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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EXHIBIT
621

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 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

CRAWFORD STATION
MIDWEST GENERATION
CHICAGO, COOK COUNTY, ILLINOIS

DRAWN BY:	KNW	DATE:	6/09/09
CHECKED BY:	HWS	DATE:	6/13/09
APPROVED BY:	HWS	DATE:	07/07/09
DRAWING NO: 1792-3-804			
REFERENCE:			

NATURAL RESOURCE TECHNOLOGY

PROJECT NO. 1792/30

FIGURE NO. 1

LEGEND

CWS-1 COMMUNITY WELL LOCATION

POTABLE WELL LOCATION (APPROXIMATE)

ASH POND

2,500 FOOT RADIUS OF ASH POND SYSTEMS

NOTE:
REFER TO SUMMARY TABLE FOR SPECIFIC WELL INFORMATION.

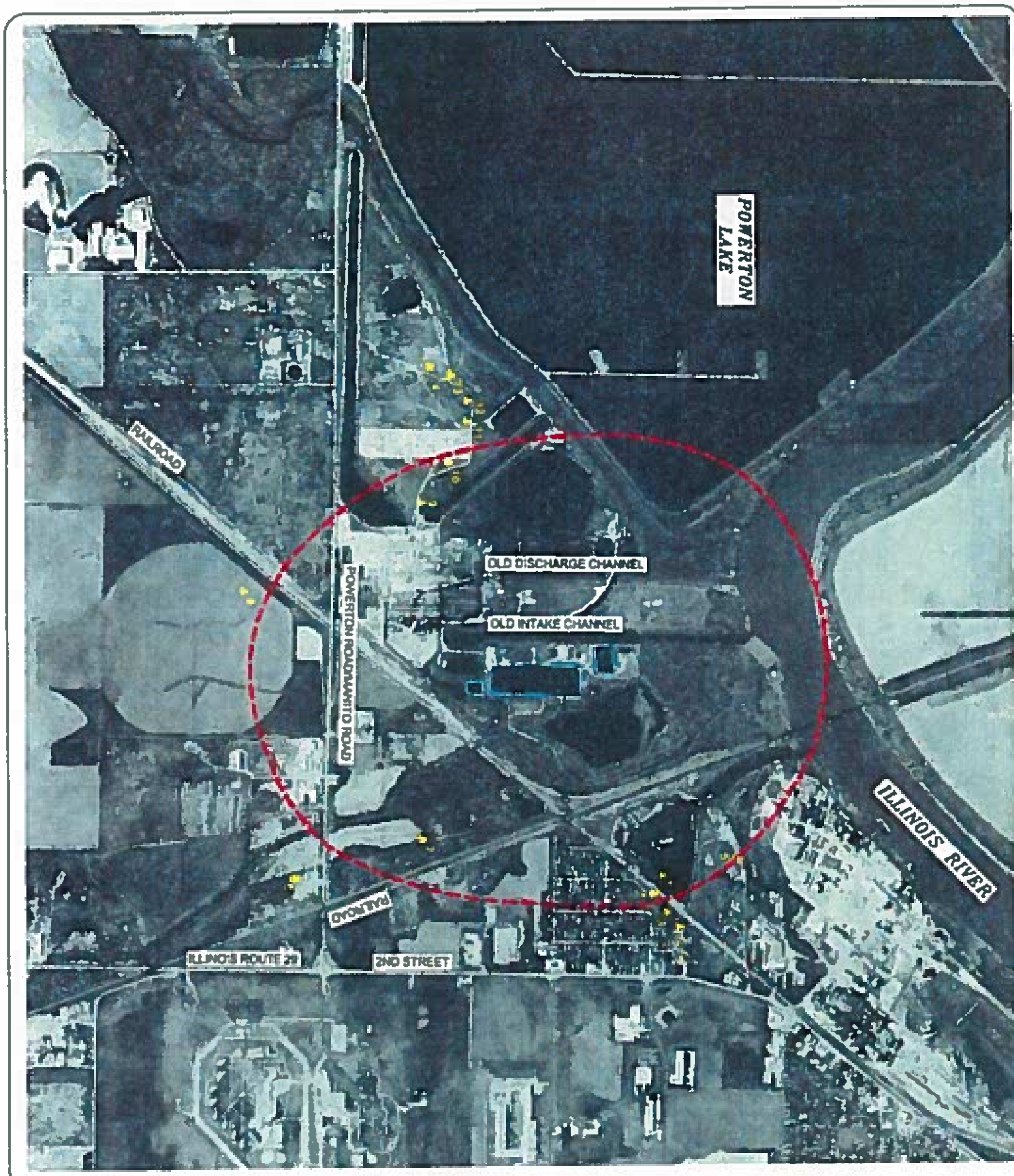
SOURCE:
2005 DIGITAL ORTHOPHOTO FROM ILLINOIS NATURAL RESOURCES GEOSPATIAL DATA CLEARINGHOUSE
WELL LOCATIONS FROM ILLINOIS STATE GEOLOGICAL SURVEY, ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, AND ILLINOIS STATE WATER SURVEY.

