

US EPA ARCHIVE DOCUMENT

MEMORANDUM

SUBJECT: EPA Comments on “Assessment of Dam Safety of Coal Combustion Surface Impoundments: GenOn/NRG Elrama Power Station, Elrama, PA”

DATE: November 7, 2013

1. On page 3, Section 2, please rephrase the last paragraph as follows:

“This dam safety assessment report summarizes the September 26, 2012 assessment of the above management units less the Polishing Pond SPD-4, at the Elrama Power Station. Although the Polishing Pond SPD-4, contains CCW residuals, it is completely incised and therefore falls out of the scope of this assessment program. The report does, however, provide information regarding the Polishing Pond SPD-4. GenOn/NRG deactivated the Elrama Power Station in October 2012. No CCW has reportedly been sluiced to the impoundments since October 2012. The impoundments still contain CCW residuals, are not completely drained, and continue to collect rainwater and runoff. Therefore, the impoundments continue to pose a dam safety and environmental risk until they are closed.”

**From:** [Frank, Stephen](#)  
**To:** [Hoffman, Stephen](#); [Englander, Jana](#)  
**Subject:** Comments Request on Coal Ash Site Assessment Round 12 Draft Report - Elrama Generating Station  
**Date:** Friday, December 13, 2013 3:52:23 PM  
**Attachments:** [Elrama Pond Photos Prnt 11.26.13.pdf](#)  
[Elrama - Example Pond Inspection Reports.pdf](#)  
**Importance:** High

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Dear Mr. Hoffman and Ms. Englander,

As requested, NRG has reviewed and is providing the following comments on the Draft Report for Elrama Generating Station:

- The station owner and operator is NRG Power Midwest LP (NRG), a subsidiary of NRG Energy, Inc. and should replace "GenOn" or "GenOn Energy" throughout the report. The GenOn name changed for this station in May of 2013.
- Page 3, Note that the Emergency Pond does not contain CCW, but continues to collect rainwater. A sample of the water in the Emergency Pond was collected on December 5, 2013, and the results demonstrate that arsenic, selenium, mercury and bromide (constituents of concern for CCW from FGD systems) are not detectable. Therefore, a release due to an embankment failure would cause minimal environmental losses. Specifically, the results include:
  - a. Total Arsenic = <0.005 mg/l
  - b. Total Selenium = <0.005 mg/l
  - c. Total Mercury = <0.2 ug/l
  - d. Bromide = <0.1 mg/l
- Page 5, Section 2.2.1. The hazard potential rating of SIGNIFICANT and the overall condition (Page 13) of POOR are not warranted for the ash ponds or emergency pond. As defined in Appendix A, NRG believes a LESS THAN LOW hazard potential and an overall condition rating of FAIR are appropriate for the following reasons:
  - a. The Ash Settling Ponds (SPD-1 & -2) are no longer used for settling ash because the Elrama Generating Station has been retired since October 2012.
  - b. Ash Pond SPD-1 contains approximately 49,200 cubic yards of ash, and Ash Pond SPD-2 contains approximately 8,900 cubic

yards of ash. No additional ash will be added. Both ponds are scheduled for final cleaning in 2015.

