Southern Illinois Power Cooperative

11543 Lake of Egypt Road
Marion, IL 62959
(618) 964-1448 Fax (618) 964-1867

January 5, 2011

Mr. Craig Dufficy

US Environmental Protection Agency

Two Potomac Yard

Washington, DC 20460

RE: Information Request Regarding Surface Impoundments at the Marion Plant

Dear Mr. Dufficy,

Enclosed you will find the information requested by USEPA pertaining to surface impoundments at the Marion Plant. Should you have any questions regarding the enclosed material or if more information is needed, please feel free to contact me.

Sincerely,

Jason S. McLaurin

Jason McLaurin

Environmental Coordinator

618-964-2446

SOUTHERN ILLINOIS POWER COOPERATIVE IMPOUNDMENT INFORMATION

SOUTH FLY ASH POND DAM

1. Rated as a Class III damn. (Low Hazard Potential)
2. Built in 1979
3. Receives residuals from flue gas emission controls.
4. Designed by Burns & McDonnell.
5. Class III dams are required to inspected every 5 years by a professional engineer. Licensed engineers from Clarida & Ziegler Engineering Company in Marion, IL perform the required inspections on this damn.
6. NO State or Federal safety inspections have been performed on this damn. All necessary operation and safety inspections have been performed by Clarida & Ziegler Engineering Company.
7. See answer #6.
8. This impoundment is roughly 10 acres in size and has a holding capacity of 103 Acre feet or roughly 34,000,000 gallons. The impoundment is part of SIPC's permitted NPDES settling pond system and no material permanently stored in it.
9. No spills or unpermitted releases have occurred in the pond within the last ten years.
10. Southern Illinois Power Cooperative owns and operates this impoundment.

FLY ASH DISPOSAL POND B-3 DAM

1. Rated as a Class III damn. (Low Hazard Potential)
2. Built in 1979
3. Receives residuals from flue gas emission controls
4. Designed by Burns & McDonnell
5. Class III dams are required to be inspected every 5 years by a professional engineer. Licensed engineers from Clarida & Ziegler Engineering Company in Marion, IL perform the required inspections on this damn.
6. NO State or Federal safety inspections have been performed on this damn. All necessary operation and safety inspections have been performed by Clarida & Ziegler Engineering Company.
7. See answer #6.
8. This impoundment has a holding capacity of 45 Acre feet or roughly 14,550,000 gallons. The impoundment is part of SIPC's permitted NPDES settling pond system and no material permanently stored in it.
9. No spills or unpermitted releases have occurred in the pond within the last ten years.
10. Southern Illinois Power Cooperative owns and operates this impoundment.

POND A-1

1. No hazard rating.
2. Built in 1979
3. Receives residuals from flue gas emission controls.
4. Designed by Burns & McDonnell.
5. N/A.
6. N/A.
7. See answer #6.
8. This impoundment has a holding capacity of roughly 32 Acre feet or roughly 10,500,000 gallons. The impoundment is part of SIPC's permitted NPDES settling pond system and no material permanently stored in it.
9. No spills or unpermitted releases have occurred in the pond within the last ten years.
10. Southern Illinois Power Cooperative owns and operates this impoundment.

POND 4

1. No hazard rating.
2. Built in 1979
3. Receives residuals from flue gas emission controls and over flow water from bottom ash (boiler slag) holding ponds.
4. Designed by Burns & McDonnell.
5. N/A.
6. N/A.
7. See answer #6.
8. This impoundment has a holding capacity of roughly 55 Acre feet or roughly 18,100,000 gallons. The impoundment is part of SIPC's permitted NPDES settling pond system and no material permanently stored in it.
9. No spills or unpermitted releases have occurred in the pond within the last ten years.
10. Southern Illinois Power Cooperative owns and operates this impoundment.

POND 1

1. No hazard rating.
2. Built in 1979
3. Receives bottom ash (boiler slag) slurry water.

4. N/A.
5. N/A.
6. N/A.
7. See answer #6.
8. This impoundment has a holding capacity of roughly 9 Acre feet or roughly 3,000,000 gallons. Bottom Ash (Boiler Slag) is temporally stored in pond before being removed for beneficial use.
9. No spills or unpermitted releases have occurred in the pond within the last ten years.
10. Southern Illinois Power Cooperative owns and operates this impoundment.

POND 2

1. No hazard rating.
2. Built in 1979
3. Receives bottom ash (boiler slag) slurry water.
4. N/A.
5. N/A.
6. N/A.
7. See answer #6.
8. This impoundment has a holding capacity of roughly 15 Acre feet or roughly 5,000,000 gallons. Bottom Ash (Boiler Slag) is temporally stored in pond before being removed for beneficial use.
9. No spills or unpermitted releases have occurred in the pond within the last ten years.
10. Southern Illinois Power Cooperative owns and operates this impoundment.

POND S -1

1. No hazard rating.
2. Built in 1996
3. Receives residuals from flue gas emission controls.
4. N/A.
5. N/A.
6. N/A.
7. See answer #6.
8. This impoundment has a holding capacity of roughly 71 Acre feet or roughly 23,000,000 gallons. The impoundment is part of SIPC's permitted NPDES settling pond system and no material permanently stored in it.
9. No spills or unpermitted releases have occurred in the pond within the last ten years.
10. Southern Illinois Power Cooperative owns and operates this impoundment.

