

Statement of Basis
for the DRAFT CAAPP Permit for:

Source Name:

Cottonwood Hills Recycling and Disposal Facility

Statement of Basis No.: 01040051-
I.D. No.: 163075AAL
Permit No.: 01040051
Date Prepared: October 2, 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 CAAPP Permit issued on October 22, 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 of the CAAPP Permit on January 29, 2007. 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 an emission unit that is subject to the following Federal regulations.

40 CFR Part 60 - Subpart A	NSPS General Provisions
40 CFR Part 60 - Subpart WWW	Standards of Performance for Municipal Solid Waste Landfills
40 CFR Part 61 - Subpart M	National Emission Standard for Asbestos
40 CFR Part 63 - Subpart A	NESHAP General Provisions
40 CFR Part 63 - Subpart AAAA	NESHAP: Municipal Solid Waste Landfills
40 CFR Part 82- Subpart F	Ozone Depleting Substances

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 219 - Organic Material Emis Stnds And Lmtns For The Metro East Area
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: 4953
County: St. Clair

The source contains a municipal solid waste (MSW) landfill which is filled in phases. Initial waste operations began in November 2000. An MSW landfill is defined as an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. An MSW landfill may also receive other types of RCRA Subtitle D wastes (40 CFR 257.2) such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste.

MSW is delivered at the source by waste hauling and collection trucks. These trucks deliver the waste to the active area of the landfill where it is compacted and deposited within the landfill by on site heavy equipment. Prior to the end of the business day, equipment is then used to cover the waste with a layer of daily cover as per the requirements of 35 IAC Subtitle G.

Landfill gas emissions from the source are generated from the decomposition of materials deposited in the landfill. Landfill gas is composed primarily of methane and carbon dioxide. A small percentage of other constituents present in the gas include hydrogen sulfide and nonmethane organic compound(s) (NMOC).

The source contains the following processes:

<i>Emission Units</i>	<i>Description</i>
MSW Landfill	MSW Landfill subject to NSPS/NESHAP for MSW landfills and Asbestos NESHAP
Portable Rock Crushing Unit	Crusher with Screens and water spray bars (PM/PM ₁₀ control)
Liquid Waste Solidification Activities	Liquid Waste and Adsorbent Mixing
Mobile Diesel Engine >150 HP	Crusher power unit

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 and/or PM_{2.5} and attainment or unclassifiable for all other criteria pollutants (carbon monoxide, lead, nitrogen dioxide, PM₁₀, 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: carbon monoxide (CO.) and because the source is subject to a standard, limitation, or other requirement under Section 111 (NSPS) or Section 112 (HAPs) of the CAA for which USEPA requires a CAAPP Permit, or because the source is in a source category designated by the USEPA. Specifically, this source is subject to the federal NSPS for MSW landfills (40 CFR Part 60 Subpart WWW).

This source maintains synthetic minor limits (see Condition 3.3(a)(i)) for the following regulated pollutants: PM₁₀, PM_{2.5}, and nitrogen oxides (NO_x).

This source is considered a natural minor for the following regulated pollutants: volatile organic material (VOM) and sulfur dioxide (SO₂) and/or hazardous air pollutant (HAP).

Based on available data, this source is a major source of emissions for GHG, because the estimated potential emissions of GHG that are more than 100 tons per year (mass) and 100,000 tons per year (CO₂e). Cottonwood Hills Recycling and Disposal Facility voluntarily submitted data for actual emissions of GHGs in its 2013 AER, reporting actual annual emissions of GHG of 18,569.0 tons per year. The emissions consist of 18,127.69 tons of CO₂, 27.23 tons of N₂O, and 413.78 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:

	2013 (tons/year)	2012 (tons/year)	2011 (tons/year)
CO	144.1100	146.8400	140.7400
CO ₂	18,127.6900	15,736.2400	13,504.9000
H ₂ S	3.1600	2.8800	1.7300
MC	.0630	.0570	.5500
METHANE	413.7800	377.3900	364.0500
MIBK	.0000	.0000	.0000
NOX	27.2300	27.2500	26.5100
PART	10.7400	11.7600	5.6100
PM ₁₀	8.4700	9.2100	3.0600

PM _{2.5}	.5000	1.0130	1.1300
SO ₂	16.9200	37.5200	6.0700
VOM	5.2000	5.0900	4.4600

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)	38.54
Sulfur Dioxide	(SO ₂)	80.0
Particulate Matter	(PM)	55.8
Nitrogen Oxides	(NO _x)	28.34
HAP, not included in VOM or PM	(HAP)	4.09
Total		206.77

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>
00060110	August 30, 2000	Portable Crushing Operation
02080021	November 12, 2002	Landscape Waste and Solidification Facility
06100058	January 10, 2007	Gas Collection System with an Open Flare

- Newly Issued Construction Permits:

Permit No.	Date Issued	Subject
00060110	May 25, 2012	Portable crushing operation: Revised to increase allowable throughput and emissions
02080021	November 22, 2011	Landscape Waste and Solidification Facility: Revisions indicated in the revised construction permit, i.e., the increase in the permitted throughput and operating hours; lower VOM and HAPs emissions which are now permitted as being negligible; and revised recordkeeping and reporting requirements for the for liquid waste solidification facility.
06100058	December 9, 2011 & February 27, 2013	Gas Collection System with an Open Flare: Revised to increase the permitted emissions for the affected flare based on site specific LFG sampling data and it clarifies applicability of the Landfill NSPS and the Landfill NESHAP.
06070067	December 23, 2008	Landfill Airspace Increase: No applicable Title 1 operational or emissions limitations

