BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

MIDWEST GENERATION, LLC	)	
	)	
Petitioner,	)	PCB 2021-108
	)	
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY	)	
	)	
Respondents,	)	

NOTICE OF FILING

To: See attached service list

PLEASE TAKE NOTICE that I have today electronically filed with the Office of the Clerk of the Pollution Control Board Midwest Generation, LLC's Hearing Exhibits R, S, T, U and V that were entered into the record for this matter at the July 27, 2021 hearing.

Dated: July 28, 2021

MIDWEST GENERATION, LLC

By: /s/Kristen L. Gale

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CERTIFICATE OF SERVICE

The undersigned, an attorney, certifies that a true copy of the foregoing Notice of Filing, and Midwest Generation, LLC's Hearing Exhibits R, S, T, U and V were electronically filed on July 28, 2021 with the following:

Don Brown, Clerk of the Board
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and that copies were sent via e-mail on July 28, 2021 to the parties on the service list.

Dated: July 28, 2021 /s/Kristen L. Gale

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CERTIFICATION OF HEARING EXHIBITS

The undersigned, an attorney, certifies that each of the Hearing Exhibits being filed is an accurate reproduction of the corresponding exhibit offered by Midwest Generation, LLC at the July 27, 2021 hearing in this matter.

Dated: July 28, 2021 /s/Kristen L. Gale

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Petitioner’s Hearing Exhibit R

Midwest Generation, LLC
Will County Generating Station
529 East 135th Street
Romeoville, IL 60446

Overnight Delivery

February 14, 2017

Illinois EPA – Air Compliance Section
Illinois Environmental Protection Agency
Bureau of Air – Compliance Section (#40)
1021 North Grand Avenue East
Springfield, IL 62702

Re: Will County Generating Station (Site ID 197810AAK)
Revised Fugitive Dust Operating Program

Dear Sir or Madam,

As required by 35 IAC 212.309 and 35 IAC 212.312, please find enclosed an updated Fugitive Particulate Matter Operating Program for Will County Generating Station ("Will County"). This submission of the Operating Program revises the May 2016 version. The purpose of this submission is to update the Operating Program upon completion of the Dry Sorbent Injection ("DSI") system installation for Will County Unit 4 in accordance with construction permit Application No. 16070002 issued on July 29, 2016. Please note that Will County Unit 4 uses DSI system as a discretionary control for SO2 emissions.

If you have any questions regarding this submission, please contact Suchismita Bose at Suchismita.Bose@nrg.com or (708) 821-5981.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

Scott Perry
Will County Station Director

Cc: IEPA (Regional Office – Des Plaines, IL)

Enclosure

Fugitive Particulate Matter Operating Program
Revision 5

Midwest Generation, LLC - Will County Generating Station - Source ID 197810AAK

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Operating Program Revision Log

Revision	Revision Date	Summary of Revisions
0	March 1983	Initial Issue
1	September 1986	
2	August 1995	
3	March 2006	
4	May 2016	Operating Program updates per new ownership
5	February 2017	Operating Program updates per completion of Dry Sorbent Injection ("DSI") System installation. Please note that Will County Station uses DSI as a discretionary control for SO2 emissions.

I. Introduction

This document constitutes the Operating Program for Fugitive Particulate Matter Control for the Will County Generating Station located in Romeoville, Illinois (Will County Station). Fugitive particulate matter (PM) is regulated under Title 35 of the Illinois Administrative Code (IAC), Part 212, Subpart K. Pursuant to 35 IAC 212.309(a), fugitive emissions from storage piles, conveyor loading operations, conveyors, traffic areas, byproduct truck loading, crushers, materials collected by pollution control equipment, and any other units for which spraying or choke-feeding is required must be operated under the provisions of an operating program.

This document is organized such that it follows the regulatory requirements of 35 IAC 212.309, 35 IAC 212.310, and 35 IAC 212.312.

Pursuant to 35 IAC 212.309, emission units and activities that are subject to 35 IAC 212.304 through 212.308 must be addressed in the Operating Program. At the Will County Station, these units and activities include the following:

1. Storage Piles (35 IAC 212.304);
2. Conveyor Loading Operations (35 IAC 212.305)
3. Conveyors (35 IAC 212.308);
4. Transfer Points (35 IAC 212.308);
5. Truck Loading/Unloading (35 IAC 212.308);
6. Traffic Areas/Roadways or Parking Areas (35 IAC 212.306); and
7. Materials Collected by Pollution Control Equipment / Dust Collectors (35 IAC 212.307).

The emission limitations for emission units located in certain areas (35 IAC 212.316) are not applicable because the Will County Station is not located in one of the areas specified in 35 IAC 212.324(a)(1).

A record of amendments to this Operating Program, as required per 35 IAC 212.312, is documented in the Operating Program Revision Log.

This Operating Program is designed to significantly reduce fugitive particulate matter (PM) emissions, as required by 35 IAC 212.309.

II. Source Information

The following source information is provided pursuant to 35 IAC 212.310(a) through 35 IAC 212.310(c).

I. 35 IAC 212.310(a) – Name and Address of the Source

Will County Generating Station
529 E. 135th Street
Romeoville, Illinois 60446

II. 35 IAC 212.310(b) – Owner or Operator Responsible for Execution of the Operating Program

Oversight and on-going execution of the Operating Program is the responsibility of the Will County Station Director, supported by the Environmental Specialist. Both of these individuals are located at 529 E. 135th Street, Romeoville, Illinois 60446.

III.35 IAC 212.310(c) – Map or Diagram of the Source

A site map of the Will County Station showing the approximate facility boundaries, buildings, storage piles, storage silos, conveyor loading operations, normal traffic pattern access areas surrounding storage piles and all normal traffic patterns within the facility is provided in Appendix 1 to this Operating Program.

III.35 IAC 212.310(d) – Location of Unloading and Transporting Operations with Pollution Control Equipment

I. Unloading Operations

Coal is generally transported and delivered to Will County Station via railcars and unloaded using a rotary car dumper. The rotary car dumper building is located on the north-west side of the boiler/turbine building and is identified in Appendix 1. The rotary car dumper is housed in an enclosure which utilizes a dust collection system (Baghouse 1) to reduce the potential for fugitive dust emissions.

Occasionally coal is also delivered to Will County Station by means of trucks and the coal from the trucks may be unloaded directly onto the coal pile located on the north side of the facility.

Activated carbon is transported and delivered to the Will County Station via pneumatic discharge trucks. The activated carbon silos are located to the south-west side of the boiler/turbine building and are identified in Appendix 1. The activated carbon storage silos are equipped with a bin vent filters to control particulate matter emissions during the loading of the silos.

Soda ash is transported and delivered to the Will County Station on an as needed basis by means of pneumatic discharge trucks. The soda ash silo is located to the north-west side of the boiler/turbine building and is identified in Appendix 1. The soda ash silo is equipped with bin vent filter to control particulate matter emissions during the loading of the silo.

Trona is transported to Will County Station via railcar. It is then pneumatically loaded from the railcar to dedicated trucks to transport the Trona from the railcar unloading area to the Trona storage silos. The rail unloading station is equipped with a dust collector to control PM emissions from the railcar unloading process and truck loading process. The Trona storage silos are also equipped with bin vent filters to control PM emissions during the loading of Trona into the silos. The locations of the railcar unloading station and the Trona storage silos are identified in Appendix 1.

II. Transporting Operations

Transporting operations at the Will County Station consist of truck, railcar, and front-end loader operations, along with conveyors.

Coal is transported and delivered to the Will County Station via railcars and trucks. The railcars are uncovered; however they travel long distances prior to arriving at the Will County Station. Therefore, any loose material and/or fugitive emissions from the railcars are expected to have been released prior to arrival at the facility, and minimal emissions are anticipated from the transport of coal via railcar within the Will County Station site boundary. Rail lines utilized for coal delivery are located along the perimeter of the facility boundary. The trucks delivering coal enter the facility through the main gate and dump the coal directly onto the coal pile located to the north side of the facility.

Within Will County Station, coal is transported from the rotary car dumper to the active coal pile, and then to the breaker building and boiler/turbine building via a series a coal conveyors and transfer points. All of the coal conveyors are enclosed and all transfer points are either enclosed or treated with water spray, weather permitting, to prevent the release of fugitive PM emissions. A number of dust collectors are also present, as detailed in Table – 1, to control fugitive PM emissions from coal conveying operations. Coal is transported

from the active coal pile to the Breaker Building and finally to the boiler/turbine building as depicted in Appendix 1.

The activated carbon storage silos are equipped with bin vent filters to control PM emissions during silo loading. The location of the activated carbon storage silos are identified in Appendix 1. Activated carbon is pneumatically transferred from the storage silos to air pollution control ductwork between the Unit 4 boiler and the ESP.

Soda ash is transferred on an as needed basis from the silo and injected onto Conveyor Belt 1(BELT-1) by means of the soda ash chute in the enclosed coal tunnel. PM emissions from the soda ash system are controlled by the bin vent filter on the silo.

Trona is transported from the railcar unloading station to the storage silos via trucks. The PM emissions resulting from the loading of the silos are controlled by the bin vent filters on the silos. Trona is then pneumatically transferred from the storage silos to the air pollution control ductwork between the Unit 4 boiler and the ESP via grinding mills. The PM emissions from this transfer are controlled by the Unit 4 ESP. The location of the railcar unloading station, Trona silos and the grinding mills are identified in Appendix 1.

Trucks are used for the offsite transportation of fly ash from Will County Station. Fly ash is drop loaded from the silos into the trucks through telescopic chutes to minimize drop height. The fly ash silos are equipped with baghouses (Baghouses 8 and 9) to control PM emissions during the load out of fly ash. The loading of the fly ash trucks occurs within a partial enclosure near the base of the fly ash silo, as depicted in Appendix 1.

Bottom ash is transported with water from the boiler's slag tank hood to one of the two ash ponds located towards the south-west of the boiler/turbine building via pipelines. This being an inherently wet process, the potential for fugitive PM emission is greatly minimized.

IV.35 IAC 212.310(e) – BEST Management Practices

The following sections of the Operating Program, as required by 35 IAC 212.310(e), detail the best management practices used to achieve compliance with 35 IAC 212 Subpart K. Additionally, this Operating Program includes a description of control measures, devices, and technologies used to minimize and control all emission units that have the potential to emit fugitive particulate matter. The frequency of the application of any dust suppressants, as required per 35 IAC 212.310(f), is also noted.

I. Storage Piles

Emission Limit: Pursuant to 35 IAC 212.301, no person shall cause or allow the emission of fugitive particulate matter from any process, including material handling or storage activity that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.
Operational Requirements per Regulation: Protected by a cover or sprayed with water or a surfactant solution on a regular basis, or treated by an equivalent method (35 IAC 212.304)
Fugitive Dust Control: Water sprays or equivalent method

The coal storage pile is located towards the north of the Will County Station facility. The coal pile consists of active and inactive areas, which are managed differently for fugitive dust. The active pile area is the portion of the pile which receives new deliveries of coal or is frequently being worked or disturbed by the action of coal pile vehicles and equipment. The inactive portion of the pile remains relatively undisturbed for several days at a time. A log is maintained by the Shift Supervisor or designee that documents fugitive dust treatment for the active and inactive areas of the pile. Pre-control fugitive dust emissions from the coal storage pile are estimated to be greater than 50 tons per year. Therefore, the requirements of 35 IAC 212.304 applies to the bulk coal storage pile at this facility. Personnel at the Will County Station employ a number of best management practices to reduce fugitive emissions from the coal storage pile. The active areas of the pile are treated with water sprays from a mobile water wagon. On days when coal handling vehicles are not operational nor anticipated to be operational, the pile is sprayed with water as needed to minimize fugitive dust. The inactive areas of the pile may be treated with water or chemical binding agent on an as needed basis to control the emissions of fugitive PM. Water spray treatments are tracked on a Fugitive Dust Log similar to the log provided in Appendix 4.

Sometimes, malfunction or breakdown of fly ash handling equipment can lead to temporary stockpile storage of fly ash and handling of such fly ash for offsite shipment. Personnel at Will County Station employ a number of best management practices to control fugitive dust emissions from the temporary ash pile and related handling in case such a situation arises. A grade-level concrete pad within a retaining wall having a wind screen is used for temporary stockpile storage of ash if necessary. This concrete pad is located towards the south side of the Will County Station property. To minimize fugitive dust emissions from the concrete pad, the height of the staged material is kept below the level of the retaining wall and wind screen whenever possible and the piles are either sprayed with water or covered.

Water spray treatments may be suspended for up to twenty-four (24) hours following a precipitation event and during the period from December 1st through the end of February and during any other periods where the daily low temperature is anticipated to be below freezing. Furthermore, pursuant to 35 IAC 212.314, water spray treatments are not applied when the wind speed is greater than 25 miles per hour. Daily rainfall and wind speed are tracked on a Fugitive Dust Log similar to the log provided in Appendix 4.

II. Conveyors

Emission Limit: Pursuant to 35 IAC 212.301, no person shall cause or allow the emission of fugitive particulate matter from any process, including material handling or storage activity that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.
Operational Requirements per Regulation: Sprayed with water or a surfactant solution, utilize choke-feeding or be treated by an equivalent method (35 IAC 212.308)
Fugitive Dust Control: Covered conveyors, dust control systems and equivalent method

Coal is transferred to and from the storage pile using conveyors. All of the conveyors at the Will County Station are covered to reduce the potential for wind-borne fugitive emissions during conveyor transport. In addition, since water sprays are used to minimize fugitive emissions at the coal pile (refer to Section 4.1 of this Operating Program), the material transferred on the conveyors is sufficiently wetted, further reducing the potential for fugitive emissions from the conveyors. PM emissions from some of the conveyors are also controlled by dust collectors as detailed in Table-1. Fugitive PM emissions from BELT-1 are controlled by Baghouse 2, fugitive PM emissions from BELT-3 and BELT-4 are controlled by Baghouse 3, fugitive PM emissions from BELT-5 are controlled by Baghouse 4 and fugitive PM emissions from BELT-B1 and BELT-B2 are controlled by Baghouse 5.

Personnel at the Will County Station Facility observe the conveyors and applicable control equipment at regular intervals to ensure they are functioning properly and to observe for fugitive emissions. Observations are recorded on an inspection log, similar to the logs provided in Appendix 2 and Appendix 3.

III. Conveyor Transfer Points

Emission Limit: Pursuant to 35 IAC 212.301, no person shall cause or allow the emission of fugitive particulate matter from any process, including material handling or storage activity that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.
Operational Requirements per Regulation: Sprayed with water or a surfactant solution, utilize choke-feeding or be treated by an equivalent method (35 IAC 212.308)
Fugitive Dust Control: Dust control systems and equivalent operational practices

Coal is delivered to Will County via railcars at the Rotary Car Dumper Building. Two feeder belts (BF1 and BF2), which are located underground, feed the coal from the car dumper to conveyor belt 1(BELT-1). Then the coal is transferred from conveyor belt 1(BELT-1) to conveyor belt 2 (BELT-2) via an enclosed transfer point 1-2. PM emissions from transfer point 1-2 are controlled by Baghouse 2. Coal is then transferred from conveyor belt 2 to the coal pile using a radial boom stacker, which is operated such that it maintains the minimum practical free-fall distance of conveyed coal onto the coal pile, and also includes water spray control. The use of water sprays in association with the radial stacker is in accordance with the water spray best management practices outlined in Section 4.1. Coal is then transferred underground from the pile to conveyor belts 3 and 4 (BELT-3 and BELT-4)via the tunnel reclaim feeders. Since the transfer of coal to belts 3 and 4 occur underground, the potential for PM emission is minimized. Conveyor belts 3 and 4 then transfer the coal to conveyor belt 5 (BELT-5) via transfer point 3-4-5. PM emission from the conveyor transfer point 3-4-5 is controlled by Baghouse 3. Conveyor belt 5 transfers the coal to conveyor belts U1 and U2 (BELT-U1 and BELT-U2) within the Junction Tower. The conveyor transfer point 5-U1-U2 is located inside the Junction Tower and fugitive PM emissions from this transfer point are controlled by Baghouse 4. Then the coal from the conveyor belts U1 and U2 is transferred to conveyor belts H1 and H2 (BELT-H1 and BELT-H2). Coal from the coal pile can also be transferred directly to the H conveyor belts via a reclaim conveyor belt R1 (BELT-R1) which is fed underneath the pile using reclaim hoppers. Since the coal is

transferred to the reclaim conveyor belt from underneath the pile, the potential of PM emissions from the process is minimized. The conveyor transfer point R1-U-H is completely enclosed to control PM emissions. Then the coal from H conveyor belts is transferred to A1 and A2 conveyor belts (BELT-A1 and BELT-A2) via the surge hopper. The conveyor transfer point H-A is completely enclosed to minimize PM emissions. The A conveyor belts lead into the breaker building. Within the breaker building coal is either sent directly to the primary crusher and dropped onto the B conveyor belts (BELT-B1 and BELT-B2)or sent to secondary crushers and dropped directly onto one of the C conveyor belts (BELT-C1 and BELT-C2). Coal from the B conveyor belts is then transferred to the C conveyor belts via transfer point B-C. The conveyor transfer points A-B and B-C are located within the Breaker Building and fugitive emissions from these transfer points are controlled by the breaker building dust collectors (Baghouses 5, 6). The C conveyors lead out of the Breaker Building where the coal is transferred to the D conveyor belts (BELT-D1 and BELT-D2). PM emissions from conveyor transfer point C-D are controlled by the Baghouse 7. The D conveyors are located within the main building and transfer the coal to the Unit bunkers. PM emissions from the transfer of coal from the D conveyor belts to the Unit 4 bunker are controlled by a wet dust extractor (DE2).

Occasionally or on an as needed basis soda ash is injected directly onto the coal in conveyor belt 1 (BELT-1). This transfer is done by means of a soda ash chute in the enclosed coal tunnel to minimize the emission of PM during the transfer of soda ash.

Personnel at the Will County Station observe the radial stacker and other material transfer points at regular intervals to ensure they are functioning properly and to observe for fugitive emissions. Observations are recorded on an inspection log, similar to the logs provided in Appendix 2 and Appendix 3.

IV.Truck/Railcar Loading/Unloading

Emission Limit: Pursuant to 35 IAC 212.301, no person shall cause or allow the emission of fugitive particulate matter from any process, including material handling or storage activity that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.
Operational Requirements per Regulation: Sprayed with water or a surfactant solution, utilize choke-feeding or be treated by an equivalent method (35 IAC 212.308)
Fugitive Dust Control: Dust collectors or Equivalent operational practices

Coal is transported and delivered to the Will County Station via railcars and occasionally by means of trucks. Railcars are individually rotated within the car dumper building to transfer the contents of the rail car into hoppers. The coal is then transported to the active coal storage pile via the "BELT-1" and "BELT-2" covered conveyors and radial boom stacker. The rotary railcar dumper is enclosed and controlled by a dust collector (Baghouses 1). Truck coal is generally delivered directly onto the coal pile. In order to control fugitive dust emissions from truck coal delivery, the coal pile may be sprayed with water prior to the arrival of the trucks and during truck activity whenever possible.

Activated carbon and soda ash is delivered to the Will County facility by pneumatic trucks. The activated carbon and soda ash is blown into the storage silos. The transport air has some particles entrained in it and so the conveying air is vented through the silo bin vent filters prior to discharge into the atmosphere.

Trona is delivered to Will County via railcar. It is then pneumatically loaded from the railcar to dedicated trucks to transfer the Trona from the railcar unloading station to the storage silos. The railcar unloading station is equipped with a dust collector to control PM emissions from the railcar unloading/truck loading

process. The PM emissions arising from the pneumatic transfer of Trona from the trucks to the storage silos are controlled by the bin vent filters on the Trona storage silos.

Fly ash is drop loaded using a telescopic chute from the fly ash silos into tank trucks in a partially enclosed area to minimize fugitive PM emissions during gravity load out of dry fly ash. The truck operator manages fly ash loading activities to minimize spills. Any fly ash spills are cleaned up using the street sweeper, vacuum truck, or similar method as soon as possible after the spill occurs. Also the fly ash silos are equipped with baghouses (Baghouses 8 and 9) to control particulate emissions from the unloading process.

Bottom ash is transported with water from the boiler's slag tank hood to one of the two ash ponds via pipelines. The ash ponds are normally filled with water and thereby suppress any potential fugitive dust emissions. Infrequently the ash ponds need to be dewatered and the sediment is removed offsite. While the bottom ash and slag residue is drying, there is a potential for this material to become airborne during excessively dry and windy conditions. Truck loading of this material for offsite shipment is avoided during extremely dry or windy conditions. To minimize fugitive dust emissions from the exposed dry bottom ash and slag, the height of the material is minimized and the material pile tends to form a hard crust when left inactive. The haul trucks are covered with tarp or similar material once they have been loaded as per the requirements of 35 IAC 212.315 to control fugitive PM emissions.

Personnel at the Will County Station monitor the loading and unloading operations at regular intervals to ensure they are functioning properly and to observe for potential fugitive emissions. Observations are recorded on an inspection log, similar to the logs provided in Appendix 2 and Appendix 3.

V. Traffic Areas / Roadway Cleaning

Emission Limit: Pursuant to 35 IAC 212.301, no person shall cause or allow the emission of fugitive particulate matter from any process, including material handling or storage activity that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.
Operational Requirements per Regulation: All normal traffic pattern roads and parking facilities shall be paved or treated with water, oils or chemical dust suppressants. All paved areas shall be cleaned on a regular basis. All areas treated with water, oils or chemical dust suppressants shall have the treatment applied on a regular basis, as needed (35 IAC 212.306)
Fugitive Dust Control: Operational practices and wet street sweeping, as weather conditions allow

Traffic areas at the Will County Station are primarily paved. Paved areas are swept or treated with water as needed, to minimize fugitive emissions. Sweeping or watering of paved areas may be suspended from December 1 through the end of February each year, and during any other periods when the anticipated daily low temperature is below freezing, and following a precipitation event. Daily low temperatures and rainfall amounts are tracked on a Fugitive Dust Log similar to the log provided in Appendix 4.