POND 3

1. No hazard rating.
2. Built in 1979
3. Receives residuals from flue gas emission controls.
4. N/A.
5. N/A.
6. N/A.
7. See answer #6.
8. This impoundment has a holding capacity of roughly 20 Acre feet or roughly 6,600,000 gallons. The impoundment is part of SIPC's permitted NPDES settling pond system and no material permanently stored in it.
9. No spills or unpermitted releases have occurred in the pond within the last ten years.
10. Southern Illinois Power Cooperative owns and operates this impoundment.

POND 3A

1. No hazard rating.
2. Built in 1992
3. Receives residuals from flue gas emission controls.
4. N/A.
5. N/A.
6. N/A.
7. See answer #6.
8. This impoundment has a holding capacity of roughly 20 Acre feet or roughly 6,600,000 gallons. The impoundment is part of SIPC's permitted NPDES settling pond system and no material permanently stored in it.
9. No spills or unpermitted releases have occurred in the pond within the last ten years.
10. Southern Illinois Power Cooperative owns and operates this impoundment.

POND 3

1. No hazard rating.
2. Built in 1979
3. Receives residuals from flue gas emission controls.
4. Designed by Burns & McDonnell.
5. N/A.
6. N/A.
7. See answer #6.

8. This impoundment has a holding capacity of roughly 20 Acre feet or roughly 6,600,000 gallons. The impoundment is part of SIPC's permitted NPDES settling pond system and no material permanently stored in it.
9. No spills or unpermitted releases have occurred in the pond within the last ten years.
10. Southern Illinois Power Cooperative owns and operates this impoundment.

POND S - 6

1. No hazard rating.
2. Built in 1988.
3. Receives residuals from flue gas emission controls.
4. N/A.
5. N/A.
6. N/A.
7. See answer #6.
8. This impoundment has a holding capacity of roughly 16 Acre feet or roughly 5,300,000 gallons. The impoundment is part of SIPC's permitted NPDES settling pond system and no material permanently stored in it.
9. No spills or unpermitted releases have occurred in the pond within the last ten years.
10. Southern Illinois Power Cooperative owns and operates this impoundment.

POND S - 2

1. No hazard rating.
2. Built in 1996
3. Receives residuals from flue gas emission controls.
4. N/A.
5. N/A.
6. N/A.
7. See answer #6.
8. This impoundment has a holding capacity of roughly 25 Acre feet or roughly 8,200,000 gallons. The impoundment is part of SIPC's permitted NPDES settling pond system and no material permanently stored in it.
9. No spills or unpermitted releases have occurred in the pond within the last ten years.
10. Southern Illinois Power Cooperative owns and operates this impoundment.

POND S-3

1. No hazard rating.
2. Built in 1996
3. Receives residuals from flue gas emission controls.
4. N/A.
5. N/A.
6. N/A.
7. See answer #6.
8. This impoundment has a holding capacity of roughly 20 Acre feet or roughly 6,600,000 gallons. The impoundment is part of SIPC's permitted NPDES settling pond system and no material permanently stored in it.
9. No spills or unpermitted releases have occurred in the pond within the last ten years.
10. Southern Illinois Power Cooperative owns and operates this impoundment.

COAL HANDLING PONDS

1. No hazard rating.
2. Built in 1979
3. Receives residuals from flue gas emission controls.
4. N/A.
5. N/A.
6. N/A.
7. See answer #6.
8. This impoundment has a holding capacity of roughly 7 Acre feet or roughly 2,300,000 gallons. The impoundment is part of SIPC's permitted NPDES settling pond system and no material permanently stored in it.
9. No spills or unpermitted releases have occurred in the pond within the last ten years.
10. Southern Illinois Power Cooperative owns and operates this impoundment.

Southern Illinois Power Cooerative Pond Information
Jason McLaurin
to:
Jana Englander
03/02/2011 11:13 AM
Show Details

Ms. Englander,

Below you should find the information you were requesting. Should you have any additional questions, please let me know.

Pond Name and Height of the Management Unit.
South Fly Ash Pond = 23' (Feet)
Fly Ash Disposal Pond B-3 = 38'
Pond A-1 = 25'
Pond 4 = 0
Pond 1 = 0
Pond 2 = 0
Pond S-1 = 0
Pond 3 = 24'
Pond 3A = 0
Pond S – 6 = 10'
Pond S-2 = 0
Pond S-3 = 0 Feet
Coal Handling Ponds = 0

Please let me know you received this e-mail. (For some reason I have been getting an automated return)

Sincerely,

Jason McLaurin
Southern Illinois Power Cooperative

GB

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

DEC 22 2010

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

Approved OMB 2020-0003
Approval Expires 12/31/2010

Via CERTIFIED MAIL/RETURN RECEIPT REQUESTED

Mr. Greg Bain
Manager, Plant Operations
Southern Illionois Power Cooperative Power
11543 Lake of Egypt Road
Marion, Illionois 62959-8500

RE: Request for Information Under Section 104 (e) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9604(e)- Marion Plant

Dear Mr. Greg Bain,

The United States Environmental Protection Agency is requesting information relating to the surface impoundments or similar diked or bermed management unit(s) or management units designated as landfills which receive liquid-borne material from a surface impoundment used for the storage or disposal of residuals or by-products from the combustion of coal, including, but not limited to, fly ash, bottom ash, boiler slag, or flue gas emission control residuals.

