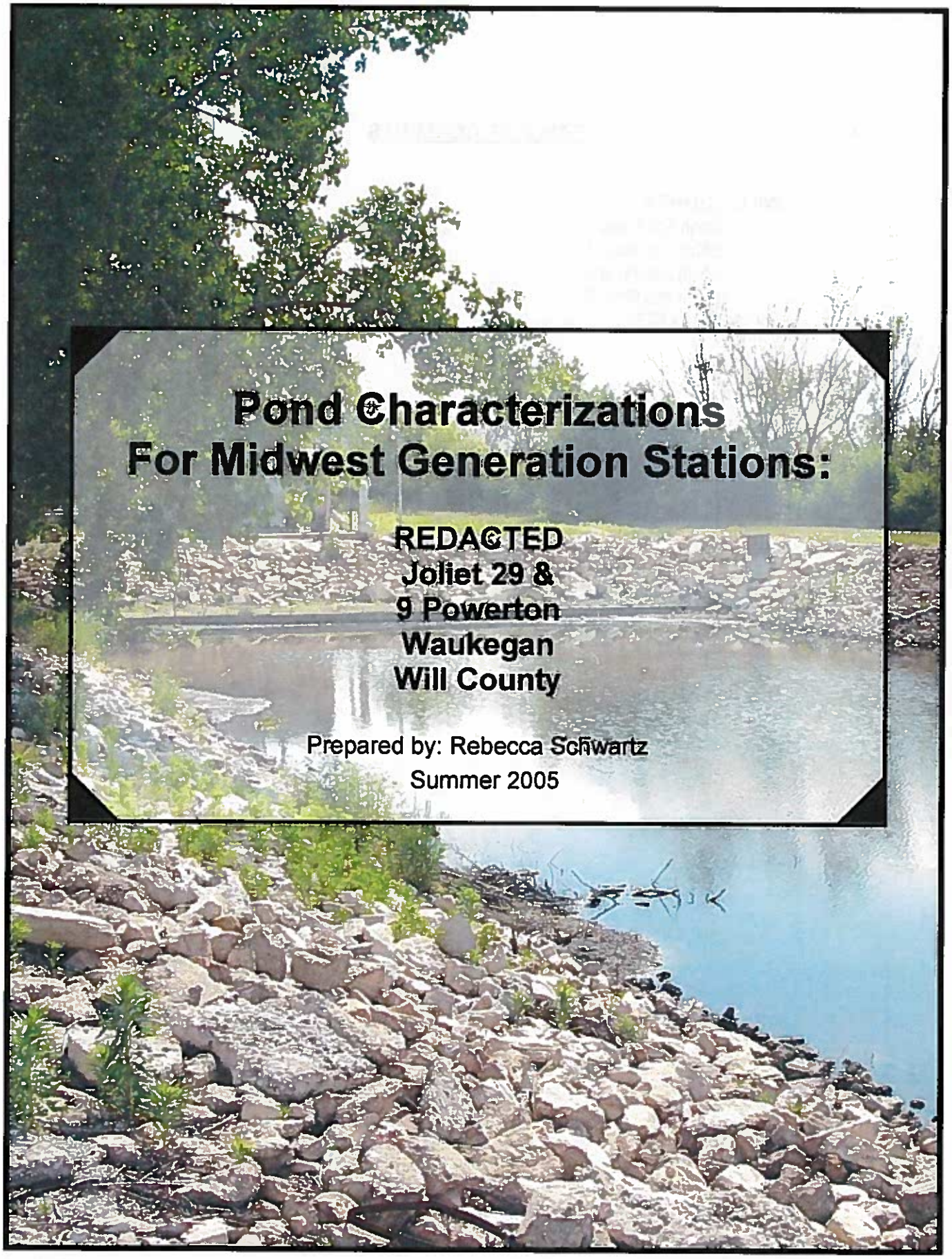


Pond Characterizations For Midwest Generation Stations:

