## ANNUAL CCR SURFACE IMPOUNDMENT INSPECTION REPORT (per 40 CFR 257.83(b)(2))

Power Station:

**Baldwin Energy Complex** 

Owner:

Dynegy Midwest Generation, LLC

CCR Impoundment: Bottom Ash Pond

Date of Inspection:

10/20/2015

Name of Qualified Professional Engineer:

Kipkoech K. Chepkoit, Ph. D., P.E. and Jason Campbell, P.E.

In accordance with 40 CFR § 257.83(b)(1), an existing or new CCR surface impoundment or any lateral expansion of the CCR surface impoundment that is subject to the periodic structural stability assessment requirements under § 257.73(d) or § 257.74(d) must be inspected on a periodic basis by a qualified professional engineer to ensure that the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards. The inspection must, at a minimum, include: (i) A review of available information regarding the status and condition of the CCR unit, including, but not limited to, files available in the operating record (e.g., CCR unit design and construction information required by §§ 257.73(c)(1) and 257.74(c)(1), previous periodic structural stability assessments required under §§ 257.73(d) and 257.74(d), the results of inspections by a qualified person, and results of previous annual inspections); (ii) A visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit and appurtenant structures; and (iii) A visual inspection of any hydraulic structures underlying the base of the CCR unit or passing through the dike of the CCR unit for structural integrity and continued safe and reliable operation.

## Inspection Report 40 CFR § 257.83(b)(2)

i) Have there been any changes in geometry of the impounding structure since the previous annual inspection? If yes, please explain.

No changes.

#### ii) Instrumentation

Instrument ID #	Туре	Maximum recorded reading since previous annual inspection (ft)
P003	Piezometer	435.9'
P006	Piezometer	443.3'
P007	Piezometer	435.9'
P013	Piezometer	443.7'

		Approximate Depth / Elevation					
iii)	Since previous	Elevation (ft)		Depth (ft)			
	annual inspection:	Minimum	Present	Maximum	Minimum	Present	Maximum
	Impounded Water		420			22	
	CCR	415		460	17		62

- iv) Storage capacity of the impounding structure at the time of the inspection (acre-ft): 5900
- v) Approximate volume of the impounded water and CCR at the time of the inspection (acre-ft):

water volume: 20.5

CCR volume: 1,570

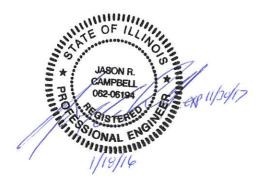
vi) Are there any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit and appurtenant structures?

None

vii) Are there any other changes which may have affected the stability or operation of the impounding structure since the previous annual inspection?

None

I, Jason Campbell, P.E., certify under penalty of law that the information submitted in this report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Illinois. The information herein is to the best of my knowledge and belief, true, accurate and complete.





# ANNUAL CCR SURFACE IMPOUNDMENT INSPECTION REPORT (per 40 CFR 257.83(b)(2))

Power Station: Baldwin Energy Complex

Owner: Dynegy Midwest Generation, LLC

CCR Impoundment: West Fly Ash Pond

Date of Inspection: 10/20/2015

Name of Qualified Professional Engineer: Kipkoech K. Chepkoit, Ph. D., P.E. and Jason Campbell, P.E.

In accordance with 40 CFR § 257.83(b)(1), an existing or new CCR surface impoundment or any lateral expansion of the CCR surface impoundment that is subject to the periodic structural stability assessment requirements under § 257.73(d) or § 257.74(d) must be inspected on a periodic basis by a qualified professional engineer to ensure that the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards. The inspection must, at a minimum, include: (i) A review of available information regarding the status and condition of the CCR unit, including, but not limited to, files available in the operating record (e.g., CCR unit design and construction information required by §§ 257.73(c)(1) and 257.74(c)(1), previous periodic structural stability assessments required under §§ 257.73(d) and 257.74(d), the results of inspections by a qualified person, and results of previous annual inspections); (ii) A visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit and appurtenant structures; and (iii) A visual inspection of any hydraulic structures underlying the base of the CCR unit or passing through the dike of the CCR unit for structural integrity and continued safe and reliable operation.

