4.5(5)(a)(i)):
 - o 30-day deviation report

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for these emission units because:

- Allowable PM emissions under process weight rule are extremely generous and mostly designed for the operations with much higher actual PM emission rates. Actual PM from these units are the traces of PM in the melted glass vapors being released
- 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.

Volatile Organic Material Emissions

- ✓ Recordkeeping as follows (Condition 4.5(2)(c)(ii)):
 - o VOM containing material applied
 - o VOM content of each material
 - o VOM emissions

- ✓ Reporting as follows (Condition 4.5(5)(a)(i)):
 - o 30-day deviation report

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
- Only small portions of applied material may consider organic or VOM

f. Hot End Surface Treatment Units		
Applicable Requirements Summary		
Applicable Requirement	Type	Location
Opacity Requirement (35 IAC 212.123(a))	Applicable Standard	See the Permit, Condition 4.6(2)(a)(i)
PM Requirement (35 IAC 212.321(a))	Applicable Standard	See the Permit, Condition 4.6(2)(b)(i)(A)
PM Requirement (CP #86080039)	Applicable Limit	See the Permit, Condition 4.6(2)(b)(i)(B)
SO ₂ Requirement (CP #86080039)	Applicable Limit	See the Permit, Condition 4.6(2)(c)(i)(A)
HCL Requirement (CP #86080039)	Applicable Limit	See the Permit, Condition 4.6(2)(d)(i)(A)

Visible Emissions (i.e., Opacity)

- ✓ Monitoring as follows (Condition 4.6(2)(a)(ii))
 - o Quarterly visible emissions observations by using Method 22
 - o Method 9 opacity reading, if visible emissions being observed
- ✓ Recordkeeping as follows (Condition 4.6(2)(a)(ii)):
 - o Visible emissions observations
- ✓ Reporting as follows (Condition 4.6(5)(a)(i)):
 - o 30-day deviation report

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

Particulate Matter Emissions

- ✓ Recordkeeping as follows (Condition 4.6(2)(b)(ii)):
 - o PM emissions w/supporting calculations
- ✓ Reporting as follows (Condition 4.6(5)(a)(i)):
 - o 30-day deviation report

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for these emission units because:

- Allowable PM emissions under process weight rule are extremely generous and mostly designed for the operations with much higher actual PM emission rates. Actual PM from these units are mostly the tin oxides applied on the glass container and very conservatively PM emissions could be calculated by taking solids in the tin oxides into account.
- Source has not exhibited a history of non-compliance
- Monitoring is consistent with other sources in this source category

Sulfur Dioxide Emissions

- ✓ Recordkeeping as follows (Condition 4.6(2)(c)(ii)):
 - o SO₂ emissions with supporting operations
- ✓ Reporting as follows (Condition 4.6(5)(a)(i)):
 - o 30-day deviation report

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
- If sulfur trioxide is used, then SO₂ emissions could be estimated easy and conservatively by knowing sulfur trioxide usage.

Hydrogen Chloride Emissions

- ✓ Recordkeeping as follows (Condition 4.6(2)(d)(ii)):
 - o HCL emissions with supporting operations
- ✓ Reporting as follows (Condition 4.6(5)(a)(i)):
 - o 30-day deviation report

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
- HCL usage rate could be used as a conservative estimate of HCL emissions.

Production Limit

- ✓ Recordkeeping as follows (Condition 4.6(2)(e)(ii)):
 - o Records of glass treated
- ✓ Reporting as follows (Condition 4.6(5)(a)(i)):
 - o 30-day deviation report

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
- Production records are the only way to verify compliance with production rates/limits

3.8 Insignificant Activities Discussion

There are no insignificant activities for the source subject to specific regulations which are obligated to comply with Sections 9.1(d) and Section 39.5 of the Act; Sections 165, 173, and 502 of the Clean Air Act; or any other applicable permit or registration requirements and therefore there are no periodic monitoring requirements that need to be separately addressed.

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 Draft 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 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.³ 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.⁴

The criteria that are mentioned in USEPA Administrator Petition Responses stress the importance of identifying, *with specificity*, the object of the incorporation.⁵ 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*.⁶ 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.⁷

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.⁸ 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 Draft CAAPP Permit incorporates by reference the following plans: Compliance Demonstration Plan (40 CFR Part 63, Subpart GGGG).⁹

3.11 Periodic Monitoring General Discussions

Pursuant to Section 504(c) of the Clean Air Act, a Title V permit must set forth monitoring requirements, commonly referred to as "Periodic Monitoring," to assure compliance with the terms and conditions of the permit. A general discussion of Periodic Monitoring is provided below. The Periodic Monitoring that is proposed for specific operations and emission units and at this source is discussed in Chapter III of this Statement of Basis. Chapter III provides a narrative discussion of and justification for the elements of Periodic Monitoring that would apply to the different emission units and types of emission units at the facility.