REDACTED
Joliet 29 &
9 Powerton
Waukegan
Will County

Prepared by: Rebecca Schwartz
Summer 2005

MWG13-15_1

EXHIBIT
MWG-500

TABLE OF CONTENTS

REDACTED

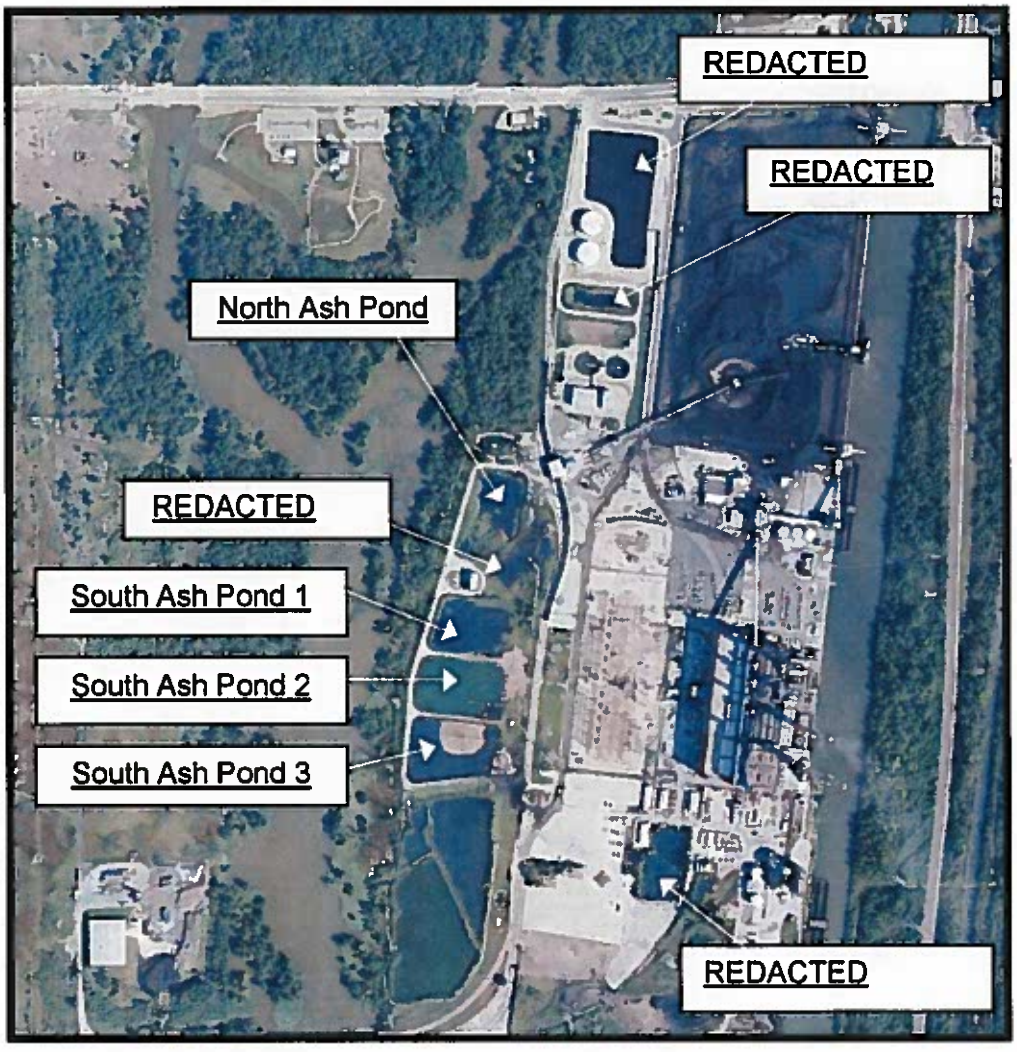
APPENDX A
REDACTED

APPENDIX B
REDACTED

APPENDIX C
Definition of a Lift
Definition of Poz-O-Pac

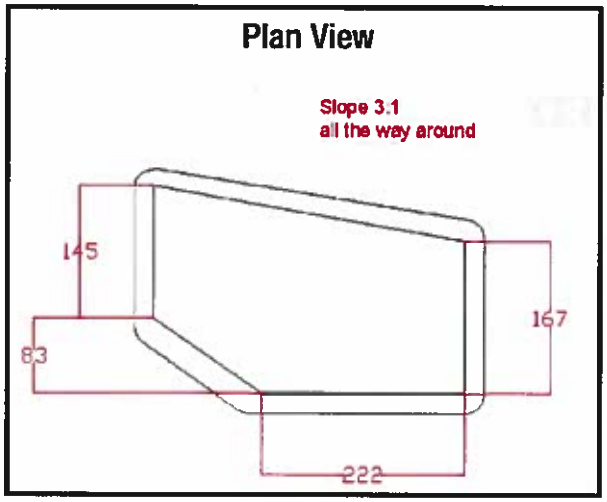
WILL COUNTY GENERATING STATION

529 East 135th Street
Romeoville, IL 60446-1538



MWG13-15_4

WILL COUNTY
North Ash Pond
Ash Settling Pond



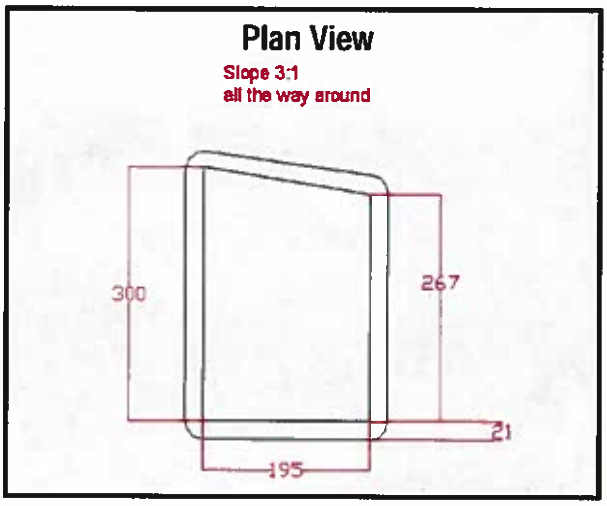
Dimensions: about 167' x 333' **Depth:** 7' **Capacity:** about 520,000 ft^3
Bottom: 6-6" Lifts of Poz-O-Pac with a Bituminous Curing Coat
Sides: Poz-O-Pac at a 10'-0" horizontal depth with a Bituminous Curing Coat
Where Pond feeds too: Off-site Ash Removal
or
Waste Water Treatment Plant => Outfall 002 => Chicago Sanitary and Ship Canal
or
Recycle back to Coal-Fired Steam Electric Generating Process
(note: From the Slag & Ash Pond, flow may be diverted around the Waste Water Treatment plant directly to Outfall 002)
Rotation Cycle: None
Construction Year of Pond: 1977
Construction Year of Current Liner: 1977

	Yes	No
Is this an internal monitoring point?	○	●
If yes, where:		
Can it be recycled within itself?	○	●
Can it be Recycled to an earlier point?	●	○

If yes, where: Coal-Fired Steam Electric Generating Process

REDACTED

WILL COUNTY
South Ash Pond 1
Ash Settling Pond

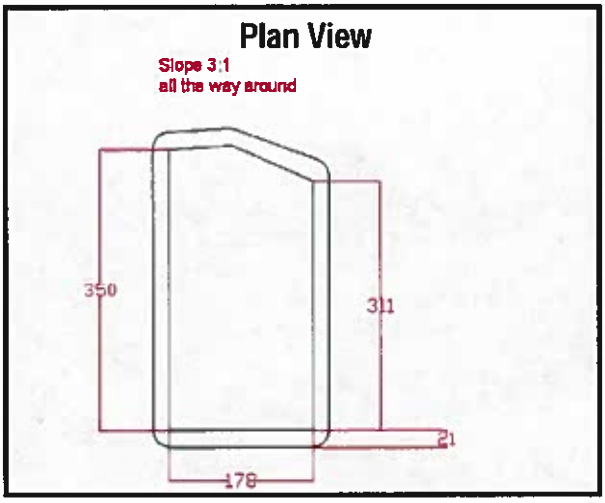


Dimensions: about 300' x 195' **Depth:** 7' **Capacity:** about 460,000 ft^3
Bottom: 6-6" Lifts of Poz-O-Pac with a Bituminous Curing Coat
Sides: Poz-O-Pac at a 10'-0" horizontal depth with a Bituminous Curing Coat
Where Pond feeds too: Off-site Ash Removal
or
Waste Water Treatment Plant => Outfall 002 => Chicago Sanitary and Ship Canal
or
Recycle back to Coal-Fired Steam Electric Generating Process
(note: From the Slag & Ash Pond, flow may be diverted around the Waste Water Treatment plant directly to Outfall 002)
Rotation Cycle: None
Construction Year of Pond: 1977
Construction Year of Current Liner: 1977

