## BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
AMENDMENTS TO	)	R18-20
35 ILL. ADM. CODE 225.233	)	(Rulemaking – Air)
MULTI-POLLUTANT STANDARDS	)	
(MPS)	)	

## **NOTICE OF FILING**

PLEASE TAKE NOTICE that on this 1st day of May 2018, I have filed with the Clerk of the Illinois Pollution Control Board, the Pre-Filed Questions of the Illinois Attorney General's Office to Dynegy/Vistra Energy Corp. in the above-referenced case, a copy of which is hereby served upon you.

Respectfully submitted,

PEOPLE OF THE STATE OF ILLINOIS By LISA MADIGAN, Attorney General of the State of Illinois

BY: /s/ Stephen J. Sylvester STEPHEN J. SYLVESTER Senior Assistant Attorney General Illinois Attorney General's Office 69 W. Washington St., 18th Floor Chicago, IL 60602 (312) 814-2087 ssylvester@atg.state.il.us

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**CERTIFICATE OF SERVICE** 

I, STEPHEN J. SYLVESTER, an attorney, do certify that on May 1, 2018, I caused the

Pre-Filed Questions of the Illinois Attorney General's Office to Dynegy/Vistra Energy Corp.

and the Notice of Filing to be served upon the persons listed in the attached Service List by email

for those who have consented to email service and by U.S. Mail for all others.

/s/ Stephen J. Sylvester

STEPHEN J. SYLVESTER

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## BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
	)	R18-20
AMENDMENTS TO 35 ILL. ADM.	)	(Rulemaking-Air)
CODE 225.233, MULTI-POLLUTANT	)	,
STANDARDS	)	

# PRE-FILED QUESTIONS OF THE ILLINOIS ATTORNEY GENERAL'S OFFICE FOR DYNEGY/VISTRA ENERGY CORP.

The Illinois Attorney General's Office, on behalf of the People of the State of Illinois ("People"), hereby files its pre-filed questions for Dynegy Midwest Generation, LLC, Illinois Power Generating Company, Illinois Power Resources Generating, LLC and Electric Energy, Inc. (collectively, "Dynegy") and Vistra Energy Corp. in this matter, as provided by the Hearing Officer Order during the April 17, 2018 hearing in Springfield. The People submit the following questions:

## **QUESTIONS**

1. During the January 18, 2018 hearing in this proceeding, Rick Diericx, testifying for Dynegy, answered "no," when asked whether Dynegy had "explored the installation of dry absorbent injection as an option to meet the current MPS in a more or less costly way than operating Duck Creek and Coffeen at a loss." (Jan. 18, 2018 Trans. at 178, lines 8-12).

Has any equipment of any kind been installed at Newton for the purpose of controlling SO<sub>2</sub> emissions?

- 2. If the answer to Question No. 1 is yes, then:
  - a. What kind of equipment was installed?
  - b. When was the equipment first installed, and for how long was it, or has it been, installed?
  - c. Was the equipment installed to ease MPS compliance? If not, why was the equipment installed?
  - d. How much did the equipment cost to install? Please provide documentation of installation costs.

- e. Was the equipment operated during 2017? If yes, how many hours during 2017 was the equipment operated?
- f. What are the costs to operate and maintain the equipment on an annual basis? Please provide documentation of operation and maintenance costs.
- g. Has the equipment's removal efficiency for SO<sub>2</sub> been assessed? If yes, what were those findings?
- h. Has the equipment been operated during 2018? If yes, then: (i) on what dates during 2018 has the equipment been operated?; (ii) how many hours during 2018 has the equipment been operated?; and (iii) what is the current running annual SO2 emission rate for Newton Unit 1? If the equipment has not been operated during 2018, please explain why not.
- i. Has Dynegy performed any review or analysis concerning the installation and/or operation of the equipment? If so, please provide documentation.
- 3. Please see the construction permits attached hereto as Attachments 1 and 2. Was the equipment described in these permits installed at Newton? If yes, then (i) please answer questions 2(b) 2(i) for such equipment, and (ii) for any period during which such equipment was installed, is it accurate that Newton Unit 1 could be operated either with or without concurrent operation of the permitted equipment?
- 4. Has sorbent injection equipment been installed at any other MPS unit? If yes, then please answer questions 2(a) 2(i) for any such equipment installed at any other MPS unit.
- 5. Has Dynegy performed any analysis of the potential installation of sorbent injection equipment on other MPS units? If so, please provide documentation.
- 6. During the March 6, 2018 hearing in this proceeding, Dean Ellis, testifying for Dynegy, stated: "Again, as we testified in the first proceeding, we generally don't generate plant-level financial statements and we definitely don't disclose those publicly for a number of reasons." (Mar. 6, 2018 Trans. at 34, line 24 to 35, line 4).

