BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF: FAST-TRACK NITROGEN OXIDE (NOx) SIP CALL PHASE II: AMENDMENTS TO 35 ILL. ADM. CODE SECTION 201.146 AND-(sic) PARTS 211 AND 217)) (Rulemaking - Air)))
	NOTICE
TO:	
	ave today filed with the Office of the Pollution Control MMENTS of the Illinois Environmental Protection ed upon you.
	ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
	By: Rachel L. Doctors Assistant Counsel Division of Legal Counsel

DATED: July 5, 2007

P.O. Box 19276 Springfield, Illinois 62794-9276 217/782-5544 217.782.9143 (TDD)

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)	
)	
FAST-TRACK NITROGEN OXIDE)	R07-18
(NOx) SIP CALL PHASE II:)	(Rulemaking - Air)
AMENDMENTS TO 35 ILL.)	
ADM. CODE SECTION 201.146		
AND (sic) PARTS 211 AND 217	ĺ	

POST HEARING COMMENTS OF ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

NOW COMES the ILLINOIS ENVIRONMENTAL PROTECTION AGENCY ("Illinois EPA"), by one of its attorneys, and hereby submits its post hearing comments in the above rulemaking proceeding. The purpose of proposed new Subpart Q is to reduce intra- and interstate transport of nitrogen oxides ("NO_x") emissions on an annual basis (January 1 though December 31) and on an ozone season basis (May 1 through September 30) of each year, through the adoption of the rules reducing NO_x emissions from NO_x State Implementation Plan ("SIP") Call Phase II stationary reciprocating internal combustion engines. This proposal is intended to satisfy Illinois' obligations under the United States Environmental Protection Agency's ("USEPA") NO_x SIP Call Phase II. The proposed new Subpart will also help Illinois make progress toward achieving the new PM_{2.5} National Ambient Air Quality Standards ("NAAQS").

The Illinois EPA filed its initial proposal on April 6, 2007. However, on May 17, 2007, the Illinois Pollution Control Board ("Board") issued an order significantly narrowing the scope of this rulemaking and splitting the Illinois EPA's proposal into two dockets, R07-18 and R07-19. The subsequent hearings that were held in the present docket pertained to the proposal as it applied to engines affected by NO_x SIP Call Phase II. The Illinois EPA engaged in extensive

outreach on this proposal and held regular meetings with representatives of the affected sources during the last two years. The Illinois EPA witnesses testified and provided evidence in support of the proposed rulemaking at the first hearing that was held in Springfield on May 21, 2007. At the second hearing that was held in Chicago on June 19, 2007, opponents and supporters of the proposal had an opportunity to present testimony. Only one witness testified.

The Illinois EPA's post hearing comments address four areas: 1) clarification of the size of the engine affected by the NO_x SIP Call; 2) selective catalytic reduction ("SCR") technology; 3) cost-effectiveness; and 4) proposed clarifications and corrections to the regulatory language in Attachment 1 of the Board's May 24, 2007 Order. A complete copy of the Illinois EPA's proposed changes is attached.

I. The Size of NO_x SIP Call Engines

James McCarthy presented prefiled testimony on behalf of ANR Pipeline Company,
Natural Gas Pipeline Company, Trunkline Gas Company, and Panhandle Eastern Pipeline
Company (collectively, "the Pipeline Consortium"). In his prefiled testimony, Mr. McCarthy
states that page 17 of Illinois EPA's technical support document ("TSD") implies a 1,500
horsepower size threshold for NOx SIP Call engines: "Note that the IEPA Technical Support
Document ("TSD") for the proposal (*see* Section 2.2, page 17) implies a 1500 horsepower ("hp")
size threshold for SIP Call Engines." McCarthy at 3. However, this statement was never meant
to be construed for the proposition that Illinois EPA is defining NO_x SIP Call engines as being
rated at 1,500 bhp and this rating is equivalent to one ton of NO_x or more. In fact, the TSD
states: "[I]n Illinois, the NO_x SIP Call affects large engines, greater than 1500 bhp...." TSD at
17. The applicability of the NO_x SIP Call to large engines is based on the quantity of NO_x
emissions (one ton) in 1995 summer day and is not based on the size of the engine in terms of

rated brake horsepower ("bhp"). This statement in the TSD was made to support the applicability of the proposal to 500 bhp for engines and the proposed amendments to 35 Ill. Adm. Code Section 201.146(j) which currently exempts engines of less than 1,500 horsepower from permitting requirements. Further, each of the 28 NO_x SIP Call-affected engines is much larger than 1,500 bhp as testified to by Mr. McCarthy. The TSD, however, was originally written to support the applicability of the proposal to include a much broader range of engines and turbines. Amendments to Section 201.146(j) and the broader range of engines and turbines will be addressed in R07-19.

II. SCR Technology

Mr. McCarthy's testimony implies that SCR technology is not an applicable technology for internal combustion engines: "In addition, the IEPA TSD describes emission control technologies that are not necessarily proven controls for application to natural gas transmission and storage ICE engines. Selective Catalytic Reduction ("SCR") is included as an applicable control technology for IC engines. However, to date SCR has not been successfully applied to gas transmission units..." McCarthy at 7. Compare this testimony to USEPA's Alternative Control Technology ("ACT") document, which includes SCR as one of the cost effective and viable technology to reduce NO_x emissions from lean-burn engines. ACT Ref. 8, pp. 5-55. USEPA agreed that SCR still remains to be widely demonstrated in the United States on lean burn IC engines in variable load operation. TSD Ref. 12, p. 15. SCR technology is very effective and provides 90 percent NO_x emission reductions from all other engines, such as lean-burn engines operating at constant load, diesel engines and dual fuel-fired engines. TSD Ref. 24, pp. 4-16. The shortcomings of earlier SCR systems have been corrected by the new generation of technology which includes improved catalysts, a predictive emissions monitoring system feed

forward controls, and the use of urea as the reducing agent. <u>Id.</u> Illinois EPA posits that some affected engines in Illinois will use SCR to comply with the proposal.

Most importantly, the Illinois EPA's proposal does not require installation of SCR or any other particular technology to comply with the proposal. Owners and operators have the discretion to choose the most cost-effective technology or compliance option. It may be true that in some cases where an engine is included in an averaging plan, no new technology needs to be installed.