Unpaved (gravel) roads are located around part of the ash ponds, Car Dumper Building and the fly ash silos. All unpaved roads are treated with water sprays on an as needed basis to control fugitive PM emissions. The application of water sprays may be suspended during the period from December 1 through the end of February, during any other periods when the anticipated daily low temperature is below freezing, and for up to 24 hours following a precipitation event. Daily low temperature and rainfall amounts are tracked on a Fugitive Dust Log similar to the log provided in Appendix 4.

VI. Material Collected by Pollution Control Equipment / Dust Collectors

Emission Limit: Pursuant to 35 IAC 212.313, if particulate matter collection equipment is operated pursuant to 35 IAC 212.304 through 212.310, emissions of particulate matter from such equipment shall not exceed 68 mg/dscm (0.03 gr/dscf).
Operational Requirements per Regulation: Materials collected by pollution control equipment shall be enclosed or shall utilize spraying, pelletizing, screw conveying or other equivalent methods pursuant to 35 IAC 212.307
Fugitive Dust Control: Materials collected by the dust collectors are enclosed or wetted.

The electrostatic precipitators ("ESPs") are the most significant particulate matter collection devices at Will County Station. Fly ash collected from the ESP is handled according to the control measures stated in Section 4.4. Other dust collectors provide control for the coal and fly ash handling operations. Dust collectors are installed on the Railcar Dumper Building and Breaker Building to reduce the potential for fugitive dust emissions from railcar unloading and coal processing. The material collected in the Breaker Building dust collectors (Baghouses 5 and 6)is returned to the Unit 4 coal bunkers via Baghouse 7. Particulate emission from the fly ash handling operation is controlled by baghouses (Baghouses 8 & 9) and the emissions from the Unit 4 coal bunkers are controlled by a wet dust extractor (DE2).

The activated carbon, soda ash and Trona silos are all equipped with bin vent filters to capture PM emissions during loading of the silos. The materials collected by the silo bin vent filters are enclosed and are dropped back into the silo. Additionally the railcar unloading station for Trona delivery is equipped with a dust collector to control PM emissions from railcar unloading/ truck loading process. The materials collected by the railcar unloading dust collector are also completely enclosed.

The Shift Supervisor or designee observes the dust collectors at regular intervals to assess the presence of visible emissions from the dust collector exhaust points. Any visible emissions are noted on the Fugitive Dust inspection log, similar to the logs provided in Appendix 2 and Appendix 3, and corrective action is performed as soon as practicable.

Table 1 - Particulate Collection Equipment Specifications

PM Control Equipment	Design Flow Rate (scfm)	Outlet Grain Loading (gr/scf)
BH1 (Car Dumper Baghouse)	134,000	0.015
BH2 (Transfer Point 1-2 and BELT-1 Baghouse)	3,000	0.015
BH3 (BELT-3, BELT-4, BELT-5 and Transfer Point 3-4-5 Baghouse)	34,500	0.015
BH4 (Transfer Point 5-U1-U2, Junction Tower Baghouse)	20,200	0.015
BH5 (Breaker Building Baghouse)	20,600	0.015
BH6 (Breaker Building Transfer Point B-C Baghouse)	40,000	0.015
BH7 (Transfer Point C-D Baghouse)	20,600	0.015
DE2 (Unit 4 Coal Bunker Dust Extractor)	12,500	0.015
BH8 (Fly Ash Silo Baghouse)	20,000	0.015
BH9 (Fly Ash Silo Baghouse)	20,000	0.015
BV1 (Soda Ash Silo Bin Vent Filter)	1,200	0.03
BV2 (Unit 3 ACI Silo Bin Vent Filter)	400	0.01
BV3 (Unit 4 ACI Silo Bin Vent Filter)	400	0.01
Trona Silo Bin Vent Filter (One Filter Per Silo for Two Trona Storage Silos)	1117	0.01
Railcar Unloading Dust Collector	590	0.001

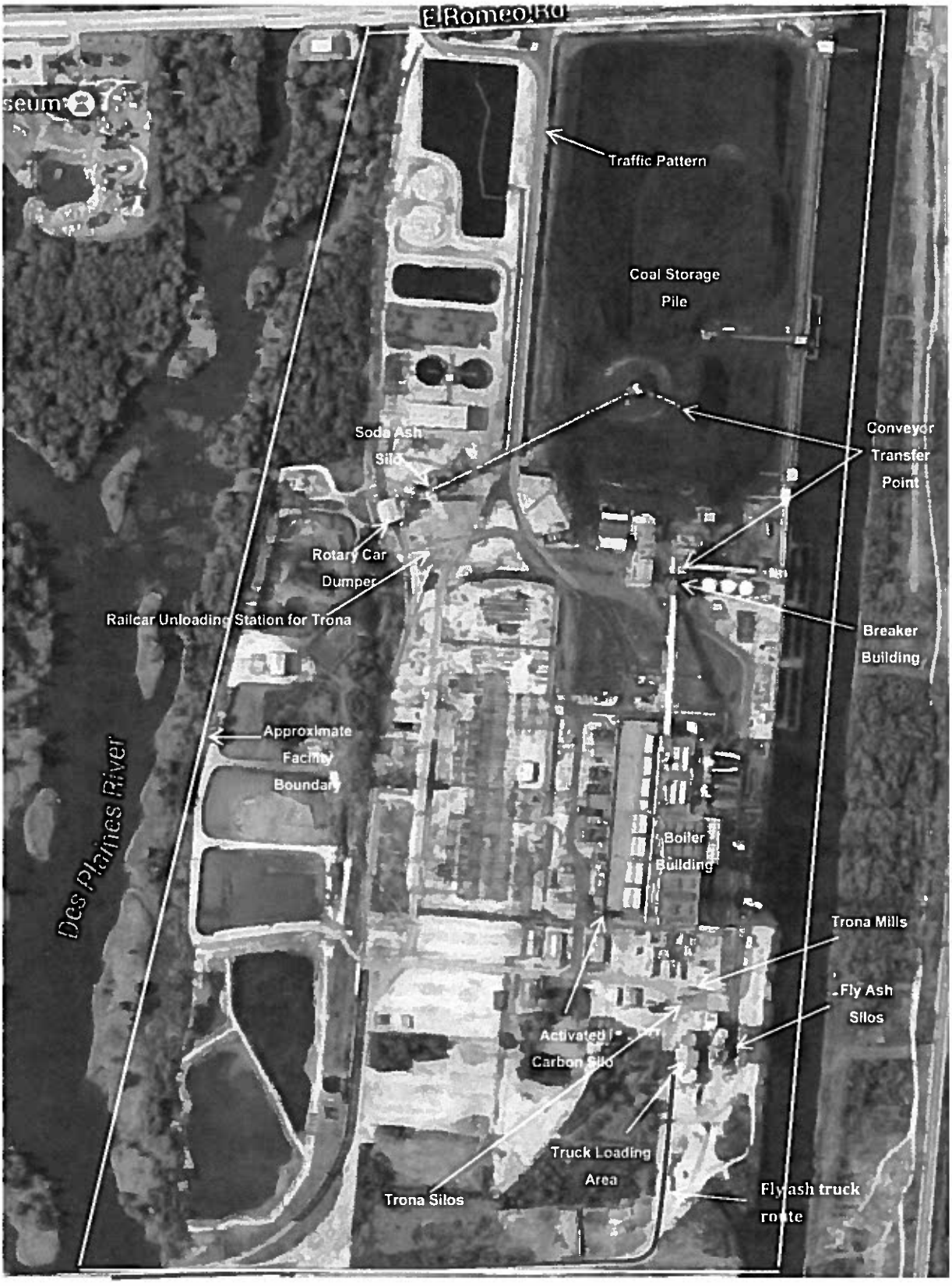
Table 2 - Sample Quarterly Inspection Form for Dry Sorbent Injection ("DSI") Sources

Note: Inspection must be conducted while units are operational
If visible emissions are present, corrective actions must be initiated within 24 hours to return units to "No Visible Emissions"

Date & Time of Inspection	Emission Unit	Control Equipment	Inspection Point	Method 22 for 30 minutes : Visible Emissions Present? (Yes/No)	If Visible Emissions Present Then Describe Corrective Actions Taken	Date & Time of Corrective Action
	Trona Storage Silo 1	Silo Bin Vent Filter	Bin Vent Exhaust			
	Trona Storage Silo 2	Silo Bin Vent Filter	Bin Vent Exhaust			
	Railcar Unloading Station / Truck Loading Station for Trona	Dust Collector	Dust Collector Discharge Duct			

Observer Name:
Observer Signature:

Appendix 1: Site Diagram


E Romeo Rd
Traffic Pattern
Coal Storage Pile
Soda Ash Silo
Conveyor Transfer Point
Rotary Car Dumper
Railcar Unloading Station for Trona
Breaker Building
Approximate Facility Boundary
Des Plaines River
Boiler Building
Trona Mills
Fly Ash Silos
Activated Carbon Silo
Truck Loading Area
Trona Silos
Flyash truck route

Appendix 2: Sample Monthly Fugitive Dust Inspection Log

SAMPLE MONTHLY INSPECTION – COAL HANDLING , ACI, SODA ASH & DSI – WILL COUNTY STATION

Monthly, while the Coal Handling Sources are in use, operation shall be observed and recorded.
If excess emissions are evident, contact the Supervisor.

Emission Unit	Emission Unit ID	Control Equipment ID	Vent/ Stack ID	Inspection Point	Observed Condition C = Clear V = Minor Emissions X = Excess Emissions	Process in Operation (Y/N)	Control Equipment (IS/OOS)	Maint. Required?	Method 9 VE IF X = Excess Emissions
Coal Handling Sources									
Reclaim Hopper	RH	INBLDNG		Ground Level					
RH-R1 Transfer Point	TPRH-R1	INBLDNG		Ground Level					
R1 Conveyor Belt	BELT-R1	ENCL		Outside Belt					
U1&2 Conveyor Belt	BELT-U1, BELT-U2	ENCL	ENCL	Outside Belt					
R1-U-H Transfer Point	TPR1-U-H	INBLDNG		Transfer Point					
H1&2 Conveyor Belt	BELT-H1, BELT-H2	ENCL		Outside Belt					
H-A Transfer Point (Surge Hopper)	TPH-A	ENCL		Outside Belt					
A1&2 Conveyor Belt	BELT-A1, BELT-A2	ENCL		Outside Belt					
A-B Transfer Point B1&2 Conveyor Belt	BB	BH5	V5	Baghouse Blower Discharge Duct					
B-C Transfer Point	TPB-C	BH6	V6	Baghouse Blower Discharge Duct					
C1&2 Conveyor Belt	BELT-C1, BELT-C2	ENCL		Outside Belt					

Emission Unit	Emission Unit ID	Control Equipment ID	Vent/ Stack ID	Inspection Point	Observed Condition C = Clear V = Minor Emissions X = Excess Emissions	Process in Operation (Y/N)	Control Equipment (IS/OOS)	Maint. Required?	Method 9 VE IF X = Excess Emissions
Coal Pile	PILE 1	WATER	FUG 2	At Property Line					
Paved Roads	PR1	WATER /VACUUM	FUG 1 0	Property Line					
Unpaved Roads	UPR1	WATER/ VACUUM	FUG1 1	Property Line					
C-D Transfer Point	TPC-D	BH7	V7	Baghouse Blower Discharge Duct					
D1&2 Conveyor Belt	BELT-D1, BELT-D2	IB		Outside Belt					
Unit 3 Bunker	BUNK 3	ENGART 1	V10	Stack Discharge					
Unit 4 Bunker	BUNK 4	ENGART 2	V11	Stack Discharge					
Soda Ash, ACI & DSI Sources									
Soda Ash Silo	SILO3	BV1	V43	Blower Discharge					
Unit 3 ACI Silo	SILO5	BV2	V44	Silo Bin Vent					
Unit 4 ACI Silo	SILO4	BV3	V45	Silo Bin Vent					
Unit 4 Trona Silo	SILO1	BVF		Silo Bin Vent					
Unit 4 Trona Silo	SILO2	BVF		Silo Bin Vent					

Emission Unit	Emission Unit ID	Control Equipment ID	Vent/ Stack ID	Inspection Point	Observed Condition C = Clear V = Minor Emissions X = Excess Emissions	Process in Operation (Y/N)	Control Equipment (IS/OOS)	Maint. Required?	Method 9 VE IF X = Excess Emissions
Trona Railcar Unloading Station		Dust Collector		Dust Collector Exhaust					

Week of: _____ Date: _____ Time: _____ Observer Signature: _____

Appendix 3: Sample Weekly Fugitive Dust Inspection Log

SAMPLE WEEKLY INSPECTION – COAL HANDLING, COAL PROCESSING AND FLY ASH EQUIPMENT – WILL COUNTY STATION

Weekly, while the Coal Processing and Fly Ash Processing Sources are in use, operation shall be observed and recorded.
If excess emissions are evident, contact the Supervisor.

Emission Unit	Emission Unit ID	Control Equipment ID	Vent/ Stack ID	Inspection Point	Date and Time of Inspection	Observed Conditions C = Clear V = Minor Emissions X = Excess Emissions	Process In Operation (Yes/No)	Control Equipment in service (IS) or out of service (OOS) (IS/OOS)	Maintenance Required	Method 9 VE results if X = Excess Emissions
Rail Car Coal Handling Sources										
Rotary Car Dumper, BF1 Conveyor Belt, BF2 Conveyor Belt, BF1-1 Transfer Point, BF2-1 Transfer Point	CD, BELT-BF1 &2, TPBF1-1, TPBF2-1	BH1	V1	Baghouse Blower Discharge Duct						
BC1 Conveyor Belt	BELT1	ENCL		Outside Belt						
1-2 Transfer Point	TP1-2	BH2	V2	Baghouse Blower Discharge Duct						
BC2 Conveyor Belt	BELT2	ENCL		Outside Belt						
Radial Boom Stacker	RBS	HEIGHT WATER		At Property Line						
BC3 Reclaim Feeder 1, BC3 Conveyor Belt, BC4 Reclaim Feeder 2, BC4 Conveyor Belt, 3-4-5 Transfer Point	RF1, BELT-3, RF2, BELT-4, TP3-4-5	BH3	V3	Baghouse Blower Discharge Duct						
BC5 Conveyor Belt	BELT5	ENCL		Outside Belt						

Emission Unit	Emission Unit ID	Control Equipment ID	Vent/ Stack ID	Inspection Point	Date and Time of Inspection	Observed Conditions C = Clear V = Minor Emissions X = Excess Emissions	Process In Operation (Yes/No)	Control Equipment in service (IS) or out of service (OOS) (IS/OOS)	Maintenance Required	Method 9 VE results if X = Excess Emissions
BC5-6-U1-U2 Junction (Transfer) Tower	JT5-6-U	BH4	V4	Baghouse Blower Discharge Duct						
Coal Processing Sources										
Breaker Building Baghouse Exit	BB	BH5	V5	Discharge Duct						
Breaker Building B-C Transfer Point	TPB-C	BH6	V6	Discharge Duct						
Breaker Building A-B Transfer Point	BB	BH5/ENCL	INBLDG	Outside Breaker Building at 4 walls and roof						
Breaker Building B1 Conveyor Belt										
Breaker Building B2 Conveyor Belt										
Fly Ash Processing Sources										
Units 1&2 - Fly Ash Silo	SILO1	BH8 or BH9 TELEC	V12 or V13	Baghouse Blower Discharge Duct						

Emission Unit	Emission Unit ID	Control Equipment ID	Vent/ Stack ID	Inspection Point	Date and Time of Inspection	Observed Conditions C = Clear V = Minor Emissions X = Excess Emissions	Process In Operation (Yes/No)	Control Equipment in service (IS) or out of service (OOS) (IS/OOS)	Maintenance Required	Method 9 VE results if X = Excess Emissions
Units 3&4 - Fly Ash Silo	SILO2	BH8 or BH9 TELEC	V12 or V3							

Operator's Signature: _____ Date: _____

Appendix 4: Sample Daily Fugitive Dust Log

Month:			Year:		Coal Pile Treatments		Roadways – Water Wagon/ Street Sweeper in use				
Date	Time	Daily Low Ambient Temp. °F	24 hr rain fall (inches)	Max 1 hr Wind Speed (mph)	Water Treatments Active Storage (Y/N)	Water Treatments Inactive Storage (Y/N)	Paved Roads (WW/SS)[1]	Unpaved Roads (WW/SS)[1]	Operator Initials	Number of Water Wagon Trips/ Day [2]	Comments, Equipment OOS, Problems & Work Orders
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
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16											
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20											
21											
22											
23											
24											
25											
26											
27											
28											
29											
30											
31											

[1] WW = water wagon, SS = street sweeper. [2] Water Wagon Holds 6,000 gallons of water, spraying a 30 foot horizontal width.

SUPERVISOR REVIEW _____

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
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Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

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February 23,2017

Dear Customer:

The following is the proof-of-delivery for tracking number 778429275662.

Delivery Information:

Status:	Delivered	**Delivered to:**	Mailroom
Signed for by:	J.BAKER	**Delivery location:**	SPRINGFIELD, IL
Service type:	FedEx Standard Overnight	**Delivery date:**	Feb 15, 2017 09:21
Special Handling:	Deliver Weekday		

Signature image is available. In order to view image and detailed information, the shipper or payor account number of the shipment must be provided.

Shipping Information:

Tracking number:	778429275662	**Ship date:**	Feb 14, 2017
		Weight:	0.5 lbs/0.2 kg

Recipient:
SPRINGFIELD, IL US

Shipper:
ROMEOVILLE, IL US

Thank you for choosing FedEx.

February 23,2017

Dear Customer:

The following is the proof-of-delivery for tracking number 778429326954.

Delivery Information:

Status:	Delivered	**Delivered to:**	Receptionist/Front Desk
Signed for by:	K.PRICE	**Delivery location:**	Des Plaines, IL
Service type:	FedEx Standard Overnight	**Delivery date:**	Feb 15, 2017 10:48
Special Handling:	Deliver Weekday		

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Shipping Information:

Tracking number:	778429326954	**Ship date:**	Feb 14, 2017
		Weight:	0.5 lbs/0.2 kg

Recipient:
Des Plaines, IL US

Shipper:
Romeoville, IL US

Thank you for choosing FedEx.

Petitioner’s Hearing Exhibit S

Illinois

Ambient Air Monitoring

2022 Network Plan

Illinois Environmental Protection Agency

Bureau of Air

June 2021

Table of Contents

Acronyms

AQI	Air Quality Index
AQS	Air Quality System
BAM	Beta Attenuation Monitor
CAA	Clean Air Act
CASTNET	Clean Air Status and Trends Network
CCDES	Cook County Department of Environment and Sustainability
CFR	Code of Federal Regulations
CO	Carbon Monoxide
FEM	Federal Equivalent Method
FRM	Federal Reference Method
GECC	Gateway Energy & Coke Company
IEPA or Illinois EPA	Illinois Environmental Protection Agency
IMPROVE	Interagency Monitoring of Protected Visual Environments
MSA	Metropolitan Statistical Area
NAAQS	National Ambient Air Quality Standards
NCore	National Core multi-pollutant station
NO	Nitric Oxide
NO_2	Nitrogen Dioxide
NO_x	Nitrogen Oxides
NO_y	Total Reactive Nitrogen Oxides
NPS	National Park Service
O_3	Ozone
PAMS	Photochemical Assessment Monitoring Station
Pb	Lead
$PM_{2.5}$	Particulate matter with a diameter less than or equal to 2.5 micrometers
PM_{10}	Particulate matter with a diameter less than or equal to 10 micrometers
$PM_{10\text{-}2.5}$	Particulate matter with a diameter less than or equal to 10 micrometers and greater than or equal to 2.5 micrometers
ppb	Parts per billion
ppm	Parts per million
PWEI	Population Weighted Emissions Index
QA	Quality Assurance
SASS	Speciation Air Sampling System
SLAMS	State or Local Air Monitoring Station
SO_2	Sulfur Dioxide
SPM	Special Purpose Monitor
STN	Speciation Trends Network
SWS	State Water Survey
TSP	Total Suspended Particulate
USEPA	United States Environmental Protection Agency
UV	Ultraviolet
VOC	Volatile Organic Compounds

Introduction

In 1970, Congress enacted the Clean Air Act (CAA), empowering the United States Environmental Protection Agency (USEPA) to develop and implement National Ambient Air Quality Standards (NAAQS) for pollutants shown to threaten human health.

NAAQS exist for six criteria pollutants – carbon monoxide (CO), ozone (O_3), lead (Pb), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter with a diameter less than or equal to 10 micrometers (PM_{10}), and fine particulate matter ($PM_{2.5}$). There are primary and secondary NAAQS. Primary standards protect public health, whereas secondary standards protect public welfare including the environment.

A predominant goal of the air monitors within Illinois' network is to collect data with which to assess compliance with the NAAQS. A listing of these NAAQS calculations and contributions can be found at https://www.epa.gov/criteria-air-pollutants/naaqs-table.

Illinois has designed its ambient air monitoring network to provide timely air pollution data to the public, support compliance with ambient air quality standards and emissions strategy development, and support air pollution research studies. Data gathered from the Illinois EPA's monitoring network is used to produce a daily Air Quality Index (AQI) report, compile daily air quality forecast reports, support short- and long-term health risk assessments, identify localized health concerns, and track long-term trends in air quality that could potentially threaten Illinois citizen's quality of life.