[THE REMAINDER OF THIS PAGE LEFT BLANK]

In the E&E News article admitted in this proceeding as Exhibit 41, Vistra's CEO Curt Morgan is described as "noting that some of [Vistra's Illinois] plants with advanced pollution controls 'are hugely out of the money' and are burning cash." Specifically, which plants was Mr. Morgan referring to as being "hugely out of the money"? What was the basis for his statement? Are any MPS plants without SO<sub>2</sub> controls "out of the money"? If yes, which ones?

Dated: May 1, 2018

Respectfully submitted,

Andrew Arnottong

PEOPLE OF THE STATE OF ILLINOIS, by LISA MADIGAN,

Attorney General of the State of Illinois, MATTHEW J. DUNN, Chief Environmental Enforcement/ Asbestos Litigation Division

By:

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## BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
	)	R18-20
AMENDMENTS TO 35 ILL. ADM.	)	(Rulemaking-Air)
CODE 225.233, MULTI-POLLUTANT	)	
STANDARDS	)	

# PRE-FILED QUESTIONS OF THE ILLINOIS ATTORNEY GENERAL'S OFFICE FOR DYNEGY/VISTRA ENERGY CORP.

Attachment 1

Construction Permit Issued May 11, 2016

# **Bureau of Air Permit Section File Organization Cover Sheet**

Source Name:	Illinois Power Generating Co.
ID Number:	079 808 AAA
Application Number:	16 05 0017
Category:	03 <b>K</b>
Item Date:	5-24-10

IEPA-DIMISION OF RECORDS MANAGEMENT RELEASABLE

JUN 17 2016

**REVIEWER: JKS** 



# Electronic Filing: Received, Clerk's Office 5/1/2018 ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

BRUCE RAUNER, GOVERNOR LISA BONNETT, DIRECTOR

217/785-1705

CONSTRUCTION PERMIT

#### PERMITTEE

Illinois Power Generating Company

Attn: Rick Diericx

1500 Eastport Plaza Drive Collinsville, Illinois 62234

Application No.: 16050017

I.D. No.: 079808AAA

Applicant's Designation:

Date Received: May 11, 2016

Subject: Pilot Evaluation of Sorbent Injection

Date Issued: MAY 2 4 2016

Location: Newton Power Station, 6725 North 500th Street, Newton, Jasper County

Permit is hereby granted to the above-designated Permittee to CONSTRUCT equipment for pilot evaluation of sorbent injection, as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

#### 1. Description

- a. This permit addresses construction of equipment to conduct pilot evaluations of sorbent injection on one or both of the boiler(s) at this power generating facility. In these evaluations, a sorbent material will be pneumatically conveyed and injected into the combustion chamber, or "furnace," of a boiler or in to the ductwork between the economizer(s) and the electrostatic precipitator(s). Sorbent will be received and stored using portable equipment including storage silos with vent filters. The purpose of the project is to study the effectiveness of various sorbents in controlling the boiler's sulfur dioxide (SO<sub>2</sub>) emissions.
- b. For the purposes of this permit:
  - i. The boiler(s) on which an evaluation is conducted are referred to as the "affected boiler(s)".
  - ii. The portable equipment for receiving, storage and injection of sorbent, not including the piping to pneumatically convey sorbent to the affected boiler(s), is referred to as the "affected sorbent equipment".

## 2. Applicable Requirements

a. This permit does not relax or otherwise revise any requirements and conditions that apply to the operation, monitoring, recordkeeping and reporting for the affected boiler(s) as

4302 N. Main St., Rockford, IL 61103 (815) 987-7760 595 S. State, Elgin, IL 60123 (847) 608-3131 2125 S. First St., Champolgn, IL 61820 (217) 278-5800 2009 Mail St., Collinsville, IL 62234 (618) 346-5120 9511 Harrison St., Des Plaines, IL 6001 6 (847) 294-4900 412 SW Washington St., Suite D, Peorta, IL 61 602 (309) 671-3022 2309 W. Main St., Suite 116, Marion, IL 62959 (618) 993-7200 100 W. Randolph, Suite 10-300, Chicago, IL 60601

#### Page 2

established in the Clean Air Act Permit Program (CAAPP) permit issued for the source, Permit No. 95090066, issued November 19, 2015.