III. Cost-Effectiveness

Mr. McCarthy's prefiled testimony incorrectly characterizes the Illinois EPA as stating that a \$5,000 per ton rate is the basis used for stationary reciprocating internal combustion engines under the NO_x SIP Call: "The TSD (section 5.1, page 40) indicates that a \$5000 per ton basis is used for IC engines under the NOx SIP Call." McCarthy at 8. Tables 5-2 and 5-3 and other information contained on page 40 of the TSD were obtained from USEPA's document "Regulatory Impact Analysis for the NO_x SIP Call, FIP, and Section 126 Petitions, Volume 1, Costs and Economic Impacts." TSD Ref. 11. USEPA evaluated emission reductions and cost effectiveness of NO_x control in the ozone season for each of the regulatory alternatives (command and control regulations) at cost ceilings of \$1,500, \$2,000, \$3,000, \$4,000, and \$5,000 per ton as it pertained to control of emissions under the NO_x SIP Call Phase I. Each of the \$2,000, \$3,000 and \$4,000 alternatives provided 82,584 tons of NO_x emission reductions at cost-effectiveness of NO_x controls of \$1,213 per ozone season ton, whereas the \$5,000 alternative provided 82,623 tons of NO_x emission reductions at a cost effectiveness of NO_x control of \$1,215. USEPA selected the \$5,000 alternative when it evaluated a 90 percent reduction from the 2007 NO_x emissions baseline. It subsequently changed the baseline reduction to a 82 percent reduction from the 2007 baseline with a cost effectiveness of approximately \$542 a ton. TSD Ref. 12, p. 34.

IV. Clarifications and Corrections to Attachment 1

After reviewing the Hearing Officer's Attachment 1, the Pipeline Consortium and the Illinois Environmental Regulatory Group shared with the Illinois EPA a number of comments specifying the typos and clarifications. Those comments have been included in the Illinois EPA's Attachment A to these comments. In addition, the Illinois EPA found a number of additions and deletions to the Hearing Officer's Attachment 1. The Illinois EPA shared those comments with the Pipeline Consortium and IERG. On July 3, 2007, the Pipeline Consortium indicated that it was in agreement with the Illinois EPA's proposed language as set forth in Attachment A. The Illinois EPA's proposed changes to the Hearing Officer's Attachment 1 are discussed below.

- 1. The Illinois EPA notes that necessary parts of its proposal were omitted from Attachment 1, specifically proposed amendments to Part 217- Nitrogen Oxides Emissions, Sections 217.101 Measurement Methods, 217.102 Abbreviations and Units, 217.104 Incorporations by Reference, Appendix G Existing Reciprocating Internal Combustion Engines Affected by the NO_x SIP Call, and Part 211 Definitions. The Illinois EPA requests that these provisions be included in the proposal for adoption, as the provisions are a necessary part of the proposal. For example, Section 217.394 Testing and Monitoring makes extensive use of the measurement methods that are proposed for inclusion in Sections 217.101 and 217.104.
- 2. The Pipeline Consortium had raised an issue concerning the implications of engine efficiency and the last three conversion factors included in Section 217.102(b) and recommended deleting them. The Illinois EPA has reviewed Part 217 and finds that these

conversion factors are not necessary to other Subparts in Part 217 or for use in Subpart Q; hence, it is proposing that these conversion factors be deleted:

b) The following conversion factors have been used in this Part:

English Metric
2.205 lb 1 kg
1 T 0.907 Mg
1 lb/T 0.500 kg/Mg

Mmbtu/hr 0.293 MW
1 lb/mmBtu 1.548 kg/MW-hr

mmbtu
1 mmBtu/hr 0.293 MW
1 mmBtu/hr 393 bhp

3. There are several places where the cross references have changed due to more limited applicability of the proposal to only NOx SIP call engines. Specifically:

i. Section 217.390(a)(2):

...... January 1, 2002. The new unit must be used for the same purpose as the replacement unit. The owner or operator of a unit that is shutdown and replaced must comply with the provisions of Section 217.396(<u>cd</u>)(3) before the replacement unit may be included in an emissions averaging plan.

ii. Section 217.396(a)(7):

The plan for performing inspection and maintenance of the units, air pollution control equipment, and the applicable monitoring device pursuant to Section 217.388(cd).

4. In Section 217.390(e)(1) the cross reference to the subsections which contain averaging plans was incomplete:

Demonstrate compliance for both the ozone season (May 1 through September 30) and the calendar year (January 1 through December 31) by using the methodology and the units listed in the most recent emissions averaging plan submitted to the Agency pursuant to subsection (b), (c) or (d) of this Section; the higher of the monitoring or test data determined pursuant to Section 217.394; and the actual hours of operation for the applicable control period;

5. In Section 217.390(f), the references to total mass of allowable emissions EM_{all(i)}

and total mass of action emissions EM_{act(i)} include in some cases redundant references and, in others, fail to include relevant references within this subsection:

- EM_{all(i)} = Total mass of allowable NO_x emissions in lbs for a unit as determined in subsection (g)(2), (g)(3), (g)(4), (g)(5), or $\frac{(g)(6) \text{ or } (h)(2)}{(g)(6) \text{ or } (h)(2)}$ of this Section.
- EM_{act(i)}= Total mass of actual NO_x emissions in lbs for a unit as determined in subsection (g)(1), (g)(3), (g)(5) or (h)(1) of this Section.
- 6. In Section 217.390(g), the references to total mass of allowable emissions $EM_{all(i)}$, total mass of action emissions $EM_{act(i)}$, and allowable concentration $C_{d(all)}$ fail to include the relevant references within this subsection:
 - $EM_{act(i)}$ = Total mass of actual NO_x emissions in lbs for a unit, except as provided for in subsections (g)(3) and (g)(5).
 - $EM_{all(i)}$ = Total mass of allowable NO_x emissions in lbs for a unit, except as provided for in subsections (g)(3) of this Section.
 - $C_{d(all)}$ = Allowable concentration of NO_x in lb/dscf (allowable emission limit in ppmv specified in Section 217.388(a), except as provided for in subsections (g)(4), (g)(5), or (g)(6) of this Section, if applicable.
- 7. In Section 217.390(g)(4)(A) & (B), due to the applicability being limited to NO_x SIP Call engines, there is language that no longer has an application and should be deleted:
 - 4) For a replacement unit that is not electric, the allowable NO_x emissions rate used in the above equations set forth in subsection (g)(2) of this Section must be either:
 - A) Prior to the applicable compliance date for the replaced unit pursuant to Section 217.392, the higher of the actual NO_x emissions as determined by testing or monitoring data or the applicable uncontrolled NO_x emissions factor from Compilation of Air pollutant emission Factors: AP-42, Volume I: Stationary Point and Area Sources, as incorporated by reference in Section 217.104 for the unit that was replaced; or
 - B) On and after the applicable compliance date for the replaced unit pursuant to Section 217.392, the applicable emissions concentration for the type of unit that replaced pursuant to Section 217.388(a).