### Inspection Report 40 CFR § 257.83(b)(2)

i) Have there been any changes in geometry of the impounding structure since the previous annual inspection? If yes, please explain.

No changes.

#### ii) Instrumentation

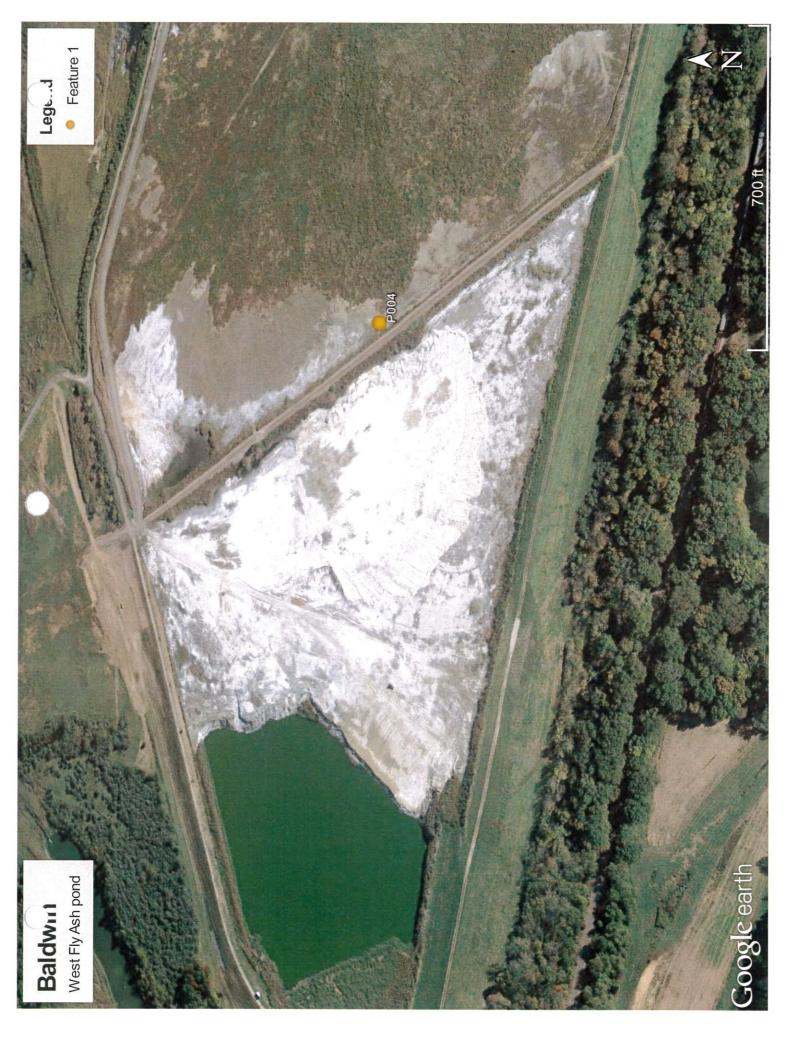
Instrument ID #	Туре	Maximum recorded reading since previous annual inspection (ft)
P004	Piezometer	440.4'

		Approximate Depth / Elevation					
iii)	Since previous	Elevation (ft)			Depth (ft)		
	annual inspection:	Minimum	Present	Maximum	Minimum	Present	Maximum
	Impounded Water		425			7	
	CCR	418		446	32.8		60.8

iv)	Storage capacity of the impounding structure at the time of the inspection (acre-ft): 3700
v)	Approximate volume of the impounded water and CCR at the time of the inspection (acre-ft):
	water volume: 35
	CCR volume: 812
vi)	Are there any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit and appurtenant structures?  None
vii)	Are there any other changes which may have affected the stability or operation of the impounding structure since the previous annual inspection?  None

I, Jason Campbell, P.E., certify under penalty of law that the information submitted in this report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Illinois. The information herein is to the best of my knowledge and belief, true, accurate and complete.