- b. The affected sorbent equipment is subject to and shall comply with applicable requirements of state emission standards for opacity and particulate matter (PM), including 35 IAC 212.123, 212.301 and 212.321.
- c. This permit is issued based on minimal emissions of PM from the affected sorbent equipment, i.e., emissions of no more than 1.1 tons/year.

## 3. Non-Applicability Provisions

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- a. This permit is issued based on this project having a negligible effect on the emissions of affected boiler(s) for pollutants other than SO<sub>2</sub>, given that it will only involve pilot evaluations of sorbent injection.
- b. This permit is issued based on this project not constituting a modification of affected boiler(s) under the federal New Source Performance Standards, 40 CFR 60, as the project has the primary function of reducing emissions and therefore is not considered a modification pursuant to 40 CFR 60.14(e)(5).
- c. This permit is issued based on the affected sorbent equipment not being subject to the NSPS for Nonmetallic Mineral Processing Plants, 40 CFR 60 Subpart OOO. This is because sorbents, such as powdered calcium carbonate, which are considered a "nonmetallic mineral" for purposes of this NSPS, handled by the affected sorbent equipment will not constitute a "nonmetallic mineral processing plant" as defined in 40 CFR 60.671 since sorbents will not be crushed or ground at this facility.

#### 4. Operating Limitations

The duration of each evaluation of a different sorbent shall not exceed 1,000 hours, determined as the actual hours when sorbent is being injected into the affected boiler(s).

#### 5. Recordkeeping Requirements

- a. The Permittee shall maintain operating log(s) or records for the sorbent equipment that includes:
  - i. The identity of the process equipment, including name, model number, rated capacity, date first operated at the facility and the date last operated at the facility.

#### Page 3

- ii. The identity of the silo vent filter equipment, including name, model number, rated capacity (scfm) and design outlet dust loading.
- iii. Inspection and maintenance logs for the sorbent equipment that list the activities performed, with date and description.
- b. The Permittee shall keep records for each evaluation(s) conducted with affected sorbent equipment that, at a minimum, include:
  - i. The type of sorbent that is being used, the rate of injection of sorbent, the location(s) of sorbent injection and each period of time when an affected boiler was in operation with sorbent injection.
  - ii. Information collected addressing the effect of sorbent injection on the  $SO_2$  emissions of the affected boiler(s).
  - iii. Information collected addressing the effect of sorbent injection on particulate emissions of the affected boiler(s).
  - iv. The duration of the evaluation (hours) and total amount of sorbent used in the evaluation (tons).

#### 6. Reporting Requirements

- a. The Permittee shall provide the Illinois EPA with the schedule, for each evaluation conducted pursuant to this permit, including the identity of the affected boiler(s) on which the evaluation will be conducted and the dates when the boiler(s) may be operated with the sorbent. For this purpose, a copy of the schedule shall be submitted to the Illinois EPA's Regional Office in Collinsville.
- b. If the Permittee prepares a formal report for an evaluation, which contains emissions data measured during the evaluations or describes the effect of the affected systems on emissions of  $SO_2$ , particulate or other pollutants from the boiler(s), the Permittee shall provide a copy of the report to the Illinois EPA.
- c. The Permittee shall notify the Illinois EPA of deviations with the permit requirements within 30 days of an occurrence. Reports shall describe the deviation and the probable cause of such deviations, the corrective actions and preventive measures taken.

#### 7. Mailing Addresses

Copies of required reports and notifications shall be sent to the Illinois EPA's Compliance Section at the following address unless otherwise indicated:

Page 4

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

## 8. Authorization to Operate

- a. Pursuant to this construction permit:
  - i. The Permittee may operate the affected sorbent equipment.
  - ii. The Permittee may operate the affected boiler(s) with sorbent injection as provided by this permit.
- b. The authorization for operation provided above in Condition 8(a) will terminate when either pilot evaluations of sorbent injection is addressed in the CAAPP permit for the source or the Permittee notifies the Illinois EPA that no further pilot evaluations will be conducted pursuant to this permit.
- c. These conditions supersede Standard Condition 6.

If you have any questions on this permit, please contact Daniel Rowell at 217/558-4368.

Raymond E. Pilapil

Acting Manager, Permit Section Division of Air Pollution Control

REP:DBR:psj

DBR 5/24/16

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STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
P. O. BOX 19506
SPRINGFIELD, ILLINOIS 62794-9506

# STANDARD CONDITIONS FOR CONSTRUCTION/DEVELOPMENT PERMITS ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

July 1, 1985

The Illinois Environmental Protection Act (Illinois Revised Statutes, Chapter 111-1/2, Section 1039) authorizes the Environmental Protection Agency to impose conditions on permits which it issues.