- The Illinois EPA has not established any T1R or T1N Limits in this Draft CAAPP permit.
- Extraneous or Obsolete T1 Conditions:³

Construction Permit No.	Condition Number	Subject
02080021	November 22, 2011	Landscape Waste and Solidification Facility: Based upon information provided, operational and emission limitations for the tub grinder/composting operation were not included in the CAAPP permit since the composting operation has been shut down and the tub grinder has been removed from the source
03060011	--	Landfill gas collection & control system: Permit obsolete and was withdrawn on July 8, 2008.
05120002	February 22, 2006	Overburden loading grate system: No applicable Title 1 operational or emissions limitations - Unit was identified as an insignificant activity in the CAAPP permit
11070012	October 28, 2011	Pug Mill Facility: Based upon information provided, the Pug Mill Facility is not included in the CAAPP permit since the pug mill and ancillary equipment is no longer located at 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 annual tests on the open flare to verify that the flare is in compliance with 40 CFR 60.18 and construction permit 06100058:

stkID	source	Source Unit	Permit	Protocol Date	Test Recv'd Date
6321	163075AAL	open flare	06100058	12/10/2010	12/10/2010
4024	163075AAL	open flare	06100058	2/8/2008	7/16/2008
4023	163075AAL	municipal solid waste landfill		2/20/2004	5/12/2004
4021	163075AAL	municipal solid waste landfill		4/28/2003	
4022	163075AAL	municipal solid waste landfill			
5775	163075AAL	open flare	06100058		11/12/2009
6813	163075AAL	open flare	06100058		12/2/2011
7359	163075AAL	open flare	06100058		12/13/2012
7796	163075AAL	open flare	06100058		12/9/2013

Annual Compliance Stack Test 2013

No visible emissions detected	Section 3.1
Fuel Heating Value	Section 3.2

Date	Run No.	Laboratory Analytical Heating Value (MJ/scm)	Calculated Heating Value (MJ/scm)	Minimum Allowable Heating Value (MJ/scm)
2/7/13	CWH-4	16.4	15.9	7.45
2/7/13	CWH-5	16.1	15.6	7.45
2/7/13	CWH-6	16.3	15.8	7.45
9/26/13	CW4	18.4	17.8	7.45
9/26/13	CW5	18.5	17.9	7.45
9/26/13	CW6	18.5	17.9	7.45

MJ/scm: Mega joule per standard cubic meter

Fixed Gas Analysis	Section 3.3
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Date Collected	2/7/2013			9/26/2013			Average
	Parameter	CWH-4	CWH-5	CWH-6	CW4	CW5	
Hydrogen	0.6%	0.6%	0.6%	0.8%	0.8%	0.8%	0.7%
Oxygen	2.8%	3.1%	2.9%	1.2%	1.1%	1.0%	2.0%
Nitrogen	14.6%	15.5%	14.8%	7.5%	7.2%	6.9%	11.1%
Carbon Monoxide	ND	ND	ND	ND	ND	ND	ND
Methane	47.6%	46.8%	47.4%	53.4%	53.6%	53.8%	50.4%
Carbon Dioxide	34.3%	33.8%	34.2%	37.0%	37.1%	37.3%	35.6%

NMOC Analysis	Section 3.4
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Date	Run No.	NMOC (as methane) (ppmv)	NMOC (as hexane) (ppmv)
2/7/13	CWH-4	4,200	700
2/7/13	CWH-5	4,300	717
2/7/13	CWH-6	4,500	750
9/26/13	CW4	3,900	650
9/26/13	CW5	3,800	633
9/26/13	CW6	4,200	700

ppmv: parts per million by volume

Total Sulfur Compounds	Section 3.5
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Date Collected		2/7/13			10/24/2013		
Parameter	Units	CWH-1	CWH-2	CWH-3	CWH-7	CWH-8	CWH-9
Hydrogen Sulfide	ppbv	430,000	430,000	440,000	270,000	380,000	330,000
Carbonyl Sulfide	ppbv	1,400	1,400	1,300	1,100	1,300	1,100
Methyl Mercaptan	ppbv	6,700	6,900	6,700	4,500	6,200	5,500
Ethyl Mercaptan	ppbv	200	210	190	ND	ND	ND
Dimethyl Sulfide	ppbv	7,500	7,500	7,300	6,300	7,800	7,000
Carbon Disulfide	ppbv	550	530	530	680	770	740
Isopropyl Mercaptan	ppbv	1,800	1,700	1,700	1,100	1,500	1,400
tert-Butyl Mercaptan	ppbv	300	290	320	230	510	690
n-Propyl Mercaptan	ppbv	ND	ND	ND	ND	ND	ND

Date Collected		2/7/13			10/24/2013		
Parameter	Units	CWH-1	CWH-2	CWH-3	CWH-7	CWH-8	CWH-9
Ethyl Methyl Sulfide	ppbv	ND	ND	ND	ND	ND	ND
Thiophene	ppbv	1,600	1,800	1,800	820	1,000	1,100
Isobutyl Mercaptan	ppbv	ND	ND	ND	ND	ND	ND
Diethyl Sulfide	ppbv	ND	ND	ND	ND	ND	ND
n-Butyl Mercaptan	ppbv	ND	ND	ND	ND	ND	ND
Dimethyl Disulfide	ppbv	ND	ND	53	ND	ND	ND
3-Methylthiophene	ppbv	ND	ND	ND	ND	ND	ND
Tetrahydrothiophene	ppbv	ND	ND	ND	ND	ND	ND
2,5-Dimethylthiophene	ppbv	ND	ND	ND	ND	ND	ND
2-Ethylthiophene	ppbv	ND	ND	ND	ND	ND	ND
Diethyl Disulfide	ppbv	ND	ND	ND	ND	ND	ND
Total Per Sample (ppbV)	ppbv	450,050	450,330	459,893	284,730	399,080	347,530
Average in ppmV	ppmv	398.6					

ppbv: parts per billion by volume

ppmv: parts per million by volume

ND: Not detected at or above the reporting limit

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.