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# ANNUAL CCR SURFACE IMPOUNDMENT INSPECTION REPORT (per 40 CFR 257.83(b)(2))

Power Station: Baldwin Energy Complex

Owner: Dynegy Midwest Generation, LLC

CCR Impoundment: Old East Fly Ash Pond

Date of Inspection: 10/20/2015

Name of Qualified Professional Engineer: Kipkoech K. Chepkoit, Ph. D., P.E. and Jason Campbell, P.E.

In accordance with 40 CFR § 257.83(b)(1), an existing or new CCR surface impoundment or any lateral expansion of the CCR surface impoundment that is subject to the periodic structural stability assessment requirements under § 257.73(d) or § 257.74(d) must be inspected on a periodic basis by a qualified professional engineer to ensure that the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards. The inspection must, at a minimum, include: (i) A review of available information regarding the status and condition of the CCR unit, including, but not limited to, files available in the operating record (e.g., CCR unit design and construction information required by §§ 257.73(c)(1) and 257.74(c)(1), previous periodic structural stability assessments required under §§ 257.73(d) and 257.74(d), the results of inspections by a qualified person, and results of previous annual inspections); (ii) A visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit and appurtenant structures; and (iii) A visual inspection of any hydraulic structures underlying the base of the CCR unit or passing through the dike of the CCR unit for structural integrity and continued safe and reliable operation.

### Inspection Report 40 CFR § 257.83(b)(2)

i) Have there been any changes in geometry of the impounding structure since the previous annual inspection? If yes, please explain.

No changes.

#### ii) Instrumentation

Instrument ID #	Туре	Maximum recorded reading since previous annual inspection (ft)
P006	Piezometer	443.3'
P007	Piezometer	435.9'
P008	Piezometer	440.9'
P009	Piezometer	439.9'
P010	Piezometer	451.7'
P011	Piezometer	439.7'
P012	Piezometer	450.8'
P013	Piezometer	443.7'

		Approximate Depth / Elevation					
iii)		Elevation (ft)			Depth (ft)		
	annual inspection:	Minimum	Present	Maximum	Minimum	Present	Maximum
	Impounded Water						
	CCR	447		458	26.5		37.5

- iv) Storage capacity of the impounding structure at the time of the inspection (acre-ft): 3,450
- v) Approximate volume of the impounded water and CCR at the time of the inspection (acre-ft):

water volume: 0

CCR volume: 2,963

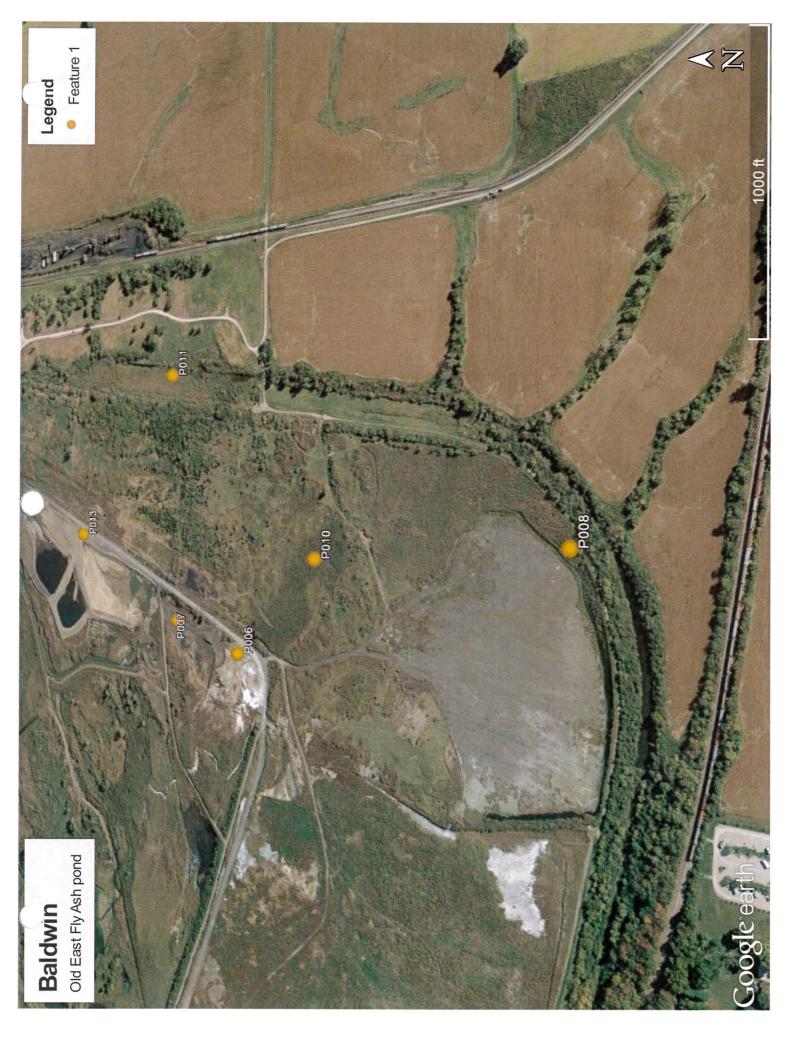
vi) Are there any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit and appurtenant structures?