EPA is requesting this information pursuant to the authority granted to it under Section 104 (e) of the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), 42 U.S.C. 9604(e) which provides in relevant part that whenever the Agency has reason to believe that there may be a release or a threat of a release of a pollutant or contaminant, they may require any person who has or may have information to furnish information or documents relating to the matter, including the identification, nature, and quantity of materials which have been or are generated, treated, stored or disposed at the facility and the nature or extent of a release or a threatened release. EPA believes that the information requested is essential to an evaluation of the threat of releases of pollutants or contaminants from these units.

EPA hereby requires that you furnish to EPA, within ten (10) business days of receipt of this letter a response to each request for information set forth in Enclosure A, including all documents responsive to such request.

Please provide a full and complete response to each request for information set forth in Enclosure A. The provisions of Section 104 of CERCLA authorize EPA to pursue penalties for failure to comply with or respond adequately to an information request under Section 104(e). In addition, providing false, fictitious or fraudulent statements or representations may subject you to criminal penalties under 18 U.S.C. 1001.

Your response must include the following certification signed and dated by an authorized representative of Southern Illionois Power Cooperative Power.

> I certify that the information contained in this response to EPA's request for information and the accompanying documents is true, accurate, and complete. As to the identified portions of this response for which I cannot personally verify their accuracy, I certify under penalty of law that this response and all attachments were prepared 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 who manage the system, those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.
>
> Signature: [signature]
> Name: LEONARD F. HOPKINS, P.E.
> Title: FUEL & COMPLIANCE MANAGER

This request has been reviewed and approved by the Office of Management and Budget pursuant to the Paperwork Reduction Act, 44 U.S.C., 3501-3520.

Please send your reply to:

Mr. Craig Dufficy
US Environmental Protection Agency (5304P)
1200 Pennsylvania Avenue, NW
Washington, DC 20460

If you are using overnight or hand delivery mail, please use the following address:

Mr. Craig Dufficy
US Environmental Protection Agency
Two Potomac Yard

INSPECTION REPORT

FOR THE

SOUTH FLY ASH POND DAM

IDNR-OWR PERMIT NO. 19403
DAM I.D. NO. IL50100

DECEMBER, 2008

LOCATED IN

SECTION 26
T10S, R2E
WILLIAMSON COUNTY, ILLINOIS

PREPARED FOR

SOUTHERN ILLINOIS POWER CO-OP
11543 LAKE OF EGYPT ROAD
MARION, ILLINOIS 62959

PREPARED BY

CLARIDA ENGINEERING CO.
308 SOUTH COURT STREET
MARION, ILLINOIS 62959

ILLINOIS DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WATER RESOURCES

DAM INSPECTION REPORT

NAME OF DAM: South Fly Ash Pond — COUNTY: Williamson

LOCATION: Section 26, Township 10S, Range 2E

OWNER: Southern Illinois Power Co-op (NAME) — 618-964-1448, 618-964-1701 (Emerg.) (TELEPHONE)

11543 Lake of Egypt Road (STREET)

Marion (CITY) — 62959 (ZIP)

PERMIT NO.: 19403 — CLASS OF DAM: III

TYPE OF DAM: Earthfill

TYPE OF SPILLWAY: Drop Inlet

DATE (S) INSPECTED: 12/3/2008

WEATHER WHEN INSPECTED: Cloudy

TEMPERATURE WHEN INSPECTED: 55°

POOL ELEVATION WHEN INSPECTED: ~ 541

TAILWATER ELEVATION WHEN INSPECTED: –

INSPECTION PERSONNEL:

NAME	TITLE
W. Brian Ziegler	President
W. Brian Ziegler Clarida & Ziegler Engineering Co.	

12/10/08

W. BRIAN ZIEGLER
062-053881
LICENSED PROFESSIONAL ENGINEER OF ILLINOIS

PROFESSIONAL ENGINEER'S SEAL

Exp 11/30/09

CONDITION CODES

N.E. - No evidence of problem

G.C. - Good Condition

M.M. - Item needing minor repairs within the year. Safety integrity not yet imperiled

I.M. - Item needing immediate maintenance to restore or insure present safety integrity

E.C. - Emergency condition which if not immediately repaired or other appropriate measures taken could lead to breach of dam

O.B. - Condition requires regular observation to insure condition does not become worse

N.A. - Not applicable to this dam

N.I. - Not inspected/list reason for non-inspection under deficiencies

EARTH EMBANKMENT

ITEM	CONDITION	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Surface Cracks	N.E.		
Vertical & Horizontal Alignment of Crest	G.C.		
Unusual Movement or Cracking At or Beyond Toe	N.E.		
Sloughing or Erosion of Embankment and Abutment Slopes	N.E.		
Upstream Face Slope Protection	G.C.	Reeds are established along waterline of north embankment.	Condition has not worsened in the last year. Will continue to monitor.
Seepage	G.C.	Seepage area along downstream toe at southwest corner of levee.	Corrected in 2004. Removed buried rip-rap in dam.
Filter & Filter Drains	N.A.		