	Yes	No
Is this an internal monitoring point?	○	●
If yes, where:		
Can it be recycled within itself?	○	●
Can it be Recycled to an earlier point?	●	○

If yes, where: Coal-Fired Steam Electric Generating Process

WILL COUNTY
South Ash Pond 2
Ash Settling Pond

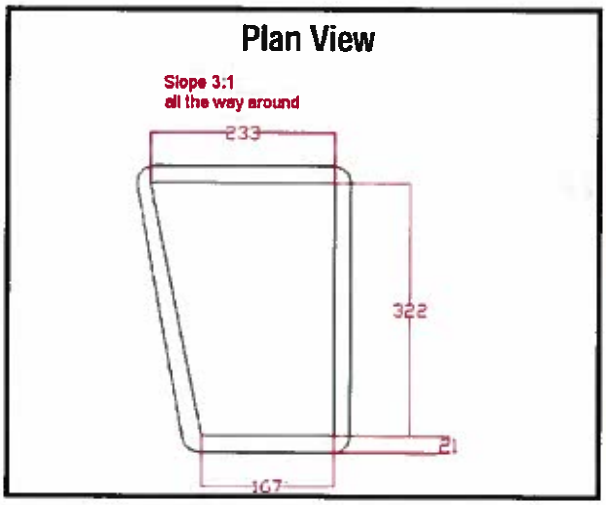


Dimensions: about 350' x 178' **Depth:** 7' **Capacity:** about 510,000 ft^3
Bottom: 6-6"Lifts of Poz-O-Pac with a Bituminous Curing Coat
Sides: Poz-O-Pac at a 10'-0" horizontal depth with a Bituminous Curing Coat
Where Pond feeds too: Off-site Ash Removal
or
Waste Water Treatment Plant => Outfall 002 => Chicago Sanitary and Ship Canal
or
Recycle back to Coal-Fired Steam Electric Generating Process
(note: From the Slag & Ash Pond, flow may be diverted around the Waste Water Treatment plant directly to Outfall 002)
Rotation Cycle: None
Construction Year of Pond: 1977
Construction Year of Current Liner: 1977

	Yes	No
Is this an internal monitoring point?	○	●
If yes, where:		
Can it be recycled within itself?	○	●
Can it be Recycled to an earlier point?	●	○

If yes, where: Coal-Fired Steam Electric Generating Process

WILL COUNTY
South Ash Pond 3
Ash Settling Pond



Dimensions: about 234' x 322' **Depth:** 7' **Capacity:** about 530,000 ft^3
Bottom: 6-6" Lifta of Poz-O-Pac with a Bituminous Curing Coat
Sides: Poz-O-Pac at a 10'-0" horizontal depth with a Bituminous Curing Coat
Where Pond feeds too: Off-site Ash Removal
or
Waste Water Treatment Plant => Outfall 002 => Chicago Sanitary and Ship Canal
or
Recycle back to Coal-Fired Steam Electric Generating Process
(note: From the Slag & Ash Pond, flow may be diverted around the Waste Water Treatment plant directly to Outfall 002)
Rotation Cycle: None
Construction Year of Pond: 1977
Construction Year of Current Liner: 1977

	Yes	No
Is this an internal monitoring point?	○	●
If yes, where:		
Can it be recycled within itself?	○	●
Can it be Recycled to an earlier point?	●	○