The following conditions are applicable unless superseded by special condition(s).

- 1. Unless this permit has been extended or it has been voided by a newly issued permit, this permit will expire one year from the date of issuance, unless a continuous program of construction or development on this project has started by such time.
- 2. The construction or development covered by this permit shall be done in compliance with applicable provisions of the Illinois Environmental Protection Act, and Regulations adopted by the Illinois Pollution Control Board.
- 3. There shall be no deviations from the approved plans and specifications unless a written request for modification, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.
- 4. The Permittee shall allow any duly authorized agent of the Agency upon the presentation of credentials, at reasonable times:
  - a. to enter the Permittee's property where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit,
  - b. to have access to and copy any records required to be kept under the terms and conditions of this permit,
  - c. to inspect, including during any hours of operation of equipment constructed or operated under this permit, such equipment and any equipment required to be kept, used, operated, calibrated and maintained under this permit,
  - d. to obtain and remove samples of any discharge or emission of pollutants, and
  - e. to enter and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.
- 5. The issuance of this permit:
  - a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located,
  - b. does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities,
  - c. does not release the Permittee from compliance with the other applicable statues and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations,
  - d. does not take into consideration or attest to the structural stability of any units or parts of the project, and

090-005

- e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.
- 6. a. Unless a joint construction/operation permit has been issued, a permit for operation shall be obtained from the Agency before the equipment covered by this permit is placed into operation.
  - b. For purposes of shakedown and testing, unless otherwise specified by a special permit condition, the equipment covered under this permit may be operated for a period not to exceed thirty (30) days.
- 7. The Agency may file a complaint with the Board for modification, suspension or revocation of a permit:
  - a. upon discovery that the permit application contained misrepresentations, misinformation or false statements or that all relevant facts were not disclosed, or
  - b. upon finding that any standard or special conditions have been violated, or
  - c. upon any violations of the Environmental Protection Act or any regulation effective thereunder as a result of the construction or development authorized by this permit.



## BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
	)	R18-20
AMENDMENTS TO 35 ILL. ADM.	)	(Rulemaking-Air)
CODE 225.233, MULTI-POLLUTANT	)	, , ,
STANDARDS	)	

# PRE-FILED QUESTIONS OF THE ILLINOIS ATTORNEY GENERAL'S OFFICE FOR DYNEGY/VISTRA ENERGY CORP.

Attachment 2

Construction Permit Issued March 27, 2017

# Bureau of Air Permit Section File Organization Cover Sheet

Source Name:	Illinois Power Generating Co		
	Newton Power Station		
ID No.:	079808AAA		
Application No.:	16050017		
Category:	03K		
Item Date:	6/9/2017		
Keyword:	Choose an item.		
Comment:			
Part:	Choose Choose an item.		
1			

<sup>\*</sup> If applicable



## ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

BRUCE RAUNER, GOVERNOR

ALEC MESSINA, DIRECTOR

Date Received: March 27, 2017

217/785-1705

CONSTRUCTION PERMIT - REVISED
NSPS SOURCE

## PERMITTEE

Illinois Power Generating Company Attn: Rick Diericx 1500 Eastport Plaza Drive Collinsville, Illinois 62234

Applicant's Designation:

Subject: Dry Sorbent Injection

Date Issued: June 9, 2017

Location: Newton Power Station, 6725 North 500th Street, Newton, Jasper County

Permit is hereby granted to the above-designated Permittee to CONSTRUCT equipment for sorbent injection, as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

## 1. <u>Description</u>

- This permit addresses construction of equipment to conduct pilot evaluations of sorbent injection on one or both of the coal-fired boiler(s). In these evaluations, a sorbent material will be pneumatically conveyed and injected into the combustion chamber, or "furnace," of a boiler or into the ductwork between the economizer(s) and the electrostatic precipitator(s). Sorbent will be received and stored using portable equipment including a storage silo with bin vent filter. The purpose of the evaluations is to study sorbents injection as a means of COLINGAL CONTROLLING CONTROLLI
- b. This revised permit:
  - i. Allows ductwork sorbent injection with sodium bicarbonate, Trona or other sorbent to be conducted on an on-going basis on Boiler 1, no longer limiting the use of this equipment to evaluation of sorbent injection.
  - ii. Addresses use of a grinding mill to prepare sorbent for injection. Because sorbent is milled, certain sorbent handling equipment as well as this mill are now subject to the New Source Performance Standards (NSPS) for Nonmetallic Mineral Processing Plants, 40 CFR 60 Subpart 000.