8. In Section 217.390(h)(2), the subscript below the summation sign should be "j" not "i." Unfortunately, the equation editor in Microsoft Word does not allow for the use of strikeouts and underlines:

$$EM = \sum_{i=1}^{m} (Cd_i * Flow_i * 1.194x10^{-7})$$

- 9. The compliance date initially proposed by the Illinois EPA has passed. If the Board adopted that initially proposed date, it would result in a retroactive compliance date; hence, the Illinois EPA is recommending a new compliance date of January 1, 2008:
 - i. In Section 217.392:

On and after <u>January 1, 2008 May 1, 2007</u>, an owner or operator of an affected engine listed in Appendix G may not operate the affected engine unless the requirements of this Subpart Q are met-or the affected engine is exempt pursuant to Section 217.386(b).

ii. In Section 217.394(a)(1):

By <u>January 1, 2008 May 1, 2007</u>, for affected engines listed in Appendix G. Performance tests must be conducted on units listed in Appendix G, even if the unit is included in an emissions averaging plan pursuant to Section 217.388(b).

- 10. In Section 217.392(a)(1) and (a)(2), language referring to units not included in Appendix G or an averaging plan, or compliance dates other than January 1, 2008, should be deleted, as well as the phrase in subsection (a)(1) that refers to a second compliance date:
 - By the applicable compliance date as set forth in Section 217.392, or wWithin the first 876 hours of operation per calendar year, whichever is later, for units that are not affected units that are included in an emissions averaging plan and operate more than 876 hours per calendar year.
 - 2) Once within the five-year period after the applicable compliance date as set forth in Section 217.392 ÷
 - fA) For affected units that operate fewer than 876 hours per calendar year; and
- 11. In Section 217.396 (a) the sentence pertaining to exempt units and low usage units should be struck as those provisions are no longer included in the proposal:

Recordkeeping. The owner or operator of <u>an Appendix G unit or</u> a unit included in an emissions averaging plan or an affected unit that is not exempt pursuant to Section 217.386(b) and is not subject to the low usage exemption of Section 217.388(c) must maintain records that demonstrate compliance with the requirements of this Subpart Q which include, but are not limited to:

- 12. Section 217.396 contains incorrect cross references:
- b) The owner or operator of an affected unit or unit included in an emissions averaging plan must maintain the records required by subsections (a) and (b) of this Section for a period of five-years at the source at which the unit is located. The records must be made available to the Agency and USEPA upon request.
- c) Reporting requirements:
 - 1) The owner or operator must notify the Agency in writing 30 days and five days prior to testing pursuant to Sections 217.394(a) and (b), and:

Respectfully submitted,

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

By: /s/ Rachel L. Doctors

Rachel L. Doctors Assistant Counsel Air Regulatory Unit Division of Legal Counsel

DATED: July 5, 2007

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ILLINOIS EPA ATTACHMENT A TO COMMENTS

TITLE 35: ENVIRONMENTAL PROTECTION SUBTITLE B: AIR POLLUTION CHAPTER I: POLLUTION CONTROL BOARD SUBCHAPTER C: EMISION STANDARDS AND LIMITATIONS FOR STATIONARY SOURCES

PART 217 NITROGEN OXIDES EMISSIONS SUBPART A: GENERAL PROVISIONS

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217.100	Scope and Organization
217.101	Measurement Methods
217.102	Abbreviations and Units
217.103	Definitions
217.104	Incorporations by Reference
Section	SUBPART B: NEW FUEL COMBUSTION EMISSION SOURCES
217.121	New Emission Sources
Section	SUBPART C: EXISTING FUEL COMBUSTION EMISSION SOURCES
217.141	Existing Emission Sources in Major Metropolitan Areas
Section	SUBPART K: PROCESS EMISSION SOURCES
217.301	Industrial Processes
Section	SUBPART O: CHEMICAL MANUFACTURE
217.381	Nitric Acid Manufacturing Processes

$\frac{\text{SUBPART Q: STATIONARY RECIPROCATING INTERNAL COMBUSTION}}{\text{ENGINES AND TURBINES}}$

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217.386	Applicability Applicability
217.388	Control Requirements
217.390	Emissions Averaging Plans
217.392	Compliance
217.394	Testing and Monitoring
217.396	Recordkeeping and Reporting

SUBPART T: CEMENT KILNS

Section		
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	SPECIFIED NO _x GENERATING UNITS	
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217.462	Methodology for Obtaining NO _x Allocations	
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217.710	Monitoring	
217.712	Reporting and Recordkeeping	

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Castian	
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Authority: Implementing Sections 9.9 and 10 and authorized by Sections 27 and 28.5 of the Environmental Protection Act [415 ILCS 5/9.9, 10, 27 and 28.5 (2004)].

Source: Adopted as Chapter 2: Air Pollution, Rule 207: Nitrogen Oxides Emissions, l	(71-23, 4
PCB 191, April 13, 1972, filed and effective April 14, 1972; amended at 2 Ill. Reg. 17	, p. 101,
effective April 13, 1978; codified at 7 Ill. Reg. 13609; amended in R01-9 at 25 Ill. Reg.	g. 128,
effective December 26, 2000; amended in R01-11 at 25 Ill. Reg. 4597, effective Marc	n 15, 2001;
amended in R01-16 and R01-17 at 25 Ill. Reg. 5914, effective April 17, 2001; amende	d in R07-
18 at Ill. Reg, effective	

SUBPART A: GENERAL PROVISIONS

Section 217.101 Measurement Methods

Measurement of nitrogen oxides must be according to:

- a) The phenol disulfonic acid <u>proceduresmethod</u>, 40 CFR 60, Appendix A, Method 7, as incorporated by reference in Section 217.104(1999);
- b) Continuous emissions monitoring pursuant to 40 CFR 75, as incorporated by reference in Section 217.104(1999); and
- c) Determination of Nitrogen Oxides Emissions from Stationary Sources (Instrumental Analyzer Procedure), 40 CFR 60, Appendix A, Method 7E, as incorporated by reference in Section 217.104;(1999).
- d) Monitoring with portable monitors pursuant to ASTM D6522-00, as incorporated by reference in Section 217.104; and
- How do I conduct the initial and subsequent performance tests (for turbines), regarding NO_x pursuant to 40 CFR 60.4400, as incorporated by reference in Section 217.104.