If yes, where: Coal-Fired Steam Electric Generating Process

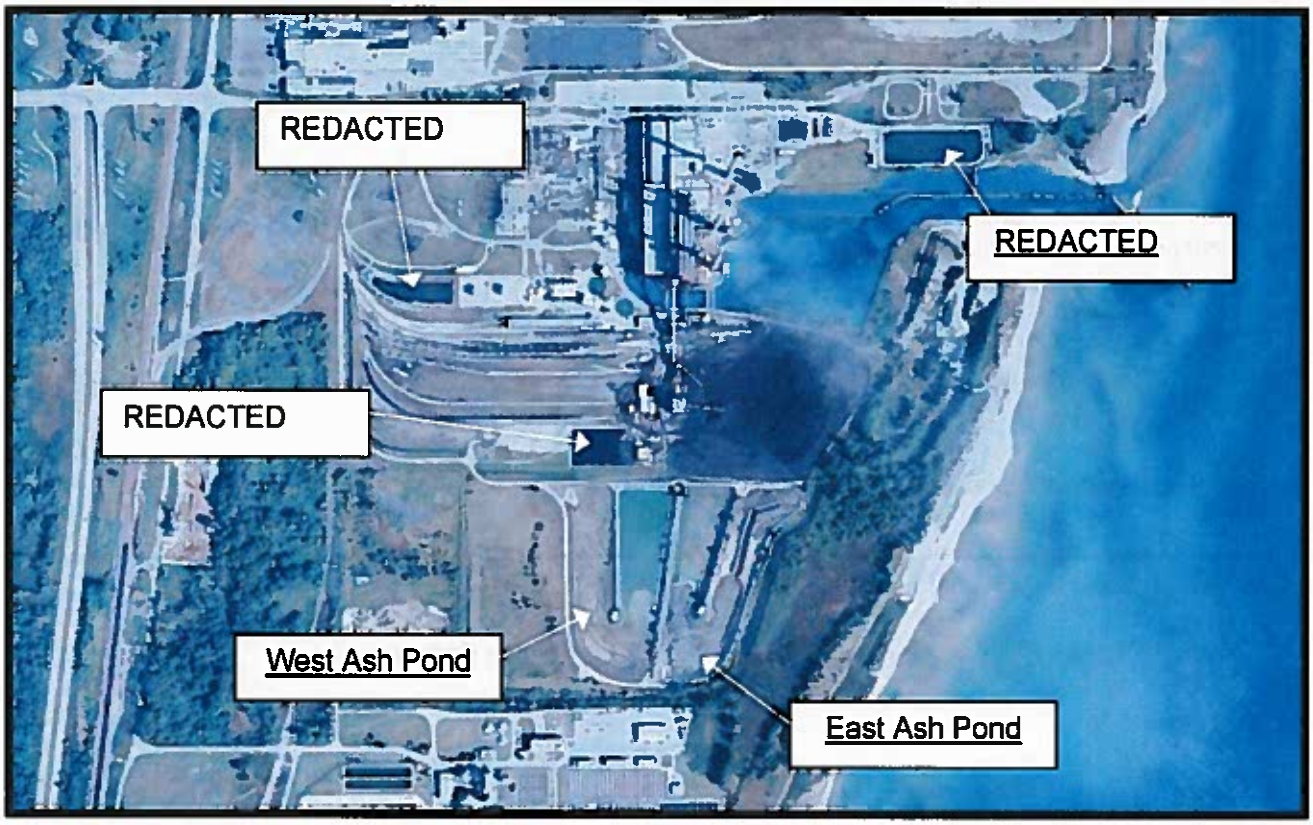
REDACTED

REDACTED

REDACTED

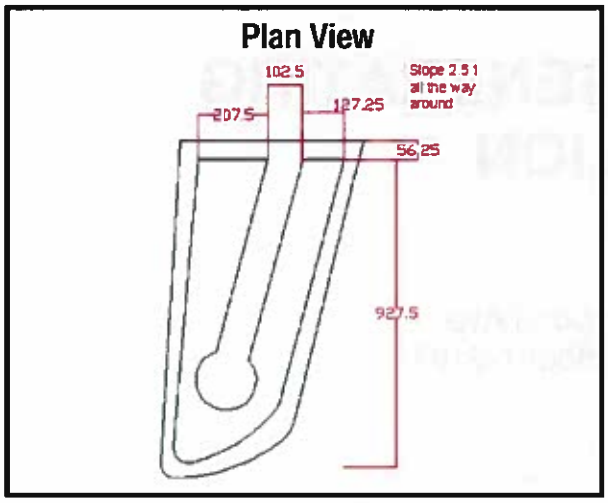
WAUKEGAN GENERATING STATION

401 E Greenwood Ave.
Waukegan, IL 60087-5197



MWG13-15_13

WAUKEGAN
East Ash Pond
Ash Settling Pond

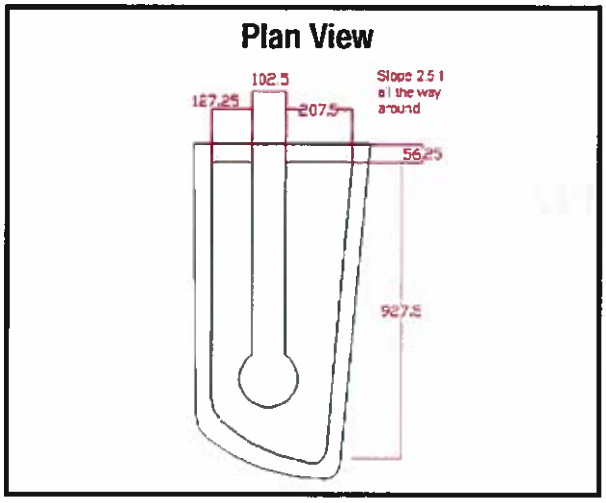


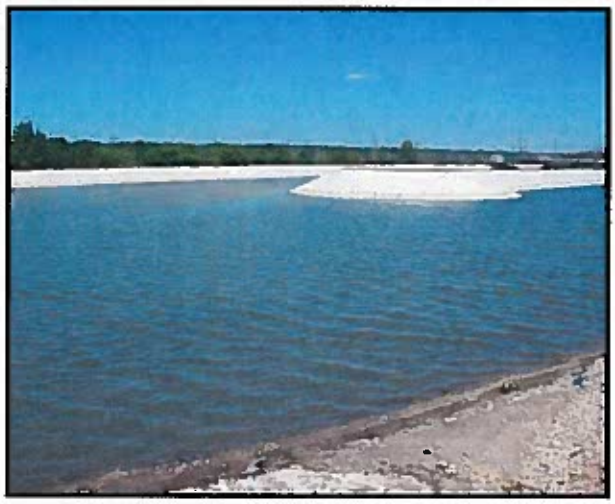
Dimensions: about 927.5' x 437.5' **Depth:** 22.5 **Capacity:** about 7,700,000 ft^3
Bottom: Liner covered by 12" of sand topped by 6" of limestone screenings
Sides: Liner over new compacted fill
Where Pond feeds too: Wastewater treatment plant => Outfall C01 => Outfall 001 => Lake Michigan
or
Sluice water head tank
Rotation Cycle: As needed between East Ash Pond and West Ash Pond
Construction Year of Pond: 1977
Construction Year of Current Liner: 2002

	Yes	No
Is this an internal monitoring point?	○	●
If yes, where:		
Can it be recycled within itself?	○	●
Can it be Recycled to an earlier point?	●	○

If yes, where: Sluice Water head tank to Coal-fired Steam Electric Generating Process