- c. For the purposes of this revised permit:
  - i. Boiler 1 is referred to as the "affected boiler." This revised permit no longer addresses Boiler 2 because it has been permanently shut down.
  - ii. The equipment used to inject sorbent into the ductwork of the affected boiler is referred to as the "affected system."
  - iii. The equipment for receiving, storage and preparation, not including the affected system, is referred to as the "affected sorbent equipment".

## 2-1. Applicable Requirements for the Affected Boiler

Except as provided by Condition 2-2, this permit does not relax or revise applicability of requirements and conditions including operational, monitoring, recordkeeping and reporting requirements for the affected boiler as established in the Clean Air Act Permit Program (CAAPP) permit issued for the source, Permit No. 95090066, issued May 23, 2017.

## 2-2. Alternative Emission Standard for the Affected Boiler

Under the National Emission Standards for (NESHAP) for Coal- and Oil-Fired Electric Utility Steam Generating Units, 40 CFR 63 Subpart UUUUU, as provided by 40 CFR 63.9991(c), when the Permittee operates the affected boiler with the affected system, the Permittee may use the applicable alternate  $SO_2$  limit for existing coal-fired units in Table 2 of 40 CFR 63 Subpart UUUUU as the applicable criteria in 40 CFR 63.9991(c), as follows, would be met:

- a. The boiler has a system using dry gas desulfurization technology, e.g., a DSI system, and an SO<sub>2</sub> continuous emissions monitoring system (CEMS) is installed [40 CFR 63.9991(c)(1)]; and
- b. At all times, the dry gas desulfurization technology and  $SO_2$  CEMS are operated consistent with 40 CFR 63.9991(c)(2)

Note: Dry sorbent injection is a type of "dry flue gas desulfurization technology," as defined by 40 CFR 63.10042.

#### 2-3. Required Work Practices for the Sorbent Injection System

If the Permittee operates the affected system as an "applicable control device" for purposes of 40 CFR 63 Subpart UUUUU (i.e., the affected system is operated during periodic performance testing for emissions of hydrogen chloride pursuant to 40 CFR 63 Subpart UUUUU or the Permittee is complying with the alternate limit for SO2 emissions), the Permittee must, at all times, operate and maintain the affected system and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions pursuant to 40 CFR 63.10000(b).

#### 2-4. Applicable Federal Emission Standards for the Affected Sorbent Equipment

The grinding mill and storage silo are subject to the New Source Performance Standards (NSPS) for Nonmetallic Mineral Processing, 40 CFR 60 Subpart OOO, and the applicable requirements of the General Provisions of the NSPS, 40 CFR 60 Subpart A.

- a. Pursuant to 40 CFR 60.672(b) and Table 3 of 40 CFR 60 Subpart OOO, "fugitive emissions" of PM, as defined in 40 CFR 60.671, from the storage silo and grinding mill shall not exceed 7 percent opacity.
- b. Pursuant to 40 CFR 60.672(f) and Table 2 of 40 CFR 60 Subpart 000, the opacity of emissions from the storage silos shall not exceed 7 percent.
- c. Pursuant to 40 CFR 60.11(d), at all times, the Permittee shall maintain and operate these units, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.

## 2-5. Applicable State Emission Standards for the Affected Sorbent Equipment

The affected sorbent equipment is subject to the following rules for opacity, visible emissions and particulate:

- a. 35 IAC 212.123(a), which provides that no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent into the atmosphere from any emission unit.
- b. 35 IAC 212.301 and 212.314, which provide that no person shall cause or allow the emission of fugitive particulate matter from any emission unit, that is visible by an observer looking generally toward the zenith (i.e., looking at the sky directly overhead) from a point beyond the property line of the source, except when the wind speed is greater than 25 mph (40.2 km/h).
- c. 35 IAC 212.321(a), which provides that no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other new similar process emission units at a source or premises, exceeds the allowable emission rates specified in 35 IAC 212.321(c).

## 3. Nonapplicability Provisions

- This permit is issued based on this project not being a major project for purposes of the federal rules for Prevention of Significant Deterioration, 40 CFR 52.21.
  - i. For  $SO_2$ , this is because this project is an emissions control project whose purpose is to reduce emissions of  $SO_2$  from the affected boiler.