(Source: Amended at _____ Ill. Reg. ______, effective ______)

Section 217.102 Abbreviations and Units

a) The following abbreviations are used in this Part:

ASTM	American Society for Testing and Materials
<u>Btu</u> btu	British thermal unit (60°F)
bhp	brake horsepower
CEMS	continuous emissions monitoring system
EGU	Electrical Generating Unit
dscf	dry standard cubic feet
g/bhp-hr	grams per brake horsepower-hour

kg	kilogram
kg/MW-hr	kilograms per megawatt-hour, usually used as an hourly emission
	rate
lb	pound
NO _x -	Nitrogen Oxides
<u>lbs/mmBtu</u>	pounds per million Btubtu, usually used as an hourly emission rate
lbs/mmbtu	
Mg	megagram or metric tonne
mm	<u>million</u>
mmBtu	million British thermal units
mmbtu	
mmBtu/hr	million British thermal units per hour
mmbtu/hr	
MWe	megawatt of electricity
MW	megawatt; one million watts
MW-hr	megawatt-hour
NATS	NO _x Allowance Tracking System
NO_2	nitrogen dioxide
NO _x	nitrogen oxides
O_2	oxygen
psia	pounds per square inch absolute
peoc	potential electrical output capacity
PTE	potential to emit
ppm	parts per million
ppmv	parts per million by volume
T	English ton
TPY	tons per year
The following	g conversion factors have been used in this Part:
English	Metric
2.205 lb	1 kg
1 T	0.907 Mg
1 lb/T	0.500 kg/Mg
Mmbtu/hr	-0.293 MW
	1.548 kg/MW-hr
mmbtu	1.0 to hg/1/1/1 m

(Source: Amended at _____ Ill. Reg. ______, effective ______)

Section 217.104 Incorporations by Reference

1 mmBtu/hr 0.293 MW 1 mmBtu/hr 393 bhp

b)

The following materials are incorporated by reference. These incorporations do not include any later amendments or editions.

- a) The phenol disulfonic acid <u>proceduresmethod</u>, as published in 40 CFR 60, Appendix A, Method 7 (2000)(1999);
- b) 40 CFR 96, subparts B, D, G, and H (1999);
- c) 40 CFR §§ 96.1 through 96.3, 96.5 through 96.7, 96.50 through 96.54, 96.55 (a) & (b), 96.56 and 96.57 (1999);
- d) 40 CFR <u>60,</u> 72, 75 & 76 <u>(2006)(1999)</u>;
- e) Alternative Control Techniques Document---- NO_x Emissions from Cement Manufacturing, EPA-453/R-94-004, U. S. Environmental Protection Agency-Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, March 1994;
- f) Section 11.6, Portland Cement Manufacturing, AP-42 Compilation of Air Emission Factors, Volume 1: Stationary Point and Area Sources, U.S. Environmental Protection Agency-Office of Air Quality Planning and Standards, Research Triangle Park, N. C. 27711, revised January 1995;
- g) 40 CFR § 60.13 (2001)(1999); and
- h) 40 CFR 60, Appendix A, Methods <u>3A, 7, 7A, 7C, 7D, and 7E, 19, and 20</u> (2000)(1999).;
- i) ASTM D6522-00, Standard Test Method for Determination of Nitrogen Oxides,
 Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters
 Using Portable Analyzers (2000);
- k) Standards of Performance for Stationary Combustion Turbines, 40 CFR 60, Subpart KKKK, 60.4400 (2006); and

1)	Compilation of Air Pollutant Emission Factors: AP-42, Volume I: Stationar	ý
	Point and Area Sources (2000), USEPA.	_

(Source:	Amended at	Ill. Reg.	, effective	`

SUBPART Q: STATIONARY RECIPROCATING INTERNAL COMBUSTION ENGINES AND TURBINES

Section 217.386 Applicability

A stationary reciprocating internal combustion engine listed in Appendix G of this Part is subject to the requirements of this Subpart Q.

(Source: Added at 31 Ill. Reg.	, effective	

Section 217.388 Control and Maintenance Requirements

On and after the applicable compliance date in Section 217.392, an owner or operator of an affected unit must inspect and maintain affected units as required by subsection (c) of this Section and comply with either the applicable emissions concentration as set forth in subsection (a) of this Section, or the requirements for an emissions averaging plan as specified in subsection (b) of this Section.

- a) The owner or operator must limit the discharge from an affected unit into the atmosphere of any gases that contain NO_x to no more than:
 - 1) 150 ppmv (corrected to 15 percent O₂ on a dry basis) for spark-ignited rich-burn engines;
 - 2) 210 ppmv (corrected to 15 percent O₂ on a dry basis) for spark-ignited lean-burn engines.
- b) The owner or operator must comply with the requirements of the applicable emissions averaging plan as set forth in Section 217.390.
- c) The owner or operator must inspect and perform periodic maintenance on the affected unit, in accordance with a Maintenance Plan that documents:
 - 1) For a unit not located at natural gas transmission compressor station or storage facility either:
 - A) The manufacturer's recommended inspection and maintenance of the applicable air pollution control equipment, monitoring device, and affected unit; or
 - B) If the original equipment manual is not available or substantial modifications have been made that require an alternative procedure for the applicable air pollution control device, monitoring device, or affected unit, the owner or operator must establish a plan for inspection and maintenance in accordance with what is customary for the type of air pollution control equipment, monitoring device, and affected unit.
 - 2) For a unit located at a natural gas compressor station or storage facility, the operator's maintenance procedures for the applicable air pollution

control device, monitoring device, and affected unit.		
(Source: Added at 31 Ill. Reg	, effective)