EARTH EMBANKMENT
(Continued)

ITEM	CONDITION	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Animal Damage	N.E.		
Embankment Drainage Ditches	M.M.	Downstream drainage ditch standing water	Investigate the cause. Re-grade ditch to get to drain. Re-inspect to ensure there is no seepage.
Vegetative Cover	G.C.		
Other (Name)			
Other			
Other			

CONCRETE OR MASONRY DAMS

ITEM	CONDITION	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Seepage	N.A.		
Structure to Abutment/ Embankment Junctions	N.A.		
Water Passages	N.A.		
Foundation	N.A.		
Surface Cracks in Concrete Surfaces	N.A.		
Structural Cracking	N.A.		

CONCRETE OR MASONRY DAMS
(Continued)

ITEM	CONDITION	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Vertical and Horizontal Alignment	N.A.		
Monolith Joints	N.A.		
Construction Joints	N.A.		
Spalling of Concrete	N.A.		
Filters, Drains, etc.	N.A.		
Riprap	N.A.		
Other (Name)			

IF DAM IS GATED - Fill out portion of Principal Spillway Form related to Gated Spillways

PRINCIPAL SPILLWAY
APPROACH CHANNEL

ITEM	CONDITION	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Debris	N.A.		
Side Slope Stability	N.A.		
Slope Protection	N.A.		
Other (Name)			
Other			
Other			
Other			

PRINCIPAL SPILLWAY

[X] Drop Inlet Structure [ ] Overflow Spillway Structure [ ] Gated

ITEM	CONDITION	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Erosion, Spalling, Cavitation	N.A.		
Structure to Embankment Junction	G.C.		
Drains	N.A.		
Seepage Around or Into Structure	N.E.		
Surface Cracks	N.E.		
Structural Cracks	N.E.		

IF SPILLWAY IS GATED FILL OUT GATES SECTION

PRINCIPAL SPILLWAY
(Continued)

[X] Drop Inlet Structure [ ] Overflow Spillway Structure [ ] Gated

ITEM	CONDITION	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Alignment of Abutment Walls	N.A.		
Construction Joints	N.A.		
Filter and Filter Drains	N.A.		
Trash Racks	N.A.		
Bridge & Piers	N.A.		
Differential Settlement	N.A.		
Other (Name)			

IF SPILLWAY IS GATED FILL OUT GATES SECTION

PRINCIPAL SPILLWAY
(Continued)

[X] Conduit [ ] Gated

ITEM	CONDITION	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Erosion, Spalling, Cavitation	N.A.		
Joint Separation	N.E.		
Seepage Around or Into Conduit	N.E.		
Surface Cracks	N.E.		
Structural Cracks	N.E.		
Trash Racks	N.A.		
Differential Settlement	N.E.		
Alignment	G.C.		
Other (Name)			

IF SPILLWAY IS GATED FILL OUT GATES SECTION

PRINCIPAL SPILLWAY
(Continued)

☐ Chute

ITEM	CONDITION	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Erosion, Cavitation, Spalling	N.A.		
Structure to Embankment Junction	N.A.		
Construction Joints	N.A.		
Expansion & Contraction Joints	N.A.		
Differential Settlement	N.A.		
Surface Cracks	N.A.		
Structural Cracks	N.A.		
Wall Alignment	N.A.		
Other (Name)			

IF SPILLWAY IS GATED FILL OUT GATES SECTION

GATES

[ ] Principal Spillway [ ] Dewatering [ ] Other:

ITEM	CONDITION	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Gate Sill	N.A.		
Gate Seals	N.A.		
Gate and Frame	N.A.		
Operating Machineery	N.A.		
Emergency Operating Machinery	N.A.		
Other (Name)			
Other			

OUTLET WORKS
(IF SEPARATE FROM PRINCIPAL SPILLWAY STRUCTURE)

ITEM	CONDITION	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Erosion, Spalling, Cavitation	N.A.		
Joint Separation	N.A.		
Seepage Around or Into Conduit	N.A.		
Intake Structure	N.A.		
Outlet Structure	N.A.		
Outlet Channel	N.A.		

OUTLET WORKS
(Continued)

ITEM	CONDITION	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Riprap	N.A.		
Other (Name)			
Other			
Other			

ENERGY DISSIPATOR

[X] Principal Spillway [ ] Outlet Works

Type: **Reinforced concrete impact-type**

ITEM	CONDITION	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Erosion, Spalling, Cavitation	**G.C.**		
Structure to Embankment Junction	**G.C.**		
Construction Joints	**G.C.**		
Surface Cracks	**N.E.**		
Structural Cracks	**N.E.**		
Differential Settlement	**N.E.**		
Expansion & Contraction Joints	**G.C.**		

ENERGY DISSIPATOR
(Continued)

[X] Principal Spillway [ ] Outlet Works

ITEM	CONDITION	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Riprap	N.E.		
Outlet Channel	G.C.		
Debris	N.E.		
Other (Name)			

EMERGENCY SPILLWAY

☐ Earth ☐ Other: Name _____

ITEM	CONDITION	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Erosion	N.A.		
Weeds, Logs, Other Obstructions	N.A.		
Side Slope Sloughing	N.A.		
Vegetation	N.A.		
Sedimentation	N.A.		
Riprap	N.A.		
Settlement of Crest	N.A.		
Downstream Channel	N.A.		
Other (Name)			

SUMMARY OF MAINTENANCE DONE AND/OR

REPAIRS MADE SINCE LAST INSPECTION

DATE OF PRESENT INSPECTION **December 3, 2008**

DATE OF LAST INSPECTION **December 19, 2007**

1. EARTH EMBANKMENT

   None

2. CONCRETE MASONRY DAMS

   N.A.