- c. Ash Pond SPD-1 or SPD-2 will only receive small quantities of storm water pumped from several drainage areas within the station. NRG plans to redirect these storm water discharges away from the ponds to Outfall 001 upon receipt of agency approval.
  - d. The water levels in Bottom Ash Setting Ponds SPD-1 and SPD-2 are maintained at elevations of approximately 759.4 and 754.5 ft. msl, respectively, which is near or below the natural ground surface elevation of approximately 755 to 760 ft. msl at the eastern toe of the outer embankment. If water levels are maintained at these levels, failure of the embankments is not possible, and therefore, there is no potential for economic loss, environmental damage, disruption of lifeline facilities, etc. or interruption of railroad service.
  - e. The Emergency Pond (SPD-5) is no longer used for process water and is approximately half full of only storm water, and the water level is at an elevation of approximately 770 ft. msl, which is below the natural ground surface at the eastern toe of the outer embankment (~777.5 ft. msl). As a result, failure of the eastern embankment is not possible and, therefore, would not result in economic loss, environmental damage, disruption of lifeline facilities or interruption of railroad service.
  - f. In addition, the NRG property is fenced to limit public access. Therefore, a release would result in no probable loss of human life and low economic losses. All losses would be contained within the fenced area of the station.
- Page 13, Although the Station is retired, NRG has implemented a formal a quarterly impoundment inspection program (attached inspection log) for the Bottom Ash and Emergency Ponds that is designed to maintain low water levels and identify seeps, cracks, holes, etc. and control undesirable vegetation such as tall grasses and woody vegetation.
  - Page 13, Repair of the severely eroded areas of the inboard and outboard slopes of the ash ponds will be completed when the ponds undergo a final cleaning before the end of 2015

Please do not hesitate to contact me with any questions or comments.

Thank you, Steve

NRG Energy



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\*\*\*\*\* ATTACHMENT NOT DELIVERED \*\*\*\*\*

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\*\*\*\*\* ATTACHMENT NOT DELIVERED \*\*\*\*\*

**QUARTERLY ASH POND INSPECTION CHECKLIST  
NRG ENERGY - OPERATIONS TECHNICAL SUPPORT  
ELRAMA STATION**

**NAME OF IMPOUNDMENT:** Ash Pond (SPD-1)

**LOCATION:** Elrama, Allegheny County

**PERSONS PRESENT AT INSPECTION:**

<u>NAME</u>	<u>TITLE/POSITION</u>	<u>REPRESENTING</u>
		NRG Energy

**DATE OF INSPECTION:** \_\_\_\_\_ **TIME:** \_\_\_\_\_

**WEATHER:** \_\_\_\_\_

**TEMPERATURE:** \_\_\_\_\_

This is to certify that the above ponds have been inspected and the following are the results of this inspection.

<b>EMBANKMENT</b>				
<b>CREST AND INTERIOR SLOPES</b>		<b>CHECK ( ) ACTION NEEDED</b>		
<b>CONDITION/ITEMS</b>	<b>OBSERVATIONS</b>	<b>Monitor</b>	<b>Investigate</b>	<b>Repair</b>
<b>SURFACE CRACKING</b>				
<b>LOW AREA(S)</b>				
<b>HORIZONTAL ALIGNMENT</b>				
<b>RUTS AND/OR PUDDLES</b>				
<b>VEGETATION GROWTH</b>				
<b>ADDITIONAL COMMENTS:</b>				

<b>EMBANKMENT</b>				
<b>EXTERIOR SLOPES</b>		<b>CHECK ( ) ACTION NEEDED</b>		
<b>CONDITION/ITEMS</b>	<b>OBSERVATIONS</b>	<b>Monitor</b>	<b>Investigate</b>	<b>Repair</b>
<b>WET AREA(S)</b>				
<b>SEEPAGE</b>				
<b>SLIDE, SLOUGH, SCARP</b>				
<b>SINKHOLE, ANIMAL BURROW</b>				
<b>EROSION</b>				
<b>UNUSUAL MOVEMENT</b>				
<b>VEGETATION CONDITION</b>				
<b>ADDITIONAL COMMENTS:</b>				

**QUARTERLY ASH POND INSPECTION CHECKLIST  
NRG ENERGY - OPERATIONS TECHNICAL SUPPORT  
ELRAMA STATION**

**NAME OF IMPOUNDMENT:** Ash Pond (SPD-2)

**LOCATION:** Elrama, Allegheny County

**PERSONS PRESENT AT INSPECTION:**

<u>NAME</u>	<u>TITLE/POSITION</u>	<u>REPRESENTING</u>
		NRG Energy

**DATE OF INSPECTION:** \_\_\_\_\_ **TIME:** \_\_\_\_\_  
**WEATHER:** \_\_\_\_\_  
**TEMPERATURE:** \_\_\_\_\_

This is to certify that the above ponds have been inspected and the following are the results of this inspection.