However, the compliance reports do indicate that there was a non-substantive violations concerning a discrepancy between the emission factor provided in the original CAAPP permit application and the AP-42 emission calculation procedures specified in the initial CAAPP permit. The current permit does not specify either the factors or the method of calculating emissions. It does state the following:

"Emissions shall be determined using appropriate emission factors which in order of preference shall be factors from on-site testing, manufacturer's emission data, and emission factors from USEPA's Compilation of Air Pollutant Emission Factors (AP-42), and continuous operation."

3.4 Field Inspection Results

A review of the source's latest field inspection report dated 4/12/2010 demonstrates the source's ability to comply with all applicable requirements.

3.5 Historical Non-Compliance

There is no historical non-compliance for this source.

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)(A)
Title 1 Requirements - T1 (Construction Permit 06100058) NO _x , CO, SO ₂ , VOM/NMOC & PM/PM10	Applicable Limit	See the Permit, Condition 3.3(a)(i)

Visible Emissions (i.e., Opacity)

- ✓ Monitoring as follows (Condition 3.1(a)(ii)(A))
 - o Observations of fugitive particulate matter emissions required upon Illinois EPA request.
- ✓ Recordkeeping as follows (Condition 3.1(a)(ii)(A)):
 - o Records of observations
- ✓ Reporting as follows (Condition 3.6(a)):
 - o Prompt reporting within 30 days of detecting a deviation;

Rationale and Justification for Periodic Monitoring

Periodic Monitoring, at the current level of compliance, is sufficient for this source because:

- Source has not exhibited a history of non-compliance based upon a review of Illinois EPA Field Operation Section (FOS) inspection reports; and
- Monitoring is consistent with that required for other MSW landfills permitted by Illinois EPA.

Title 1 Requirements

Construction Permit 06100058 [T1]

- ✓ Monitoring as follows (Condition 3.3(a)(ii)(A))
 - ✓ The monitoring procedures, required in Conditions 4.1.2(b)(ii), 4.2.2(a)(ii)(A), 4.3.2(a)(ii)(A), and 4.4.2(a)(ii)(A), i.e., the monitoring procedures used to demonstrate compliance and/or calculate emissions for the emission units and operations covered under the respective section;
 - o Source-wide emissions for each pollutant based upon the sum of emissions from all emission units and operations at the source; and
 - o Emission calculations must be based upon appropriate emission factors which in order of preference shall be factors from on-site testing, manufacturer's emission data, and emission factors from USEPA's *Compilation of Air Pollutant Emission Factors* (AP-42), and continuous operation.
- ✓ Testing as follows (Condition 3.3(a)(ii)(B)):
 - o Compliance with the SO₂ and NMOC/VOM emissions limitation in Condition 3.3(a)(i) shall be based upon the total reduced sulfur (TSR) testing and SO₂ calculation procedures required in Conditions 4.1.2(b)(ii)(B) and the NMOC/VOM testing and calculation procedures required in Conditions 4.1.2(c)(ii)(B) and (C);
- ✓ Recordkeeping as follows (Condition 3.3(a)(ii)(C)):

- o Records and documentation of the assumptions and/or factors, and calculations used to demonstrate compliance with the source-wide limitations in Condition 3.3(a)(i).;
- ✓ Reporting as follows (Condition 3.6(a)(i)(A)):
 - o Prompt reporting within 30 days

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for this emission unit because:

- There is a small likelihood of an exceedance
- Source has not exhibited a history of non-compliance based upon a review of Illinois EPA annual emission reports (AER), See Section 2.6.
- Monitoring is consistent with that required for other MSW landfills permitted by Illinois EPA.

Non-Applicability Discussion

The following complex non-applicability determinations were made for this source:

- Condition 3.4(f) - Several internal combustion engines at the source were determined to be not subject to the requirements of 40 CFR Part 60 Subparts IIII and JJJJ and Part 63 Subpart ZZZZ, based upon all engines not meeting the applicability criteria in 40 CFR 60.4200, 60.4230 and 63.6585(a) and the definition of a Stationary reciprocating internal combustion engine (RICE) in 40 CFR 60.4219, 60.4248, and 63.6675, respectively, i.e., all engines at the source are mobile and meet the definition of a non-road engine as defined in 40 CFR 1068.30. Since applicability under the above is dependent upon a particular engine being stationary, limitations and periodic monitoring to verify non-applicability were included in the permit.

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.

Additional Permit Discussion

As of the date of this statement of basis, the Illinois EPA has not been delegated the authority to approve various equivalent and/or site specific provisions in regard to the federal NSPS and NESHAP regulations. In that regard, several conditions of the CAAPP permit require that the Permittee obtain the approval of the "Administrator" prior to the implementation of alternative or site-specific provisions, as applicable, to a specific NSPS and NESHAP regulation. In this case "Administrator" means the Administrator of the United States Environmental Protection Agency or his or her authorized representative (e.g., a State that has been delegated the authority to implement the provisions of a specific part).

Further, it should be noted as a practical matter, the IEPA considers electronic records and/or data scanned and/or uploaded to a computer, network, or other electronic database to be equivalent to hard copy records, i.e.,

original strip-chart recordings or datasheets, required pursuant to Section 39.5(7)(e)(ii) of the Act.