WAUKEGAN
West Ash Pond
Ash Settling Pond





Dimensions: about 927.5' x 437.5' **Depth:** 22.5 **Capacity:** about 6,500,000 ft^3
Bottom: Liner covered by 12" of sand topped by 6" of limestone screenings
Sides: Liner over new compacted fill
Where Pond feeds too: Wastewater treatment plant => Outfall C01 => Outfall 001 => Lake Michigan
or
Sluice water head tank
Rotation Cycle: As needed between East Ash Pond and West Ash Pond
Construction Year of Pond: 1977
Construction Year of Current Liner: 2002

	Yes	No
Is this an internal monitoring point? If yes, where:	○	●
Can it be recycled within itself?	○	●
Can it be Recycled to an earlier point?	●	○

If yes, where: Sluice Water head tank to Coal-fired Steam Electric Generating Process

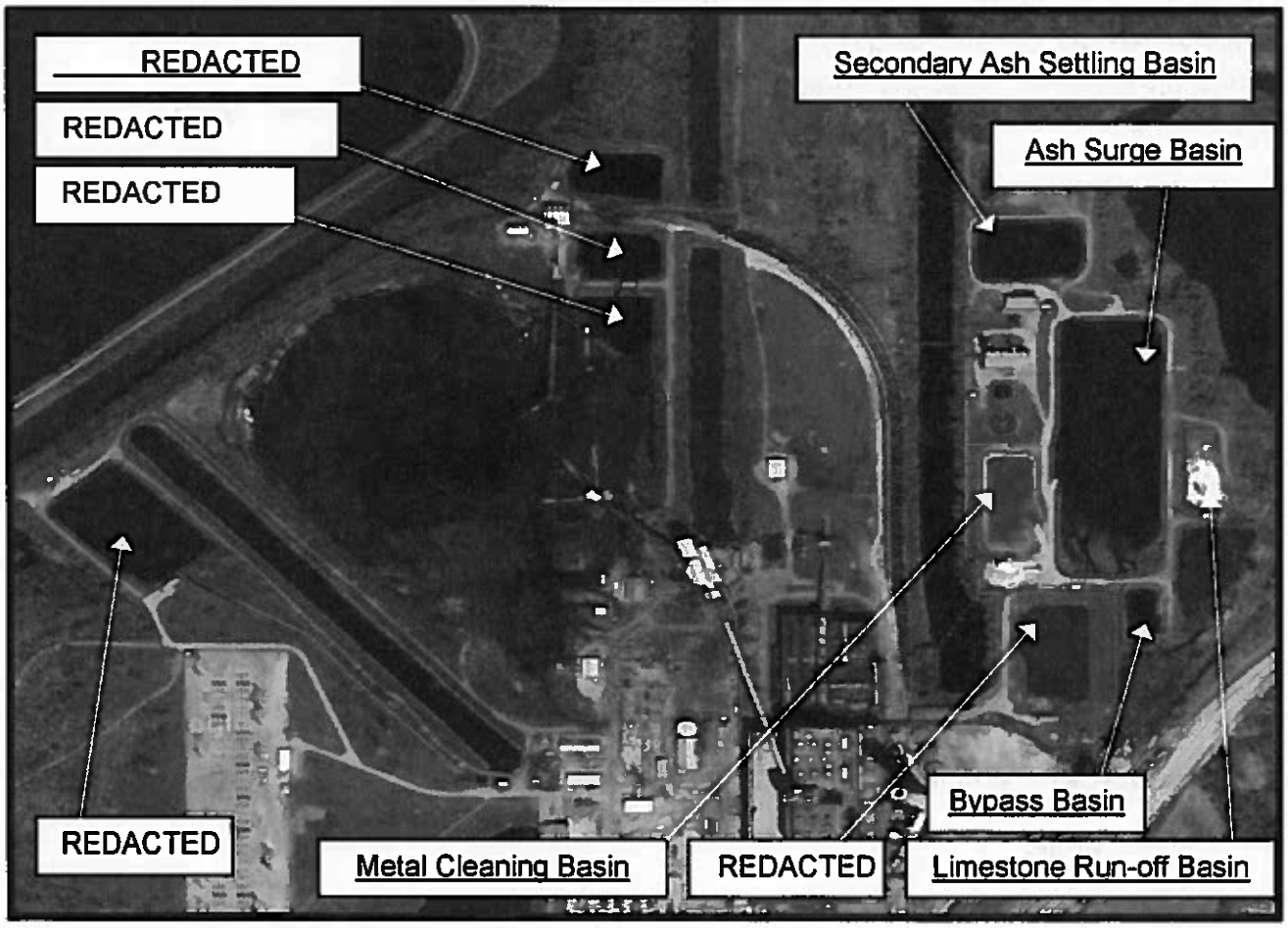
REDACTED

REDACTED

REDACTED

POWERTON GENERATING STATION

13082 East Manito Rd
Pekin, IL 61554-8587



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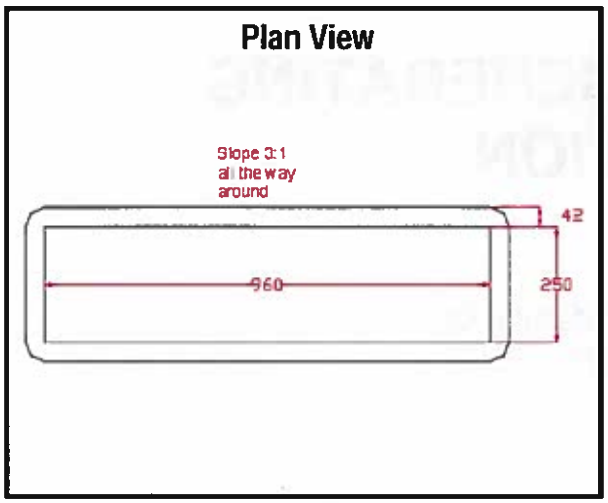
POWERTON
Ash Surge Basin
Ash Settling Basin