<b>EMBANKMENT</b>				
<b>CREST AND INTERIOR SLOPES</b>		<b>CHECK ( ) ACTION NEEDED</b>		
CONDITION/ITEMS	OBSERVATIONS	Monitor	Investigate	Repair
<b>SURFACE CRACKING</b>				
<b>LOW AREA(S)</b>				
<b>HORIZONTAL ALIGNMENT</b>				
<b>RUTS AND/OR PUDDLES</b>				
<b>VEGETATION GROWTH</b>				
<b>ADDITIONAL COMMENTS:</b>				

<b>EMBANKMENT</b>				
<b>EXTERIOR SLOPES</b>		<b>CHECK ( ) ACTION NEEDED</b>		
CONDITION/ITEMS	OBSERVATIONS	Monitor	Investigate	Repair
<b>WET AREA(S)</b>				
<b>SEEPAGE</b>				
<b>SLIDE, SLOUGH, SCARP</b>				
<b>SINKHOLE, ANIMAL BURROW</b>				
<b>EROSION</b>				
<b>UNUSUAL MOVEMENT</b>				
<b>VEGETATION CONDITION</b>				
<b>ADDITIONAL COMMENTS:</b>				

**QUARTERLY ASH POND INSPECTION CHECKLIST  
NRG ENERGY - OPERATIONS TECHNICAL SUPPORT  
ELRAMA STATION**

**NAME OF IMPOUNDMENT:** Emergency Pond (SPD-5)

**LOCATION:** Elrama, Allegheny County

**PERSONS PRESENT AT INSPECTION:**

<u>NAME</u>	<u>TITLE/POSITION</u>	<u>REPRESENTING</u>
		NRG Energy

**DATE OF INSPECTION:**

**TIME:**

**WEATHER:**

**TEMPERATURE:**

This is to certify that the above ponds have been inspected and the following are the results of this inspection.

<b>EMBANKMENT</b>				
<b>CREST AND INTERIOR SLOPES</b>		<b>CHECK ( ) ACTION NEEDED</b>		
<b>CONDITION/ITEMS</b>	<b>OBSERVATIONS</b>	<b>Monitor</b>	<b>Investigate</b>	<b>Repair</b>
<b>SURFACE CRACKING</b>				
<b>LOW AREA(S)</b>				
<b>HORIZONTAL ALIGNMENT</b>				
<b>RUTS AND/OR PUDDLES</b>				
<b>VEGETATION GROWTH</b>				
<b>ADDITIONAL COMMENTS:</b>				

<b>EMBANKMENT</b>				
<b>EXTERIOR SLOPES</b>		<b>CHECK ( ) ACTION NEEDED</b>		
<b>CONDITION/ITEMS</b>	<b>OBSERVATIONS</b>	<b>Monitor</b>	<b>Investigate</b>	<b>Repair</b>
<b>WET AREA(S)</b>				
<b>SEEPAGE</b>				
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<b>SINKHOLE, ANIMAL BURROW</b>				
<b>EROSION</b>				
<b>UNUSUAL MOVEMENT</b>				
<b>VEGETATION CONDITION</b>				
<b>ADDITIONAL COMMENTS:</b>				