3.7 Emission Unit Justifications and Rationale

4.1. MSW Landfill		
Applicable Requirements Summary		
Applicable Requirement	Type	Location
Visible Emissions (Opacity) Requirement (35 IAC 212.123(a) and 40 CFR 60.18(c)(1))	Applicable Limit	See the Permit, Condition 4.1.2(a)
SO ₂ Requirement (35 IAC 214.301)	Applicable Limit	See the Permit, Condition 4.1.2(b)(i)(A)
SO ₂ Requirement - T1 (Construction Permit 11060021)	Applicable Limit	See the Permit, Condition 4.1.2(b)(i)(B)
NSPS Requirement (40 CFR Part 60 Subpart WWW)	Applicable Standard	See the Permit, Condition 4.1.2(c)
HAP Requirements (40 CFR Part 63 Subpart AAAA)	Applicable Standard	See the Permit, Condition 4.1.2(d)
Asbestos Requirements (40 CFR Part 61 Subpart M)	Applicable Standard	See the Permit, Condition 4.1.2(e)
Title 1 Requirements - T1 (Construction Permit 06100058)	Applicable Limit	See the Permit, Condition 4.1.4(a)
NO _x , CO, PM/PM ₁₀ , VOM/NMOC, & HAPs		

Visible Emissions (i.e., Opacity)

- ✓ Monitoring as follows (Condition 4.1.2(a)(ii)(A))
 - 30% opacity limitation - 35 IAC 212.123(a)/No visible emissions - 40 CFR 60.18(c)(1): Compliance monitoring for the open flare pursuant to 35 IAC 212.123(a) is subsumed by no visible emissions monitoring for 40 CFR 60.18(c)(1) using USEPA RM 22. In lieu of RM 22, the Permittee may verify compliance using USEPA RM 9 since RM 22 does not quantify opacity;
 - Monitoring the open flare on a monthly basis. If visible emission monitoring demonstrates compliance with both Condition 4.1.2(a)(i)(A) and (B) over at least a 4 month period, the Permittee may switch to monitoring on a quarterly basis. Monitoring shall revert to the monthly basis if a deviation is detected. Quarterly monitoring may resume after another 4 months of data again indicates no deviations.
 - Monitoring by a third party is not required unless requested in writing;
 - The Permittee shall either take corrective action within 4 hours of such observation or indicate a deviation within the monitoring record.
 - A deviation shall be recorded in the monitoring record:
 - If an exceedance is observed and corrective action cannot be made within 48 hours;
 - If RM 22 is used to verify compliance, a deviation shall be indicated in the monitoring record if visible emissions are observed for more than a total of 5 minutes during the 2 hour observation period..

- If RM 9 is used to verify compliance, a deviation shall be indicated in the monitoring record if the open flare's average opacity exceeds 30% over the 3 test run monitoring period.
- ✓ Recordkeeping as follows (Condition 4.1.2(a)(ii)(B)):
 - o Field data sheets of observations with notes as to whether the open flare was operating properly and An indication as to whether monitoring is on a monthly or quarterly basis;
 - o Description of any corrective action taken including if the corrective action took place within 4 hours of the observation.
 - ✓ Reporting as follows (Condition 4.1.5(a)):
 - o Prompt reporting within 30 days

Rationale and Justification for Periodic Monitoring

Periodic Monitoring, at the current level of compliance, is sufficient for this emission unit because:

- Visible emissions monitoring data provided in the open flare test reports dated November 30, 2011, December 12, 2012, and December 4, 2013, demonstrated that no visible emissions from the landfill flare was detected during the test.
- Monitoring is consistent with that required for other MSW landfills permitted by Illinois EPA.
- The zero opacity threshold for the open flare, i.e., no visible emissions, using Method 22, is a substantially narrower compliance threshold compared to the 30 percent opacity limit allowed under 35 IAC 212.123(a).

Sulfur Emissions

- ✓ Monitoring as follows (Condition 4.1.2(b)(ii)(A)-(C))
 - o Volumetric Flow Throughput: gas flow rate measuring device
 - o Annual LFG Chemical and Physical Composition:
 - Total reduced sulfur (TRS) - RM 15/16 or ASTM D5504; and
 - LFG methane; NMOC (pound/cubic foot) and net heat content (Btu/cubic foot) as per RM 3C.
 - o Annual compliance monitoring using volumetric flow throughput data from the gas collection and control system, i.e., 12 month average LFG volumetric flow throughput (cubic feet per minute) and an analysis of the LFG chemical and physical composition. Worst case emissions are assumed since the dilution effect of other combustion components are not accounted for in the calculations. Where the maximum possible SO₂ concentration and mass (ton/month and ton/yr) that can be emitted are calculated, assuming stoichiometric combustion, i.e., 0% excess air and 100% conversion of TRS to SO₂.
- ✓ Recordkeeping as follows (Condition 4.1.2(b)(ii)(D)):
 - o Design specifications for the flare
 - o LFG consumed by the flare, on a daily basis
 - o Maximum hourly emissions of SO₂ with supporting documentation
 - o Annual emissions of SO₂ from the affected flare (tons/year) with supporting calculations
 - o An inspection/maintenance log
 - o Total sulfur content of the LFG and the results of the compliance verification analysis pursuant to Condition 4.1.2(b)(i)(A) and 35 IAC

214.301 determined in accordance with Condition 4.1.2(b)(ii)(B) compliance with 35 IAC 214.301.