3. PRINCIPAL SPILLWAY

   None

4. OUTLET WORKS

   None

5. EMERGENCY SPILLWAY

   None

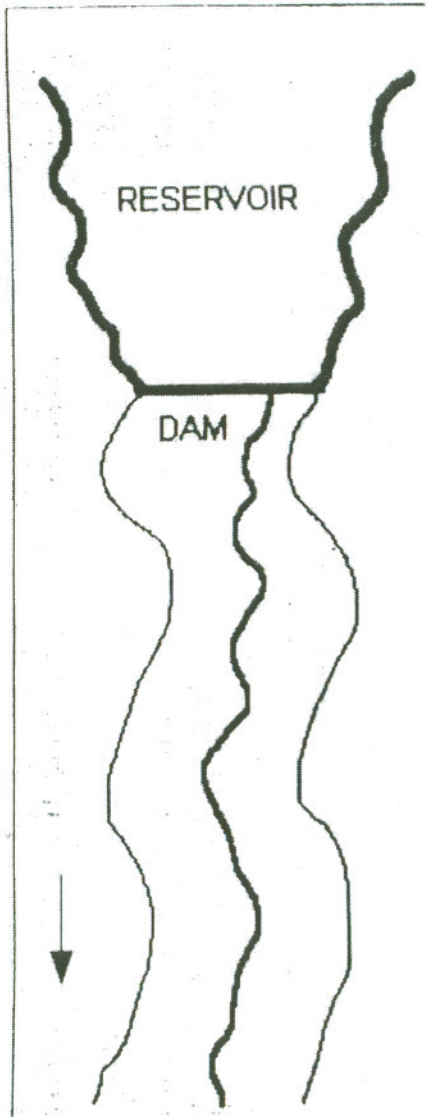
DOWNSTREAM DEVELOPMENT

APPROXIMATE WIDTH OF AFFECTED FLOODPLAIN 0.05 MILES

MILES DOWNSTREAM FROM DAM	DOWNSTREAM DEVELOPMENT												Loss of Life Potential			Economic Loss Potential		
	OCCUPIED HOMES	UNOCCUPIED HOMES	AGRICULTURAL BUILDINGS	INDUSTRIAL BUILDINGS	COMMERCIAL BUILDINGS	SCHOOLS	HOSPITALS	ROADS & BRIDGES	DAMS	OVERHEAD UTILITIES	OTHER DEVELOPMENT (Name)	OTHER DEVELOPMENT (Name)	NONE	1 TO 10	OVER 10	MINIMAL EXPECTED	APPRECIABLE EXPECTED	EXCESSIVE EXPECTED
0 to 1/4								X					X			X		
1/4 to 1/2													X			X		
1/2 to 3/4													X			X		
3/4 to 1													X			X		
1 to 1-1/4													X			X		
1-1/4 to 1-1/2													X			X		
1-1/2 to 1-3/4													X			X		
1-3/4 to 2													X			X		
OVER 2													X			X		

The number of homes, buildings, or other items in the floodplain downstream of the dam should be placed in the appropriate row and column to designate their location.

SKETCH IN DEVELOPMENTS DOWNSTREAM OF THE DAM



PROJECT NAME: SIPC South Fly Ash Pond	PROJECT NO.: 08156	DATE: 12/03/08	TIME: 2:30 pm	PHOTOS BY: WBZ

PHOTO DESCRIPTION

Looking at area needing grading.

PHOTO DESCRIPTION

Looking East along dam

PROJECT NAME: SIPC South Fly Ash Pond	PROJECT NO.: 08156	DATE: 12/03/08	TIME: 2:30 pm	PHOTOS BY: WBZ

PHOTO DESCRIPTION

Looking west at area needing grading

PHOTO DESCRIPTION

Looking at North-West side

INSPECTION REPORT

FOR THE

FLY ASH DISPOSAL POND
B-3 DAM

IDNR-OWR PERMIT NO. 18629
DAM I.D. NO. IL50160

DECEMBER, 2008

LOCATED IN

SECTION 26
T10S, R2E
WILLIAMSON COUNTY, ILLINOIS

PREPARED FOR

SOUTHERN ILLINOIS POWER CO-OP
11543 LAKE OF EGYPT ROAD
MARION, ILLINOIS 62959

PREPARED BY

CLARIDA ENGINEERING CO.
308 SOUTH COURT STREET
MARION, ILLINOIS 62959

ILLINOIS DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WATER RESOURCES

DAM INSPECTION REPORT

NAME OF DAM: Fly Ash Disposal Pond B-3 Dam

COUNTY: Williamson

LOCATION: Section 26, Township 10S, Range 2E

OWNER: Southern Illinois Power Co-op (NAME)