Dimensions: about 960' x 250' **Depth:** 14' **Capacity:** about 4,100,000 ft^3
Bottom: Lined with 2-6" Lifts of Poz-O-Pac with a bituminous curing coat.
Sides: Hypalon membrane liner over compacted fill
Where Pond feeds too: Secondary Ash Settling Basin => Outfall 001 => Old Intake Channel => Illinois River
or
Outfall 001 => Old Intake Channel => Illinois River
(note: this pond can be bypassed to the Ash Bypass Pond)
(note: Cooling Pond may handle overflow from Secondary Ash Settling Pond)
(note: Old Ash Basin, an abandoned yard, may handle emergency overflow)
Rotation Cycle: None
Construction Year of Pond: 1978
Construction Year of Current Liner: 1978

	Yes	No
Is this an internal monitoring point?	○	●
If yes, where:		
Can it be recycled within itself?	●	○
Can it be Recycled to an earlier point?	○	●
If yes, where:		

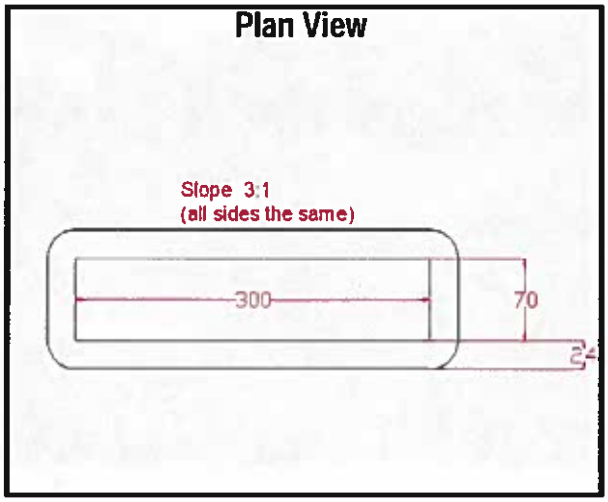
POWERTON
Bypass Basin
Ash Surge Bypass Basin

Plan View

Dimensions: Not enough information **Depth:** Not enough information **Capacity:** Not enough information
Bottom: Not enough information
Sides: Not enough information
Where Pond feeds too: Secondary Ash Settling Basin => Outfall 001 => Old Intake Channel => Illinois River
or
Ash Surge Basin => Secondary Ash Settling Basin => Outfall 001 => Old Intake Channel => Illinois River
(note: Cooling Pond may handle overflow from Secondary Ash Settling Pond)
(note: Old Ash Basin, an abandoned yard, may handle emergency overflow from Ash Surge Basin)
Rotation Cycle: None
Construction Year of Pond: early 1980's
Construction Year of Current Liner: Not enough information

	Yes	No
Is this an internal monitoring point?	○	●
If yes, where:		
Can it be recycled within itself?	○	●
Can it be Recycled to an earlier point?	○	●
If yes, where:		

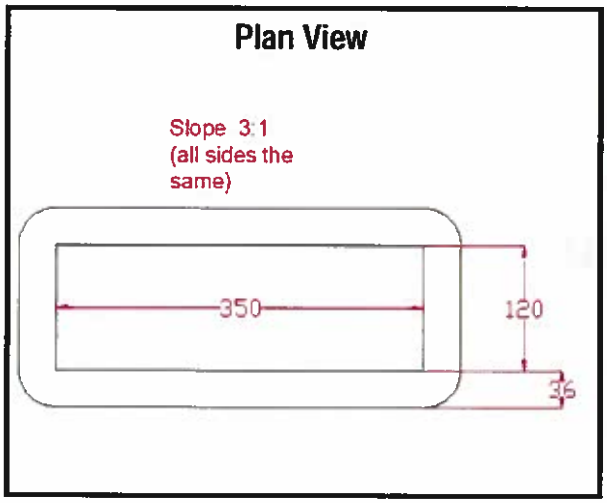
POWERTON
Limestone Run-off Basin
Limestone Settling Basin
(Not in Service)

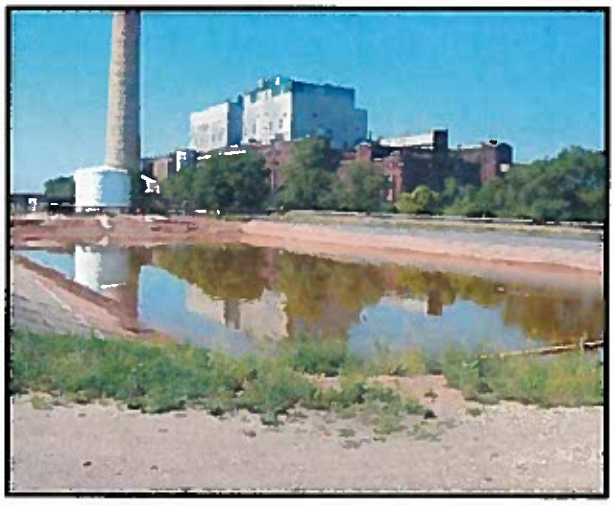


Dimensions: 300' x 70' **Depth:** 8' **Capacity:** about 240,000 ft^3
Bottom: Lined with 2-6" Lifts of Poz-O-Pac with a bituminous curing coat.
Sides: Hypalon membrane liner over compacted fill
Where Pond feeds too: Old Ash Basin (Abandoned Yard)
Rotation Cycle: None
Construction Year of Pond: 1978
Construction Year of Current Liner: 1978

	Yes	No
Is this an internal monitoring point?	○	●
If yes, where:		
Can it be recycled within itself?	○	●
Can it be Recycled to an earlier point?	○	●
If yes, where:		

POWERTON
Metal Cleaning Basin
Metal Settling Basin





Dimensions: 350' x 120' **Depth:** 12' **Capacity:** about 720,000 ft^3
Bottom: Lined with 2-6" Lifts of Poz-O-Pac with a bituminous curing coat.
Sides: Hypalon membrane liner over compacted fill
Where Pond feeds too: Ash Settling Basin => Settling Basin => Outfall 001 => Old Intake Channel => Illinois River
(note: flow from the Metal Cleaning Treatment System can be sent back to the Metal Cleaning Basin)
Rotation Cycle: None
Construction Year of Pond: 1978
Construction Year of Current Liner: 1978