- o Log of sampling and analysis activity
- ✓ Reporting as follows (Condition 4.1.5(a)):
 - o Prompt reporting within 30 days

Rationale and Justification for Periodic Monitoring

Periodic Monitoring, at the current level of compliance, is sufficient for this emission unit because:

- The source has a substantial margin of compliance based upon the very low concentration of sulfur containing compounds in the landfill gas. As per the flare test reports dated November 30, 2011, December 12, 2012, and December 4, 2013, the average total sulfur concentration detected was 47.6, 363.5, 398.6 ppmv, respectively.
- Source has not exhibited a history of non-compliance based upon a review of Illinois EPA FOS inspection reports.
- Monitoring is consistent with that required for other MSW landfills permitted by Illinois EPA.

Nonmethane Organic Compounds (NMOC) Emissions

- ✓ Monitoring as follows (Condition 4.1.2(c)(ii)(A)-(B))
 - o Compliance with the Gas Collection and Control System (GCCS) design plan requirements, in Conditions 4.1.2(c)(i)(A)(III)-(IV) and 40 CFR 60.752(b)(2)(ii) and (iv), based upon the GCCS being installed and operated pursuant to the approved GCCS design plan, dated September 22, 2014, and any subsequent amendments to the plan;
 - o 40 CFR 60.755(a) and 60.756(a) - Verification that the gas collection system is in compliance with Conditions 4.1.2(c)(i)(A)(III) and 40 CFR 60.752(b)(2)(ii) based upon monitoring specified methods in 40 CFR 60.755(a) and 60.756(a);
 - Monthly well/wellhead pressure, oxygen or nitrogen concentration and temperature monitoring;
 - Continuous monitor the open flare for presence of a pilot light or the flame itself;
 - o 40 CFR 60.755(b) - Verification that the Permittee is in compliance with 40 CFR 60.753(a), based upon placement of each well or design component as specified by the date thresholds;
 - o 40 CFR 60.755(c) & (d) and 60.756(f) - Verification the GCCS is in compliance with the surface methane operational standard as provided in 40 CFR 60.753(d) based upon quarterly monitoring using the specified instrumentation specifications and procedures for surface emission monitoring devices;
- ✓ Recordkeeping as follows (Condition 4.1.2(c)(ii)(D)):
 - o General Records (Condition 4.1.2(c)(ii)(D)(I))
 - Site-specific NMOC emission rate(s);
 - USEPA and/or Illinois EPA correspondence approving alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of 40 CFR 60.753 through 60.758 allowed under 40 CFR 60.752(b)(2)(i)(B);
 - Waste Acceptance

- Inspection maintenance and repair log for the affected landfill and/or control equipment
 - Landfill gas flow to the control system (Monthly and annual);
 - Operating hours on a monthly basis for the landfill gas open flare
 - o NSPS Records (Condition 4.1.2(c) (ii) (D) (II)-(IX))
 - 40 CFR 60.7(b) - Occurrence and duration of any startup, shutdown, or malfunction;
 - 40 CFR Section 60.7(f) - All measurements, maintenance, reports and records;
 - 40 CFR 60.18(f)(2) - Record of the presence of a flare pilot flame using continuous temperature recorder or logbook;
 - CFR 60.758(a) -Copy of the design capacity report;
 - 40 CFR 60.758(c) - Continuous records of the equipment operating parameters specified to be monitored in 40 CF 60.756; and
 - 40 CFR 60.758(d) - Plot map showing location of each existing and planned collector in the system.
- ✓ Reporting as follows (Condition 4.1.5(a) & (b)):
- o Prompt reporting within 30 days
 - o NSPS Reporting
 - 40 CFR 60.757(a)(3) -If applicable, an amended design capacity report within 90 days of an increase in the maximum design capacity of the landfill;
 - 40 CFR 60.757(d) - closure report within 30 days of waste acceptance cessation;
 - 40 CFR 60.757(e) - Equipment removal report 30 days prior to removal or cessation of operation of the control equipment. and
 - 40 CFR 60.757(f) & 40 CFR 63.1980(a) - semi-annual reports of any exceedances recorded pursuant to the information shown in 40 CFR 60.757(f)(1) through (f).

Rationale and Justification for Periodic Monitoring

Periodic Monitoring, at the current level of compliance, is sufficient for this emission unit because:

- The source is subject to a standard promulgated after Nov. 1990, i.e., 40 CFR Part 60 Subpart WWW, which already contains monitoring that is adequate to demonstrate compliance.
- Source has not exhibited a history of non-compliance based upon a review of Illinois EPA FOS inspection reports.
- Monitoring is consistent with that required for other MSW landfills permitted by Illinois EPA.

HAP Emissions

- ✓ Monitoring as follows (Condition 4.1.2(d) (ii) (A))
- o 40 CFR 63.1960 - Compliance based upon compliance with 40 CFR Part 60 Subpart WWW, including performance testing, monitoring of the collection system, continuous parameter monitoring, and other credible evidence, See Condition 4.1.2(c). Except that Permittee must have a written SSM plan according to the provisions in 40 CFR 63.6(e)(3).
 - o 40 CFR 63.1965 - deviations defined in 40 CFR 63.1990 to 40 CFR Part 63 Subpart AAAA