618-964-1448, 618-964-1701 (Emerg.) (TELEPHONE)

11543 Lake of Egypt Road (STREET)

Marion (CITY) 62959 (ZIP)

PERMIT NO.: 18629

CLASS OF DAM: III

TYPE OF DAM: Earthfill

TYPE OF SPILLWAY: Drop Inlet

DATE (S) INSPECTED: 12/3/2008

WEATHER WHEN INSPECTED: Cloudy

TEMPERATURE WHEN INSPECTED: 55°

POOL ELEVATION WHEN INSPECTED: ~ 499

TAILWATER ELEVATION WHEN INSPECTED: --

INSPECTION PERSONNEL:

NAME	TITLE
W. Brian Ziegler 12/10/08 Clarida Engineering Co.	President

W. BRIAN ZIEGLER
062-053831
LICENSED PROFESSIONAL ENGINEER OF ILLINOIS

PROFESSIONAL ENGINEER'S SEAL

Exp. 11/30/09

CONDITION CODES

N.E.	-	No evidence of problem
G.C.	-	Good Condition
M.M.	-	Item needing minor repairs within the year. Safety integrity not yet imperiled
I.M.	-	Item needing immediate maintenance to restore or insure present safety integrity
E.C.	-	Emergency condition which if not immediately repaired or other appropriate measures taken could lead to breach of dam
O.B.	-	Condition requires regular observation to insure condition does not become worse
N.A.	-	Not applicable to this dam
N.I.	-	Not inspected/list reason for non-inspection under deficiencies

EARTH EMBANKMENT

ITEM	CONDITION	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Surface Cracks	N.E.		
Vertical & Horizontal Alignment of Crest	G.C.		
Unusual Movement or Cracking At or Beyond Toe	N.E.		
Sloughing or Erosion of Embankment and Abutment Slopes	G.C.		
Upstream Face Slope Protection	G.C.		
Seepage	N.E.		
Filter & Filter Drains	G.C.		

EARTH EMBANKMENT
(Continued)

ITEM	CONDITION	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Animal Damage	**N.E.**		
Embankment Drainage Ditches	**G.C.**		
Vegetative Cover	**G.C.**		
Other (Name)			
Other			
Other			

CONCRETE OR MASONRY DAMS

ITEM	CONDITION	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Seepage	N.A.		
Structure to Abutment/ Embankment Junctions	N.A.		
Water Passages	N.A.		
Foundation	N.A.		
Surface Cracks in Concrete Surfaces	N.A.		
Structural Cracking	N.A.		

CONCRETE OR MASONRY DAMS
(Continued)

ITEM	CONDITION	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Vertical and Horizontal Alignment	**N.A.**		
Monolith Joints	**N.A.**		
Construction Joints	**N.A.**		
Spalling of Concrete	**N.A.**		
Filters, Drains, etc.	**N.A.**		
Riprap	**N.A.**		
Other (Name)			

IF DAM IS GATED - Fill out portion of Principal Spillway Form related to Gated Spillways

PRINCIPAL SPILLWAY
APPROACH CHANNEL

ITEM	CONDITION	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Debris	N.A.		
Side Slope Stability	N.A.		
Slope Protection	N.A.		
Other (Name)			
Other			
Other			
Other			

PRINCIPAL SPILLWAY

[X] Drop Inlet Structure [ ] Overflow Spillway Structure [ ] Gated

ITEM	CONDITION	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Erosion, Spalling, Cavitation	N.E.		
Structure to Embankment Junction	G.C.		
Drains	G.C.		
Seepage Around or Into Structure	N.E.		
Surface Cracks	N.E.		
Structural Cracks	N.E.		

IF SPILLWAY IS GATED FILL OUT GATES SECTION

PRINCIPAL SPILLWAY
(Continued)

[X] Drop Inlet Structure [ ] Overflow Spillway Structure [ ] Gated

ITEM	CONDITION	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Alignment of Abutment Walls	N.A.		
Construction Joints	N.A.		
Filter and Filter Drains	N.A.		
Trash Racks	G.C.		
Bridge & Piers	N.A.		
Differential Settlement	N.A.		
Other (Name)			

IF SPILLWAY IS GATED FILL OUT GATES SECTION

PRINCIPAL SPILLWAY
(Continued)

[X] Conduit [ ] Gated

ITEM	CONDITION	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Erosion, Spalling, Cavitation	N.A.		
Joint Separation	N.E.		
Seepage Around or Into Conduit	N.E.		
Surface Cracks	N.E.		
Structural Cracks	N.E.		
Trash Racks	N.A.		
Differential Settlement	N.E.		
Alignment	G.C.		
Other (Name)			

IF SPILLWAY IS GATED FILL OUT GATES SECTION

PRINCIPAL SPILLWAY
(Continued)

[ ] Chute

ITEM	CONDITION	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Erosion, Cavitation, Spalling	**N.A.**		
Structure to Embankment Junction	**N.A.**		
Construction Joints	**N.A.**		
Expansion & Contraction Joints	**N.A.**		
Differential Settlement	**N.A.**		
Surface Cracks	**N.A.**		
Structural Cracks	**N.A.**		
Wall Alignment	**N.A.**		
Other (Name)			