None

vii) Are there any other changes which may have affected the stability or operation of the impounding structure since the previous annual inspection?

None

I, Jason Campbell, P.E., certify under penalty of law that the information submitted in this report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Illinois. The information herein is to the best of my knowledge and belief, true, accurate and complete.



## ANNUAL CCR SURFACE IMPOUNDMENT INSPECTION REPORT (per 40 CFR 257.83(b)(2))

Power Station:

**Baldwin Energy Complex** 

Owner:

Dynegy Midwest Generation, LLC

CCR Impoundment: East Fly Ash Pond

Date of Inspection:

10/20/2015

Name of Qualified Professional Engineer:

Kipkoech K. Chepkoit, Ph. D., P.E. and Jason Campbell, P.E.

In accordance with 40 CFR § 257.83(b)(1), an existing or new CCR surface impoundment or any lateral expansion of the CCR surface impoundment that is subject to the periodic structural stability assessment requirements under § 257.73(d) or § 257.74(d) must be inspected on a periodic basis by a qualified professional engineer to ensure that the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards. The inspection must, at a minimum, include: (i) A review of available information regarding the status and condition of the CCR unit, including, but not limited to, files available in the operating record (e.g., CCR unit design and construction information required by §§ 257.73(c)(1) and 257.74(c)(1), previous periodic structural stability assessments required under §§ 257.73(d) and 257.74(d), the results of inspections by a qualified person, and results of previous annual inspections); (ii) A visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit and appurtenant structures; and (iii) A visual inspection of any hydraulic structures underlying the base of the CCR unit or passing through the dike of the CCR unit for structural integrity and continued safe and reliable operation.

### Inspection Report 40 CFR § 257.83(b)(2)

i) Have there been any changes in geometry of the impounding structure since the previous annual inspection? If yes, please explain.

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#### ii) Instrumentation

Instrument ID#	Туре	Maximum recorded reading since previous annual inspection (ft)
P003	Piezometer	435.9'
P004	Piezometer	440.4'
P005	Piezometer	443.9'

Approximate Depth / Elevation							
iii)	Since previous	Elevation (ft)			Depth (ft)		
	annual inspection:	Minimum	Present	Maximum	Minimum	Present	Maximum
	Impounded Water		445			5	
	CCR	447		460	47		60

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iv)	Storage capacity	v of the impounding	structure at the time of	the inspection (	(acre-ft): 4 300
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v) Approximate volume of the impounded water and CCR at the time of the inspection (acre-ft):

water volume: 2.5

CCR volume: 2,215

vi) Are there any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit and appurtenant structures?