control device monitoring device and affected unit

Section 217.390 Emissions Averaging Plans

- a) An owner or operator of certain affected units may comply through an emissions averaging plan.
 - The unit or units that commenced operation before January 1, 2002, may be included in an emissions averaging plan as follows: units located at a single source or at multiple sources in Illinois, so long as the units are owned by the same company or parent company where the parent company has working control through stock ownership of its subsidiary corporations. A unit may be listed in only one emissions averaging plan.;
 - The following types of units may not be included in an emissions averaging plan: units that commence operation after January 1, 2002, unless the unit replaces an engine or turbine that commenced operation on or before January 1, 2002, or it replaces an engine or turbine that replaced a unit that commenced operation on or before January 1, 2002. The new unit must be used for the same purpose as the replacement unit. The owner or operator of a unit that is shutdown and replaced must comply with the provisions of Section 217.396(cd)(3) before the replacement unit may be included in an emissions averaging plan.
- b) An owner or operator must submit an emissions averaging plan to the Agency by the applicable compliance date set forth in Section 217.392. The plan must include, but is not limited to:
 - 1) The list of affected units included in the plan by unit identification number and permit number.
 - 2) A sample calculation demonstrating compliance using the methodology provided in subsection (f) of this Section for both the ozone season and calendar year.
- c) An owner or operator may amend an emissions averaging plan only once per calendar year. An amended plan must be submitted to the Agency by May 1 of the applicable calendar year. If an amended plan is not received by the Agency by May 1 of the applicable calendar year, the previous year's plan will be the applicable emissions averaging plan.
- d) Notwithstanding subsection (c) of this Section, an owner or operator, and the buyer, if applicable must submit an updated emissions averaging plan or plans to

the Agency within 60 days, if a unit that is listed in an emissions averaging plan is sold or taken out of service.

- e) An owner or operator must:
 - Demonstrate compliance for both the ozone season (May 1 through September 30) and the calendar year (January 1 through December 31) by using the methodology and the units listed in the most recent emissions averaging plan submitted to the Agency pursuant to subsection (b), (c) or (d) of this Section; the higher of the monitoring or test data determined pursuant to Section 217.394; and the actual hours of operation for the applicable control period;
 - 2) Notify the Agency by October 31 following the ozone season, if compliance cannot be demonstrated for that ozone season; and
 - 3) Submit to the Agency by January 31 following each calendar year, a compliance report containing the information required by Section 217.396(cd)(4).
- f) The total mass of actual NO_x emissions from the units listed in the emissions averaging plan must be equal to or less than the total mass of allowable NO_x emissions for those units for both the ozone season and calendar year. The following equation must be used to determine compliance:

$$N_{act} \leq N_{all}$$

Where:

 $N_{act} = \sum_{i=1}^{n} EM_{act(i)}$

 $N_{all} = \sum_{i=1}^{n} EM_{all(i)}$

 N_{act} = Total sum of the actual NO_x mass emissions from units included in the averaging plan for each fuel used (lbs per ozone season and calendar year).

 N_{all} = Total sum of the allowable NO_x mass emissions from units included in the averaging plan for each fuel used (lbs per ozone season and calendar year).

EM_{all(i)} = Total mass of allowable NO_x emissions in lbs for a unit as determined in subsection (g)(2), (g)(3), (g)(4), (g)(5), or (g)(6) or (h)(2) of this Section.

EM_{act(i)}= Total mass of actual NO_x emissions in lbs for a unit as determined in subsection (g)(1), (g)(3), (g)(5) or (h)(1) of this Section.

i = Subscript denoting an individual unit and fuel used.

- n = Number of different units in the averaging plan.
- g) For each unit in the averaging plan, and each fuel used by a unit, determine actual and allowable NO_x emissions using the following equations, except as provided for in subsection (h) of this Section:
 - 1) Actual emissions must be determined as follows:

$$\begin{split} EM_{act(i)} &= & E_{act(i)} \, x \; \; H_i \\ E_{act(i)} &= \frac{\sum\limits_{j=l}^{m} C_{d(act(j))} x F_d x \! \left(\! \frac{20.9}{20.9 - \! \% O_{2d(j)}} \right)}{m} \end{split}$$

2) Allowable emissions must be determined as follows:

$$EM_{all(i)} \hspace{1.5cm} = \hspace{1.5cm} E_{all(i)} \hspace{1.5cm} x \hspace{1.5cm} H_i$$

$$E_{all(i)} = \frac{\sum\limits_{j=1}^{m} C_{d(all)} x F_{d} x \!\!\left(\frac{20.9}{20.9 - \% O_{2d(j)}} \right)}{m}$$

Where:

EM_{all(i)}

 $EM_{act(i)}$ = Total mass of actual NO_x emissions in lbs for a unit, except as provided for in subsections (g)(3) and (g)(5).

= as provided for in subsections (g)(3) and (g)(5). = Total mass of allowable NO_x emissions in lbs for a unit,

except as provided for in subsections (g)(3) of this Section.

 E_{act} = Actual NO_x emission rate (lbs/mmBtu) calculated

according to the above equation.

 E_{all} = Allowable NO_x emission rate (lbs/mmBtu) calculated

according to the above equation.

H = Heat input (mmBtu/ozone season or mmBtu/year)

calculated from fuel flow meter and the heating value of the

fuel used.

 $C_{d(act)}$ = Actual concentration of NO_x in lb/dscf (ppmv x 1.194 x

10⁻⁷) on a dry basis for the fuel used. Actual concentration

is determined on each of the most recent test run or monitoring pass performed pursuant to Section 217.394,

whichever is higher.

 $C_{d(all)}$ = Allowable concentration of NO_x in lb/dscf (allowable

emission limit in ppmv specified in Section 217.388(a), except as provided for in subsections (g)(4), (g)(5), or

(g)(6) of this Section, if applicable.

multiplied by 1.194×10^{-7}) on a dry basis for the fuel used. The ratio of the gas volume of the products of combustion to the heat content of the fuel (dscf/mmBtu) as given in the table of F Factors included in 40 CFR 60, Appendix A, Method 19 or as determined using 40 CFR 60, Appendix A, Method 19.

% O_{2d} = Concentration of oxygen in effluent gas stream measured on a dry basis during each of the applicable test or monitoring runs used for determining emissions, as represented by a whole number percent, e.g., for $18.7\%O_{2d}$,

18.7 would be used.
Subscript denoting an individual unit and the fuel used.
Subscript denoting each test run or monitoring pass for an

affected unit for a given fuel.