As a general matter, the required content of a CAAPP Permit with respect to such Periodic Monitoring is addressed in Section 39.5(7) of the Illinois Environmental Protection Act.¹⁰ Section 39.5(7)(b) of the Illinois Environmental Protection Act¹¹ provides that in a CAAPP Permit:

The Agency shall include among such conditions applicable monitoring, reporting, record keeping and compliance certification requirements, as authorized by paragraphs d, e, and f of this subsection, that the Agency deems necessary to assure compliance with the Clean Air Act, the regulations promulgated thereunder, this Act, and applicable Board regulations. When monitoring, reporting, record keeping and compliance certification requirements are specified within the Clean Air Act, regulations promulgated thereunder, this Act, or applicable regulations, such requirements shall be included within the CAAPP Permit.

Section 39.5(7)(d)(ii) of the Illinois Environmental Protection Act further provides that a CAAPP Permit shall:

Where the applicable requirement does not require periodic testing or instrumental or noninstrumental monitoring (which may consist of recordkeeping designed to serve as monitoring), require Periodic Monitoring sufficient to yield reliable data from the relevant time period that is representative of the source's compliance with the permit ...

Accordingly, the scope of the Periodic Monitoring that must be included in a CAAPP Permit is not restricted to monitoring requirements that were adopted through rulemaking or imposed through permitting. When applicable regulatory emission standards and control requirements or limits and control requirement in relevant Title 1 permits are not accompanied by compliance procedures, it is necessary for Monitoring for these standards, requirements or limits to be established in a CAAPP Permit.^{12, 13} Monitoring requirements must also be established when standards and control requirement are accompanied by compliance procedures but those procedures are not adequate to assure compliance with the applicable standards or requirements.^{14, 15} For this purpose, the requirements for Periodic Monitoring in a CAAPP Permit may include requirements for emission testing, emissions monitoring, operational monitoring, non-instrumental monitoring, and recordkeeping for each emission unit or group of similar units at a facility, as required by rule or permit, as appropriate or as needed to assure compliance with the applicable substantive requirements. Various combinations of monitoring measures will be appropriate for different emission units depending on their circumstances, including the substantive emission standards, limitations and control requirements to which they are subject.

What constitutes sufficient Periodic Monitoring for particular emission units,

including the timing or frequency associated with such Monitoring requirements, must be determined by the permitting authority based on its knowledge, experience and judgment.¹⁶ For example, as Periodic Monitoring must collect representative data, the timing of Monitoring requirements need not match the averaging time or compliance period of the associated substantive requirements, as set by the relevant regulations and permit provisions. The timing of the various requirements making up the Periodic Monitoring for an emission unit is something that must be considered when those Monitoring requirements are being established. For this purpose, Periodic Monitoring often consists of requirements that apply on a regular basis, such as routine recordkeeping for the operation of control devices or the implementation of the control practices for an emission unit. For certain units, this regular monitoring may entail "continuous" monitoring of emissions, opacity or key operating parameters of a process or its associated control equipment, with direct measurement and automatic recording of the selected parameter(s). As it is infeasible or impractical to require emissions monitoring for most emission units, instrumental monitoring is more commonly conducted for the operating parameters of an emission unit or its associated control equipment. Monitoring for operating parameter(s) serves to confirm proper operation of equipment, consistent with operation to comply with applicable emission standards and limits. In certain cases, an applicable rule may directly specify that a particular level of an operating parameter be maintained, consistent with the manner in which a unit was being operated during emission testing. Periodic Monitoring may also consist of requirements that apply on a periodic basis, such as inspections to verify the proper functioning of an emission unit and its associated controls.

The Periodic Monitoring for an emission unit may also include measures, such as emission testing, that would only be required once or only upon specific request by the Illinois EPA. These requirements would always be accompanied by Monitoring requirements would apply on a regular basis. When emission testing or other measure is only required upon request by the Illinois EPA, it is included as part of the Periodic Monitoring for an emission unit to facilitate a response by the Illinois EPA to circumstances that were not contemplated when Monitoring was being established, such as the handling of a new material or a new mode of operation. Such Monitoring would also serve to provide further verification of compliance, along with other potentially useful information. As emission testing provides a quantitative determination of compliance, it would also provide a determination of the margin of compliance with the applicable limit(s) and serve to confirm that the Monitoring required for an emission unit on a regular basis is reliable and appropriate. Such testing might also identify specific values of operating parameters of a unit or its associated control equipment that accompany compliance and can be relied upon as part of regular Monitoring.