- Fails to meet any requirement or obligation established by 40 CFR Part 63 Subpart AAAAA, including, but not limited to, any emissions limitation (including any operating limit) or work practice standard;
 - Fails to meet any term or condition that is adopted to implement an applicable requirement in 40 CFR Part 63 Subpart AAAAA and that is included in the operating permit for any affected source required to obtain such a permit; or
 - Fails to meet any emission limitation, (including any operating limit), or work practice standard in 40 CFR Part 63 Subpart AAAAA during SSM, regardless of whether or not such failure is permitted by 40 CFR Part 63 Subpart AAAAA.
 - Landfill monitoring and SSM plan requirements, deviations include the items in 40 CFR 63.1960(a) through (c).
- ✓ Recordkeeping as follows (Condition 4.1.2(d)(ii)(B)):
- o 40 CFR 63.1980(a) - records as specified in 40 CFR Part 60 Subpart WWW
 - o 40 CFR 63.1980(b) - Records as specified in the general provisions of 40 CFR Part 60 Subpart A and 40 CFR Part 63 as shown in Table 1 of 40 CFR Part 63 Subpart AAAAA. Applicable records in the general provisions include items such as SSM plans.
 - o 40 CFR 63.1980(g) - If leachate is applied in a controlled fashion to the waste mass then the owner or operator must keep a record of calculations showing that the percent moisture by weight expected in the waste mass to which liquid is added is less than 40 percent.
- ✓ Reporting as follows (Condition 4.1.5(a) & (b)):
- o Prompt reporting within 30 days
 - o NESHAP Reporting
 - 40 CFR 60.757(f) and 40 CFR 63.1980(a) semi-annual exceedance reports as specified in 40 CFR Part 60 Subpart WWW; and
 - 40 CFR 63.1980(b) - Reports as specified in the general provisions of 40 CFR Part 60 Subpart A and 40 CFR Part 63 as shown in Table 1 of 40 CFR Part 63 Subpart AAAAA. Applicable records in the general provisions include items such as SSM plans.;

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for this emission unit because:

- The source is subject to standards promulgated after Nov. 1990, i.e., 40 CFR Part 60 Subpart WWW and 40 CFR Part 63 Subpart AAAAA, which already contains monitoring that is adequate to demonstrate compliance.
- Source has not exhibited a history of non-compliance based upon a review of Illinois EPA FOS inspection reports.
- Monitoring is consistent with that required for other MSW landfills permitted by Illinois EPA.

Asbestos Emissions

- ✓ Monitoring as follows (Condition 4.1.2(e)(ii)(A))
- o Sections 39.5(7)(b) and (d) of the Act, the monthly inspection on all inactive and active ACWM disposal sites at the source to verify compliance with the visible emissions and/or cover requirements of Condition 4.1.2(f)(i)(A) and 40 CFR 61.151(a) and 61.154(c). Monitor for visible emissions using USEPA RM 22 or take corrective action if ACWM is exposed above ground.

- ✓ Recordkeeping as follows (Condition 4.1.2(e)(ii)(B)):
 - o 40 CFR 61.154(e) - Asbestos-containing waste material received records
 - o 40 CFR 61.154(f) Records of the location, depth and area, and quantity in cubic meters (cubic yards) of asbestos-containing waste material within the disposal site on a map or diagram of the disposal area.
 - o Records of the inspections and/or corrective actions and data as per RM 22, as applicable.

- ✓ Reporting as follows (Condition 4.1.5(a) & (b)):
 - o Prompt reporting within 30 days
 - o NESHAP Reporting
 - 40 CFR 61.151(d) and 61.154(j), the owner or operator shall notify IEPA 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site and covered as per 40 CFR 61.151 or 61.154;
 - 40 CFR 61.154(e)(1)(iv) - Report, by the following working day, the presence of a significant amount of improperly enclosed or uncovered waste and/or report immediately, if the discrepancy between the quantity of waste designated on the waste shipment records and the quantity actually received is not resolved within 15 days after receiving the waste; and
 - 40 CFR 61.154(h) - Submit, upon closure of the facility, a copy of records of asbestos waste disposal locations and quantities.

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for this emission unit because:

- There is a small likelihood of an exceedance since other permit requirements and/or regulations serve to insure compliance with 40 CFR Part 61 Subpart M, specifically the landfill is required to apply daily cover and final cover over the waste pursuant to their RCRA permit issued by the Illinois EPA Bureau of Land and the Permittee is required to make landfill cover integrity inspection and repair pursuant to Condition 4.1.2(c)(ii)(A)(IV)(5) and 40 CFR 60.755(c)(5).
- Source has not exhibited a history of non-compliance based upon a review of Illinois EPA FOS inspection reports.

Title 1 Requirements

Construction Permit 06100058 [T1]

- ✓ Recordkeeping as follows (Condition 4.1.4(ii)(a)):
 - o Design specifications for the open flare;
 - o LFG consumed by the flare, on a daily basis;
 - o Operating log;
 - o Inspection/maintenance log;
 - o Maximum lb/mmmbtu and hourly emissions of NO_x, CO, PM, and VOM;
 - o Annual emissions of NO_x, CO, PM, and VOM;

- ✓ Reporting as follows (Condition 4.1.5(a)):
 - o Prompt reporting within 30 days

Rationale and Justification for Periodic Monitoring

Periodic Monitoring is sufficient for this emission unit because:

- There is a small likelihood of an exceedance (See Example Calculations).
- Source has not exhibited a history of non-compliance based upon a review of Illinois EPA FOS inspection reports.
- Monitoring is consistent with that required for other MSW landfills permitted by Illinois EPA.

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.