The number of test runs or monitoring passes for an affected unit using a given fuel.

For a replacement unit that is electric-powered, the allowable NO_x emissions from the affected unit that was replaced should be used in the averaging calculations and the actual NO_x emissions for the electric-powered replacement unit $(EM_{(i)act\;elec})$ are zero. Allowable NO_x emissions for the electric-powered replacement are calculated using the actual total bhp-hrs generated by the electric-powered replacement unit on an ozone season and on an annual basis multiplied by the allowable NO_x emission rate in lb/bhp-hr of the replaced unit.

The allowable mass of NO_x emissions from an electric-powered replacement unit ($EM_{(i)all\ elec}$) must be determined by multiplying the nameplate capacity of the unit by the hours operated during the ozone season or annually and the allowable NO_x emission rate of the replaced unit ($E_{all\ rep}$) in lb/mmBtu converted to lb/bhp-hr. For this calculation the following equation should be used:

 $EM_{all \ elec(i)} = bhp \ x \ OP \ x \ F \ x \ E_{all \ rep(i)}$

Where:

i

i

m

=

=

 $EM_{all \ elec(i)}$ = Mass of allowable NO_x emissions from the electric-

powered replacement unit in pounds per ozone season or

calendar year.

bhp = Nameplate capacity of the electric-powered

replacement unit in brake-horsepower.

OP = Operating hours during the ozone season or calendar year.

F = Conversion factor of 0.0077 mmBtu/bhp-hr.

 $E_{\text{all reb(i)}}$ = Allowable NO_X emission rate (lbs/mmBtu) of the replaced

unit.

i = Subscript denoting an individual electric unit and the fuel

used.

- 4) For a replacement unit that is not electric, the allowable NO_x emissions rate used in the above equations set forth in subsection (g)(2) of this Section must be either:
 - A) Prior to the applicable compliance date for the replaced unit pursuant to Section 217.392, the higher of the actual NO_x emissions as determined by testing or monitoring data or the applicable uncontrolled NO_x emissions factor from Compilation of Air pollutant emission Factors: AP-42, Volume I: Stationary Point and Area Sources, as incorporated by reference in Section 217.104 for the unit that was replaced; or
 - B) On and after the applicable compliance date for the replaced unit pursuant to Section 217.392, the applicable emissions concentration for the type of unit that replaced pursuant to Section 217.388(a).
- For a unit that is replaced with purchased power, the allowable NO_x emissions rate used in the above equations set forth in subsection (g)(2) of this Section must be the emissions concentration as set forth in Section 217.388(a) or subsection (g)(6) of this Section, when applicable, for the type of unit that was replaced. For owners or operators replacing units with purchased power, the annual hours of operations that must be used are the calendar year hours of operation for the unit that was shutdown averaged over the three-year period prior to the shutdown. The actual NO_x emissions for the units replaced by purchased power (EM_{(i)act}) are zero. These units may be included in any emissions averaging plan for no more than five years beginning with the calendar year that the replaced unit is shut down.
- 6) For non-Appendix G units used in an emissions averaging plan, allowable emissions rate used in the above equations set forth in subsection (g)(2) of this Section must be the higher of the actual NO_x emissions as determined by testing or monitoring data, or the applicable uncontrolled NO_x emissions factor from Compilation of Air Pollutant Emission Factors: AP-42, Volume I: Stationary Point and Areas Sources, as incorporated by reference in Section 217.104.
- h) For units that use CEMS the data must show that the total mass of actual NO_x emissions determined pursuant to subsection (h)(1) of this Section is less than or equal to the allowable NO_x emissions calculated in accordance with the equations in subsections (f) and (h)(2) of this Section for both the ozone season and calendar year. The equations in subsection (g) of this Section will not apply.

- 1) The total mass of actual NO_x emissions in lbs for a unit (EM_{act}) must be the sum of the total mass of actual NO_x emissions from each affected unit using CEMS data collected in accordance with 40 CFR 60 or 75, or alternate methodology that has been approved by the Agency or USEPA and included in a federally enforceable permit.
- 2) The allowable NO_x emissions must be determined as follows:

$$EM = \sum_{i=1}^{m} (Cd_i * Flow_i * 1.194x10^{-7})$$

Where:

 $EM_{all(i)}$ = Total mass of allowable NO_x emissions in lbs for a unit.

Flow_i = Stack flow (dscf/hr) for a given stack.

 Cd_i = Allowable concentration of NO_x (ppmv) specified in

Section 217.388(a) of this subpart for a given stack. (1.194

x 10⁻⁷) converts to lb/dscf).

i = subscript denoting each hour operation of a given unit.

m = Total number of hours of operation of a unit.

i = Subscript denoting an individual unit and the fuel used.

(Source: Added at 31 Ill. Reg. ______, effective ______.)

Section 217.392 Compliance

On and after <u>January 1, 2008 May 1, 2007</u>, an owner or operator of an affected engine listed in Appendix G may not operate the affected engine unless the requirements of this Subpart Q are met or the affected engine is exempt pursuant to Section 217.386(b).

(Source: Added at 31 Ill. Reg. ______, effective ______.)

Section 217.394 Testing and Monitoring

- a) An owner or operator must conduct an initial performance test pursuant to subsection (c)(1) or (c)(2) of this Section as follows:
 - By <u>January 1, 2008 May 1, 2007</u>, for affected engines listed in Appendix G. Performance tests must be conducted on units listed in Appendix G, even if the unit is included in an emissions averaging plan pursuant to Section 217.388(b).
 - 2) By the applicable compliance date as set forth in Section 217.392, or