The Illinois air monitoring network includes monitors for the seven criteria pollutants: CO, O_3, Pb, NO_2, SO_2, PM_{10}, and $PM_{2.5}$. The Illinois air monitoring network meets or, in most cases, exceeds the applicable minimum network requirements.

Monitor siting takes into consideration: peak (the highest concentration of pollution in a given area), population (presence of pollutants in areas with high population densities), source (pollution resulting from significant sources or source categories), background (general pollutant levels), and transport (extent of regional pollutant transport between populated areas). Federal regulations prescribe requirements for monitor and probe siting to ensure that the ambient air quality data is accurately representative. The criteria for the placement and operation of each monitor and probe vary. Site surveys ensure that each requirement is satisfied.

Federal regulations require each State to submit to USEPA an air monitoring network plan annually for the prospective year. Additionally, a five-year network assessment must be completed by USEPA Region 5 monitoring organizations. The last five-year network assessment was completed in 2020 and found the criteria pollutant monitoring network was adequate in meeting USEPA's minimum criteria. The next network assessment will be completed in 2025. The annual network plans take into consideration findings of these assessments. The annual network plan provides a description of the monitoring network for each criteria pollutant including proposed changes. The air monitoring network plan is subject to public review and comment prior to its submission to the USEPA.

Monitoring Designations

The following designations describe the various types of monitors at the sites within Illinois' air monitoring network:

- **NCore** - National Core multi-pollutant monitoring station. Illinois is required by federal regulations to operate one NCore site, which includes monitors for CO, nitric oxide/reactive nitrogen (NO/NO_y), SO_2, O_3, PM_{10}, speciated $PM_{2.5}$, $PM_{2.5}$, $PM_{10\text{-}2.5}$, wind speed, wind direction, relative humidity, and ambient temperature. Illinois operates an NCore site in Northbrook and provides support for the federal rural NCore site located in Bondville measuring $PM_{2.5}$.
- **Near-road** - Placed near busy roadways, near-road sites measure hourly concentrations of NO_2 and sometimes CO or $PM_{2.5}$ in urban areas. Illinois EPA operates two near-road locations, one in Chicago and one in Lansing. The Lansing near-road location began operating off the Kingery Expressway on March 1, 2019. The Chicago near-road location, along the Kennedy Expressway, began operating July 26, 2019.
- **PAMS** - Photochemical Assessment Monitoring Station. In addition to monitoring of criteria pollutants, Illinois also participates in a regional Photochemical Assessment Monitoring Station (PAMS) network in the Chicago area that is part of the USEPA approved "Alternate Plan for the Regional Lake Michigan PAMS Network." This regional PAMS network focuses on both the Milwaukee and Chicago areas that are classified as ozone nonattainment areas. These sites are dedicated to obtaining more information about ozone and its precursors. The Illinois sites participating in the 2022 regional PAMS network will include enhanced monitoring in Schiller Park as well as regulatorily-required monitoring in Northbrook. Illinois' regional PAMS sites will collect and monitor some or all of the following: speciated volatile organic compounds (VOCs), carbonyls, NO_2, NO/NO_y, O_3, CO, and meteorological data in order to monitor potential threats of nonattainment.
- **SLAMS** - State or Local Ambient Monitoring Station. SLAMS monitoring is for comparison to the NAAQS.
- **SPM** - Special Purpose Monitor. The monitors in this category are included in the Agency network but do not apply toward the determination of area NAAQS compliance.

Siting and operation, including collocation requirements, of each monitor meets the requirements of Part 58 Appendices A, B, C, D, and E.

Monitoring Objectives

Monitoring objectives describe the various purposes of the monitors within Illinois' air monitoring network:

- **General Concentration (Background)** - These sites are positioned to measure the general background concentration of pollutants in an area.
- **Highest Concentration (Highest Conc.)-** These sites are located to determine the expected peak concentrations of pollutants in an area.

- **Population** - Located in areas categorized by high population density, these sites are used to determine the typical pollutant concentrations in a specific area.
- **Regional Transport (Transport)** - These sites are located to monitor the level of regional pollution transport from one area to the next.
- **Source-Oriented Source (Source)** - As certain sources contribute to pollution more significantly than others, source-oriented monitors are placed in order to identify the impact of these sources.

Spatial Scale Designations

Sites are not only characterized by type and by the objective, but also according to spatial scale. These scales are used to categorize siting areas and link them with the specific monitoring objectives. Spatial scales as outlined by the USEPA include:

- **Micro** - Concentrations in air volumes associated with area dimensions ranging from several meters up to about 100 meters.
- **Middle** - Concentrations typical of areas up to several city blocks in size with dimensions ranging from about 100 meters to 0.5 kilometer.
- **Neighborhood** - Concentrations within some extended area of the city that has relatively uniform land use with dimensions in the 0.5 to 4.0 kilometers range.
- **Urban** - Overall, citywide conditions with dimensions on the order of four to 50 kilometers.
- **Regional** - A rural area of reasonably homogenous geography without large sources, extending from tens to hundreds of kilometers.

Sampling Methodology

Every ambient air monitor can be classified by a specific method number which identifies sample collection and analysis methods. A comprehensive list of these numbers can be found at: https://www.epa.gov/aqs/aqs-code-list.

Federal regulations specify that monitoring methods used for comparison to the NAAQS must be Federal Reference or Equivalent Methods (FRM or FEM). Almost all monitors listed in Illinois' network plan use either FRM or FEM with only a few exceptions. Locations hosting continuous $PM_{2.5}$ samplers solely for AQI purposes are not operated as FRM or FEM.

Quality Assurance

Guidance, policies, and federal regulations establish quality system requirements for data submitted to USEPA. Currently, there are two Primary Quality Assurance Organizations under this network plan – the Illinois EPA and the Cook County Department of Environment and Sustainability (CCDES).

Proposed Network for 2022

Ozone

Illinois is required to operate a minimum of 14 O_3 monitoring sites across the state to meet SLAMS O_3 requirements. NCore requires the operation of one O_3 monitor year-round. Additionally, 19 other O_3 monitors are operated for purposes of supporting the basic monitoring objectives of public data reporting, air quality mapping, compliance, enhanced monitoring, and supporting air pollution research studies. In 2021, Illinois operated 33 O_3 monitors. Additionally, USEPA operated three ozone monitors as part of the Clean Air Status and Trends Network (CASTNET). The number of ozone monitors will not change in 2022.

Discussions are currently ongoing with the property owner of the Maryville ozone monitoring location. The property owner has indicated construction will take place in the area of the current monitoring trailer. It is not yet known whether the property owner will allow the trailer to be moved elsewhere at the current location or whether a new location will need to be established.

Fine Particulate Matter ($PM_{2.5}$)

Illinois is required to operate a minimum of 13 FRM or FEM $PM_{2.5}$ monitors. NCore requires one continuous and one filter based $PM_{2.5}$ monitor. One near-road monitoring site with one FRM or FEM $PM_{2.5}$ monitor is also required. Illinois must operate at least one FRM or FEM $PM_{2.5}$ site monitoring regional background and at least one FRM or FEM $PM_{2.5}$ site to monitor regional transport. Additionally, 18 other $PM_{2.5}$ monitoring sites are operated for purposes of supporting the basic monitoring objectives of public data reporting, air quality mapping, compliance, and supporting air pollution research studies. Depending on funding availability, monitoring site logistics, and manufacturer repair status, additional primary designated $PM_{2.5}$ monitors will be switched from manual filter-based FRM monitors to continuous FEM monitors. As of May 2021, monitors that have FEM continuous units include Bondville, Braidwood, Decatur, Des Plaines, Houston, Jerseyville, Joliet, Knight Prairie, Lansing near-road, Naperville, Normal, Northbrook, Peoria, Rock Island, Rockford, and Springfield. The sites that currently are planned to have FEM monitors between 2021 and 2022 are listed in Table 3.

Illinois EPA initially planned to install new $PM_{2.5}$ FEM monitors at several locations starting in 2020. After delays caused by Covid, Illinois EPA now plans to begin this work in 2021. Some of these new monitors will replace existing FEM monitors while others will replace FRM monitors. Illinois EPA is currently focusing on discontinuing aging Anderson single event monitors (method code 153) as well as removing problematic Thermo 5014i continuous FEM monitors (method code 183). At sites where monitors will be changed, Teledyne T640s (method code 236) will be used. The first round of changes in 2021 includes replacing the Thermo 5014i FEM monitors at Braidwood, Joliet, Knight Prairie, Lansing near-road, Naperville, Northbrook, Rock Island, and Rockford. The Agency is also planning on converting FRM monitors to FEM monitors at Cary and Alton. At Cary, this will allow the removal of the FRM Anderson and BAM monitors. At Alton, the FRM BGIs will be moved to Aurora which will allow aging Andersons to be removed from the network and eliminate collocation requirements for that method. Illinois EPA plans to replace additional Thermo 5014i monitors after the next round of

purchasing in 2021 and 2022. The next round of 2021 and 2022 changes in monitoring methods include switching the Thermo 5014i continuous FEM monitors with Teledyne T640 continuous FEM monitors at the following locations: Decatur, Des Plaines, East St. Louis, Houston, Jerseyville, Normal, Peoria, Springfield, and Wood River. Champaign is also planned to be switched to a T640 when a suitable replacement site is found.

A new monitoring location was established in 2020 in Alton at the Horace Mann Elementary School, 2708 Edwards Street, measuring ozone. This location is approximately two blocks from the existing $PM_{2.5}$ location at the SIU Dental Clinic, 1700 Annex Street. Illinois EPA requested and was approved by USEPA for site relocation and consolidation of the $PM_{2.5}$ monitoring equipment to the new location at Horace Mann Elementary School.

Due to roof construction at the Northbrook NCore location in 2020, all particulate samplers were moved to a lower level roof at the water plant. The samplers change in location was approximately 80 feet to the northeast from the former location.

In 2021, 34 $PM_{2.5}$ sites were operating in Illinois. In 2022, the number of $PM_{2.5}$ sites will not change.

Sulfur Dioxide

Illinois is required to operate six SO_2 monitors. One SO_2 monitor is required at each of the Northbrook and Bondville NCore sites to fulfill NCore requirements. The Illinois State Water Survey operates the Bondville SO_2 monitor. Additionally, five SO_2 monitoring sites are operated in Illinois' network supporting the basic monitoring objectives of public data reporting, air quality mapping, compliance, and supporting air pollution research studies. SO_2 data requirements established by USEPA require either modeling or monitoring to characterize current air quality in areas with large sources of SO_2 (40 CFR 51 Subpart BB). Tate & Lyle are contracting with Environmental Resources Management, Inc. operating two SO_2 monitors under this rule.

A total of 12 SO_2 monitors were operated in Illinois in 2021. In 2022, the number of SO_2 sites will remain at twelve.

Nitrogen Dioxide

Illinois is required to operate two near-road NO_2 monitors. In addition to area-wide monitors, federal regulations require the Regional Administrator to collaborate with each State in determining the need for additional NO_2 monitoring requirements beyond the minimum, with a primary focus on siting monitors in locations to protect susceptible and vulnerable populations. In Illinois, two NO_2 monitoring sites are designated, East St. Louis and ComEd, as susceptible and vulnerable population monitoring sites. Illinois operates one NO/NO_y monitor in Northbrook. Additionally, the Illinois State Water Survey operates an NO/NO_y monitor at the rural NCore site in Bondville.

During the spring of 2021, Illinois EPA will install a direct measure NO_2 monitor at the NCore site in Northbrook to meet new Photochemical Assessment Monitoring Station requirements. This monitor will be installed before the June 1, 2021, required start date.

In 2021, the monitoring network consisted of eight NO_2 monitoring sites. Two NO/NO_y monitors will continue to be operated by Illinois EPA and the State Water Survey. In 2022, the number of NO_2 sites will remain at eight.

Carbon Monoxide

Illinois must operate one CO monitor in conjunction with one near-road NO_2 monitor. In addition, it must operate one CO monitor at NCore sites, Northbrook and Bondville. (The Illinois State Water Survey operates the Bondville CO monitor at the rural NCore site.) An additional CO monitoring site is operated in Illinois' network supporting the basic monitoring objectives of public data reporting, air quality mapping, compliance, and supporting air pollution research studies. In 2021, three CO monitors were in operation. The number of CO monitors will not change in 2022.

Particulate Matter (PM_{10})

Illinois must operate three PM_{10} monitors to satisfy MSA requirements. One PM_{10} monitor must also be operated for NCore purposes. Additionally, Illinois operates one $PM_{10-2.5}$ (PM coarse) monitor at the Northbrook location to fulfill NCore requirements. The National Park Service operates one PM_{10} monitor at the Bondville NCore location. In 2021, Illinois EPA operated a total of four PM_{10} monitoring sites. In 2022, Illinois EPA will continue to operate four PM_{10} monitors and one $PM_{10-2.5}$ monitor.

Lead

Illinois is required to operate source-oriented monitors near facilities emitting 0.5 tons/year of lead that also have maximum lead concentrations in ambient air in excess of 50 percent of the NAAQS unless a waiver for that site has been approved. Lead monitoring waivers are currently in place with USEPA for Kincaid Generation Power Plant, Keystone Steel & Wire Corporation, Sterling Steel Corporation, Gateway Energy and Coke Company, and Gunite Corporation. The waivers were approved by USEPA in 2017 for Kincaid, in 2018 for Keystone Steel, Sterling Steel, and Gunite, and in 2020 for Gateway Energy and Coke Company. Waivers must be renewed every five years. Modeling and/or monitoring results for these facilities demonstrated that they do not have the potential to contribute to a maximum lead concentration greater than 50 percent of the NAAQS.

In 2021, Olin Corporation began operating a special purpose lead monitor in Alton measuring lead concentrations at its facility for a period of at least one year. With the addition of the Alton lead monitor, the number of lead sites will increase from three to four. In 2022, Illinois EPA will continue to operate four lead monitors.

Photochemical Assessment Monitoring

Illinois is required to collect and report additional PAMS measurements at the Northbrook monitoring location by June 1, 2021. At a minimum, Illinois plans to add to the existing PAMS measurements the following items:

Hourly average speciated volatile organic compounds, three eight-hour carbonyls samples on a one-in-three day schedule, true nitrogen dioxide, hourly precipitation, and averaged mixing height. In addition, new solar radiation and ultraviolet radiation sensors will be procured. Illinois plans to run these additional items during the months of June, July, and August.

Table 1: Illinois Monitoring Network by Criteria Pollutant

AQS ID	County	City	Address	Site Description	Owner	CO	NO_2	NOy	SO_2	O_3	PM_{10} / Coarse	$PM_{2.5}$	Pb
17-001-0007	Adams	Quincy	1301 S. 48th St	John Wood Community College	IEPA					X			
17-019-0006	Champaign	Champaign	904 N. Walnut	Ameren Substation Platform	IEPA							X	
17-019-0007	Champaign	Thomasboro	North Thomas St.	Resident's Building	IEPA					X			
17-019-1001	Champaign	Bondville	Twp. Rd. 500 E.	State Water Survey Climate Station	SWS	X		X	X				
17-019-1001	Champaign	Bondville	Twp. Rd. 500 E.	State Water Survey Climate Station	IEPA							X	
17-019-1001	Champaign	Bondville	Twp. Rd. 500 E.	CASTNET Station	USEPA					X			
17-019-1001	Champaign	Bondville	Twp. Rd. 500 E.	IMPROVE Station	NPS						PM_{10} / Coarse		
17-031-0001	Cook	Alsip	4500 W. 123rd St.	Village Garage	CCDES					X		X	
17-031-0022	Cook	Chicago	3535 E. 114th St	Washington High School	CCDES						X	X	X
17-031-0032	Cook	Chicago	3300 E. Cheltenham Pl.	South Water Filtration Plant	CCDES					X			
17-031-0052	Cook	Chicago	4850 Wilson Ave.	Mayfair Pump Station	CCDES							X	
17-031-0057	Cook	Chicago	1745 N. Springfield Ave.	Springfield Pump Station	CCDES							X	
17-031-0076	Cook	Chicago	7801 Lawndale	Com Ed Maintenance Bldg. Trailer	CCDES		X		X	X		X	
17-031-0110	Cook	Chicago	1241 19th St.	Perez Elementary School	CCDES								X
17-031-1003	Cook	Chicago	6545 W. Hurlbut St.	Taft High School	CCDES					X			
17-031-0119	Cook	Lansing	Kingery Expy & Torrence Ave.	Kingery Near-road #1	IEPA	X	X					X	
17-031-0219	Cook	Chicago	Kennedy Expy & W. Webster Ave.	Kennedy Near-road #2	IEPA		X						
17-031-1016	Cook	Lyons Township	50th St. & Glencoe	Village Hall	IEPA						X	X	

AQS ID	County	City	Address	Site Description	Owner	CO	NO_2	NOy	SO_2	O_3	PM_{10} / Coarse	$PM_{2.5}$	Pb
17-031-1601	Cook	Lemont	729 Houston	Lemont Trailer	CCDES				X	X			
17-031-3103	Cook	Schiller Park	4743 Mannheim Rd.	Schiller Park Trailer	IEPA		X			X		X	
17-031-3301	Cook	Summit	60th St. & 74th Ave.	Graves Elementary School	CCDES							X	
17-031-4002	Cook	Cicero	1820 S. 51st Ave.	Cicero Trailer	CCDES		X			X			
17-031-4007	Cook	Des Plaines	9511 W. Harrison St.	Regional Office Bldg.	IEPA					X		X	
17-031-4201	Cook	Northbrook	750 Dundee Rd.	Northbrook Water Plant	IEPA	X	X	X	X	X	Coarse	X	
17-031-6005	Cook	Cicero	13th St. & 50th Ave.	Liberty School	CCDES							X	
17-031-7002	Cook	Evanston	531 E. Lincoln	Evanston Water Plant	IEPA					X			
17-043-4002	DuPage	Naperville	400 S. Eagle St.	City Hall	IEPA							X	
17-043-6001	DuPage	Lisle	Route 53	Morton Arboretum	IEPA					X			
17-049-1001	Effingham	Effingham	10421 N. US Hwy. 45	Central Grade School	IEPA					X			
17-065-0002	Hamilton	Knight Prairie Twp	Route 14	Knight Prairie Trailer	IEPA					X		X	
17-083-0117	Jersey	Jerseyville	21965 Maple Summit Rd.	Jerseyville Trailer	IEPA					X		X	
17-085-9991	Jo Daviess	Stockton	10952 E. Parker Rd.	CASTNET Station	USEPA					X			
17-089-0003	Kane	Elgin	258 Lovell St.	McKinley School	IEPA							X	
17-089-0005	Kane	Elgin	665 Dundee Rd.	Larsen Junior High School	IEPA					X			
17-089-0007	Kane	Aurora	1240 N. Highland	Health Department	IEPA							X	
17-097-1007	Lake	Zion	Illinois Beach State Park	Zion Trailer	IEPA					X			
17-099-0007	La Salle	Oglesby	308 Portland Ave.	Oglesby Trailer	IEPA				X				

AQS ID	County	City	Address	Site Description	Owner	CO	NO_2	NOy	SO_2	O_3	PM_{10} / Coarse	$PM_{2.5}$	Pb
17-111-0001	McHenry	Cary	First St. & Three Oaks Rd.	Cary Grove High School	IEPA					X		X	
17-113-2003	McLean	Normal	Main & Gregory	Normal-ISU Physical Plant Trailer	IEPA					X		X	
17-115-0013	Macon	Decatur	2200 N. 22nd St.	Decatur Trailer	IEPA				X	X		X	
17-115-0217	Macon	Decatur	Folk & E. Marietta Sts.	Tate & Lyle Northwest	ERM Inc.				X				
17-115-0317	Macon	Decatur	El Dorado St.	Tate & Lyle Southeast	ERM Inc.				X				
17-117-0002	Macoupin	Nilwood	Heaton & Dubois	Nilwood Trailer	IEPA		X		X	X			
17-119-0120	Madison	Alton	2708 Edwards St.	Horace Mann School	IEPA					X		X	
17-119-0121	Madison	Alton	Powder Mill Rd.	Olin Corporation	IEPA								X
17-119-0010	Madison	Granite City	15th & Madison	Air Products	IEPA								X
17-119-0024	Madison	Granite City	2100 Madison	Gateway Medical Center	IEPA							X	
17-119-1007	Madison	Granite City	23rd. & Madison	Fire Station # 1	IEPA						X	X	
17-119-1009	Madison	Maryville	200 W. Division	Maryville Trailer.	IEPA					X			
17-119-3007	Madison	Wood River	54 N. Walcott	Wood River Water Treatment Plant	IEPA				X	X		X	
17-119-9991	Madison	Highland	5403 State Rd. 160	CASTNET Station	USEPA					X			
17-143-0024	Peoria	Peoria	Hurlburt & MacArthur	Fire Station #8	IEPA					X			
17-143-0037	Peoria	Peoria	613 N.E. Jefferson	City Office Bldg.	IEPA							X	
17-143-1001	Peoria	Peoria Heights	508 E. Glen Ave.	Peoria Heights High School	IEPA					X			
17-157-0001	Randolph	Houston	Hickory Grove & Fallview	Houston Trailer	IEPA					X		X	
17-161-3002	Rock Island	Rock Island	32 Rodman Ave.	Rock Island Arsenal	IEPA					X		X	

AQS ID	County	City	Address	Site Description	Owner	CO	NO_2	NOy	SO_2	O_3	PM_{10} / Coarse	$PM_{2.5}$	Pb
17-163-0010	St. Clair	East St. Louis	13th & Tudor	ESTL Trailer	IEPA		X		X	X		X	
17-167-0012	Sangamon	Springfield	State Fair Grounds	Agriculture Bldg.	IEPA							X	
17-167-0014	Sangamon	Springfield	Illinois Building	State Fairgrounds Shelter	IEPA					X			
17-179-0004	Tazewell	Pekin	272 Derby	Pekin Fire Station #3	IEPA				X				
17-197-1002	Will	Joliet	Midland & Campbell Sts.	Pershing Elementary School	IEPA							X	
17-197-1011	Will	Braidwood	36400 S. Essex Rd.	Com Ed Training Ctr. Trailer	IEPA					X		X	
17-201-0118	Winnebago	Rockford	204 South 1st St.	Fire Department Admin. Bldg.	IEPA							X	
17-201-2001	Winnebago	Loves Park	1405 Maple Ave.	Maple Elementary School	IEPA					X			
					IEPA	2	6	1	7	27	3	27	2
					CCDES	0	2	0	2	6	1	7	2
					NPS/SWS	1	0	1	1	0	1	0	0
					ERM Inc.	0	0	0	2	0	0	0	0
					USEPA	0	0	0	0	3	0	0	0
					Total	3	8	2	12	36	5	34	4

Red indicates monitor/site proposed for removal or has been removed, Green indicates monitor/site proposed for installation or has been installed.