There are a number of considerations or factors that are or may be relevant when evaluating the need to establish new monitoring requirements as part of the Periodic Monitoring for an emission unit. These factors include: (1) The nature of the emission unit or process and its emissions; (2) The variability in the operation and the emissions of the unit or process over time; (3) The use of add-on air pollution control equipment or other practices to control emissions and comply with the applicable substantive requirement(s); (4) The nature of that control equipment or those control practices and the potential for variability in their effectiveness; (5) The nature of the applicable substantive requirement(s) for which Periodic Monitoring is needed; (6) The nature of the compliance procedures that specifically accompany the applicable requirements; (7) The type of data that would already be available for the

unit; (8) The effort needed to comply with the applicable requirements and the expected margin of compliance; (9) The likelihood of a violation of applicable requirements; (10) The nature of the Periodic Monitoring that may be readily implemented for the emission unit; (11) The extent to which such Periodic Monitoring would directly address the applicable requirements; (12) The nature of Periodic Monitoring commonly required for similar emission units at other facilities and in similar circumstances; (13) The interaction or relationship between the different measures in the Periodic Monitoring for an emission unit; and (14) The feasibility and reasonableness of requiring additional measures in the Periodic Monitoring for an emission unit in light of other relevant considerations.¹⁷

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.

	<i>Previous CAAPP Permit Layout</i>	<i>New CAAPP Permit Layout</i>
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

- a. Sub-section which addressed fugitive emissions as a separate group of emission units/operations has been removed. The reason for removal: no applicable limits or specific standards exist for fugitive emissions generated at the source.
- b. CAM requirements addressed first time in the proposed CAAPP (Section 7.5).
- c. Glass melting furnace "A" was removed from service.
- d. General provisions of 40 CFR 63 Subpart A addressed first time in the proposed CAAPP (Section 7.4).
- e. Newly applicable MACT standards for glass manufacturing area source (40 CFR 63 Subpart SSSSSS) for glass melting furnace "B" have been addressed (Section 4.3).

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 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.

⁴ 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").

⁵ 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.

⁶ See, *White Paper 2* at page 39.

⁷ 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).

⁸ 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 Laggas, STAPPA/ALAPCO, pages 9-10 of Enclosure B.

⁹ 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.

¹⁰ The provisions of the Act for Periodic Monitoring in CAAPP permits reflect parallel requirements in the federal guidelines for State Operating Permit Programs, 40 CFR 70.6(a)(3)(i)(A), (a)(3)(i)(B), and (c)(1).

¹¹ Section 39.5(7)(p)(i) of the Act also provides that a CAAPP permit shall contain "Compliance certification, testing, monitoring, reporting and record keeping requirements sufficient to assure compliance with the terms and conditions of the permit."

¹² The classic example of regulatory standards for which Periodic Monitoring requirements must be established in a CAAPP permit are state emission standards that pre-date the 1990 Clean Air Act Amendments that were adopted without any associated compliance procedures. Periodic Monitoring must also be established in a CAAPP permit when standards and limits are accompanied by compliance procedures but those procedures are determined to be inadequate to assure compliance with the applicable standards or limits.

¹³ Another example of emission standards for which requirements must be established as part of Periodic Monitoring is certain NSPS standards that require initial performance testing but do not require periodic testing or other measures to address compliance with the applicable limits on a continuing basis.

¹⁴ The need to establish Monitoring requirements as part of Periodic Monitoring when existing compliance procedures are determined to be inadequate, as well as when they are absent, was confirmed by the federal appeals court in *Sierra Club v. Environmental Protection Agency*, 536 F.3d 673, 383 U.S. App. D.C. 109.

¹⁵ The need to establish Monitoring requirements as part of Periodic Monitoring is also confirmed in USEPA's Petition Response. USEPA explains that "...if there is periodic monitoring in the applicable requirements, but that monitoring is not sufficient to assure compliance with permit terms and conditions, permitting authorities must supplement monitoring to assure such compliance." Petition Response, page 6.

¹⁶ The test for the adequacy of "Periodic Monitoring" is a context-specific determination, particularly whether the provisions in a Title V permit reasonably address compliance with relevant substantive permit conditions. 40 CFR 70.6(c)(1); see also 40 CFR 70.6(a)(3)(i)(B); see also, *In the Matter of CITGO Refinery and Chemicals Company L.P.*, Petition VI-2007-01 (May 28, 2009); see also, *In the Matter of Waste Management of LA. L.L.C. Woodside Sanitary Landfill & Recycling Center, Walker, Livingston Parish, Louisiana*, Petition VI-2009-01 (May 27, 2010); see also, *In the Matter of Wisconsin Public Service Corporation's JP Pulliam Power Plant*, Petition V-2009-01 (June 28, 2010).

¹⁷ A number of these factors are specifically listed by USEPA in its Petition Response. USEPA also observes that the specific factors that it identifies in its Petition Response with respect to Periodic Monitoring provide "...the permitting authority with a starting point for its analysis of the adequacy of the monitoring; the permitting authority also may consider other site-specific factors." Petition Response, page 7.