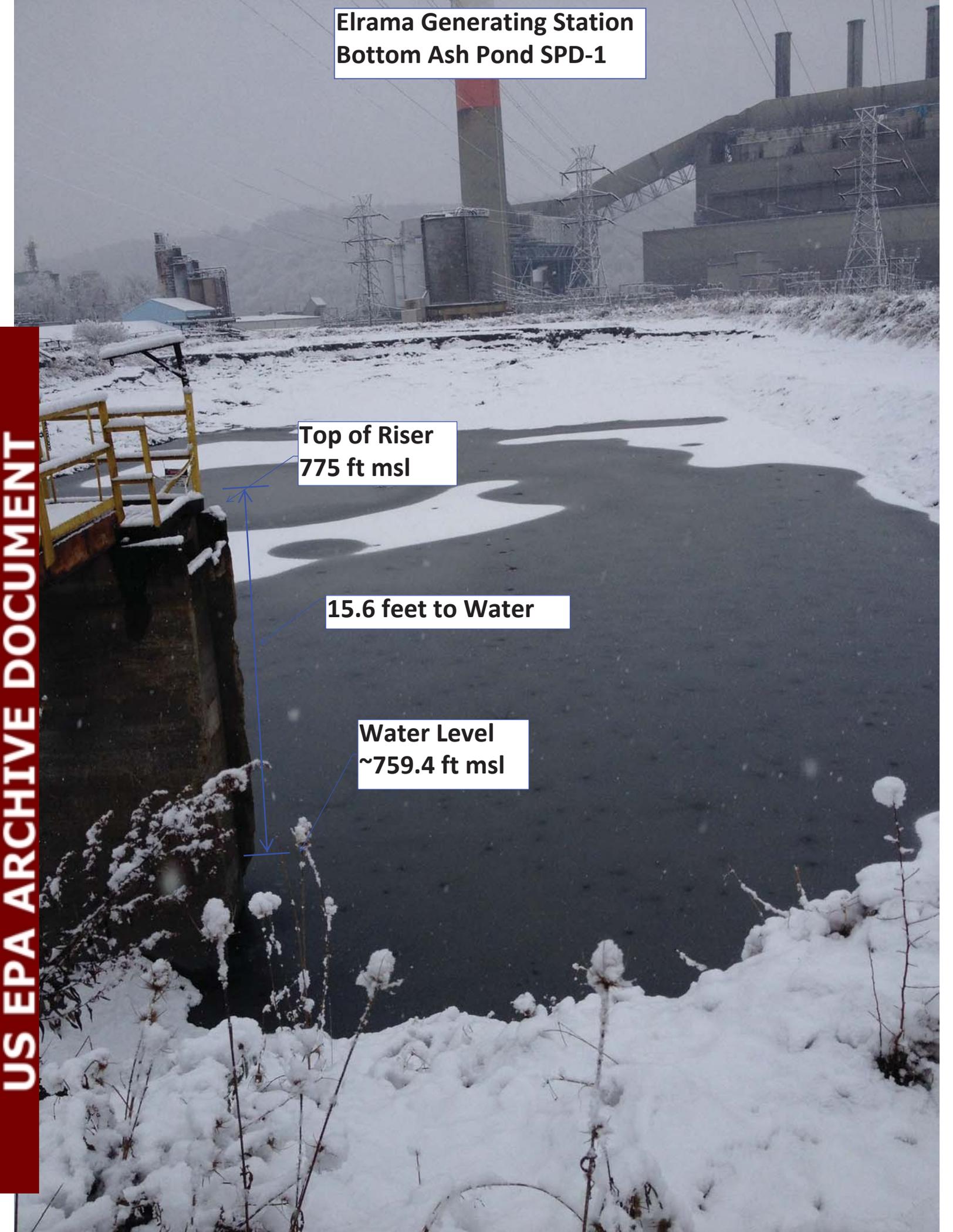
**Elrama Generating Station  
Bottom Ash Pond SPD-1**