N

0 600 1200
SCALE IN FEET

FIGURE NO. 1	PROJECT NO. 1792/3.0	NATURAL RESOURCE TECHNOLOGY	POTABLE WATER WELLS JOLIET STATION NO. 29 MIDWEST 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: 16TDL050930.sid, 050945.sid, 065930.sid, 065945.sid	



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.

N

0 600 1200
SCALE IN FEET

NATURAL RESOURCE TECHNOLOGY

PROJECT NO. 1792/3.0

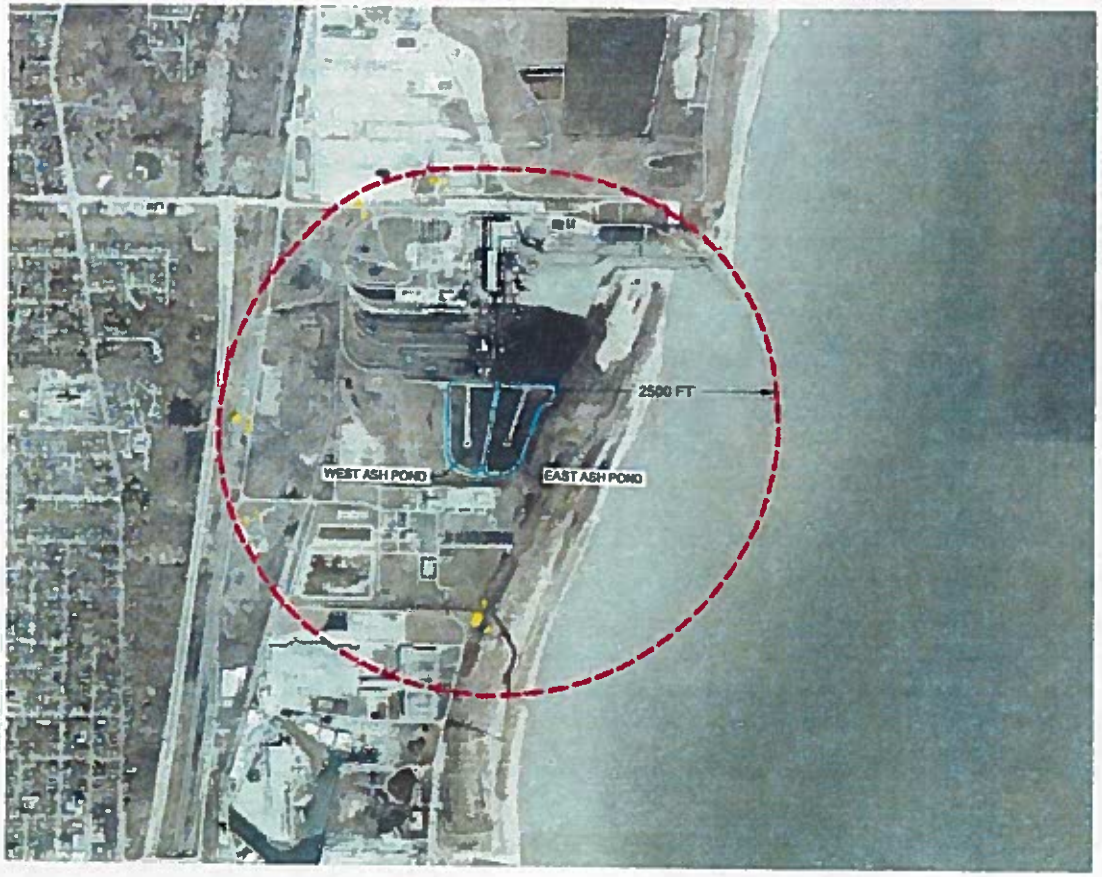
FIGURE NO. 1

POTABLE WATER WELLS

POWERTON POWER STATION
MIDWEST GENERATION
PEKIN, TAZEWELL COUNTY, ILLINOIS

DRAWN BY:	KNW	DATE:	05/11/09
CHECKED BY:	HMS	DATE:	05/22/09
APPROVED BY:	HMS	DATE:	07/07/09
DRAWING NO: 1792-3-B02			
REFERENCE:			

MWG13-15_304



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:
2008 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.

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0 600 1200
SCALE IN FEET

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-B03		
REFERENCE:		

NATURAL RESOURCE TECHNOLOGY

PROJECT NO.
1792/3.0

FIGURE NO.
1

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.

N

0 600 1200
SCALE IN FEET

NATURAL RESOURCE TECHNOLOGY	POTABLE WATER WELLS WILL COUNTY GENERATING STATION MIDWEST GENERATION ROMEOVILLE, WILL COUNTY, ILLINOIS	DRAWN BY: KNW	DATE: 05/13/09
PROJECT NO 1792/3.3		CHECKED BY: HMS	DATE: 05/22/09
FIGURE NO 1		APPROVED BY: HMS	DATE: 07/07/09
		DRAWING NO. 1792-3-B01	
		REFERENCE	