- <u>wW</u>ithin the first 876 hours of operation per calendar year, whichever is later, for units that are not affected units that are included in an emissions averaging plan and operate more than 876 hours per calendar year.
- 3) Once within the five-year period after the applicable compliance date as set forth in Section 217.392 ÷
 - fA) For affected units that operate fewer than 876 hours per calendar year; and
 - B) <u>Ffor</u> units that are not affected units that are included in an emissions averaging plan and that operate fewer than 876 hours per calendar year
- b) An owner or operator must conduct subsequent performance tests pursuant to subsection (c)(1) or (c)(2) of this Section as follows:
 - 1) For affected engines listed in Appendix G and all units included in an emissions averaging plan, once every five years. Testing must be performed in the calendar year by May 1 or within 60 days of starting operation, whichever is later;
 - 2) If the monitored data shows that the unit is not in compliance with the applicable emissions concentration or emissions averaging plan, the owner or operator must report the deviation to the Agency in writing within 30 days and conduct a performance test pursuant to subsection (c) of this Section within 90 days of the determination of noncompliance; and
 - When in the opinion of the Agency or USEPA, it is necessary to conduct testing to demonstrate compliance with Section 217.388, the owner or operator of a unit must, at his or her own expense, conduct the test in accordance with the applicable test methods and procedures specified in this Section 217.394 within 90 days of receipt of a notice to test from the Agency or USEPA.

c) Testing Procedures:

- 1) For an engine: The owner or operator must conduct a performance test using Method 7 or 7E of 40 CFR 60, Appendix A, as incorporated by reference in Section 217.104. Each compliance test must consist of three separate runs, each lasting a minimum of 60 minutes. NO_x emissions must be measured while the affected unit is operating at peak load. If the unit combusts more than one type of fuel (gaseous or liquid) including backup fuels, a separate performance test is required for each fuel.
- 2) For a turbine included in an emissions averaging plan: The owner

operator must conduct a performance test using the applicable procedures and methods in 40 CFR 60.4400, as incorporated by reference in Section 217.104.

- d) Monitoring: Except for those years in which a performance test is conducted pursuant to subsection (a) or (b) of this Section, the owner or operator of an affected unit or a unit included in an emissions averaging plan must monitor NO_x concentrations annually, once between January 1 and May 1 or within the first 876 hours of operation per calendar year, whichever is later. If annual operation is less than 876 hours per calendar year, each affected unit must be monitored at least once every five years. Monitoring must be performed as follows:
 - 1) A portable NO_x monitor and utilizing method ASTM D6522-00, as incorporated by reference in Section 217.104, or a method approved by the Agency must be used. If the engine or turbine combusts both liquid or gaseous fuels as primary or backup fuels, separate monitoring is required for each fuel.
 - 2) NO_x and O₂ concentrations measurements must be taken three times for a duration of at least 20 minutes. Monitoring must be done at highest achievable load. The concentrations from the three monitoring runs must be averaged to determine whether the affected unit is in compliance with the applicable emissions concentration or emissions averaging plan as specified in Section 217.388.
- e) Instead of complying with the requirements of subsections (a), (b), (c) and (d) of this Section, an owner or operator may install and operate a CEMS on an affected unit that meets the applicable requirements of 40 CFR 60, subpart A, and Appendix B, incorporated by reference in Section 217.104, and complies with the quality assurance procedures specified in 40 CFR 60, Appendix F, or 40 CFR 75 as incorporated by reference in Section 217.104, or an alternate procedure as approved by the Agency or USEPA in a federally enforceable permit. The CEMS must be used to demonstrate compliance with the applicable emissions concentration or emissions averaging plan only on an ozone season and annual basis.

(Source: Added at 31 Ill. Reg	, effective)

Recordkeeping and Reporting

Section 217.396

a) Recordkeeping. The owner or operator of <u>an Appendix G unit or</u> a unit included in an emissions averaging plan or an affected unit that is not exempt pursuant to Section 217.386(b) and is not subject to the low usage exemption of Section 217.388(c) must maintain records that demonstrate compliance with the requirements of this Subpart Q which include, but are not limited to:

- 1) Identification, type (e.g., lean-burn, gas-fired), and location of each unit.
- 2) Calendar date of the record.
- 3) The number of hours the unit operated on a monthly basis, and during each ozone season.
- 4) Type and quantity of the fuel used on a daily basis.
- 5) The results of all monitoring performed on the unit and reported deviations.
- 6) The results of all tests performed on the unit.
- 7) The plan for performing inspection and maintenance of the units, air pollution control equipment, and the applicable monitoring device pursuant to Section 217.388(<u>cd</u>).
- A log of inspections and maintenance performed on the unit's air emissions, monitoring device, and air pollution control device. These records must include, at a minimum, date, load levels and any manual adjustments along with the reason for the adjustment (e.g., air to fuel ratio, timing or other settings).
- 9) If complying with the emissions averaging plan provisions of Sections 217.388(b) and 217.390 copies of the calculations used to demonstrate compliance with the ozone season and annual control period limits, noncompliance reports for the ozone season, and ozone and annual control period compliance reports submitted to the Agency.
- 10) Identification of time periods for which operating conditions and pollutant data were not obtained by either the CEMS or alternate monitoring procedures including the reasons for not obtaining sufficient data and a description of corrective actions taken.
- b) The owner or operator of an affected unit or unit included in an emissions averaging plan must maintain the records required by subsections (a) and (b) of this Section for a period of five-years at the source at which the unit is located. The records must be made available to the Agency and USEPA upon request.
- c) Reporting requirements:
 - 1) The owner or operator must notify the Agency in writing 30 days and five days prior to testing pursuant to Sections 217.394(a) and (b), and:

- A) If after the 30-days notice for an initially scheduled test is sent, there is a delay (e.g., due to operational problems) in conducting the performance test as scheduled, the owner or operator of the unit must notify the Agency as soon as possible of the delay in the original test date, either by providing at least seven days prior notice of the rescheduled date of the performance test, or by arranging a new test date with the Agency by mutual agreement;
- B) Provide a testing protocol to the Agency 60 days prior to testing; and
- C) Not later than 30 days after the completion of the test, submit the results of the test to the Agency.
- 2) Pursuant to the requirements for monitoring in Section 217.394(d), the owner or operator of the unit must report to the Agency any monitored exceedances of the applicable NO_x concentration from Section 217.388(a) or (b) within 30 days of performing the monitoring.
- Within 90 days of permanently shutting down an affected unit or a unit included in an emissions averaging plan, the owner or operator of the unit must withdraw or amend the applicable permit to reflect that the unit is no longer in service.
- 4) If demonstrating compliance through an emissions averaging plan:
 - A) By October 31 following the applicable ozone season, the owner or operator must notify the Agency if he or she cannot demonstrate compliance for that ozone season; and
 - B) By January 30 following the applicable calendar year, the owner or operator must submit to the Agency a report that demonstrates the following:
 - i) For all units that are part of the emissions averaging plan, the total mass of allowable NO_x emissions for the ozone season and for the annual control period;
 - ii) The total mass of actual NO_x emissions for the ozone season and annual control period for each unit included in the averaging plan;
 - iii) The calculations that demonstrate that the total mass of actual NO_x emissions are less than the total mass of allowable NO_x emissions using equations in Sections 217.390(f) and (g); and

- iv) The information required to determine the total mass of actual NO_x emissions and the calculations performed in subsection (d)(4)(B)(iii) of this Section.
- If operating a CEMS, the owner or operator must submit an excess emissions and monitoring systems performance report in accordance with the requirements of 40 CFR 60.7(c) and 60.13, or 40 CFR 75 incorporated by reference in Section 217.104, or an alternate procedure approved by the Agency or USEPA and included in a federally enforceable permit.