**US EPA ARCHIVE DOCUMENT**

**Top of Riser  
775 ft msl**

**15.6 feet to Water**

**Water Level  
~759.4 ft msl**



**Elrama Generating Station  
Bottom Ash Pond SPD-2**

**Top of Riser  
775 ft msl**

**20.5 feet to Water**

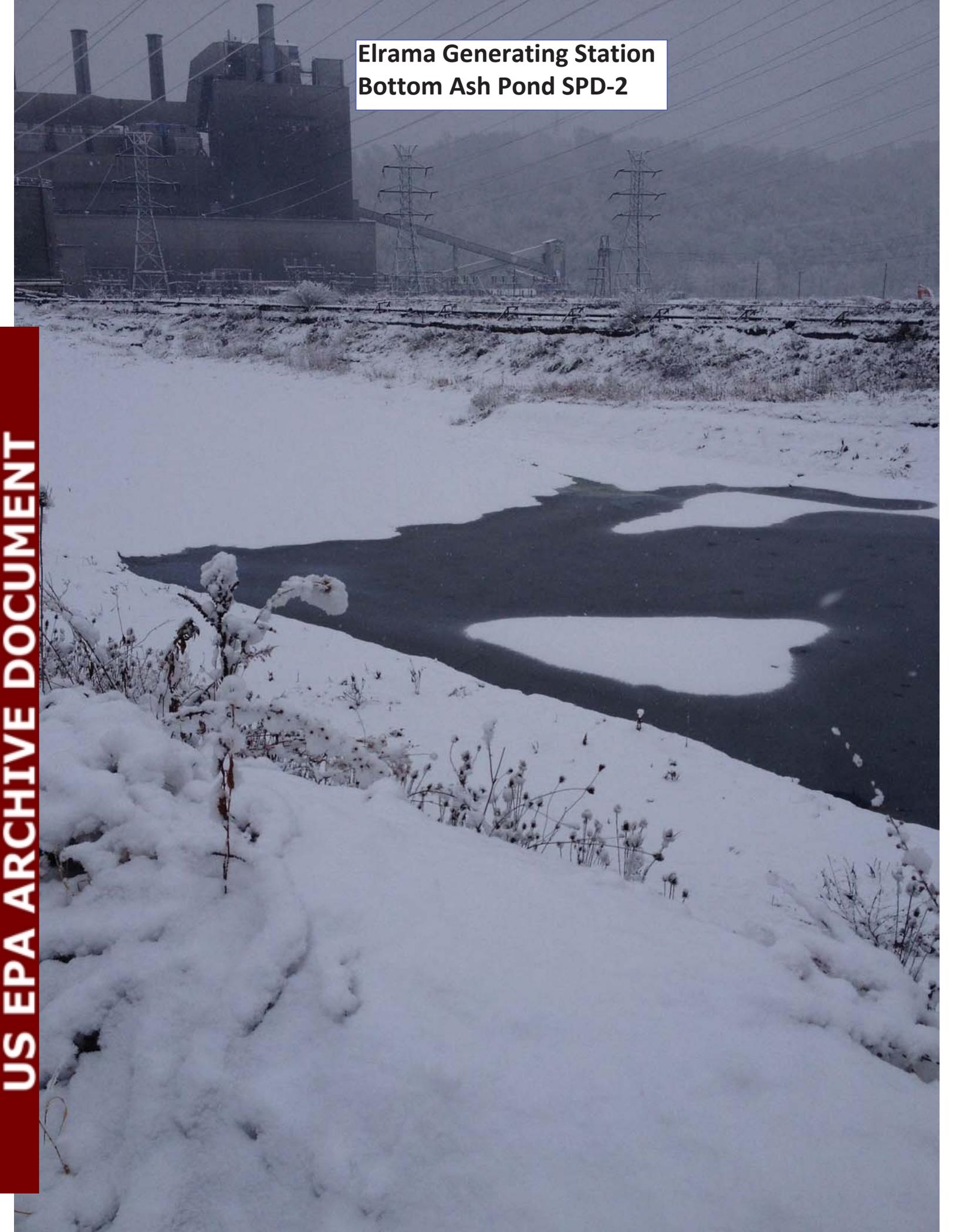
**Water Level  
~754.5 ft msl**

**US EPA ARCHIVE DOCUMENT**



**Elrama Generating Station  
Bottom Ash Pond SPD-2**

**US EPA ARCHIVE DOCUMENT**



**Elrama Generating Station  
Emergency Pond**

**US EPA ARCHIVE DOCUMENT**