IF SPILLWAY IS GATED FILL OUT GATES SECTION

GATES

☐ Principal Spillway ☐ Dewatering ☐ Other:

ITEM	CONDITION	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Gate Sill	**N.A.**		
Gate Seals	**N.A.**		
Gate and Frame	**N.A.**		
Operating Machineery	**N.A.**		
Emergency Operating Machinery	**N.A.**		
Other (Name)			
Other			

OUTLET WORKS
(IF SEPARATE FROM PRINCIPAL SPILLWAY STRUCTURE)

ITEM	CONDITION	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Erosion, Spalling, Cavitation	**N.A.**		
Joint Separation	**N.A.**		
Seepage Around or Into Conduit	**N.A.**		
Intake Structure	**N.A.**		
Outlet Structure	**N.A.**		
Outlet Channel	**N.A.**		

OUTLET WORKS
(Continued)

ITEM	CONDITION	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Riprap	**N.A.**		
Other (Name)			
Other			
Other			

ENERGY DISSIPATOR

[X] Principal Spillway [ ] Outlet Works

Type: **Riprap**

ITEM	CONDITION	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Erosion, Spalling, Cavitation	**N.A.**		
Structure to Embankment Junction	**N.A.**		
Construction Joints	**N.A.**		
Surface Cracks	**N.A.**		
Structural Cracks	**N.A.**		
Differential Settlement	**N.A.**		
Expansion & Contraction Joints	**N.A.**		

ENERGY DISSIPATOR

(Continued)

[X] Principal Spillway [ ] Outlet Works

ITEM	CONDITION	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Riprap	G.C.		
Outlet Channel	G.C.		
Debris	N.E.		
Other (Name)			

EMERGENCY SPILLWAY

[X] Earth [ ] Other: Name _____

ITEM	CONDITION	DEFICIENCIES	RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE
Erosion	N.E.		
Weeds, Logs, Other Obstructions	N.E.		
Side Slope Sloughing	N.E.		
Vegetation	N.A.		
Sedimentation	N.E.		
Riprap	G.C.		
Settlement of Crest	N.E.		
Downstream Channel	G.C.		
Other (Name)			

SUMMARY OF MAINTENANCE DONE AND/OR

REPAIRS MADE SINCE LAST INSPECTION

DATE OF PRESENT INSPECTION **December 3, 2008**

DATE OF LAST INSPECTION **December 19, 2007**

1. EARTH EMBANKMENT

   None

2. CONCRETE MASONRY DAMS

   N.A.

3. PRINCIPAL SPILLWAY

   None

4. OUTLET WORKS

   None

5. EMERGENCY SPILLWAY

   None

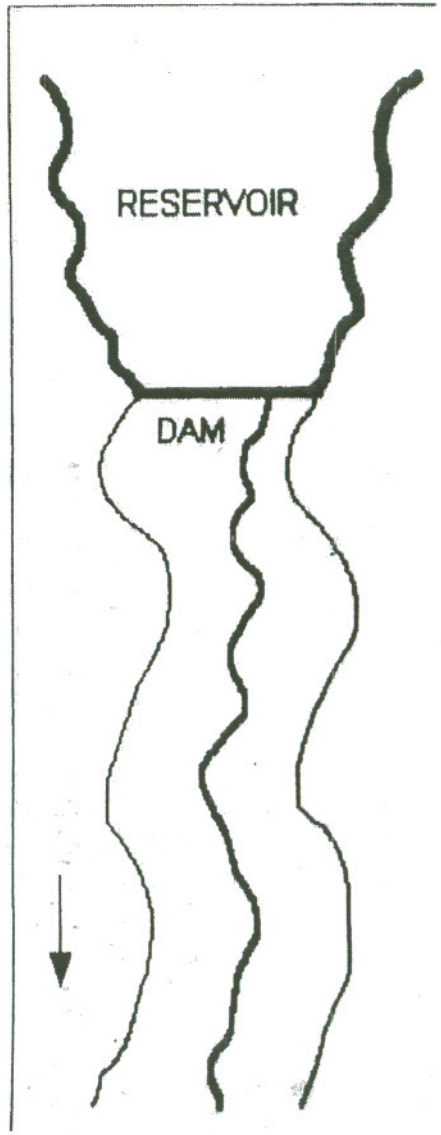
DOWNSTREAM DEVELOPMENT

APPROXIMATE WIDTH OF AFFECTED FLOODPLAIN 0.05 MILES

MILES DOWNSTREAM FROM DAM	DOWNSTREAM DEVELOPMENT												Loss of Life Potential			Economic Loss Potential		
	OCCUPIED HOMES	UNOCCUPIED HOMES	AGRICULTURAL BUILDINGS	INDUSTRIAL BUILDINGS	COMMERCIAL BUILDINGS	SCHOOLS	HOSPITALS	ROADS & BRIDGES	DAMS	OVERHEAD UTILITIES	OTHER DEVELOPMENT (Name)	OTHER DEVELOPMENT (Name)	NONE	1 TO 10	OVER 10	MINIMAL EXPECTED	APPRECIABLE EXPECTED	EXCESSIVE EXPECTED
0 to 1/4													X			X		
1/4 to 1/2													X			X		
1/2 to 3/4													X			X		
3/4 to 1													X			X		
1 to 1-1/4													X			X		
1-1/4 to 1-1/2													X			X		
1-1/2 to 1-3/4													X			X		
1-3/4 to 2													X			X		
OVER 2													X			X		

The number of homes, buildings, or other items in the floodplain downstream of the dam should be placed in the appropriate row and column to designate their location.