4.2. Portable Rock Crushing Unit		
Applicable Requirements Summary		
Applicable Requirement	Type	Location
Opacity Requirement (35 IAC 212.123(a))	Applicable Standard	See the Permit, Condition 4.2.2(a)
PM Requirement (35 IAC 212.321)	Applicable Standard	See the Permit, Condition 4.2.2(b) (A)
PM Requirement Title 1 Requirements - T1 (Construction Permit 00060110)	Applicable Limit	See the Permit, Condition 4.2.2(b) (B)
Operational and Production Title 1 Requirements - T1 (Construction Permit 00060110)	Applicable Limit	See the Permit, Condition 4.2.2(c)

Visible Emissions (i.e., Opacity)

- ✓ Monitoring as follows (Condition 4.2.2(a) (ii) (A))
 - o Visible emissions or opacity monitoring using USEPA RM 22 or 9, respectively. Visible emission monitoring to be conducted at least seven (7) days after resumption of the crushing operations at the source. Monitoring shall be conducted on a monthly basis until at least 4 months of data indicates compliance with the opacity limitation in Condition 4.2.2(a) (i) (A). Thereafter; monitoring may switch to a quarterly basis. Monitoring shall revert to the monthly basis if a deviation is detected. Quarterly monitoring may resume after another 4 months of data again indicates no deviations.
- ✓ Recordkeeping as follows (Condition 4.2.2(a) (ii) (B)):
 - o Field data sheets of observations with notes as to whether the open flare was operating properly and An indication as to whether monitoring is on a monthly or quarterly basis;
 - o Description of any corrective action taken including if the corrective action took place within 4 hours of the observation.
- ✓ Reporting as follows (Condition 4.2.5):

- o Prompt reporting 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 based upon a review of Illinois EPA FOS inspection reports.
- Monitoring is consistent with that required for other MSW landfills permitted by Illinois EPA.

Particulate Matter Emission

- ✓ Monitoring as follows (Condition 4.2.2(b)(ii)(A) - (D))
 - o Monthly visual inspections to verify proper operation; and
 - o Emissions calculations using appropriate emission factors.
- ✓ Recordkeeping as follows (Condition 4.2.2(b)(ii)(E)):
 - o Inspection Records;
 - o Repair log
 - o The emission calculations required in Condition 4.2.2(b)(ii)(C) and (D) with documentation of the assumptions and/or factors, and calculations used to demonstrate compliance with the limitations in Condition 4.2.2(b)(i)(A) and (B);
- ✓ Reporting as follows (Condition 4.2.5):
 - o Prompt reporting 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 based upon a review of Illinois EPA FOS inspection reports.
- Monitoring is consistent with that required for other small seasonal operations permitted by Illinois EPA.

Operational and Production Limits

- ✓ Recordkeeping as follows (Condition 4.2.2(c)):
 - o Hours of operation on a monthly basis (hours/month and hours/year);
 - o Throughput (tons/month and tons/year)
 - o Documentation for the rated capacity of the crusher (tons/hour); and
 - o Documentation of the date and location of the portable rock crushing unit including whether the unit is being moved within the source boundaries or relocated off site.
- ✓ Reporting as follows (Condition 4.2.5):
 - o Prompt reporting 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.
- Recordkeeping is sufficient since the limits on capacity and production are avoidance limitations pursuant to the NSPS for Nonmetallic Mineral Processing Plants, 40 CFR Part 60 Subpart 000, See Condition 4.2.3(a).

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.

4.3 Liquid Waste Solidification Activities		
Applicable Requirements Summary		
Applicable Requirement	Type	Location
Opacity Requirement(35 IAC 212.123(a))	Applicable Standard	See the Permit, Condition 4.3.2(a)
PM Requirement (35 IAC 212.321)	Applicable Standard	See the Permit, Condition 4.3.2(b)(A)
PM Requirement Title 1 Requirements - T1 (Construction Permit 02080021)	Applicable Limit	See the Permit, Condition 4.3.2(b)(B)
Operational and Production Title 1 Requirements - T1 (Construction Permit 02080021)	Applicable Limit	See the Permit, Condition 4.3.4(c)
Title 1 Requirements - T1 (Construction Permit 02080021)	Applicable Limit	See the Permit, Condition 4.3.4(a)
VOM & HAPs		

Visible Emissions (i.e., Opacity)

- ✓ Monitoring as follows (Condition 4.3.2(a)(ii)(A))
 - o Monthly visible emissions or opacity monitoring using USEPA RM 22 or 9, respectively, until at least 4 months of data indicates compliance with Condition 4.3.2(a)(i)(A). Thereafter; monitoring may revert to a quarterly basis. Monitoring shall revert to the monthly basis if a deviation is detected. Quarterly monitoring may resume after another 4 months of data again indicates no deviations.

- ✓ Recordkeeping as follows (Condition 4.3.2(a)(ii)(B)):
 - o Field data sheets of observations with notes as to whether the open flare was operating properly and an indication as to whether monitoring is on a monthly or quarterly basis;
 - o Description of any corrective action taken including if the corrective action took place within 4 hours of the observation.

- ✓ Reporting as follows (Condition 4.3.5):
 - o Prompt reporting 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 based upon a review of Illinois EPA FOS inspection reports.
- Monitoring is consistent with that required for other small seasonal operations permitted by Illinois EPA.

Particulate Matter Emission

- ✓ Monitoring as follows (Condition 4.3.2(b)(ii)(A) - (D))
 - o Monthly visual inspections to verify proper operation; and
 - o Emissions calculations using appropriate emission factors.
- ✓ Recordkeeping as follows (Condition 4.3.2(b)(ii)(E)):
 - o Inspection Records;
 - o Repair log
 - o The emission calculations required in Condition 4.3.2(b)(ii)(C) and (D) with documentation of the assumptions and/or factors, and calculations used to demonstrate compliance with the limitations in Condition 4.3.2(b)(i)(A) and (B);
- ✓ Reporting as follows (Condition 4.2.5):
 - o Prompt reporting 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 based upon a review of Illinois EPA FOS inspection reports.
- Monitoring is consistent with that required for other small seasonal operations permitted by Illinois EPA.

Operational and Production Limits

- ✓ Recordkeeping as follows (Condition 4.3.2(c)):
 - o Hours of operation on a monthly basis (hours/month and hours/year);
 - o Amount of liquid waste processed (tons/month and tons/year).
 - o Amount of each absorbent material used in solidification process, by type (tons/month and tons/year).
- ✓ Reporting as follows (Condition 4.3.5):
 - o Prompt reporting 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 based upon a review of Illinois EPA FOS inspection reports.
- Monitoring is consistent with that required for other small seasonal operations permitted by Illinois EPA.