	Yes	No
Is this an internal monitoring point?	○	●
If yes, where:		
Can it be recycled within itself?	○	●
Can it be Recycled to an earlier point?	○	●
If yes, where:		

REDACTED

REDACTED

REDACTED

REDACTED

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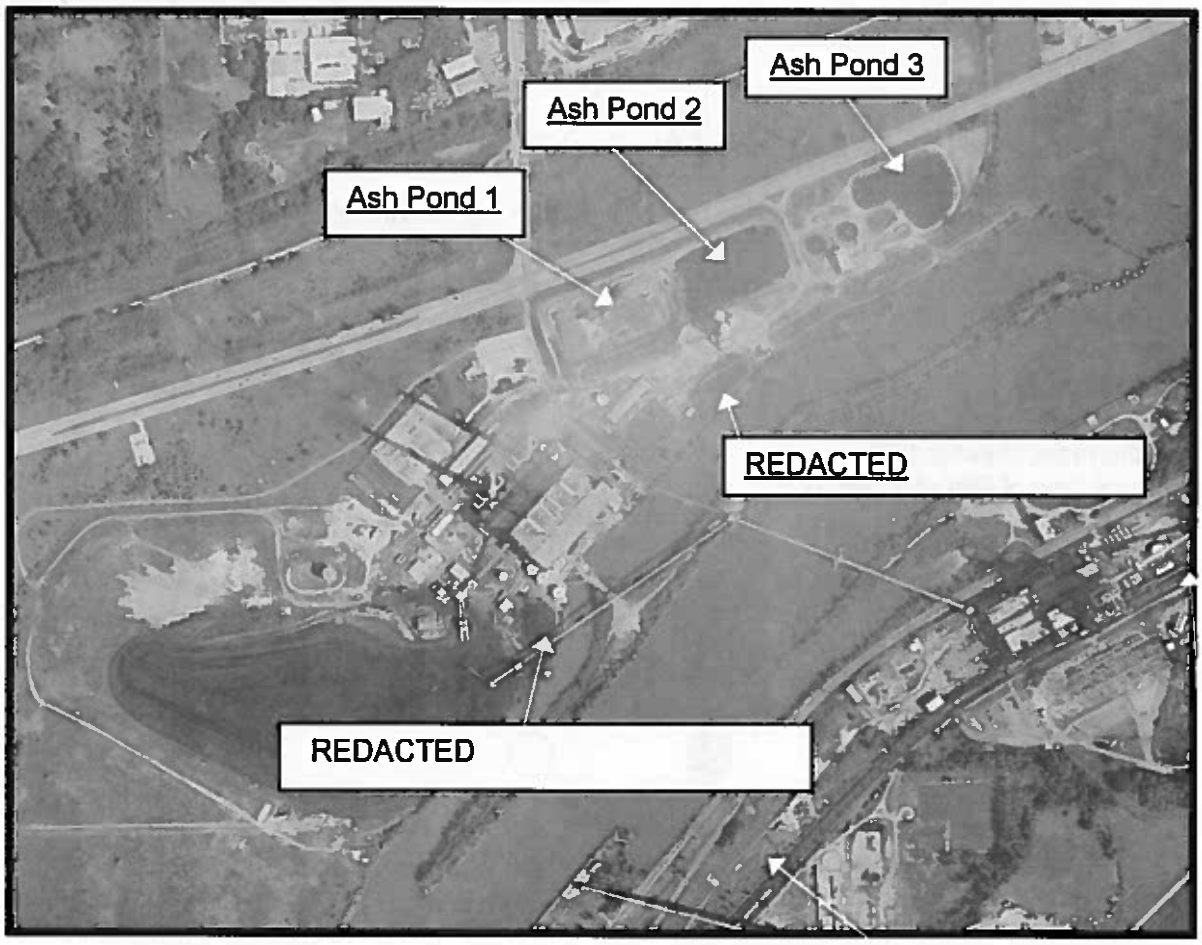
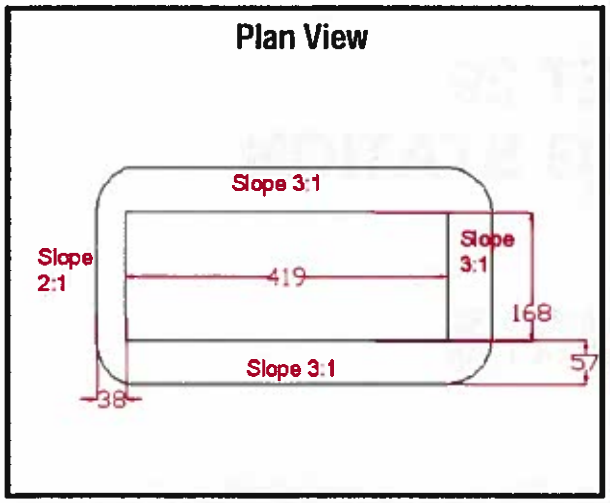
JOLIET 29
GENERATING STATION

1800 Channahon Rd
Joliet, IL 60436-1538



MWG13-15_29

JOLIET 29
Ash Pond 1
Ash Settling Pond



Dimensions: 168' x 419' **Depth:** 19' **Capacity:** about 2,000,000 ft^3
Bottom: 2 – 6" lifts of Poz-O-Pac with a Bituminous Seal Coat over 12" of granular material compacted 90%
Sides: 2 – 6" lifts of Poz-O-Pac with a bituminous seal coat. Top 15' (horizontal) class III rip-rap all around pond.