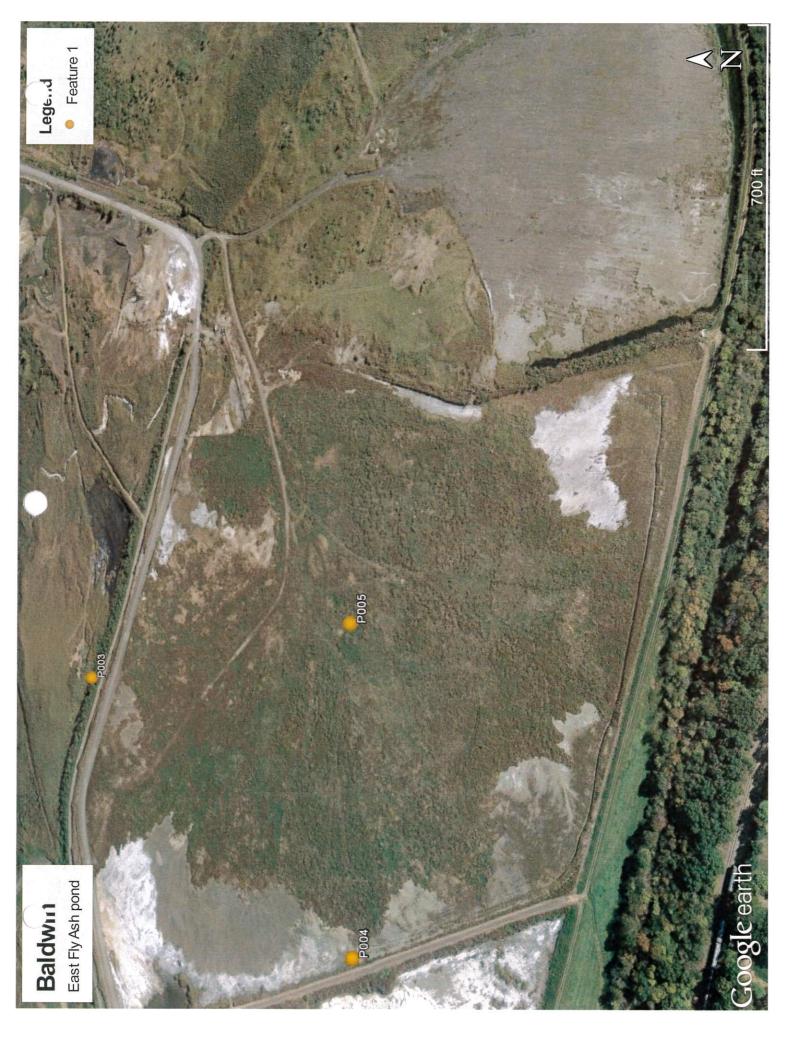
None

vii) Are there any other changes which may have affected the stability or operation of the impounding structure since the previous annual inspection?

None

I, Jason Campbell, P.E., certify under penalty of law that the information submitted in this report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Illinois. The information herein is to the best of my knowledge and belief, true, accurate and complete.





## ANNUAL CCR SURFACE IMPOUNDMENT INSPECTION REPORT (per 40 CFR 257.83(b)(2))

Power Station:

**Baldwin Energy Complex** 

Owner:

Dynegy Midwest Generation, LLC

CCR Impoundment: Secondary pond

Date of Inspection:

10/20/2015

Name of Qualified Professional Engineer:

Kipkoech K. Chepkoit, Ph. D., P.E. and Jason Campbell, P.E.

In accordance with 40 CFR § 257.83(b)(1), an existing or new CCR surface impoundment or any lateral expansion of the CCR surface impoundment that is subject to the periodic structural stability assessment requirements under § 257.73(d) or § 257.74(d) must be inspected on a periodic basis by a qualified professional engineer to ensure that the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards. The inspection must, at a minimum, include: (i) A review of available information regarding the status and condition of the CCR unit, including, but not limited to, files available in the operating record (e.g., CCR unit design and construction information required by §§ 257.73(c)(1) and 257.74(c)(1), previous periodic structural stability assessments required under §§ 257.73(d) and 257.74(d), the results of inspections by a qualified person, and results of previous annual inspections); (ii) A visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit and appurtenant structures; and (iii) A visual inspection of any hydraulic structures underlying the base of the CCR unit or passing through the dike of the CCR unit for structural integrity and continued safe and reliable operation.