Table 2: Ozone Sites

AQS ID	Site	Latitude Longitude	Area Represented	Primary Objective	Secondary Objective	Spatial Scale	Station Type	Monitor Type	Sampling Schedule
17-001-0007	Quincy	+39.91540937 -91.33586832	Quincy, IL-MO	Population	Highest Conc.	Urban	SLAMS	T400	Hourly/S
17-019-0007	Thomasboro	+40.244913 -88.188519	Champaign-Urbana, IL	Population	N/A	Urban	SLAMS	T400	Hourly/S
17-019-1001	Bondville	+40.052780 -88.372510	Champaign-Urbana, IL	Highest Conc.	N/A	Regional	NCORE	49i	Hourly/Y
17-031-0001	Alsip	+41.6709919 -87.7324569	Chicago-Naperville-Michigan City, IL-IN-WI	Population	N/A	Urban	SLAMS	T400	Hourly/S
17-031-0032	South Water Filtration Plant	+41.75583241 -87.54534967	Chicago-Naperville-Michigan City, IL-IN-WI	Highest Conc.	Population	Neighborhood	SLAMS	T400	Hourly/S
17-031-0076	Com Ed.	+41.75139998 -87.71348815	Chicago-Naperville-Michigan City, IL-IN-WI	Population	N/A	Urban	SLAMS	Ecotech 187	Hourly/S
17-031-1003	Taft High School	+41.98433233 -87.7920017	Chicago-Naperville-Michigan City, IL-IN-WI	Population	N/A	Urban	SLAMS	T400	Hourly/S
17-031-1601	Lemont	+41.66812034 -87.99056969	Chicago-Naperville-Michigan City, IL-IN-WI	Population	N/A	Urban	SLAMS	Ecotech 187	Hourly/S
17-031-3103	Schiller Park	+41.96519348 -87.87626473	Chicago-Naperville-Michigan City, IL-IN-WI	Population	Source	Neighborhood	PAMS/SLAMS	49i	Hourly/S
17-031-4002	Cicero	+41.85524313 -87.7524697	Chicago-Naperville-Michigan City, IL-IN-WI	Population	N/A	Neighborhood	SLAMS	Ecotech 187	Hourly/S
17-031-4007	Des Plaines	+42.06028469 -87.86322543	Chicago-Naperville-Michigan City, IL-IN-WI	Population	N/A	Urban	SLAMS	T400	Hourly/S
17-031-4201	Northbrook	+42.13999619 -87.79922692	Chicago-Naperville-Michigan City, IL-IN-WI	Population	NA	Urban	PAMS/NCORE	49i	Hourly/Y
17-031-7002	Evanston	+42.062053 -87.675254	Chicago-Naperville-Michigan City, IL-IN-WI	Population	N/A	Neighborhood	SLAMS	T400	Hourly/S
17-043-6001	Lisle	+41.81304939 -88.0728269	Chicago-Naperville-Michigan City, IL-IN-WI	Population	N/A	Urban	SLAMS	T400	Hourly/S
17-049-1001	Effingham	+39.06715932 -88.54893401	Effingham, IL	Population	N/A	Regional	SLAMS	T400	Hourly/S
17-065-0002	Knight Prairie	+38.08215516 -88.6249434	Mt Vernon, IL	Background	N/A	Regional	SLAMS	T400	Hourly/S
17-083-0117	Jerseyville	+39.101439 -90.344494	St Louis, IL-MO	Transport	Population	Regional	SLAMS	T400	Hourly/S
17-085-9991	Stockton	+42.2869 -89.9997	Stockton, IL	Highest Conc.	N/A	Regional	SLAMS	49i	Hourly/S
17-089-0005	Elgin	+42.04914776 -88.27302929	Chicago-Naperville-Michigan City, IL-IN-WI	Population	N/A	Urban	SLAMS	T400	Hourly/S
17-097-1007	Zion	+42.4675733 -87.81004705	Chicago-Naperville-Michigan City, IL-IN-WI	Highest Conc.	Transport	Urban	PAMS/SLAMS	T400	Hourly/S
17-111-0001	Cary	+42.22144166 -88.24220734	Chicago-Naperville-Michigan City, IL-IN-WI	Population	N/A	Urban	SLAMS	T400	Hourly/S

AQS ID	Site	Latitude Longitude	Area Represented	Primary Objective	Secondary Objective	Spatial Scale	Station Type	Monitor Type	Sampling Schedule
17-113-2003	Normal	+40.51873537 -88.99689571	Bloomington-Normal, IL	Population	Highest Conc.	Urban	SLAMS	T400	Hourly/S
17-115-0013	Decatur	+39.866933 -88.925452	Decatur, IL	Population	Highest Conc.	Urban	SLAMS	49i	Hourly/S
17-117-0002	Nilwood	+39.39607533 -89.80973892	St Louis, IL-MO	Transport	Population	Regional	SLAMS	49i	Hourly/S
17-119-1009	Maryville	+38.72657262 -89.95996251	St Louis, IL-MO	Population	N/A	Urban	SLAMS	T400	Hourly/S
17-119-0120	Alton	+38.901316 -90.146211	St Louis, IL-MO	Highest Conc.	Population	Urban	SLAMS	T400	Hourly/S
17-119-3007	Wood River	+38.86066947 -90.10585111	St Louis, IL-MO	Population	N/A	Urban	SLAMS	49i	Hourly/S
17-119-9991	Highland	+38.8690 -89.6228	St Louis, IL-MO	Highest Conc.	N/A	Regional	SLAMS	49i	Hourly/S
17-143-0024	Peoria	+40.68742038 -89.60694277	Peoria, IL	Population	N/A	Neighborhood	SLAMS	T400	Hourly/S
17-143-1001	Peoria Heights	+40.74550393 -89.58586902	Peoria, IL	Highest Conc.	Population	Urban	SLAMS	T400	Hourly/S
17-157-0001	Houston	+38.17627761 -89.78845862	N/A	Background	N/A	Regional	SLAMS	T400	Hourly/S
17-161-3002	Rock Island	+41.51472697 -90.51735026	Davenport-Moline-Rock Island, IA-IL	Population	Highest Conc.	Neighborhood	SLAMS	T400	Hourly/S
17-163-0010	East St. Louis	+38.61203448 -90.16047663	St Louis, IL-MO	Population	N/A	Neighborhood	SLAMS	49i	Hourly/S
17-167-0014	Springfield	+39.831522 -89.640926	Springfield, IL	Population	Highest Conc.	Urban	SLAMS	T400	Hourly/S
17-197-1011	Braidwood	+41.22153707 -88.19096718	Chicago-Naperville-Michigan City, IL-IN-WI	Background	N/A	Regional	PAMS/SLAMS	T400	Hourly/S
17-201-2001	Loves Park	+42.33498222 -89.0377748	Rockford, IL	Highest Conc.	Population	Urban	SLAMS	T400	Hourly/S

T400 – Teledyne (method 087); 49i – ThermoScientific (method 047), Ecotech 187 – Ecotech Serinus 10 (method 187)

S = Seasonal – March through October ozone monitoring season

Y = Year-round monitoring

Red indicates monitor proposed for removal

Green indicates monitor proposed for installation

Figure 2a: Ozone Sites – Illinois

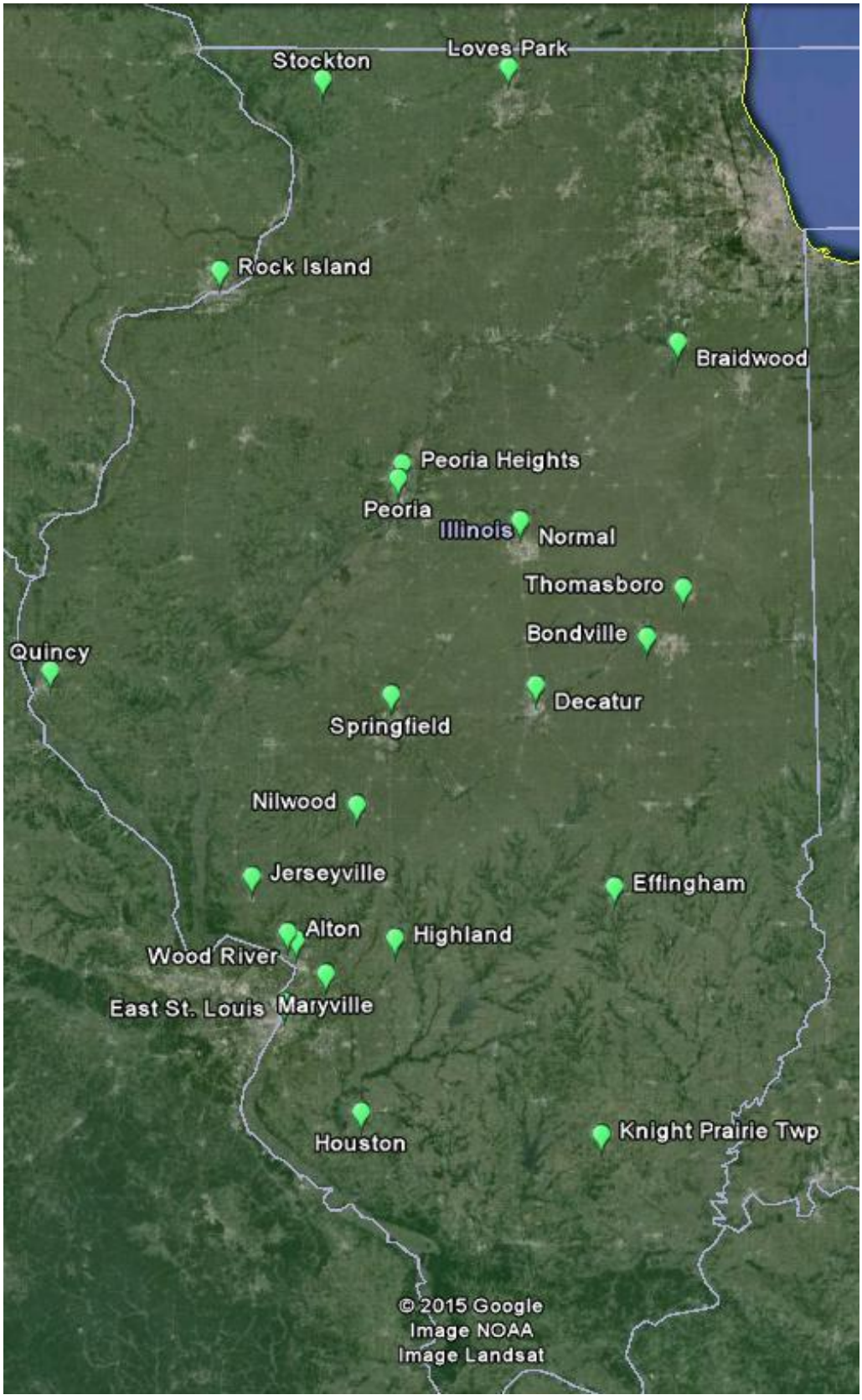


Figure 2b: Ozone Sites – Illinois Chicago Area

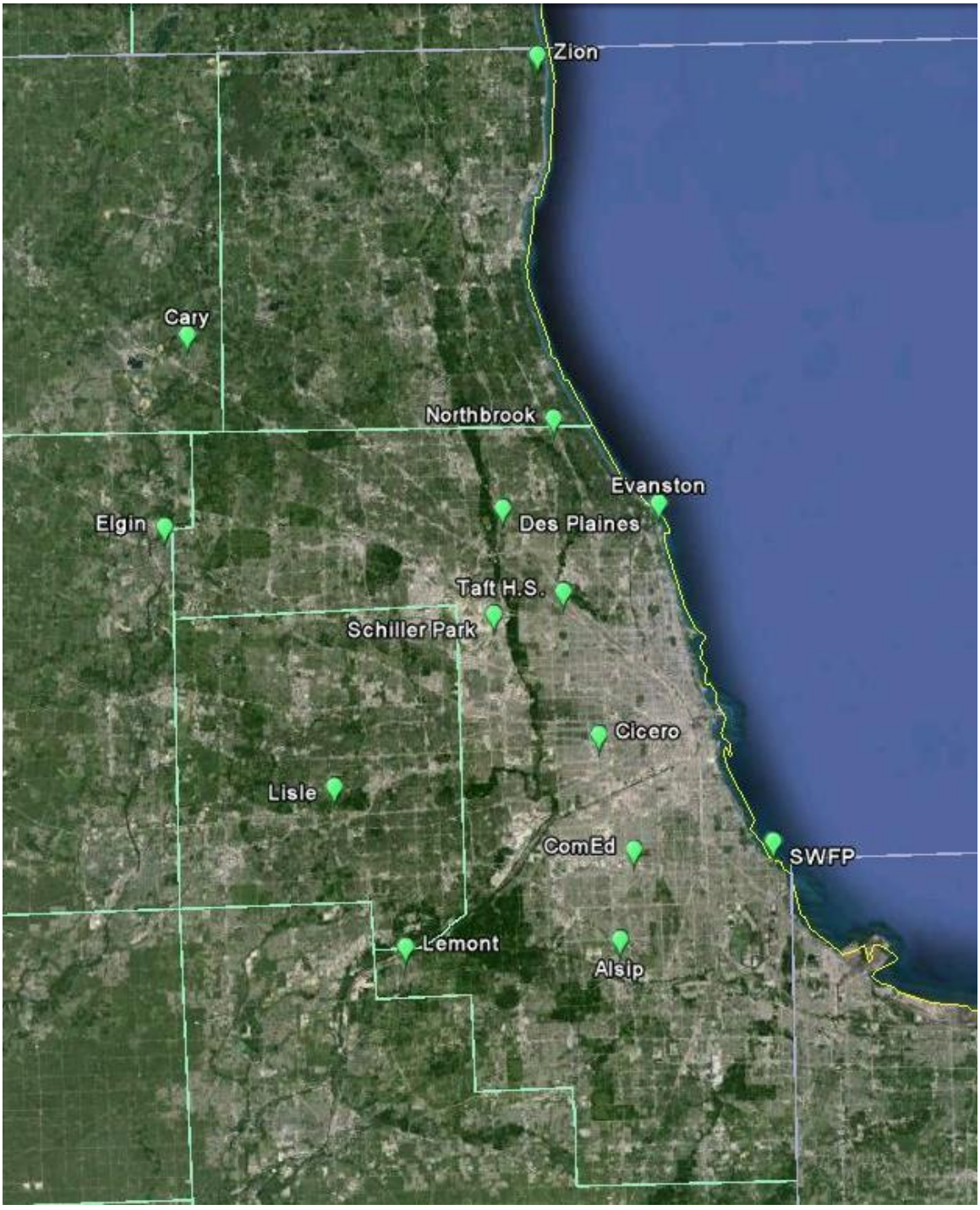


Table 3: $PM_{2.5}$ Sites

AQS ID	Site	Latitude Longitude	Area Represented	Primary Objective	Secondary Objective	Spatial Scale	Standard	Station Type	Monitor Type (Primary)	Sampling Schedule	Collocated	Chemical Speciation	Frequency
17-019-0006	Champaign	+40.123883 -88.240550	Champaign-Urbana, IL	Population	N/A	Neighborhood	Annual/24	SLAMS	FEM Teledyne	1/3			
17-019-1001	Bondville	+40.052780 -88.372510	Champaign-Urbana, IL	Transport	Population	Regional	Annual/24	RURAL NCORE	BGI	1/3, Hourly	FEM Thermo	YES	1/3
17-031-0001	Alsip	+41.6709919 -87.7324569	Chicago-Naperville-Michigan City, IL-IN-WI	Population	N/A	Neighborhood	Annual/24	SLAMS, SPM	Met One, BAM	1/6, Hourly			
17-031-0022	Washington High School	+41.68716544 -87.53931548	Chicago-Naperville-Michigan City, IL-IN-WI	Population	Source	Neighborhood	Annual/24	SLAMS	AS	1/3	AS (1/12 day)		
17-031-0052	Mayfair Pump Station	+41.96548483 -87.74992806	Chicago-Naperville-Michigan City, IL-IN-WI	Highest Conc.	Population	Neighborhood	Annual/24	SLAMS	Met One	1/3			

AQS ID	Site	Latitude Longitude	Area Represented	Primary Objective	Secondary Objective	Spatial Scale	Standard	Station Type	Monitor Type (Primary)	Sampling Schedule	Collocated	Chemical Speciation	Frequency
17-031-0057	Springfield Pump Station	+41.912739 -87.722673	Chicago-Naperville-Michigan City, IL-IN-WI	Population	N/A	Neighborhood	Annual/24	SLAMS, SPM	Met One, BAM	1/6, Hourly		YES	1/6
17-031-0076	Com Ed	+41.75139998 -87.71348815	Chicago-Naperville-Michigan City, IL-IN-WI	Population	N/A	Neighborhood	Annual/24	SLAMS, SPM	Met One, BAM	1/6, Hourly		YES	1/3
17-031-1016	Lyons Township	+41.801180 -87.832349	Chicago-Naperville-Michigan City, IL-IN-WI	Source	Population	Middle	24	SLAMS	THRM	1/3	THRM (1/12 day)		
17-031-3103	Schiller Park	+41.96519348 -87.87626473	Chicago-Naperville-Michigan City, IL-IN-WI	Highest Conc.	Population	Middle	Annual/24	SLAMS	BGI	1/3			
17-031-3301	Summit	+41.78276601 -87.80537679	Chicago-Naperville-Michigan City, IL-IN-WI	Population	N/A	Neighborhood	Annual/24	SLAMS	Met One	1/3	Met One (1/12 day)		
17-031-4007	Des Plaines	+42.06028469 -87.86322543	Chicago-Naperville-Michigan City, IL-IN-WI	Population	N/A	Urban	Annual/24	SLAMS	FEM Teledyne	Hourly			

AQS ID	Site	Latitude Longitude	Area Represented	Primary Objective	Secondary Objective	Spatial Scale	Standard	Station Type	Monitor Type (Primary)	Sampling Schedule	Collocated	Chemical Speciation	Frequency
17-031-4201	Northbrook	+42.13999619 -87.79922692	Chicago-Naperville-Michigan City, IL-IN-WI	Population	N/A	Urban	Annual/24	URBAN NCORE	FEM Teledyne	1/3, H	THRM (1/12 day)	YES	1/3
17-031-6005	Cicero	+41.86442642 -87.74890238	Chicago-Naperville-Michigan City, IL-IN-WI	Population	N/A	Neighborhood	Annual/24	SLAMS, SPM	AS, BAM	1/6, H			
17-031-0119	Lansing Kingery near-road #1	+41.578603 -87.557392	Kingery high traffic near-road segment	Highest Conc.	N/A	Micro	Annual/24	SLAMS	FEM Teledyne	H			
17-043-4002	Naperville	+41.77107094 -88.15253365	Chicago-Naperville-Michigan City, IL-IN-WI	Population	N/A	Urban	Annual/24	SLAMS	FEM Teledyne	H			
17-065-0002	Knight Prairie	+38.08215516 -88.6249434	Mt Vernon, IL	Background	Population	Regional	Annual/24	SLAMS	FEM Teledyne	H			
17-083-0117	Jerseyville	+39.101439 -90.344494	St Louis, IL-MO	Population	Transport	Urban	Annual/24	SLAMS	FEM Teledyne	H			
17-089-0003	Elgin	+42.050403 -88.28001471	Chicago-Naperville-Michigan City, IL-IN-WI	Population	N/A	Urban	Annual/24	SLAMS	BGI	1/3			
17-089-0007	Aurora	+41.78471651 -88.32937361	Chicago-Naperville-Michigan City, IL-IN-WI	Population	N/A	Urban	Annual/24	SLAMS	BGI	1/6			
17-111-0001	Cary	+42.22144166 -88.24220734	Chicago-Naperville-Michigan City, IL-IN-WI	Population	N/A	Urban	Annual/24	SLAMS	FEM Teledyne	H			

AQS ID	Site	Latitude Longitude	Area Represented	Primary Objective	Secondary Objective	Spatial Scale	Standard	Station Type	Monitor Type (Primary)	Sampling Schedule	Collocated	Chemical Speciation	Frequency
17-113-2003	Normal	+40.51873537 -88.99689571	Bloomington-Normal, IL	Population	N/A	Urban	Annual/24	SLAMS	FEM Teledyne	H	FEM Teledyne		
17-115-0013	Decatur	+39.86683389 -88.92559445	Decatur, IL	Population	Source	Neighborhood	Annual/24	SLAMS	FEM Teledyne	H			
17-119-0024	Granite City Gateway	+38.7006315 -90.14476267	St Louis, IL-MO	Source	Population	Middle	24	SLAMS, SPM	BGI	1/3		YES	1/6
17-119-1007	Granite City	+38.70453426 -90.13967484	St Louis, IL-MO	Highest Conc.	Population	Neighborhood	Annual/24	SLAMS, SPM	BGI, BAM	1/6, H	BGI (1/12 day)		
17-119-0120	Alton	+38.901316 -90.146211	St Louis, IL-MO	Population	N/A	Neighborhood	Annual/24	SLAMS	FEM Teledyne	H			
17-119-3007	Wood River	+38.86066947 -90.10585111	St Louis, IL-MO	Population	N/A	Neighborhood	Annual/24	SLAMS	FEM Teledyne	H			
17-143-0037	Peoria	+40.697007 -89.58473722	Peoria, IL	Population	N/A	Urban	Annual/24	SLAMS	FEM Teledyne	H			
17-157-0001	Houston	+38.17627761 -89.78845862	N/A	Background	Population	Regional	Annual/24	SLAMS	FEM Teledyne	H			
17-161-3002	Rock Island	+41.51472697 -90.51735026	Davenport-Moline-Rock Island, IA-IL	Population	N/A	Urban	Annual/24	SLAMS	FEM Teledyne	H			

AQS ID	Site	Latitude Longitude	Area Represented	Primary Objective	Secondary Objective	Spatial Scale	Standard	Station Type	Monitor Type (Primary)	Sampling Schedule	Collocated	Chemical Speciation	Frequency
17-163-0010	East St. Louis	+38.61203448 -90.16047663	St Louis, IL-MO	Population	Source	Neighborhood	Annual/24	SLAMS	FEM Teledyne	H			
17-167-0012	Springfield	+39.83192087 -89.64416359	Springfield, IL	Population	N/A	Urban	Annual/24	SLAMS	FEM Teledyne	H			
17-197-1002	Joliet	+41.52688509 -88.11647381	Chicago-Naperville-Michigan City, IL-IN-WI	Population	N/A	Neighborhood	Annual/24	SLAMS	FEM Teledyne	H			
17-197-1011	Braidwood	+41.22153707 -88.19096718	Chicago-Naperville-Michigan City, IL-IN-WI	Background	Population	Regional	Annual/24	SLAMS	FEM Teledyne	H			
17-201-0118	Rockford	+42.2670002 -89.089170	Rockford, IL	Population	N/A	Middle	Annual/24	SLAMS	FEM Teledyne	H			

AS – Anderson Sequential (method 155); A1 – Anderson Single Event (method 153); Met One - MetOne sequential (method 545); BGI – BGI Instruments (method 142); THRM – ThermoScientific (method 143); FEM Thermo – Federal Equivalent Method Thermo Continuous (method 183); FEM Teledyne – Federal Equivalent Method Teledyne T640 Continuous (method 236); BAM - Beta Attenuation Monitor, Air Quality Index only (method 731), H = Hourly.