VOM & HAP Emissions

- ✓ Monitoring as follows (Condition 4.3.4(a)(ii)(A) - (C))
 - o Emissions calculations using appropriate emission factors.
- ✓ Recordkeeping as follows (Condition 4.3.2(b)(ii)(E)):

- o The emission calculations required in Condition 4.3.4(a)(ii)(B) and (C) with documentation of the assumptions and/or factors, and calculations used to demonstrate compliance with the limitations in Condition 4.3.4(a)(i)(A)

- ✓ Reporting as follows (Condition 4.2.5):
 - o Prompt reporting 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 based upon a review of Illinois EPA FOS inspection reports.
- Emissions are considered negligible based upon the low concentration of VOM and HAPs in the liquid wastes processed.

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.

4.4 Mobile Diesel Engines >150 HP		
Applicable Requirements Summary		
Applicable Requirement	Type	Location
Opacity Requirement(35 IAC 212.123(a))	Applicable Standard	See the Permit, Condition 4.4.2(a)
SO ₂ Requirement (35 IAC 214.301)	Applicable Standard	See the Permit, Condition 4.4.2(b)

Visible Emissions (i.e., Opacity)

- ✓ Monitoring as follows (Condition 4.4.2(a)(ii)(A))
 - o Annual visible emissions or opacity monitoring using USEPA RM 22 or 9, respectively.
- ✓ Recordkeeping as follows (Condition 4.4.2(a)(ii)(B)):
 - o Field data sheets of observations with notes as to whether the open flare was operating properly and an indication as to whether monitoring is on a monthly or quarterly basis;
 - o Description of any corrective action taken including if the corrective action took place within 4 hours of the observation.
- ✓ Reporting as follows (Condition 4.4.5):
 - o Prompt reporting 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 based upon a review of Illinois EPA FOS inspection reports.

- Monitoring is consistent with that required for other seasonal operations permitted by Illinois EPA.

SO₂ Emission

- ✓ Monitoring as follows (Condition 4.4.2(b)(ii)(A) - (D))
 - Maintain, and operate the engine according to the manufacturer's specifications; and
 - Demonstrate compliance with Condition 4.4.2(b)(i)(A) annually based upon an analysis of the fuel oil for total reduced sulfur (TRS) content. TRS content may be determined based upon fuel supplier data or the methods in 40 CFR 60.335(b)(2) and (c) or the federal Acid Rain Program, 40 CFR 75, Appendix D.
- ✓ Recordkeeping as follows (Condition 4.3.2(b)(ii)(E)):
 - Design specifications for each engine as set by the manufacturer;
 - The total reduced sulfur content of the fuel oil, e.g., diesel fuel, in accordance with Condition 4.4.2(b)(ii)(B);
 - If applicable, a log of sampling and analysis activity; and
 -
- ✓ Reporting as follows (Condition 4.4.5):
 - Prompt reporting 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 based upon a review of Illinois EPA FOS inspection reports.
- Monitoring is consistent with that required for other small seasonal operations permitted by Illinois EPA.

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

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 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.⁴ 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.⁵ 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.⁶ 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.⁷ 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 than the Illinois Environmental Protection Act, do not constitute applicable requirements under the CAAPP.

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.⁸ Section 39.5(7)(b) of the Illinois Environmental Protection Act⁹ 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.^{10, 11} 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.^{12, 13} 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.¹⁴ 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.¹⁵

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

The differences between the previous and current CAAPP permits are as follows:

- The section covering the Tub Grinder Engine was deleted based upon composting operation at the source being shut down and removed;
- Section 4.3 was added covering the Liquid Waste Solidification Activities
- Various Title 1 limitations, which were revised or added, based upon revisions to the underlying construction permits, See Section 2.8 and the table with Newly Issued/Revised Construction Permits.

Permit No.	Date Issued	Subject
00060110	May 25, 2012	Portable crushing operation: Revised to increase allowable throughput and emissions
02080021	November 22, 2011	Landscape Waste and Solidification Facility: Revisions indicated in the revised construction permit, i.e., the increase in the permitted throughput and operating hours; lower VOM and HAPs emissions which are now permitted as being negligible; and revised recordkeeping and reporting requirements for the for liquid waste solidification facility.
06100058	December 9, 2011 & February 27, 2013	Gas Collection System with an Open Flare: Revised to increase the permitted emissions for the affected flare based on site specific LFG sampling data and it clarifies applicability of the Landfill NSPS and the Landfill NESHAP.
06070067	December 23, 2008	Landfill Airspace Increase: No applicable Title 1 operational or emissions limitations

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 incorporation, or carry-over, of terms or conditions from previous Title I permits into Title V permits typically does not occur on a wholesale basis. Recognizing that construction permits may frequently contain obsolete or extraneous terms and conditions, USEPA has emphasized that only "environmentally significant terms" from previous preconstruction permits must be carried over into Title V permits. See, White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995. Therefore, certain T1 terms and conditions have not been carried over from these SIP approved permits for reasons that are explained below.

⁴ 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 CO₂e and 100 tons per year of GHG on a mass basis).

⁵ 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).

⁶ See generally, PSD and Title V Permitting Guidance for GHG at pages 53-56.

⁷ 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 CO₂e 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.

⁸ 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).

⁹ 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."

¹⁰ 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.

¹¹ 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.

¹² 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.

¹³ 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.

¹⁴ 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).

¹⁵ 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.