SKETCH IN DEVELOPMENTS DOWNSTREAM OF THE DAM



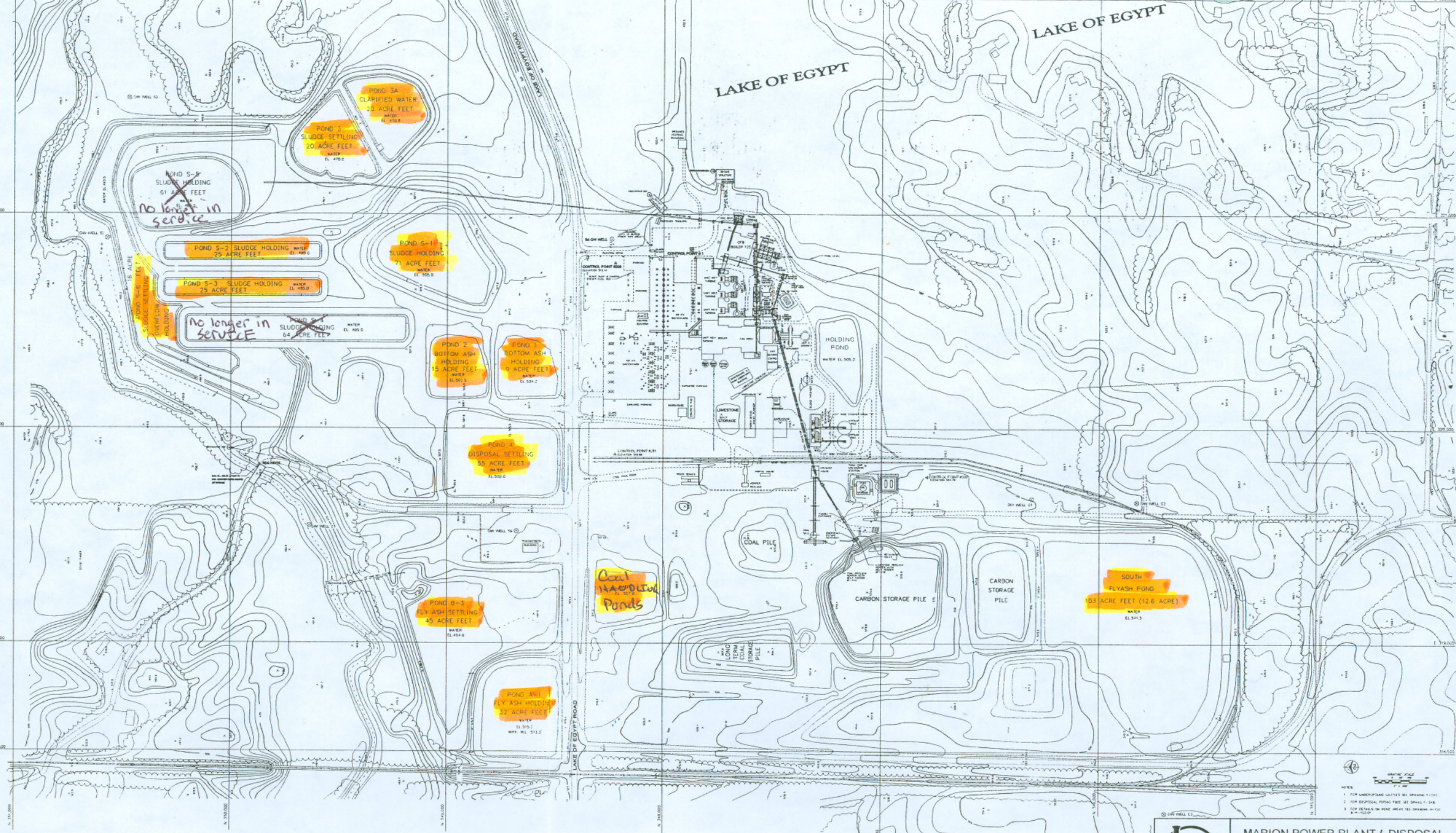
PROJECT NAME: SIPC B-3 Dam	PROJECT NO.: 08156	DATE: 12/03/08	TIME: 2:30 pm	PHOTOS BY: WBZ

PHOTO DESCRIPTION

Looking East

PHOTO DESCRIPTION

Looking West along North levee



Southern Illinois Power Cooperative
MARION, ILLINOIS

MARION POWER PLANT / DISPOSAL PONDS & HOLDING PONDS SITE PLAN AND GROUND WATER MONITORING / DISCHARGE AND CONTROL POINT DATA

SCALE 1" = 200'	W.O.	REVISION	DATE 05-25-07
DRAWN SBB	PER		SHEET 1 OF 1
APPROVED L.F.H.	ADDED CONTROL POINTS, GROUND WATER WELLS AND DISCHARGES	A	E-187
REV. DATE 05-28-10			