Sites that are part of the Chemical Speciation Network are listed in the Chemical Speciation column.

Red indicates monitor proposed for removal
Green indicates monitor proposed for installation

Figure 3a: $PM_{2.5}$ Sites – Illinois

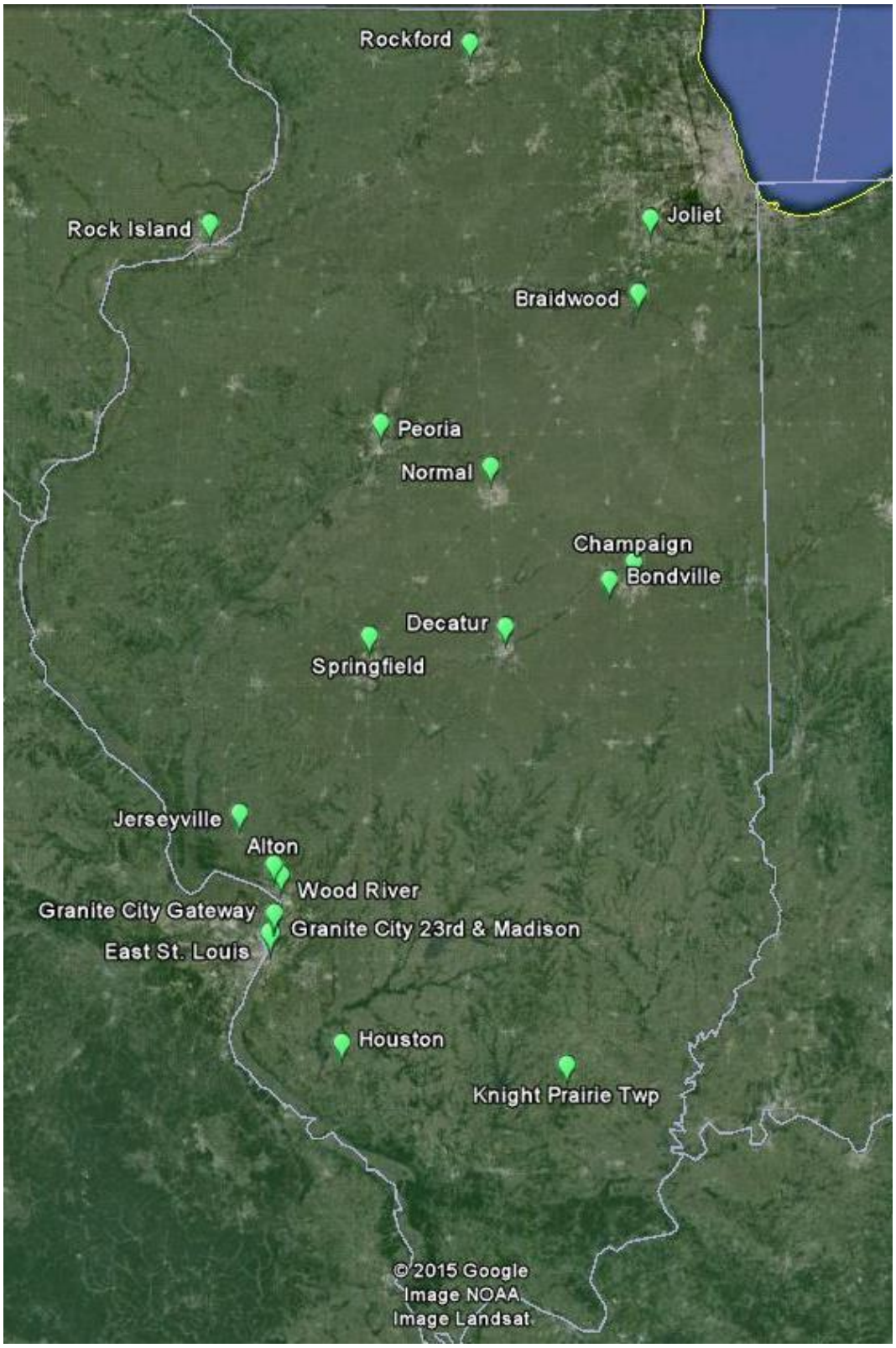


Figure 3b: $PM_{2.5}$ Sites – Illinois Chicago Area

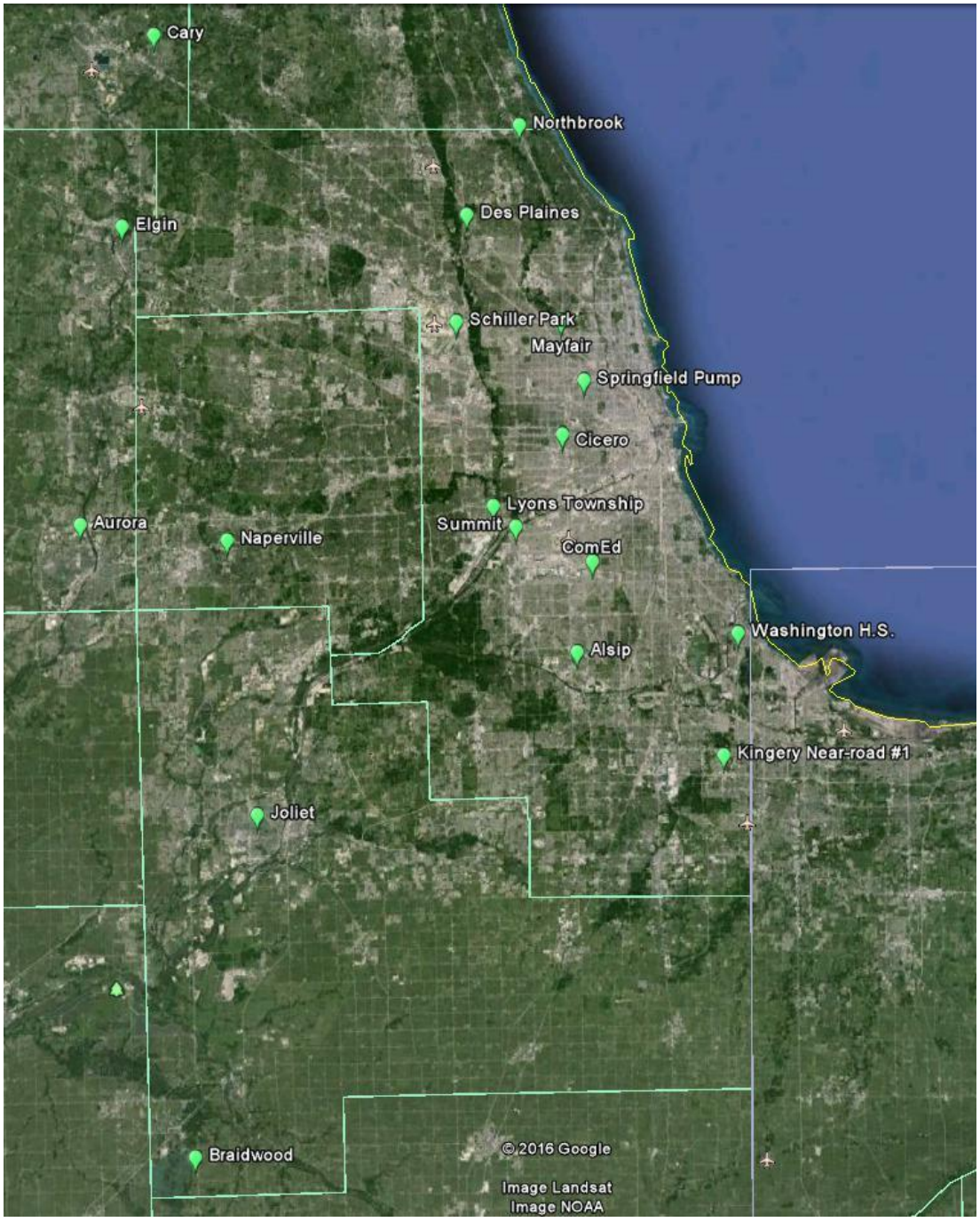


Table 4: SO_2 Sites

AQS ID	Site	Latitude Longitude	Area Represented	Primary Objective	Secondary Objective	Spatial Scale	Station Type	Monitor Type	Sampling Schedule
17-019-1001	Bondville	+40.052780 -88.372510	Champaign-Urbana, IL	Highest Conc.	N/A	Regional	NCORE	T100U	Hourly
17-031-0076	Com Ed	+41.75139998 -87.71348815	Chicago-Naperville-Michigan City, IL-IN-WI	Population	N/A	Urban	SLAMS	T100	Hourly
17-031-1601	Lemont	+41.66812034 -87.99056969	Chicago-Naperville-Michigan City, IL-IN-WI	Population	N/A	Neighborhood	SLAMS	T100	Hourly
17-031-4201	Northbrook	+42.13999619 -87.79922692	Chicago-Naperville-Michigan City, IL-IN-WI	Population	N/A	Urban	NCORE	T100U	Hourly
17-099-0007	Oglesby	+41.29301454 -89.04942498	Ottawa-Streator, IL	Highest Conc.	Source	Neighborhood	SLAMS	T100	Hourly
17-115-0013	Decatur	+39.86683389 -88.92559445	Decatur, IL	Population	N/A	Neighborhood	SLAMS	T100	Hourly
17-115-0217	Tate & Lyle NW	+39.850712 -88.933635	Tate & Lyle	Source	N/A	Neighborhood	SLAMS	43i	Hourly
17-115-0317	Tate & Lyle SE	+39.846856 -88.923323	Tate & Lyle	Source	N/A	Neighborhood	SLAMS	43i	Hourly
17-117-0002	Nilwood	+39.39607533 -89.80973892	St Louis, IL-MO	Background	Population	Regional	SLAMS	T100	Hourly
17-119-3007	Wood River	+38.86066947 -90.10585111	St Louis, IL-MO	Population	N/A	Neighborhood	SLAMS	T100	Hourly
17-163-0010	East St. Louis	+38.61203448 -90.16047663	St Louis, IL-MO	Population	N/A	Neighborhood	SLAMS	T100	Hourly
17-179-0004	Pekin	+40.55646017 -89.65402807	Peoria, IL	Highest Conc.	Source	Neighborhood	SLAMS	T100	Hourly

T100 – Teledyne (method 100); T100U – Teledyne Trace Level (method 600); 43i – Thermo Scientific Model 43i (method 060)

Red indicates monitor proposed for removal

Green indicates monitor proposed for installation

Figure 4: SO_2 Sites – Illinois

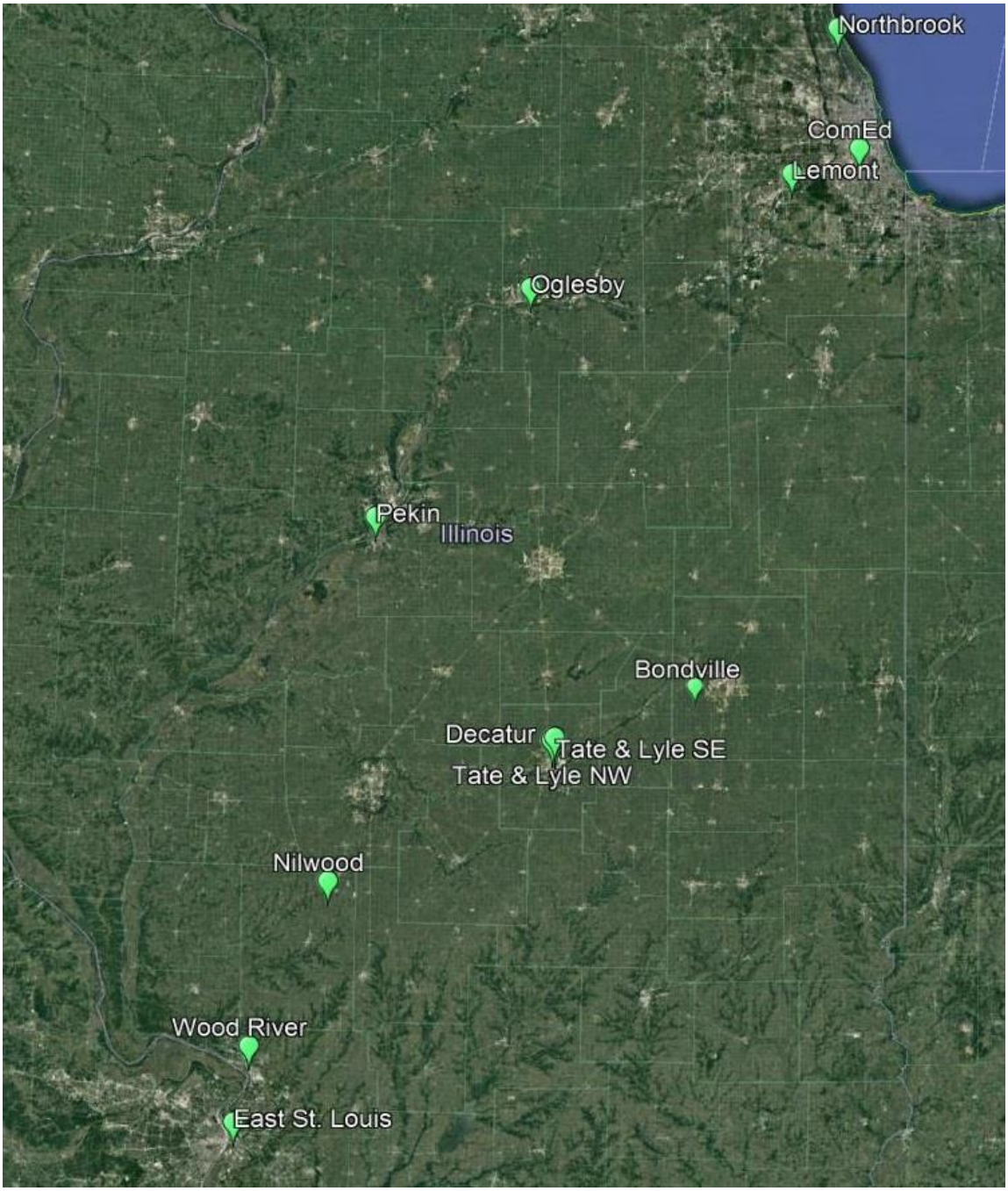


Table 5: NO_2 Sites

AQS ID	Site Description	Latitude Longitude	Area Represented	Monitoring Type	Primary Objective	Secondary Objective	Spatial Scale	Station Type	Monitor Type	Sampling Schedule
17-031-0076	Com Ed	+41.75139998 -87.71348815	Chicago-Naperville-Michigan City, IL-IN-WI	Area-wide	Population	N/A	Neighborhood	SLAMS	TE	Hourly
17-031-3103	Schiller Park	+41.96519348 -87.87626473	Chicago-Naperville-Michigan City, IL-IN-WI	Susceptible Population	Highest Conc.	Source	Middle	PAMS/SLAMS	T500U	Hourly
17-031-4002	Cicero	+41.85524313 -87.7524697	Chicago-Naperville-Michigan City, IL-IN-WI	Area-wide	Population	Highest Conc.	Neighborhood	SLAMS	T200	Hourly
17-031-4201	Northbrook	+42.13999619 -87.79922692	Chicago-Naperville-Michigan City, IL-IN-WI	Area-wide	Population	N/A	Urban	PAMS/NCORE	T500U	Hourly
17-031-0119	Lansing Kingery near-road #1	+41.578603 -87.557392	Kingery high traffic road segment	Near-road	Highest Conc.	Source	Micro	SLAMS	T500U	Hourly
17-031-0219	Chicago Kennedy near-road #2	+41.920681 -87.674425	Kennedy high traffic road segment	Near-road	Highest Conc.	Source	Micro	SLAMS	T500U	Hourly
17-117-0002	Nilwood	+39.39607533 -89.80973892	St Louis, IL-MO	Area-wide	Background	Population	Regional	SPM	T500U	Hourly
17-163-0010	East St. Louis	+38.61203448 -90.16047663	St Louis, IL-MO	Area-wide	Population	N/A	Neighborhood	SLAMS	T500U	Hourly

T200 – Teledyne (method 099); TE – ThermoScientific (method 074); T500U – Teledyne (method 212)

Red indicates monitor proposed for removal

Green indicates monitor proposed for installation

Figure 5: NO_2 Sites – Illinois

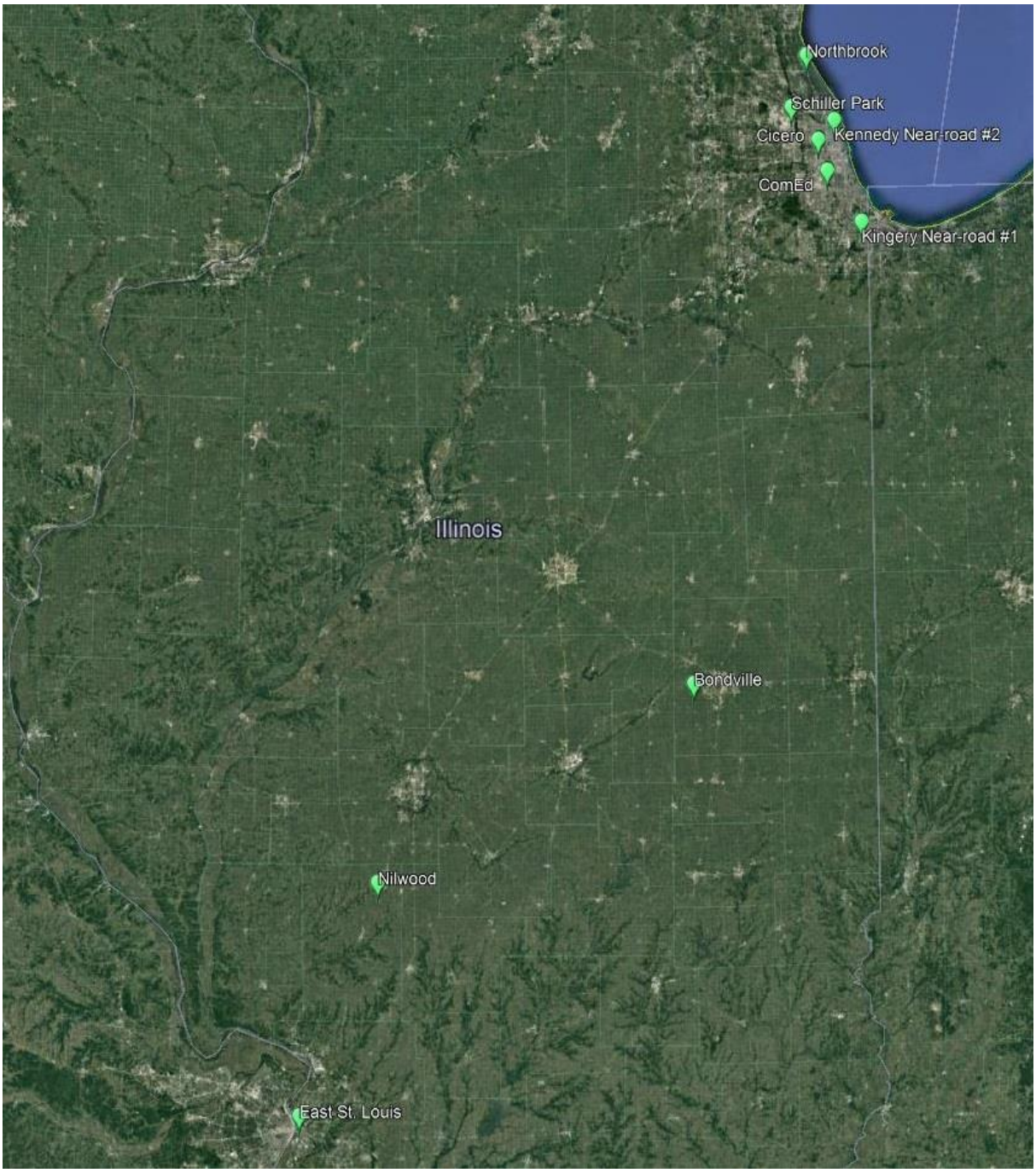


Table 6: CO Sites

AQS ID	Site Description	Latitude Longitude	Area Represented	Primary Objective	Secondary Objective	Spatial Scale	Station Type	Monitor Type	Sampling Schedule
17-019-1001	Bondville	+40.052780 -88.372510	Champaign-Urbana, IL	Highest Conc.	N/A	Regional	NCORE	API 300EU	Hourly
17-031-4201	Northbrook	+42.13999619 -87.79922692	Chicago-Naperville-Michigan City, IL-IN-WI	Population	N/A	Neighborhood	PAMS/NCORE	48iTLE	Hourly
17-031-0119	Lansing Kingery near-road #1	+41.578603 -87.557392	Kingery high traffic road segment	Highest Conc.	Source	Micro	SLAMS	API 300	Hourly