- ii. For emissions of CO and  $\mathrm{NO}_{\mathrm{x}}$ , the Permittee has projected that this project will not increase emissions of these pollutants.
- iii. For emissions particulate matter:
  - A. From the affected boiler, this is because the Permittee has projected decreases in emissions of the affected boiler with this project.
  - B. From the affected sorbent equipment, this is because the increases in emissions are not significant. (See Condition 4(b))
  - C. For plant roadways, this is because the increased vehicle traffic on plant roadways for transport of sorbents and disposal of additional fly ash generated by the affected boiler will not result in a significant increase in emissions.
- b. This permit is issued based on the changes made to the affected boiler not constituting a modification of the boiler under the federal New Source Performance Standards (NSPS) for Electric Utility Steam Generating Units, 40 CFR 60 Subpart Da, or the NSPS for Greenhouse Gas Emissions for Electric Generating Units, 40 CFR 60 Subpart TTTT, as the changes have the primary function of reducing emissions and therefore is not considered a modification pursuant to 40 CFR 60.14(e)(5). Accordingly, this project does not trigger applicability of requirements of 40 CFR 60 Subpart Da for units modified after May 3, 2011. It also does not trigger applicable requirements of 40 CFR 60 Subpart TTTT for units modified after June 18, 2014.
- c. This permit is issued based on the affected sorbent equipment not being subject to a PM emission limit under 40 CFR 60 Subpart 000:
  - i. For the grinding mill, this is because this mill will not have any "stack emissions," as defined by 40 CFR 60.671, since this mill feeds ground material directly into the affected boiler and does not have a vent to the atmosphere.
  - ii. For the storage silo, this is because it will continue to be controlled by its own filter device and because 40 CFR 60.672(f) provides that any baghouse that controls emissions from only an individual, enclosed storage bin is exempt from the applicable PM limit and must instead meet an opacity limit of 7 percent.

#### 4. Operational and Emission Limits

- a. i. The amount of sorbent material injected into the affected boiler shall not exceed 4,400 tons/month and 43,800 tons/year.
  - ii. Compliance with the above annual limit and other annual limits set by this permit shall be determined from the sum

- of the data for the current month plus the preceding 11 months (running 12 month total)
- i. Emissions of PM from sorbent grinding mill shall not exceed
   0.26 pounds/hour and 1.2 tons/year.
  - ii. This permit is issued based on negligible emissions of PM from the storage silo and pneumatic conveyors, i.e., emissions of no more than 0.1 pounds/hour and 0.44 tons/year.
- c. At all times, the Permittee shall operate and maintain the affected sorbent equipment and associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.

#### 5-1. NSPS Performance Testing

- a. For the grinding mill and storage silo, the Permittee shall comply with the requirements of the NSPS for performance testing, including the following, unless USEPA waives such testing or approves an alternative method pursuant to 40 CFR 60.8(b).
- b. The timing of performance testing for opacity of fugitive emissions shall be as follows. These performance tests shall be conducted in accordance with 40 CFR 60.11 and 60.675(b), (c) and (e).
  - i. Pursuant to 40 CFR 60.8 and 60.675(a), an initial performance test shall be conducted within 60 days after each of the unit achieves its maximum operating rate, but not later than 180 days after initial startup. Unless otherwise specified by the Illinois EPA, this test shall be conducted during conditions that are representative of the maximum operating rate of the unit.
  - ii. Pursuant to Table 3 of 40 CFR 60 Subpart 000, performance tests must subsequently be conducted within 5 years from the previous test.
  - iii. Performance tests shall also be conducted upon written request from the Illinois EPA, for a unit as specified in such request. For this purpose, tests shall be conducted within 30 days of the request from the Illinois EPA or such later date agreed to by the Illinois EPA.
- c. i. Pursuant to 40 CFR 60.8(d) and Table 1 of 40 CFR 60 Subpart 000, the Illinois EPA shall be notified prior to these performance tests to enable the Illinois EPA to have an observer present. The Illinois EPA may, at its discretion, accept notification with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to be present during these tests.
  - ii. For opacity observations, notification of the expected date of the observations shall be submitted a minimum of 7 days

prior to the expected date. Notification of the actual date and expected time of the observations shall be submitted a minimum of five working days prior to the actual date of the observations.

d. Pursuant to 40 CFR 60.676(f), the Permittee shall submit reports for these tests to the Illinois EPA, which reports shall include both the results of the test and documentation for the test.

#### 5-2. Opacity Observations

Within 60 days of a written request by the Illinois EPA, or such later date agreed to by the Illinois EPA, the Permittee shall conduct opacity observations for specific sorbent equipment in accordance with USEPA Method 9.