(Source: Added at 31 Ill. Reg.	. effective	
(Bource, Mudeu at 31 III. Reg.	, criccuve	- /

APPENDIX G: EXISTING RECIPROCATING INTERNAL COMBUSTION ENGINES AFFECTED BY NOx SIP CALL

<u>Plant ID</u>	Point ID	<u>Segment</u>		
ANR Pipeline Co. – Sandwich				
<u>093802AAF</u>	<u>E-108</u>	<u>1</u>		
Natural Gas Pipeline Co. of Americ	ra 8310			
<u>027807AAC</u>	730103540041	<u>1</u>		
Natural Gas Pipeline Co. of Americ	ca Sta 110			
<u>073816AAA</u>	<u>851000140011</u>	1		
<u>073816AAA</u>	<u>851000140012</u>	<u>2</u>		
<u>073816AAA</u>	<u>851000140013</u>	<u>3</u>		
<u>073816AAA</u>	<u>851000140014</u>	4		
<u>073816AAA</u>	<u>851000140041</u>	1		
<u>073816AAA</u>	<u>851000140051</u>	1		
Northern Illinois Gas Co Stor Sta	ot 350			
113817AAA	<u>730105440021</u>	<u>1</u>		
<u>113817AAA</u>	<u>730105440031</u>	<u>1</u>		
<u>113821AAA</u>	730105430021	<u>1</u>		
<u>113821AAA</u>	730105430051	1		
Panhandle Eastern Pipe Line CoC	Janarm			
167801AAA	87090038002	<u>1</u>		
<u>167801AAA</u>	<u>87090038004</u>	<u>1</u>		
<u>167801AAA</u>	<u>87090038005</u>	<u>1</u>		
Parker II. Factors Pinkin Transla C4				
Panhandle Eastern Pipeline - Tusco 041804AAC	73010573009	9		
<u>041804AAC</u>	73010573010	<u>10</u>		
<u>041804AAC</u>	73010573011	<u>11</u>		
<u>041804AAC</u>	73010573012	<u>12</u>		
<u>041804AAC</u>	73010573013	<u>13</u>		
Developed He Forder B' P C		I		
Panhandle Eastern Pipeline Co. 149820AAB	<u>7301057199G</u>	<u>3</u>		
149820AAB	<u>7301057199I</u>	<u>1</u>		
149820AAB	7301057199 <u>J</u>	1		

<u>149820AAB</u>	<u>7301057199K</u>	<u>1</u>
Panhandle Eastern Pipeline CoGlenarm		
<u>167801AAA</u>	<u>87090038001</u>	<u>1</u>
Phoenix Chemical Co.		
085809AAA	730700330101	<u>1</u>
085809AAA	730700330102	<u>2</u>
085809AAA	730700330103	3

Part 211: SU	JBPART B: DEFINITIONS
Section 211.	740 Brakehorsepower (rated-bhp)
-	epower (bhp)" means the rated horsepower capacity of the engine as defined on the eplate at standard conditions.
(Sour	rce: Added at Ill. Reg, effective)
Section 211.	1740 Diesel Engine
ignited two-	or four-stroke engine in which liquid fuel injected into the combustion chamber the air charge is compressed to a temperature sufficiently high for auto-ignition.
(Sour	rce: Added at Ill. Reg, effective)
Section 211.	1920 Emergency or Standby Unit
	y or Standby Unit" means, for a stationary gas turbine or stationary reciprocating abustion engine, a unit that:
a)	Supplies power for the source at which it is located but operates only when the normal supply of power has been rendered unavailable by circumstances beyond the control of the owner or operator of the source and only as necessary to assure the availability of the engine or turbine. An emergency standby unit may not be operated to supplement a primary power source when the load capacity or rating of the primary power source has been reached or exceeded.;
b)	Operates exclusively for firefighting or flood control or both.; or
c)	Operates in response to and during the existence of any officially declared disaster or state of emergency.
	d) Operates for the purpose of testing, repair or routine maintenance to verify its readiness for emergency standby use.
	term does not include equipment used for purposes other than emergencies, as ribed above, such as to supply power during high electric demand days.
(Sour	rce: Amended at Ill. Reg, effective)
Section 211.	3300 Lean-Burn Engine

"Lean-burn engine" means any spark-ignited engine that is not a rich-burn engine.

(Source: Added at Ill. Reg, effective)
Section 211.5640 Rich-Burn Engine
"Rich-burn engine" means a spark-ignited engine where the oxygen content in the exhaust
stream of the engine before any dilutions is 1 percent or less by volume measured on a dry basis
(Source: Added at III Reg effective)

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

STATE OF ILLINOIS)	
)	SS
COUNTY OF SANGAMON)	
)	

CERTIFICATE OF SERVICE

I, the undersigned, an attorney, state that I have served electronically the attached <u>POST HEARING COMMENTS</u> of the Illinois Environmental Protection Agency upon the following persons:

Dorothy Gunn, Clerk Illinois Pollution Control Board State of Illinois Center 100 West Randolph, Suite 11-500 Chicago, Illinois 60601

SEE ATTACHED SERVICE LIST

and mailing it by express mail from Springfield, Illinois on July 5, 2007, with sufficient postage affixed.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

/s/ Rachel L. Doctors

Rachel L. Doctors Assistant Counsel Air Regulatory Unit Division of Legal Counsel

Dated: July 5, 2007

1021 North Grand Avenue East Springfield, Illinois 62794-9276 (217) 782-5544 217.782.9143 (TDD)

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