48i – ThermoScientific (method 054); 48iTLE – ThermoScientific Trace Level (method 554); API 300EU – Teledyne Trace Level (method 593) API 300 – Teledyne/API non-trace level (method 093)

Red indicates monitor proposed for removal
Green indicates monitor proposed for installation

Figure 6: CO Sites – Illinois

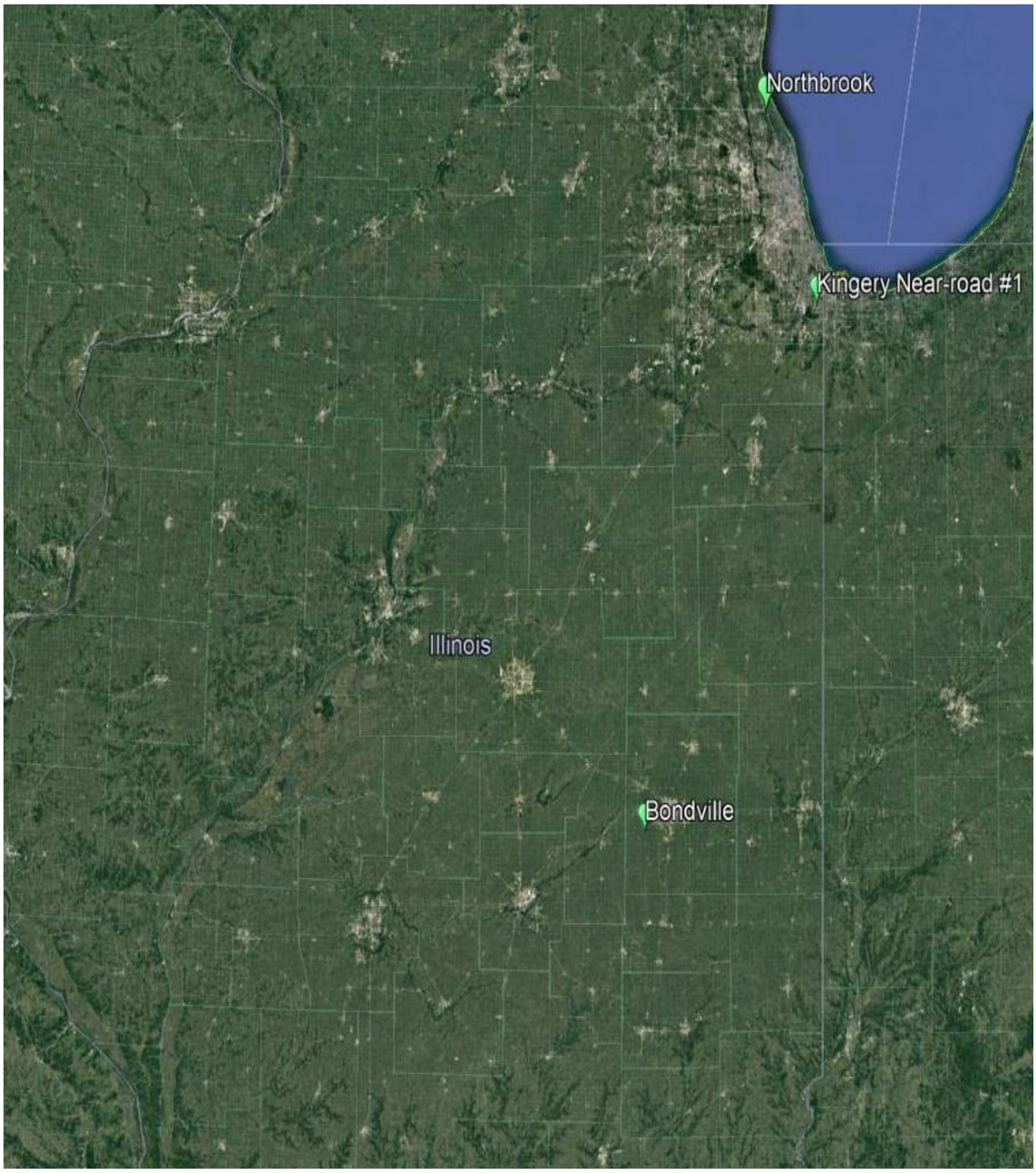


Table 7: PM_{10} and $PM_{10-2.5}$ Sites

AQS ID	Site Description	Latitude Longitude	Area Represented	Primary Objective	Secondary Objective	Spatial Scale	Station Type	Monitor Type (Primary)	Sampling Schedule	Collocated
17-031-0022	Washington High School (PM10)	+41.68716544 -87.53931548	Chicago-Naperville-Michigan City, IL-IN-WI	Highest Conc.	Source	Neighborhood	SLAMS	BAM 1020	Hourly	
17-031-1016	Lyons Township (PM10)	+41.801180 -87.832349	Chicago-Naperville-Michigan City, IL-IN-WI	Highest Conc.	Source	Middle	SLAMS	BAM 1020	Hourly	
17-031-4201	Northbrook (PM10)	+42.13999619 -87.79922692	Chicago-Naperville-Michigan City, IL-IN-WI	Population	N/A	Urban	NCORE	SA/GMW	1/6	YES (1/12 day)
17-031-4201	Northbrook (PM coarse)	+42.13999619 -87.79922692	Chicago-Naperville-Michigan City, IL-IN-WI	Population	N/A	Urban	NCORE	Thermo Pair	1/3	
17-119-1007	Granite City (PM10)	+38.70453426 -90.13967484	St Louis, IL-MO	Highest Conc.	Source	Neighborhood	SLAMS	SA/GMW	1/6	

BAM 1020 - Met One 1020 Beta Attenuation Monitor (method 122);

SA/GMW - Sierra Anderson/General Metal Works Hi-Volume Sampler, Standard Conditions (method 063);

Thermo Pair - Thermo Scientific Partisol Model 2000 Sampler Pair for PM coarse (method 175).

The National Park Service operates an additional PM_{10} monitor in Bondville as part of the IMPROVE network.

Red indicates monitor proposed for removal

Green indicates monitor proposed for installation

Figure 7: PM_{10} Sites – Illinois

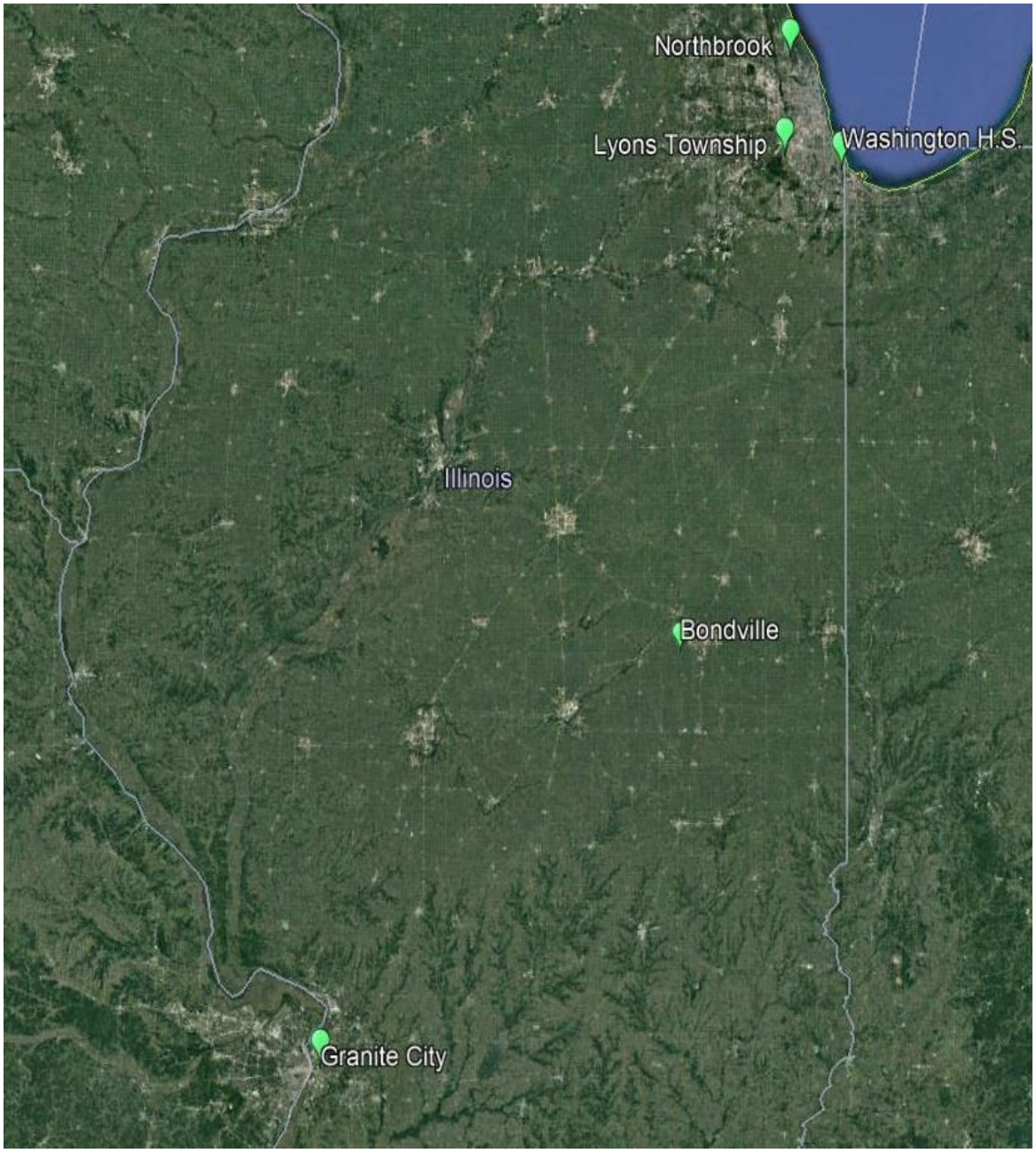


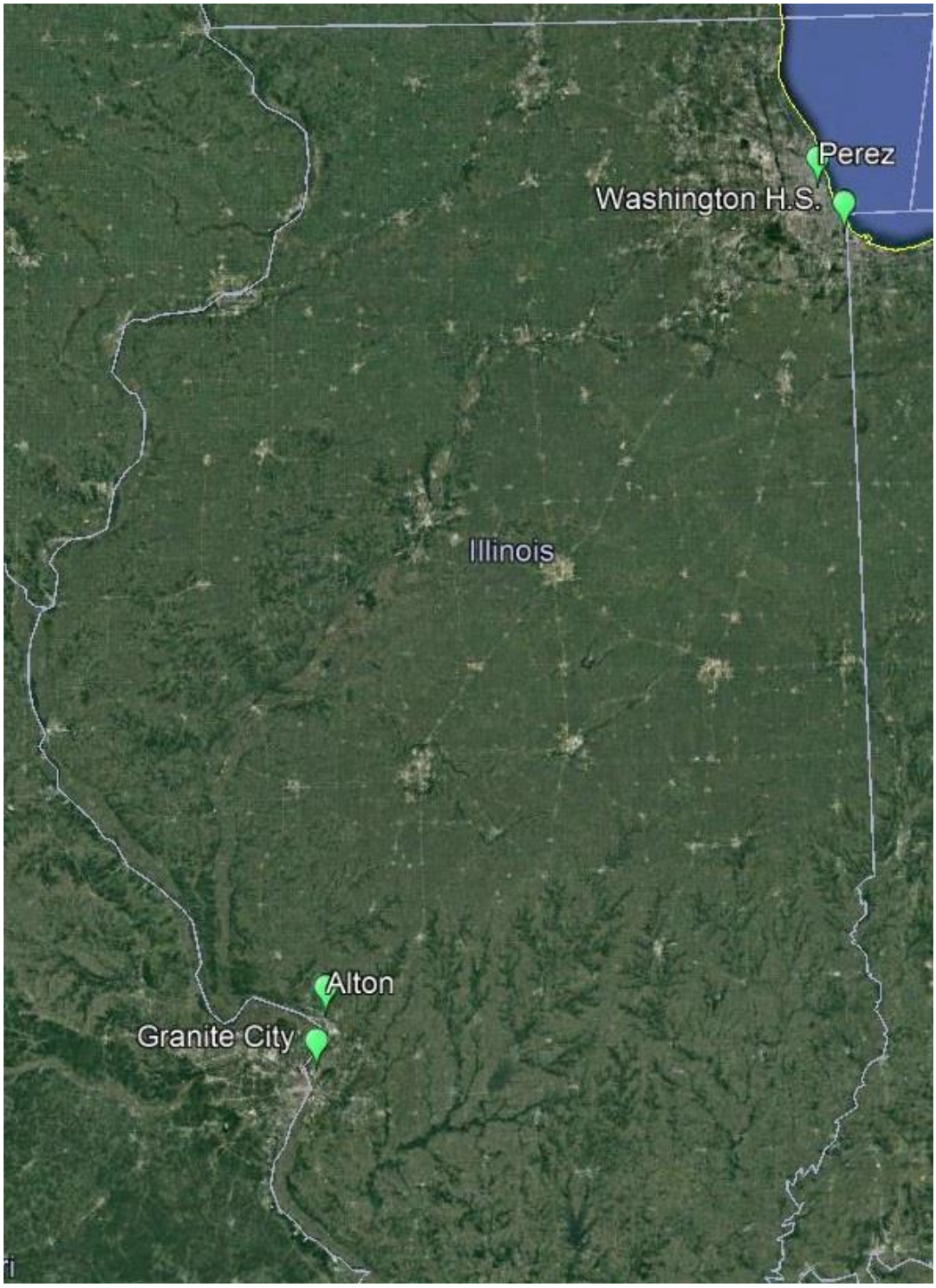
Table 8: Lead Sites

AQS ID	Site Description	Latitude Longitude	Area Represented	Primary Objective	Secondary Objective	Spatial Scale	Station Type	Monitor Type (Primary)	Frequency	Collocated
17-031-0022	Washington High School	+41.68716544 -87.53931548	Chicago-Naperville-Michigan City, IL-IN-WI	Highest Conc.	N/A	Neighborhood	SLAMS	SA/GMW	1/6	
17-031-0110	Perez	+41.855917 -87.658419	H. Kramer	Source	N/A	Middle	SLAMS	SA/GMW	1/6	YES (1/12 day)
17-119-0010	Granite City	+38.69443831 -90.15395426	Mayco / US Steel	Highest Conc.	Source	Middle	SLAMS	Hi-Vol	1/6	YES (1/12 day)
17-119-0121	Alton	+38.888373 -90.107592	Olin Corporation	Highest Conc.	Source	Middle	SPM	To Be Determined	1/6	

Hi-Vol - Environmental Products Hi-Volume Sampler, Local Conditions (laboratory method 813);
SA/GMW – Sierra Anderson/General Metal Works Hi-Volume Sampler, Local Conditions (laboratory method 043)

Red indicates monitor proposed for removal
Green indicates monitor proposed for installation

Figure 8: Lead Sites – Illinois



Appendix A

Data Requirements Rule SO_2 Emissions Assessment for Illinois Areas Modeled to be in Attainment with the 2010 1-hour SO_2 NAAQS

Background

Pursuant to Section 51.1205(b) of the Data Requirements Rule (DRR) (40 CFR 51 Subpart BB), Illinois EPA is required to submit an annual report to the Regional Administrator that documents the annual SO_2 emissions of each applicable source in each area previously modeled to be attaining the 2010 1-hour SO_2 NAAQS. This report is to be submitted to the Regional Administrator by July 1 of each year and must provide an assessment of the cause of any emissions increases from the previous year and a recommendation regarding the need for additional modeling to determine if the areas are still meeting the 1-hour SO_2 NAAQS.

Multiple areas in Illinois have been designated by USEPA as attaining the 1-hour SO_2 NAAQS, based upon a technical analysis by USEPA that considered, in part, modeling results submitted by Illinois EPA pursuant to the DRR or the 2015 SO_2 Consent Decree. Six of the attainment areas have both active applicable DRR sources and model design values greater than 50% of the 1-hour SO_2 NAAQS (see Table A-1). These six areas are still subject to the ongoing data requirements listed under Section 51.1205(b).

Table A-1: SO_2 Attainment/Unclassifiable Areas in Illinois Subject to Ongoing Data Requirements Pursuant to Section 51.1205(b)

Attainment/Unclassifiable Area	Applicable Source(s)	Modeled Period	Model Design Value	Percent of 1-hour SO_2 NAAQS*
Jasper County	Newton Power Station	2012-2014	138.89 ug/m^3	70.75%
Massac County	Joppa Power Station	2012-2014	168.29 ug/m^3	85.72%
Crawford County	Rain CII Carbon	2015-2017	118.2 ug/m^3	60.21%
Lake County	Midwest Generation LLC -Waukegan	2013-2015	98.91 ug/m^3	50.38%
Granite City Area	U.S. Steel-Granite City Works; Gateway Energy & Coke Company	2016-2018	578.83	294.84%
Williamson County	Southern Illinois Power Coop	2013-2015	194.92 ug/m^3	99.29%

*Based on 1-hour SO_2 NAAQS value of 196.32 ug/m^3

2014-2020 SO_2 Emission Trends Data and Recommendations

Table A-2 presents the annual SO_2 emissions data for the applicable attainment/unclassifiable areas for the period 2014 through 2020. Annual SO_2 emissions are listed for the applicable DRR source in each area, along with all the background sources that were included in the DRR and SO_2 Consent Decree modeling.

USEPA's implementation of the primary SO_2 NAAQS occurred in phases and continues with ongoing annual emissions assessment requirements. As a result, progressively more recent years of emissions data have been used in modeling demonstrations that have been the basis of some area designations and in verification modeling. The year with the maximum annual emissions in each three-year modeled period was determined for each area and then compared with the area emission totals for 2020. These data were then compared with USEPA's recommended guidelines for additional modeling presented in the Preamble to the DRR (80 FR 51052). Emissions data for 2012-2014 were used in the SO_2 Consent Decree modeling, whereas emissions data for 2013-2015 were used in the DRR modeling. The Crawford County area modeling was updated using emissions data for 2015-2017 due to the 2017 emissions increase. The Granite City area modeling was updated using emissions data for 2016-2018 due to the 2018 emissions increase. The results of these analyses are presented below:

Jasper County – The highest modeled annual SO_2 emissions total for the Jasper County attainment/unclassifiable area was 16,533.83 tons, which occurred in 2012. Emissions from the Newton Power Station, the only applicable SO_2 source for this area, decreased to 4,632.20 tons in 2020 (-72.0%). Given the emissions decrease in 2020, Illinois EPA recommends no additional modeling for the Jasper County attainment/unclassifiable area at this time.

Massac County – The highest modeled annual SO_2 emissions total for the Massac County attainment/unclassifiable area was 48,599.45 tons, which occurred in 2014. Emissions from SO_2 sources in the area decreased to 17,536.30 tons in 2020 (-63.9%). Given the emissions decrease in 2020, Illinois EPA recommends no additional modeling for the Massac County attainment/unclassifiable area at this time.

Crawford County – The highest modeled annual SO_2 emissions total for the Crawford County attainment/unclassifiable area was 9,625.37 tons, which occurred in 2017. Emissions from SO_2 sources in the area decreased to 5,793.68 tons in 2020 (-39.8%). Given the emission decreases in 2020, Illinois EPA recommends no additional modeling for the Crawford County attainment/unclassifiable area at this time.

Lake County – The highest modeled annual SO_2 emissions total for the Lake County attainment/unclassifiable area was 9,205.90 tons, which occurred in 2013. Emissions from SO_2 sources in the area decreased to 612.68 tons in 2020 (-93.3%). Given the emissions decrease in 2020, Illinois EPA recommends no additional modeling for the Lake County attainment/unclassifiable area at this time.

Granite City Area – The highest modeled annual SO_2 emissions total for the Granite City attainment/unclassifiable area was 2,995.99 tons, which occurred in 2018. Emissions from SO_2

sources in the area decreased to 1,444.19 tons in 2020 (-51.8%). Given the emissions decrease in 2020, Illinois EPA recommends that no additional modeling be performed for the Granite City attainment/unclassifiable area at this time.