## 5-3. Emission Testing for the Affected Boiler

- a. By September 30, 2018 (i.e., approximately 14 months after the initial startup of the affected boiler with the affected system), unless the Permittee has discontinued sorbent injection, the Permittee shall have the PM emissions of the boiler measured by a qualified testing service while the maximum load range and other representative operating conditions. USEPA Method 5 shall be used for this testing, unless another method is approved by the Illinois EPA.
- b. Prior to carrying out these tests, the Illinois EPA's Regional Office and Source Emission Test Specialist shall be notified a minimum of 30 days prior to the expected date of these tests and further notified a minimum of 5 working days prior to the tests of the exact date, time and place of these tests, to enable the Agency to witness these tests.
- c. The Final Report(s) for these tests shall be submitted to the Illinois EPA within 60 days after the date of testing. The following information shall be submitted with the results:
  - i. The firing rate of the affected boiler during each test run (million Btu/hr).
  - ii. The gross power generation rate for the electrical generator during the test.
  - iii. The type of sorbent and sorbent injection rate(s), as measured during the tests.
  - iv. The opacity monitored during each test run (6-minute averages and hourly averages).
- d. Within 120 days after the date of testing, the Permittee shall submit a review of the implications of the results of the testing for the Compliance Assurance Monitoring (CAM) Plan for the affected boiler, as addressed by Condition 7.1.13-1 of the CAAPP permit for the source. For this purpose, the effect of sorbent injection on PM emissions and opacity of the affected boiler and determine whether the indicator value for

opacity still adequately addresses compliance with the PM emission standards that apply to the boiler.

Note: If the Permittee seeks to revise the CAM Plan for the affected boiler, the Permittee must submit its proposed revised CAM Plan to the Illinois EPA as part of an application for a significant modification of the CAAPP permit for the source, Permit 95090066.

## 6. Instrumentation

The Permittee shall install, operate, and maintain instrumentation for the operation of the affected system. For this purpose, operation of the affected system may be monitored either directly (e.g., in terms of the sorbent injection rate by mass or volume) or indirectly (e.g., in terms of the amperage of the electric motor for the sorbent feed equipment, the setting for the sorbent injection rate or the setting for the rate of sorbent injection relative to boiler load).

#### 7. Inspection Requirements

- a. i. Inspections of the affected sorbent equipment, including emission control measures, shall be conducted at least once per month when material is being handled to confirm proper operation as related to control of emissions.
  - ii. The Permittee shall maintain records of the above activities. These records shall include the date that inspections were conducted, with description of the inspection.
- b. For the grinding mill and silo, the Permittee shall conduct either periodic inspections for visible emissions in accordance with 40 CFR 60.674(d) or install, operate and maintain a bag leak detector system in accordance with 40 CFR 60.674(e) and 60.676(b).

#### 8. Recordkeeping Requirements

- a. For the grinding mill and silo, the Permittee shall comply with the applicable recordkeeping requirements of the NSPS, including 40 CFR 60.7 and 60.676.
- b. The Permittee shall maintain records for the following items for the grinding mill:
  - i. A file containing a determination of the maximum PM emission rates of the grinding mill in pounds/hour and pounds/ton of sorbent handled, overall for the combination of all units, with supporting documentation and calculations.
  - ii. Records for the total amount of sorbent material handled, by type (tons/month and tons/year).
  - iii. Records of emissions of PM from the grinding mill (tons/month and tons/year).

- c. The Permittee shall maintain records for maintenance/repair activities for the control equipment associated with the affected sorbent equipment that include the date and description of the maintenance/repair activities.
- d. The Permittee shall maintain records of the following items related to the purchase of sorbents for the affected system:
  - i. Annual taxes paid on sorbents; and
  - ii. Invoices or receipts detailing each shipment of sorbent received.
- e. Unless otherwise provided by the NSPS, all records required by this permit shall be retained at a readily accessible location for at least five years from the date of entry and shall be made available for inspection and copying by the Illinois EPA upon request.

## 9. Notification Requirements

- a. For the grinding mill and silo, the Permittee shall submit notifications in accordance with the NSPS, including 40 CFR 60.7.
- b. The Permittee shall notify the Illinois EPA in advance of using sorbent(s) other than sodium bicarbonate or Trona in the affected system. This notification shall be submitted at least two months in advance if possible or otherwise promptly after the Permittee learns that an alternative sorbent will need to be used. This notification shall identify the alternative sorbent and include an explanation of the reason for use of an alternate sorbent, the expected duration for use of the alternative sorbent (if temporary) and the expected changes in sorbent injection rates.