## Inspection Report 40 CFR § 257.83(b)(2)

i) Have there been any changes in geometry of the impounding structure since the previous annual inspection? If yes, please explain.

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ii) Instrumentation

Instrument ID #	Туре	Maximum recorded reading since previous annual inspection (ft)		
None				

		Approximate Depth / Elevation					
iii)	Since previous	Elevation (ft)			Depth (ft)		
	annual inspection:	Minimum	Present	Maximum	Minimum	Present	Maximum
	Impounded Water		393.3			13.3	
	CCR	380		430	0		50

- iv) Storage capacity of the impounding structure at the time of the inspection (acre-ft): 400
- v) Approximate volume of the impounded water and CCR at the time of the inspection (acre-ft):

water volume: 64

CCR volume: 20.5

vi) Are there any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit and appurtenant structures?

Spillway is constructed partially of rip rap that is designed to allow water to flow through the embankment.

vii) Are there any other changes which may have affected the stability or operation of the impounding structure since the previous annual inspection?

None

I, Jason Campbell, P.E., certify under penalty of law that the information submitted in this report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Illinois. The information herein is to the best of my knowledge and belief, true, accurate and complete.

# ANNUAL CCR SURFACE IMPOUNDMENT INSPECTION REPORT (per 40 CFR 257.83(b)(2))

Power Station: Baldwin Energy Complex

Owner: Dynegy Midwest Generation, LLC

CCR Impoundment: Tertiary pond

Date of Inspection: 10/20/2015

Name of Qualified Professional Engineer: Kipkoech K. Chepkoit, Ph. D., P.E. and Jason Campbell, P.E.

In accordance with 40 CFR § 257.83(b)(1), an existing or new CCR surface impoundment or any lateral expansion of the CCR surface impoundment that is subject to the periodic structural stability assessment requirements under § 257.73(d) or § 257.74(d) must be inspected on a periodic basis by a qualified professional engineer to ensure that the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards. The inspection must, at a minimum, include: (i) A review of available information regarding the status and condition of the CCR unit, including, but not limited to, files available in the operating record (e.g., CCR unit design and construction information required by §§ 257.73(c)(1) and 257.74(c)(1), previous periodic structural stability assessments required under §§ 257.73(d) and 257.74(d), the results of inspections by a qualified person, and results of previous annual inspections); (ii) A visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit and appurtenant structures; and (iii) A visual inspection of any hydraulic structures underlying the base of the CCR unit or passing through the dike of the CCR unit for structural integrity and continued safe and reliable operation.

# Inspection Report 40 CFR § 257.83(b)(2)

i) Have there been any changes in geometry of the impounding structure since the previous annual inspection? If yes, please explain.

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ii) Instrumentation

Instrument ID # Type		Maximum recorded reading since previous annual inspection (ft)
None		

			Approximate Depth / Elevation				
iii)		Elevation (ft)			Depth (ft)		
	annual inspection:	Minimum	Present	Maximum	Minimum	Present	Maximum
	Impounded Water		393			17	
	CCR	375		395	0		19

- iv) Storage capacity of the impounding structure at the time of the inspection (acre-ft): 65
- v) Approximate volume of the impounded water and CCR at the time of the inspection (acre-ft):

water volume: 18

CCR volume: 29

vi) Are there any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit and appurtenant structures?

Spillway is constructed partially of rip rap that is designed to allow water to flow through the embankment.

vii) Are there any other changes which may have affected the stability or operation of the impounding structure since the previous annual inspection?

None

I, Jason Campbell, P.E., certify under penalty of law that the information submitted in this report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Illinois. The information herein is to the best of my knowledge and belief, true, accurate and complete.