Williamson County – The highest modeled annual SO_2 emissions total for the Williamson County attainment/unclassifiable area was 8,651.60 tons, which occurred in 2014. Emissions from SO_2 sources in the area decreased to 2,927.42 tons in 2020 (-66.2%). Given the emissions decrease in 2020, Illinois EPA recommends no additional modeling for the Williamson County attainment/unclassifiable area at this time.

Table A-2: Annual SO_2 Emissions Data for Attainment/Unclassifiable Areas

ID Number	Facility Name	2014 Emissions	2015 Emissions	2016 Emissions	2017 Emissions	2018 Emissions	2019 Emissions	2020 Emissions	Modeled Maximum	2020 Area Total
079808AAA	Newton Power Station	16,372.76	12,805.40	7,742.70	4,873.20	4,638.60	5,000.30	4,632.20	16,533.83	4,632.20
127855AAC	Joppa Power Station	18,229.24	13,230.00	7,634.00	10,310.20	11,968.40	10,436.10	8,243.00	48,599.45	17,536.30
127855AAA	Holcim US Inc.	491.65	259.42	698.18	409.31	332.38	208.59	268.70		
127899AAA	Midwest Electric Power Inc. (MEPI)	0.00	0.01	0.01	0.02	0.01	0.03	0.10		
127855AAB	Trunkline Gas Company	0.866	0.60	0.20	0.12	0.12	0.18	0.10		
127854AAD	Honeywell International Inc.	143.15	147.30	148.89	100.60	0.04	0.00	0.00		
2114500006	TVA – Shawnee Power Plant	29,734.54	24,301.80	*23,807.80*	*20,494.00*	*15,149.50*	*16,345.70*	*9,024.40*		
033025AAJ	Rain CII Carbon	3,134.10	2,161.40	3,836.20	6,810.10	4,162.60	5,451.60	4,067.00	9,625.37	5,793.68
033808AAB	Marathon Petroleum	207.10	213.40	262.22	177.17	114.07	146.16	138.78		
1815300005	Merom Generating Station	3,315.90	2,579.40	*3,143.80*	*2,638.10*	*3,802.70*	*2,897.90*	*1,587.90*		
097190AAC	Midwest Generation LLC – Waukegan	5,792.40	2,339.30	2,733.95	1,705.94	1,173.77	754.15	416.40	9,205.90	612.68
097190AAP	New NGC Inc.	8.70	8.70	7.72	0.13	0.12	0.13	0.13		
097025AAR	Countryside Genco LLC	53.10	41.50	19.43	41.85	50.73	51.76	43.00		
097806AAG	Countryside Landfill	6.30	14.50	30.90	21.80	17.20	16.20	37.50		
097809AAD	Abbott Laboratories	22.80	0.20	0.32	0.31	0.31	0.31	0.31		
097125AAA	AbbVie Inc.	16.20	6.60	12.35	1.50	1.57	0.40	0.36		
097200AAV	ADS Zion Landfill Inc.	28.40	26.70	23.40	32.87	47.80	81.83	98.09		
097200ABC	Bio Energy (Illinois) LLC	24.70	22.30	15.10	21.60	25.30	32.54	16.89		
230006260	Pleasant Prairie Generating Station	1,310.10	1,335.50	*1,087.00*	*931.00*	*258.30*	*Shutdown*	*Shutdown*		
119813AAI	U.S. Steel – Granite City Works	961.30	828.30	9.94	12.10	350.30	418.67	375.25	2,995.99	1,444.19
119040ATN	Gateway Energy & Coke	1,240.60	1,187.70	1,190.74	1,470.37	2,542.82	1,171.37	976.71		
119465AAG	Green Plains Madison LLC	7.90	7.80	3.10	1.96	1.72	0.96	0.60		
119040AAC	Amsted Rail Co. Inc.	5.20	5.90	4.00	3.50	5.10	4.00	1.00		
163121AAB	Afton Chemicals	96.70	98.00	72.97	73.78	71.18	73.40	58.02		
163050AAD	Milam Recycling & Disposal	28.90	17.50	7.35	15.98	24.10	32.87	31.85		
119801AAK	Chain of Rocks Recycling & Disposal	4.70	4.80	4.81	4.66	0.77	0.80	0.76		
199856AAC	Southern Illinois Power Coop	8,651.60	4,233.60	3,699.20	3,830.80	5,112.70	5,843.70	2,927.40	8,651.62	2,927.42
199862AAD	United States Penitentiary	0.02	0.01	0.02	0.02	0.02	0.02	0.02		

Source: Illinois EPA Annual Emissions Reports, except for those values listed in *red italics*, which were obtained from USEPA's Clean Air Markets database

Petitioner’s Hearing Exhibit T

MIDWEST GENERATION EME, LLC
An EDISON INTERNATIONAL Company

Basil G. Constantelos
Managing Director
Environmental Services

July 15, 2009

Mr. Allan Keller
Manager, Permits Section, Bureau of Water
Illinois Environmental Protection Agency
1021 North Grand Avenue East
Springfield, IL 62794-9276

Re: April 10, 2009 IEPA Letters: Ash Impoundment Groundwater Protection
Development of Groundwater Monitoring Plan
MWG Will County, Powerton and Joliet 29 Stations

May 15, 2009 IEPA Letters: Ash Impoundment Groundwater Protection
Hydrogeologic Assessment Plan
MWG Crawford and Waukegan Stations

Dear Mr. Keller:

This is Midwest Generation, LLC (MWG)'s further response to the Agency's April 10, 2009, letters regarding the hydrogeologic evaluation of ash impoundments at each of the following MWG electric generating stations: Will County, Powerton, Joliet 29, Crawford and Waukegan (collectively, the "MWG Stations"). In our prior May 4, 2009, letter to the Agency regarding the Will County, Powerton and Joliet Stations, we told you that we had begun the work necessary to respond to the Agency's requests but needed additional time to complete our review and to respond. We appreciate the Agency's extension of time to July 15, 2009, to submit this response. As you know, in the interim, the Agency also sent MWG two May 15, 2009, letters requesting a similar evaluation be performed for the Crawford and Waukegan Stations. This response also timely addresses the Agency's May 15, 2009, request regarding those two stations.

While MWG has performed the work necessary to evaluate the ash impoundments at the MWG Stations, MWG still questions the Agency's legal authority to make these requests. The Agency's April 10, 2009, letters state that these requests were issued pursuant to Sections 4 and 12 of the Illinois Environmental Protection Act (the "Act"). The Agency's May 15, 2009, letters instead claim that the absence of a groundwater monitoring program at the stations means that compliance with 35 Ill. Adm. Code Part 620 has not been demonstrated. MWG respectfully submits that neither of the Agency's alternative legal grounds for issuing these requests gives it the authority to do so. Sections 4 and 12 of the Act do not contain any language authorizing the Agency to require the submission of the requested hydrogeologic assessment plans. Section 4 speaks solely of the Agency's investigatory authority, not any authority to require others to conduct investigations. Section 12 of the Act requires proof that either water pollution or a water pollution hazard has been "created." There are no data or other facts to support any allegation, let alone a finding, that either water pollution or water pollution hazards under Section 12 of the Act have been created at any of the MWG stations. Therefore, there is no legal basis under the Act to authorize the Agency's demand for any investigative or corrective action.

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One Financial Place
440 South LaSalle Street
Suite 3500
Chicago, IL 60605
Tel: 312 583 6029
Fax 312 788 5529
Email: bconstantelos@mwgen.com

Similarly, the Part 620 groundwater regulations also do not contain any requirement that obligates MWG to prove compliance with the groundwater standards when there are no facts indicating or supporting an allegation of noncompliance. If this were a correct interpretation of the Part 620 regulations, which it is not, then every facility in the state which conducts on-site waste treatment operations would be required to conduct the hydrogeological assessment the Agency is demanding of MWG in order to affirmatively "demonstrate" to the Agency's satisfaction that it is maintaining compliance with the Part 620 groundwater regulations. To our knowledge, the Agency has not previously so broadly interpreted the Part 620 regulations. Moreover, we found no Illinois Pollution Control Board opinions so interpreting the Part 620 regulations.

As we have previously stated, the subject ash ponds at the MWG Stations are not disposal sites and the ash is routinely removed from the ash ponds. Rather, pursuant to the terms of the Stations' NPDES Permits, they are part of flow-through wastewater treatment processes at each of the stations. MWG's operation of the ash ponds has been carried out in accordance with the terms and conditions of the NPDES Permits. Under Section 12(f) of the Act, compliance with the terms and conditions of any permit issued under Section 39(b) of this Act is deemed compliance with this subsection. Further, the terms and conditions of the NPDES permit do not authorize the Agency to require the work addressed in its letters.

MWG is aware that the Agency has sent similar letters to other electric generating stations. In this regard, it appears that the Agency was not fully informed of relevant facts and circumstances that would distinguish the MWG stations and show the Agency that its request is not warranted or necessary. There are a number of site-specific facts that demonstrate there is no basis to conclude that the MWG ash ponds are causing violations of the Part 620 groundwater standards, including that each of the MWG ash ponds is lined and is regularly inspected by Midwest Gen to confirm that the integrity of the liners is maintained.

However, because MWG does wish to cooperate with the Agency by demonstrating that there is no reasonable basis for requiring groundwater monitoring at the MWG stations, we have proceeded to conduct a hydrogeologic assessment of each of the stations' ash ponds. The results of that assessment are reported in the enclosed report entitled "*Hydrogeological Assessment for Midwest Generation Stations: Will County, Waukegan, Joliet 29, Crawford and Powerton.*" We believe this evaluation should satisfy the Agency's concerns and needs regarding the MWG stations. We are, of course, willing to discuss and explain further any of the information contained in the enclosed report as well as answering any Agency questions concerning the enclosed report. Please contact the undersigned if you have any questions or wish to discuss the enclosed report.

Sincerely,

Basil G. Constantelos
Managing Director
Environmental Services

cc: Bill Buscher, Illinois EPA, Bureau of Water, Hydrogeologic and Assessment Unit
Darin LeCrone, Illinois EPA, Bureau of Water, Industrial Unit

HYDROGEOLOGICAL ASSESSMENT OF MIDWEST GENERATION ELECTRIC GENERATING STATIONS:

Will County Station, Waukegan Station, Joliet 29 Station, Crawford Station, Powerton Station

July 14, 2009

I. Executive Summary

Midwest Generation (MWG) has reviewed existing data and newly developed data in order to perform a hydrogeologic assessment in response to the Illinois Environmental Protection Agency's (the "IEPA" or "Agency") April 10, 2009 and May 15, 2009 requests regarding the following MWG electric generating stations: Will County Station, Waukegan Station, Joliet 29 Station, Crawford Station and Powerton Station. The assessment included a review and evaluation of each of the subject wastewater treatment systems (collectively referred to as "ash ponds"), an evaluation of the hydrogeology in the vicinity of the ash ponds, a potable water well survey within a 2500 feet radius of the respective stations' ash ponds and an assessment of the potential, if any, for impacts to existing water wells identified in the survey. The results of the assessment are that there is no basis for finding either (i) that MWG's operation of the ash ponds is causing migration of contaminants from the ash ponds in violation of the 35 Ill. Adm. Code Part 620 regulations; or (ii) that there is any risk of impairing potable water sources or other endangerment to human health.

II. Station Ash Ponds and Hydrogeologic Assessment

As part of the assessment, each of the ash ponds at the MWGen stations were reviewed and evaluated. This section provides a description of each of the ash impoundments in use at the respective MWG stations, including their location and relevant construction details. For each of the stations, an assessment of the hydrogeology of the subsurface area in the vicinity of the ash ponds also was conducted. The results of the hydrogeological assessment for each station are also reported in this section.

A. Will County Station:

North Ash Pond
South Ash Pond 1
South Ash Pond 2
South Ash Pond 3

The four Will County Generating Station ash ponds are all located in the western half of Section 2, Township 36 North, Range 10 East, in the Village of Romeoville, Will County, Illinois. These ponds are currently lined with 36 inches of "Poz-o-Pac" pavement originally constructed in 6-inch lifts in the late 1970s. "Poz-o-pac" is a fly ash aggregate liner similar to concrete. The potential for a release from the ash ponds is low

because these ponds are lined with Poz-o-pac liners. (The ponds also are scheduled to be relined in 2009 with high-density polyethylene geomembranes under Water Pollution Control Construction Permit #2008-EB-1166.)

Geology beneath the Will County ash ponds includes Silurian Dolomite from near the ground surface to a depth of approximately 55 feet, with shale (approximately 55-100 feet below ground surface) and limestone (approximately 100-145 feet below ground surface) underlying the dolomite. The ponds are situated between the Des Plaines River and the Chicago Sanitary and Ship Canal, and the probable direction of groundwater flow is to these surface waters.

B. Waukegan Station:

East Ash Pond
West Ash Pond

The two Waukegan Station ash ponds are located in the center of Section 15, Township 45 North, Range 12 East, in the City of Waukegan, Lake County, Illinois. These ponds are lined with high-density polyethylene (HDPE) geomembrane. Historically, these ponds have contained an impermeable liner. The potential for a release from the Waukegan ash ponds is low because these ponds are lined with HDPE liners.

The geology beneath the Waukegan ash ponds consists of fill to approximately 20 feet below ground surface, underlain by approximately 100 feet of lake-deposited sand. The area surrounding the ash ponds was reclaimed from Lake Michigan in the early twentieth century. The probable direction of groundwater flow is east towards Lake Michigan.

C. Joliet 29 Station:

Ash Pond 1
Ash Pond 2
Ash Pond 3

The three Joliet 29 ash ponds are located in the southeast ¼ of Section 19 and the southwest ¼ of Section 20, Township 35 North, Range 10 East, in the Village of Rockdale, Will County, Illinois, and include Ash Ponds 1, 2, and 3. Ash Ponds 1 and 2 are lined with high-density polyethylene (HDPE) geomembrane installed last year (2008) under Water Pollution Control Construction Permit #2007-EB-4091. Prior to 2008, they were lined with 12 inches of Poz-o-Pac pavement originally constructed in 6-inch lifts in the late 1970s. Ash Pond 3 is lined with 12 inches of Poz-o-Pac pavement originally constructed in 6-inch lifts. The potential for a release from the ash ponds is low because these ponds are lined with HDPE liners.

The geology beneath the Joliet 29 ash ponds includes approximately 5-30 feet of fine sandy loam, underlain by Silurian Dolomite to approximately 176 feet below ground surface, and Maquoketa shale from approximately 176 to 241 feet below ground surface. The shale is an effective confining unit separating the Silurian dolomite from deeper aquifers. Shallow groundwater likely flows south to the Des Plaines River.

D. Crawford Station:

One Equalization Basin

The Crawford Station equalization basin is located in the NW ¼ of Section 35, Township 39 North, Range 13 East, in the Town of Cicero, Cook County, Illinois. The basin is lined with concrete.

The geology beneath the Crawford ash pond includes silt and clay associated with Cahokia Alluvium and the Wedron Formation to a depth of approximately 20 feet below ground surface, underlain by Silurian Dolomite. Silt and clay, particularly those associated with the Wedron Formation, typically have low hydraulic conductivity. The likely groundwater flow direction is south to the Chicago Sanitary and Ship Canal.

The potential for groundwater migration from the Crawford ash pond is low due to the both the existence of the concrete liner and the low hydraulic conductivity of the underlying silt and clay.

E. Powerton Station

Ash Surge Basin
Secondary Ash Settling Basin
Bypass Basin

The three Powerton ash ponds are located in Section 9, Township 24 North, Range 5 West, near the City of Pekin, Tazewell County, Illinois. The Ash Surge Basin, Emergency Overflow Basin, and the Bypass basin are lined with 12 inches of Poz-o-Pac pavement constructed in 6-inch lifts at the bottom of the basin, and Hypalon geomembrane liner on the side slopes. The potential for groundwater migration from the the ash ponds is low due to the both the existence of the Poz-o-Pac/Hypalon geomembrane liner

The geology beneath the Powerton ash ponds includes sands and gravels of the Henry Formation to approximately 90 feet below ground surface. Groundwater flow is likely north towards the Illinois River.

III. Potable Water Survey and Assessment

A survey of all potable water sources within a 2500 feet radius of the respective stations' ash ponds was performed. The following databases and sources of information were utilized in order to determine community water source and water well locations and construction in the vicinity of the ash pond wastewater treatment systems:

- Illinois State Geological Survey (ISGS) -Water Well Database Query;
- Illinois State Water Survey (ISWS) Private Well Database and water well construction report request; and
- Illinois Division of Public Water Supply web-based Geographic System (GIS) files;

The survey results for each of the stations are set forth below.

A. Will County Station

The only identified potable wells, with associated structures, are located between the Des Plaines River and the Chicago Sanitary and Ship Canal. These wells are more than 1,500 feet deep (see wells 8 and 9 on attached Will County figure.) Based on this geologic profile, these wells are drawing groundwater from a deep aquifer below the Maquoketa confining unit. They do not draw groundwater from the shallow dolomite underlying the station's ash ponds.

Because there are no shallow potable wells between the ash ponds and the surface water bodies to which shallow groundwater discharges, there are no groundwater receptors between the ash ponds and the groundwater discharge point. As a result, there is no reasonable basis to expect that a release from this facility will pose any risk to human health.

B. Waukegan Station

There are eight potable/industrial use wells within 2500 feet of Waukegan's ash ponds (see attached Waukegan figure.) However, the ash ponds are located in close proximity to Lake Michigan and groundwater is believed to flow toward the lake. Further, there are no potable wells used for drinking water supplies to the east or south of the ash pond. Therefore, there is no reasonable basis to expect that a release from the ash ponds will pose any risk to human health.

C. Joliet 29

Seventeen potable/industrial use wells are within a 2500 foot radius of the Joliet 29 Station's ash ponds (see attached Joliet figure.) However, most of these wells are screened at the deeper area aquifers. Only 2 of the wells (Numbers 19 and 4 on figure)

are downgradient from the ash impoundment. Both of these wells are drilled at 1525 feet below ground surface and screened below the Maquoketa shale. These wells both belong to MWG and have had a successful compliance record during sampling in accordance with the drinking water regulations.

The absence of shallow potable wells between the ash ponds and the Des Plaines River, where shallow groundwater will discharge, means that there are no groundwater receptors between the ash ponds and the groundwater discharge point. As a result, there is no reasonable basis to expect that a release from this facility will pose any risk to human health.

D. Crawford

No potable wells were identified within a 2,500-foot radius of the station's ash pond (see attached Crawford figure.) The surrounding communities of Cicero and Chicago are served by municipal water distribution systems. Given the low hydraulic conductivity of the silt and clay, likely direction of groundwater flow toward the Chicago Sanitary and Ship Canal, and lack of potable wells near the ash pond, as well as the concrete-lining of the pond, there is no reasonable basis to expect that a release from this facility will pose any risk to human health.

E. Powerton

The well survey identified six wells within a 2,500-foot radius of the ash ponds, each of which is screened below 50 feet (see attached Powerton figure.) None of these wells are located downgradient from the ash ponds. Two of these wells supply Powerton Station with water. They are regularly sampled and analyzed for potable water constituents. The sampling results consistently have been in compliance with potable water regulations.

III. Conclusion

The hydrogeologic assessment of the ash pond wastewater treatment systems at each of the five MWG station evaluated each of the ash ponds in use at the stations. All of the ash ponds are lined with impermeable materials, including concrete, HDPE and Poz-o-Pac materials, to prevent the release of wastewater to the environment. For certain of the stations, the geology of the underlying soils is characterized by low hydraulic conductivity of the underlying media which would prevent the migration of wastewater even in the event of a release. Further, all of the ash ponds are located in close proximity to surface waters and the probable direction of groundwater flow is towards the surface waters and not in the direction of potable water wells.

Existing water wells, if any, were identified as part of the potable water well survey conducted for the area within a 2500 feet radius of the respective stations' ash ponds. An assessment of the potential, if any, for impacts to existing water wells was performed for each of the stations. For each of the MWG stations, the assessment findings are that there

is no reasonable basis on which to conclude (i) that MWG's operation of the ash ponds is causing migration of contaminants from the ash ponds in violation of the 35 Ill. Adm. Code Part 620 regulations; or (ii) that there is any risk of impairing potable water sources or other endangerment to human health.

LEGEND

POTABLE WELL LOCATION (APPROXIMATE)

ASH POND

2,500 FOOT RADIUS OF ASH POND SYSTEMS

NOTE:
REFER TO SUMMARY TABLE FOR SPECIFIC WELL INFORMATION.

SOURCE:
2005 DIGITAL ORTHOPHOTO FROM ILLINOIS NATURAL RESOURCES GEOSPATIAL DATA CLEARINGHOUSE.
WELL LOCATIONS FROM ILLINOIS STATE GEOLOGICAL SURVEY, ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, AND ILLINOIS STATE WATER SURVEY.

0 600 1200
SCALE IN FEET

N

NATURAL RESOURCE TECHNOLOGY

POTABLE WATER WELLS

CRAWFORD STATION
MIDWEST GENERATION
CHICAGO, COOK COUNTY, ILLINOIS

DRAWN BY:	KNW	DATE:	6/09/09
CHECKED BY:	HMS	DATE:	6/13/09
APPROVED BY:	HMS	DATE:	07/07/09
DRAWING NO: 1792-3-B04			
REFERENCE:			

PROJECT NO. 1792

FIGURE NO. 1

LEGEND

- 2,500 FOOT RADIUS/ POND SYSTEMS
- ASH POND
- POTABLE WELL LOCATION (APPROXIMATE)
- COMMUNITY WELL LOCATION

NOTE: REFER TO SUMMARY TABLE FOR SPECIFIC WELL INFORMATION.