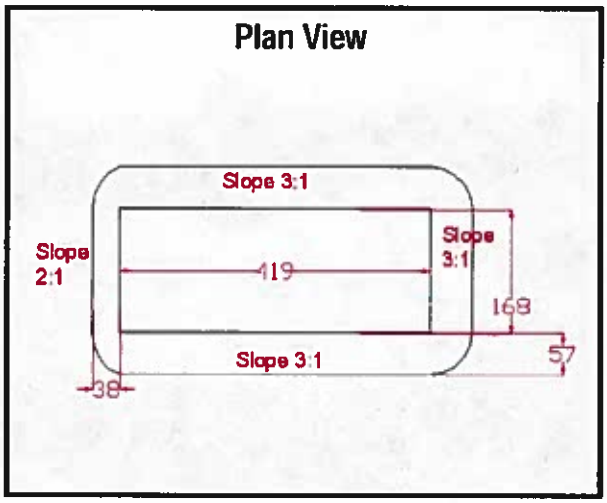
(note: Poz-O-Pac composed of 3% hydrated line, 20% Fly Ash, 77% Boiler or Slag Aggregate. Poz-O-Pac Density is 136.9 lb per a cubic foot.)

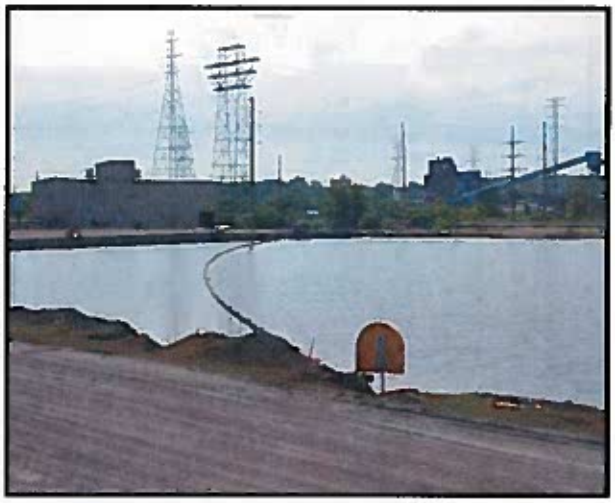
Where Pond feeds too: Ash Pond 3 => Outfall 001g => Des Plaines River or Pump and Screen House
Rotation Cycle: As needed between Ash Pond 1 and Ash Pond 2 (typically 6 months to a year)
Construction Year of Pond: 1978
Construction Year of Current Liner: 1978

	Yes	No
Is this an internal monitoring point?	○	●
If yes, where:		
Can it be recycled within itself?	●	○
Can it be Recycled to an earlier point?	○	●

If yes, where: Ash transport from Ash Pond 3

JOLIET 29
Ash Pond 2
Ash Settling Pond



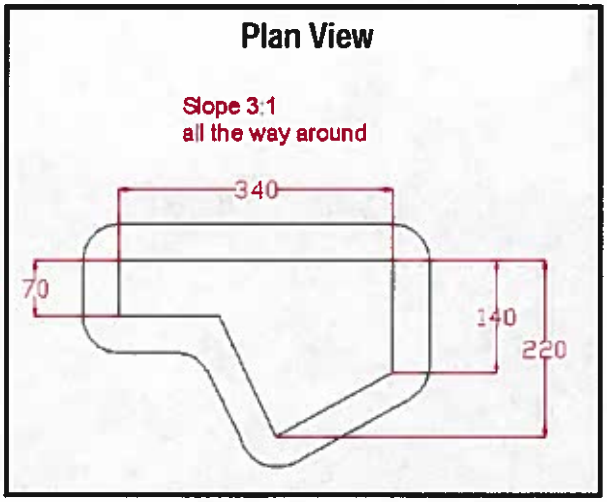


Dimensions: 168' x 419' **Depth:** 19' **Capacity:** about 2,000,000 ft^3
Bottom: 2-6" Lifts of Poz-O-Pac with a Bituminous Seal Coat over 12" of granular material compacted 90%
Sides: 2-6" Lifts Poz-O-Pac with a bituminous seal coat. Top 15' (horizontal) class III rip-rap all around pond.

(note: Poz-O-Pac composed of 3% hydrated line, 20% Fly Ash, 77% Boiler or Slag Aggregate. Poz-O-Pac Density is 136.9 lb per a cubic foot.)
Where Pond feeds too: Ash Pond 3 => Outfall 001g => Des Plaines River or Pump and Screen House
Rotation Cycle: As needed between Ash Pond 1 and Ash Pond 2 (typically 6 months to a year)
Construction Year of Pond: 1978
Construction Year of Current Liner: 1978

	Yes	No
Is this an internal monitoring point?	○	●
If yes, where:		
Can it be recycled within itself?	●	○
Can it be Recycled to an earlier point?	○	●
If yes, where:		

JOLIET 29
Ash Pond 3
Clarifying Pond



Dimensions: about 340' x 220' **Depth:** 15' **Capacity:** about 1,100,000 ft^3
Bottom: 2-6" Lifts of Poz-O-Pac with a Bituminous Seal Coat over 12" of granular material compacted 90% (Based on composition of Ash Ponds 1 and 2)
Sides: 2-6" Lifts of Poz-O-Pac with a bituminous seal coat. Top 15' (horizontal) class III rip-rap all around pond. (Based on composition of Ash Ponds 1 and 2)

(note: Poz-O-Pac composed of 3% hydrated line, 20% Fly Ash, 77% Boiler or Slag Aggregate. Poz-O-Pac Density is 136.9 lb per a cubic foot.)

Where Pond feeds too: Outfall 001g => Des Plaines River or Pump and Screen House
Rotation Cycle: None
Construction Year of Pond: 1978
Construction Year of Current Liner: 1978

	Yes	No
Is this an internal monitoring point?	●	○
If yes, where: Outfall 001g		
Can it be recycled within itself?	●	○
Can it be Recycled to an earlier point?	●	○
If yes, where: Ash transport from Ash Pond 3		

REDACTED

REDACTED

Definition of a Lift:

A lift is a layer of material that is placed to a certain height, and then compacted.

2-6" lifts would mean placing a layer of the material a little over 0.5 feet and then compacting, followed by another layer of 0.5 feet and then compacting. The 2 references the number of lifts and the 6" references the height of each lift before compaction.

Definitions of Poz-O-Pac:

Poz-O-Pac is a base course product consisting of a blend of lime, fly ash and aggregate. Numerous variations have evolved since the early 1970's all falling under the heading: pozzolan-stabalized base (PSB).