## 10. Reporting Requirements

- a. With the Annual Emission Report required by 35 IAC Part 254, the Permittee shall report:
  - i. The amount of sorbent injected into the affected boiler by the affected system (tons/year).
  - ii. The total annual sales taxes paid by the Permittee on sorbents, as addressed by the records required by Condition 8(e)(i).
- b. The Permittee shall notify the Illinois EPA of deviations from the requirements of this permit within 30 days of such occurrence. Reports shall describe the deviation, the probable cause of such deviation, the corrective actions taken, and any preventive measures taken. If a deviation is addressed by reporting requirements under applicable rules, this requirement may be satisfied with the reporting required by such rules.

#### 11. Mailing Addresses

a. Copies of required reports and notifications shall be sent to the Illinois EPA's Compliance Section at the following address unless otherwise indicated:

> Illinois Environmental Protection Agency Division of Air Pollution Control Compliance Section (#40) P.O. Box 19276 Springfield, Illinois 62794-9276

b. One copy of notifications and reports required by this permit that concern emission testing and monitoring shall also be sent electronically to the Illinois EPA, Bureau of Air, Compliance Section, Source Monitoring Unit, using the State of Illinois's File Transfer Website, unless otherwise instructed by the Illinois EPA:

http://filet.illinois.gov

Recipient Email Address: EPA.BOA.SMU@illinois.gov File Transfer Email Subject: Newton Power Station, ID 079808AAA Message to Recipient: "A description of the submittal, with date"

#### 12. Authorization to Operate

Pursuant to this construction permit, the Permittee may operate the affected sorbent equipment and the affected boiler with the affected system provided that the Permittee submits a timely and complete application for modification to the CAAPP permit for the source to address this project. This condition supersedes Standard Condition 6.

Please note that this permit has been revised at the request of the Permittee to address use of the affected system with Boiler 1 on an ongoing basis and the addition of a sorbent grinding mill to prepare sorbent for the affected sorbent equipment. As a consequence, this revised permit addresses applicable emission standards and related requirements for the affected sorbent equipment under the NSPS, 40 CFR 60 Subpart 000. It also addresses the use of sorbent injection for Boiler 1 under 40 CFR 63 Subpart UUUUU.

If you have any questions on this permit, please contact Daniel Rowell at 217/558-4368.

Raymond E. Pilapil

Manager, Permit Section

Division of Air Pollution Control

Raymond & Pilapil

REP:DBR:lsm



STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
P. O. BOX 19506
SPRINGFIELD, ILLINOIS 62794-9506

# STANDARD CONDITIONS FOR CONSTRUCTION/DEVELOPMENT PERMITS ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

July 1, 1985

The Illinois Environmental Protection Act (Illinois Revised Statutes, Chapter 111-1/2, Section 1039) authorizes the Environmental Protection Agency to impose conditions on permits which it issues.

The following conditions are applicable unless superseded by special condition(s).

- 1. Unless this permit has been extended or it has been voided by a newly issued permit, this permit will expire one year from the date of issuance, unless a continuous program of construction or development on this project has started by such time.
- 2. The construction or development covered by this permit shall be done in compliance with applicable provisions of the Illinois Environmental Protection Act, and Regulations adopted by the Illinois Pollution Control Board.
- 3. There shall be no deviations from the approved plans and specifications unless a written request for modification, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.
- 4. The Permittee shall allow any duly authorized agent of the Agency upon the presentation of credentials, at reasonable times:
  - a. to enter the Permittee's property where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit.
  - b. to have access to and copy any records required to be kept under the terms and conditions of this permit,
  - c. to inspect, including during any hours of operation of equipment constructed or operated under this permit, such equipment and any equipment required to be kept, used, operated, calibrated and maintained under this permit,
  - d. to obtain and remove samples of any discharge or emission of pollutants, and
  - e. to enter and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.
- 5. The issuance of this permit:
  - a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located,
  - b. does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities,
  - c. does not release the Permittee from compliance with the other applicable statues and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations,
  - d. does not take into consideration or attest to the structural stability of any units or parts of the project, and

- e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.
- 6. a. Unless a joint construction/operation permit has been issued, a permit for operation shall be obtained from the Agency before the equipment covered by this permit is placed into operation.
  - b. For purposes of shakedown and testing, unless otherwise specified by a special permit condition, the equipment covered under this permit may be operated for a period not to exceed thirty (30) days.
- 7. The Agency may file a complaint with the Board for modification, suspension or revocation of a permit:
  - a. upon discovery that the permit application contained misrepresentations, misinformation or false statements or that all relevant facts were not disclosed, or
  - upon finding that any standard or special conditions have been violated, or
  - c. upon any violations of the Environmental Protection Act or any regulation effective thereunder as a result of the construction or development authorized by this permit.