SOURCE: 2005 DIGITAL ORTHOPHOTO FROM ILLINOIS NATURAL RESOURCES GEOSPATIAL DATA CLEARINGHOUSE; WELL LOCATIONS FROM ILLINOIS STATE GEOLOGICAL SURVEY, ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, AND ILLINOIS STATE WATER SURVEY

0 1,000 2,000
SCALE IN FEET

N

POTABLE WATER WELLS

IEPA/DLPC STATION NO. 29
ID WEST GENERATION
ROCKDALE WILL COUNTY, ILLINOIS

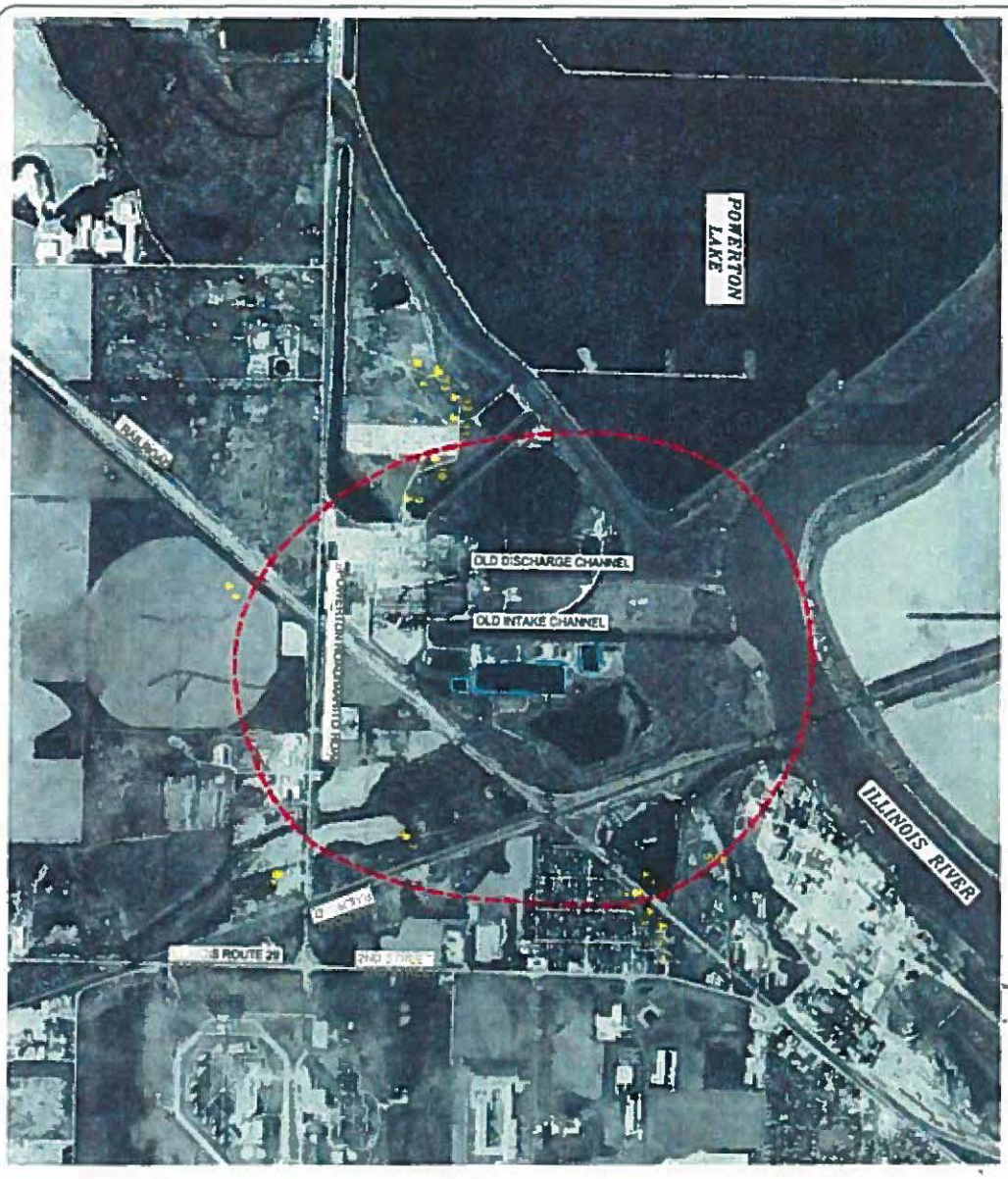
DRAWN BY	RLH/KNW	DATE	05/20/09
CHECKED BY	HMS	DATE	05/22/09
APPROVED BY	HMS	DATE	07/07/09

DRAWING NO. 1792-3-B03
REFERENCE 161DL050830.sid, 050945.sid, 050930.sid, 050945.sid

NATURAL RESOURCE TECHNOLOGY

PROJECT NO. 1792/3.0

FIGURE NO. 1



POTABLE WATER WE LLS
O P TION
POWERT N GOWER STA
MIDWEST GENERAT OLLINOIS
PEKIN, TAZ W L OUNTY,

KNW DA
DRAWN BY MS TE 05/11/09
CHECKED BY MS DATE 05/22/09
APPROVED BY H- DATE 07/07/09
DRAWING NO 792 J-802
REFERENCE

NATURAL RESOURC
TECHNO OGY

PROJECT NO 1 791/30
FIGURE NO 1

LEGEND

2,500 FOOT RADIUS OF ASH POND SYSTEMS

ASH POND

POTABLE WELL LOCATION (APPROXIMATE)

NOTE: REFER TO SUMMARY TABLE FOR SPECIFIC WELL INFORMATION.

SOURCE: 2005 DIGITAL ORTHOPHOTO FROM ILLINOIS NATURAL RESOURCES GEOSPATIAL DATA CLEARINGHOUSE. WELL LOCATIONS FROM ILLINOIS STATE GEOLOGICAL SURVEY, ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, AND ILLINOIS STATE WATER SURVEY.

0 600 1200
SCALE IN FEET

N

POTABLE WATER WELLS

WAUKEGAN STATION
MIDWEST GENERATION
WAUKEGAN, LAKE COUNTY, ILLINOIS

DRAWN BY:	KNW	DATE:	6/09/09
CHECKED BY:	HMS	DATE:	6/15/09
APPROVED BY:	HMS	DATE:	07/07/09
DRAWING NO:	1792-3-B05		
REFERENCE:			

NATURAL RESOURCE TECHNOLOGY

PROJECT NO. 1792/3.0

FIGURE NO. 1

LEGEND

POTABLE WELL LOCATION (APPROX. MILE)

1.5 MILE RADIUS OF POTABLE WELL LOCATIONS

SOURCE:
BASE MAP FROM ILLINOIS STATE WATER SURVEY, CHAMPAIGN, ILLINOIS, AND ILLINOIS STATE GEOLOGICAL SURVEY, CHAMPAIGN, ILLINOIS, TOPOGRAPHIC MAPS.

NOTE:
WELL LOCATIONS FROM ILLINOIS DEPARTMENT OF PUBLIC HEALTH, SPRINGFIELD, ILLINOIS, AND ILLINOIS STATE WATER SURVEY.

N

SCALE IN FEET
0 2000 4000

FIGURE NO. 1	PROJECT NO. 1792/3.3	NATURAL RESOURCE TECHNOLOGY	POTABLE WATER WELLS WILL COUNTY GENERATING STATION MIDWEST GENERATION ROMEOVILLE, WILL COUNTY, ILLINOIS

DRAWN BY	KNW	DATE: 05/13/09
CHECKED BY	HWS	DATE: 05/22/09
APPROVED BY	HWS	DATE: 07/07/09
DRAWING NO. 1792-S-1001		
REFERENCE		

Petitioner’s Hearing Exhibit U

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
	)	R 2020-019
STANDARDS FOR THE DISPOSAL	)	
OF COAL COMBUSTION RESIDUALS	)	(Rulemaking - Water)
IN SURFACE IMPOUNDMENTS:	)	
PROPOSED NEW 35 ILL. ADM.	)	
CODE 845	)	

ILLINOIS EPA'S PRE-FILED ANSWERS

NOW COMES the Illinois Environmental Protection Agency (Illinois EPA or Agency), by and through one if its attorneys, and submits the following information with respect to its pre-filed answers.

1. On March 30, 2020, the Illinois EPA filed a rulemaking, proposing new rules at 35 Ill. Adm. Code 845 concerning coal combustion residual surface impoundments at power generating facilities in the State.

2. Public Act 101-171, effective July 30, 2019, amended the Illinois Environmental Protection Act, by among other things, adding a new Section 22.59 (415 ILCS 5/22.59). Public Act 101-171 includes a rulemaking mandate in Section 22.59(g) which directs the Board to adopt rules "establishing construction permit requirements, operating permit requirements, design standards, reporting, financial assurance, and closure and post-closure care requirements for CCR surface impoundments." 415 ICLS 5/22.59(g). The Board is required is adopt new rules for 35 Ill. Adm. Code part 845 by March 30, 2021.

3. The Agency timely filed pre-filed testimony for eight witnesses.

4. Based on the pre-filed testimony, Illinois EPA received over 1000 questions counting subparts.

5. On June 30, 2020, the Agency asked that it be granted until August 3, 2020 to respond to the pre-filed questions.

B) ~~**located in wetlands under**~~ **Section 845.310 (Wetlands);**

C) ~~**located in fault areas under**~~ **Section 845.320 (Fault areas);**

D) ~~**located in a seismic impact zone under**~~ **Section 845.330 (Seismic impact zones); and**

E) ~~**located in an unstable area under**~~ **Section 845.340 (Unstable areas).**

Response: The Agency has no objection to the revisions as suggested by the Board.

22. The proposed subsection Section 845.230(d)(2)(E) is numbered as (d)(2)(D) due to a typographical oversight. Therefore, subsections Section 845.230(d)(2)(D) thru (d)(2)(L) needs to be renumbered, as well as any cross references.

Response: The typographical errors in the numbering are noted. The only cross references the Agency has identified for 845.230(d)(2) are 845.230(d)(2)(C) in 845.530(b) and 845.230(d)(2)(A) in 845.540(b)(1)(A), neither of which are indicated in the affected subsections of 845.230(d)(2).

23. The proposed subsections 845.230(d)(2)(H)(i) thru (iv) specify detailed groundwater monitoring information that must be submitted for Initial Operating Permit for Existing, Inactive and Inactive Closed CCR Surface Impoundments. Please comment on why similar information is not required for construction permit applications under Section 845.210, as well as initial operating permit for new construction.

Response: The groundwater monitoring data required by this subsection, is necessary to determining the current site characteristics and compliance status for existing CCR surface impoundments. This data will be used to determine the operational conditions or corrective action which might be necessary under the rule for these existing facilities. Groundwater monitoring needs for construction permits, or operating permits for new construction, will be evaluated during the application review. Determinations on the need for a revised groundwater monitoring program will be based on the effects on the physical, operational, or environmental conditions following construction.

24. Subsection 845.240(b) requires the owner or operator to prepare and circulate a notice explaining the proposed construction project and any related activities and the time and place of the public meeting. Please comment on whether this section should specify that the public notification must include the owner or operator's contact information, including the owner or operator's publicly accessible internet site where all documentation relied upon in preparing the tentative construction

Petitioner’s Hearing Exhibit V

	A	B	C	D	E	F	G	H	I	J
1	Company	Facility	Pond ID Number	Pond Description	Closure Complete	Post Closure Care Complete	Status	Close before July 31, 2021	Area of EJ Concern	Exceeds 620/GWPS
2	Ameren	Venice	W1191050002-01	N. Pond	yes, Nov. 2012	no	Inactive Closed	see closure date	yes	yes has GMZ
3	Ameren	Venice	W1191050002-02	S. Pond	yes, Nov. 2012	no	Inactive Closed	see closure date	yes	yes has GMZ
4	Ameren	Hutsonville	W0330100003-01	Pond A	yes, Nov. 2016	no	Inactive	see closure date	no	yes has GMZ
5	Ameren	Hutsonville	W0330100003-02	Pond B	no, removal Nov. 2016	no pond specific monitoring	Inactive	see closure date	no	unkown, no pond specific monitoring
6	Ameren	Hutsonville	W0330100003-03	Pond C	no, removal Nov. 2016	no pond specific monitoring	Inactive	see closure date	no	unkown, no pond specific monitoring
7	Ameren	Hutsonville	W0330100003-04	Pond D	yes, Jan. 2013	no	Inactive Closed	see closure date	no	yes
8	Ameren	Hutsonville	W0330100003-05	Bottom Ash	no, removal Nov. 2016	no pond specific monitoring	Inactive	see closure date	no	unkown, no pond specific monitoring
9	Ameren	Meredosia	W1370300005-01	Bottom Ash Pond	yes, Jan 2019	no	Inactive	see closure date	no	yes has GMZ
10	Ameren	Meredosia	W1370300005-02	Fly Ash	yes, Aug 2019	no	Inactive	see closure date	no	yes has GMZ
11	Ameren	Meredosia	W1370300005-03	Old Ash Pond	no	no	Inactive	no	no	Not Fully Evaluated
12	CWLP	City Water Light and Power	W1671200052-01	Lake Side Pond	no	no	Existing	no	yes	yes
13	CWLP	City Water Light and Power	W1671200052-02	Dallman Pond	no	no	Existing	no	yes	yes
14	Vistra	Baldwin Energy Center	W1578510001-01	Old East Fly Ash Pond	no	no	Existing	Likely	no	yes has GMZ
15	Vistra	Baldwin Energy Center	W1578510001-02	East Fly Ash Pond	no	no	Existing	Likely	no	yes has GMZ
16	Vistra	Baldwin Energy Center	W1578510001-03	West Fly Ash Pond	no	no	Existing	Likely	no	yes has GMZ
17	Vistra	Baldwin Energy Center	W1578510001-06	Bottom Ash Pond	no	no	Existing	no	no	yes
18	Vistra	Coffeen Station	W1350150004-01	Ash Pond 1	no	no	Existing	no	no	Not Fully Evaluated
19	Vistra	Coffeen Station	W1350150004-02	Ash Pond 2	no	no	Existing	Likely	no	yes has GMZ
20	Vistra	Coffeen Station	W1350150004-03	GMF Pond	no	no	Existing	no	no	Not Fully Evaluated
21	Vistra	Coffeen Station	W1350150004-04	GMF Recycle Pond	no	no	Existing	no	no	Not Fully Evaluated
22	Vistra	Duck Creek Station	W0578010001-01	Ash Pond No.1	no	no	Existing	Likely	yes	yes has GMZ
23	Vistra	Duck Creek Station	W0578010001-02	Ash Pond No.2	no	no	Existing	Likely	yes	yes has GMZ
24	Vistra	Duck Creek Station	W0578010001-03	Bottom Ash Basin	no	no	Existing	no	yes	Not Fully Evaluated
25	Vistra	Duck Creek Station	W0578010001-04	GMF Pond	no	no	Existing	no	yes	Not Fully Evaluated
26	Vistra	Duck Creek Station	W0578010001-05	GMF Recycle Pond	no	no	Existing	no	yes	Not Fully Evaluated
27	Vistra	Edwards Station	W1438050005-01	Ash Pond 1	no	no	Existing	no	no	Not Fully Evaluated
28	Vistra	Joppa Station	W1270100004-01	West Pond 1	no	no	Inactive	no	no	Not Fully Evaluated
29	Vistra	Joppa Station	W1270100004-02	East Ash Pond 2	no	no	Existing	no	no	Not Fully Evaluated
30	Vistra	Havana Station	W1250200004-01	East Ash Pond Cell 1	no	no	Existing	no	yes	Not Fully Evaluated
31	Vistra	Havana Station	W1250200004-02	East Ash Pond Cell 2	no	no	Existing	no	yes	Not Fully Evaluated
32	Vistra	Havana Station	W1250200004-03	East Ash Pond Cell 3	no	no	Existing	no	yes	Not Fully Evaluated
33	Vistra	Hennepin Station	W1550100002-01	West Ash Pond 1	no	no	Inactive	Likely	yes	yes has GMZ
34	Vistra	Hennepin Station	W1550100002-02	West Ash Pond 3	no	no	Inactive	Likely	yes	yes has GMZ
35	Vistra	Hennepin Station	W1550100002-03	West Secondary Ash Pond	no	no	Inactive	Likely	yes	yes has GMZ
36	Vistra	Hennepin Station	W1550100002-04	East Ash Pond 2	no	no	Inactive	Likely	yes	yes has GMZ
37	Vistra	Hennepin Station	W1550100002-05	East New Primary Pond	no	no	Existing	no	yes	Not Fully Evaluated
38	Vistra	Hennepin Station	W1550100002-07	East Pond 4	no	no	Inactive	Likely	yes	yes has GMZ
39	Vistra	Kincaid Generation	W0218140002-01	Ash Pond	no	no	Existing	no	no	Not Fully Evaluated
40	Vistra	Newton Station	W0798070001-01	Primary Ash Pond	no	no	Existing	no	no	yes
41	Vistra	Vermilion Station	W1838000002-01	North Pond Cell 1 & 2	no	no	Inactive	no	no	yes
42	Vistra	Vermilion Station	W1838000002-03	Old East Pond	no	no	Inactive	no	no	yes
43	Vistra	Vermilion Station	W1838000002-04	New East Pond Cell 1 & 2	no	no	Inactive	no	no	yes
44	CTI Developmen	Wood River Station	W1190200004-01	West Ash Pond 1	no	no	Inactive	Likely	yes	yes has GMZ
45	CTI Developmen	Wood River Station	W1190200004-02	West Ash Pond 2W	no	no	Inactive	Likely	yes	yes has GMZ
46	CTI Developmen	Wood River Station	W1190200004-03	West Ash Pond 2E	no	no	Inactive	Likely	yes	yes has GMZ
47	CTI Developmen	Wood River Station	W1190200004-05	Pond	no	no	Existing	no	yes	Not Fully Evaluated
48	Grand Tower	Grand Tower	W0770400003-01	Ash Pond	no	no	Inactive	Likely	no	yes has GMZ
49	NRG	Will County Station	W1978100011-01	Pond 1 North	no	no	Inactive	no	no	yes VN/CCA/GMZ
50	NRG	Will County Station	W1978100011-02	Pond 3 South	no	no	Existing	no	no	yes VN/CCA/GMZ
51	NRG	Will County Station	W1978100011-03	Pond 2 South	no	no	Existing	no	no	yes VN/CCA/GMZ
52	NRG	Will County Station	W1978100011-04	Pond 1 South	no	no	Inactive	no	no	yes VN/CCA/GMZ

	A	B	C	D	E	F	G	H	I	J
1	Company	Facility	Pond ID Number	Pond Description	Closure Complete	Post Closure Care Complete	Status	Close before July 31, 2021	Area of EJ Concern	Exceeds 620/GWPS
53	NRG	Waukegan Station	W0971900021-01	East Pond	no	no	Existing	no	yes	yes VN/CCA
54	NRG	Waukegan Station	W0971900021-02	West Pond	no	no	Existing	no	yes	yes VN/CCA
55	NRG	Waukegan Station	W0971900021-03	Old Pond	no	no	Exsiting	no	yes	Not Fully Evaluated
56	NRG	Powerton	W1798010008-01	Ash Basin	no	no	Existing	no	no	yes VN/CCA/GMZ
57	NRG	Powerton	W1798010008-02	Sec. Ash Basin	no	no	Existing	no	no	yes VN/CCA/GMZ
58	NRG	Powerton	W1798010008-03	Metal Cleaning Basin	no	no	Existing	no	no	yes VN/CCA/GMZ
59	NRG	Powerton	W1798010008-04	Bypass Basin	no	no	Existing	no	no	yes VN/CCA/GMZ
60	NRG	Powerton	W1798010008-05	Former Ash Basin	no	no	Inactive	no	no	Not Fully Evaluated
61	NRG	Joliet 29	W1970450047-01	Pond 1	no	no	Inactive	no	yes	yes VN/CCA/GMZ
62	NRG	Joliet 29	W1970450047-02	Pond 2	no	no	Existing	no	yes	yes VN/CCA/GMZ
63	NRG	Joliet 29	W1970450047-03	Pond 3	no	no	Inactive	no	yes	yes VN/CCA/GMZ
64	NRG	Joliet 9	W1970450046-01	Lincoln Stone Quarry	no	no	Existing	no	yes	yes
65	Prairie Power	Prairie Power Inc	W1490650005-01	N. Pond	yes,Nov. 2014	no	Inactive Closed	see closure date	no	yes has GMZ
66	SIPC	Southern Illinois Power Co-op	W1998600002-01	Pond 1	no	no	Existing	no	no	unkown, no pond specific monitoring
67	SIPC	Southern Illinois Power Co-op	W1998600002-02	Pond 2	no	no	Existing	no	no	unkown, no pond specific monitoring
68	SIPC	Southern Illinois Power Co-op	W1998600002-03	Pond 4	no	no	Exisiting	no	no	unkown, no pond specific monitoring
69	SIPC	Southern Illinois Power Co-op	W1998600002-04	Pond A-1	no, removal Nov. 2017(may	not compliant W/GWPS	Inactive	no	no	unkown, no pond specific monitoring
70	SIPC	Southern Illinois Power Co-op	W1998600002-05	Pond B-3	no, removal Nov. 2017	not compliant W/GWPS	Existing	no	no	unkown, no pond specific monitoring
71	SIPC	Southern Illinois Power Co-op	W1998600002-06	South Fly Ash Pond	no	no	Existing	no	no	unkown, no pond specific monitoring
72	SIPC	Southern Illinois Power Co-op	W1998600002-07	Pond 3	no	no	Existing	no	no	unkown, no pond specific monitoring
73	SIPC	Southern Illinois Power Co-op	W1998600002-09	Pond 6	no	no	Existing	no	no	unkown, no pond specific monitoring
74	SIPC	Southern Illinois Power Co-op	W1998600002-10	Emery Pond	no	no	Existing	Likely	no	Yes, GMZ application