



solutions and action

Interstate Power and Light Company

Burlington Generating Station
CCR Surface Impoundment Annual Inspection Report
154.018.026.001
Report issued: June 20, 2023

Hard Hat Services

ph: 877-630-7428
hardhatinc.com
932 N. Wright St., Suite 160
Naperville, IL 60563

Executive Summary

This annual inspection report has been prepared in accordance with the requirements of the United States Environmental Protection Agency published Final Rule for Hazardous and Solid Waste Management System - Disposal of Coal Combustion Residual (CCR) from Electric Utilities (40 CFR Parts 257 and 261, also known as CCR Rule).

This annual inspection report assesses the condition of existing CCR surface impoundments. Primarily, the annual inspection report is focused on the structural stability of the CCR surface impoundments and to ensure that the operation and maintenance of the CCR surface impoundments is in accordance with recognized and generally accepted good engineering standards.

At the time of the annual inspection, the surface impoundments were no longer receiving process water and material consolidation was in progress in anticipation of impoundment closure.

After conducting the annual inspection, as well as review of available information pertaining to the status and condition of the existing CCR surface impoundments, and discussions with facility personnel who oversee and maintain the operation, maintenance, and inspection activities of the existing CCR surface impoundments, there are no operating deficiencies and there have been no changes, other than the material consolidation activities, that have affected the stability or operation of the CCR surface impoundments since the previous annual inspection.

Table of Contents

1.	INTRODUCTION.....	1
1.1	CCR Rule Applicability.....	1
1.2	Annual Inspection Applicability.....	1
2.	ANNUAL INSPECTION REPORTING CRITERIA.....	3
2.1	BGS Ash Seal Pond.....	3
2.1.1	Changes in Geometry (§257.83(b)(2)(i)).....	3
2.1.2	Existing Instrumentation (§257.83(b)(2)(ii)).....	3
2.1.3	Depth and Elevation of Impounded CCR and Water (§257.83(b)(2)(iii)).....	4
2.1.4	Storage Capacity of Impounding Structure (§257.83(b)(2)(iv)).....	5
2.1.5	Volume of Impounded CCR and Water (§257.83(b)(2)(v)).....	5
2.1.6	Structural Weaknesses and Disruptive Conditions (§257.83(b)(2)(vi)).....	5
2.1.7	Other Changes Affecting Stability or Operation of Impounding Structure (§257.83(b)(2)(vii)).....	6
2.2	BGS Main Ash Pond.....	6
2.2.1	Changes in Geometry (§257.83(b)(2)(i)).....	6
2.2.2	Existing Instrumentation (§257.83(b)(2)(ii)).....	6
2.2.3	Depth and Elevation of Impounded CCR and Water (§257.83(b)(2)(iii)).....	7
2.2.4	Storage Capacity of Impounding Structure (§257.83(b)(2)(iv)).....	8
2.2.5	Volume of Impounded CCR and Water (§257.83(b)(2)(v)).....	8
2.2.6	Structural Weaknesses and Disruptive Conditions (§257.83(b)(2)(vi)).....	9
2.2.7	Other Changes Affecting Stability or Operation of Impounding Structure (§257.83(b)(2)(vii)).....	9
2.3	BGS Economizer Pond.....	10
2.3.1	Changes in Geometry (§257.83(b)(2)(i)).....	10
2.3.2	Existing Instrumentation (§257.83(b)(2)(ii)).....	10
2.3.3	Depth and Elevation of Impounded CCR and Water (§257.83(b)(2)(iii)).....	11
2.3.4	Storage Capacity of Impounding Structure (§257.83(b)(2)(iv)).....	12

2.3.5 Volume of Impounded CCR and Water (§257.83(b)(2)(v))..... 12

2.3.6 Structural Weaknesses and Disruptive Conditions (§257.83(b)(2)(vi)) 13

2.3.7 Other Changes Affecting Stability or Operation of Impounding Structure
(§257.83(b)(2)(vii)) 13

2.4 BGS Upper Ash Pond..... 14

2.4.1 Changes in Geometry (§257.83(b)(2)(i)) 14

2.4.2 Existing Instrumentation (§257.83(b)(2)(ii)) 14

2.4.3 Depth and Elevation of Impounded CCR and Water (§257.83(b)(2)(iii)) 15

2.4.4 Storage Capacity of Impounding Structure (§257.83(b)(2)(iv)) 16

2.4.5 Volume of Impounded CCR and Water (§257.83(b)(2)(v))..... 16

2.4.6 Structural Weaknesses and Disruptive Conditions (§257.83(b)(2)(vi)) 17

2.4.7 Other Changes Affecting Stability or Operation of Impounding Structure
(§257.83(b)(2)(vii)) 17

3. CERTIFICATION..... 18

1. INTRODUCTION

This annual inspection report has been prepared in accordance with the requirements of §257.83(b) of the United States Environmental Protection Agency (USEPA) published Final Rule for Hazardous and Solid Waste Management System - Disposal of Coal Combustion Residual (CCR), herein referenced as the CCR Rule.

1.1 CCR Rule Applicability

The CCR Rule requires annual inspections by a qualified professional engineer (PE) for existing CCR surface impoundments with a height of 5 feet or more and a storage volume of 20 acre-feet or more or the CCR surface impoundment has a height of 20 feet or more (40 CFR §§ 257.73(b), 257.73(d) and 257.83(b)).

1.2 Annual Inspection Applicability

The Interstate Power and Light Company (IPL), Burlington Generating Station (BGS) in Burlington, Iowa has four existing CCR surface impoundments that meet the requirements of Section 1.1, identified as follows:

- BGS Ash Seal Pond
- BGS Main Ash Pond
- BGS Economizer Pond
- BGS Upper Ash Pond

The CCR surface impoundments have been assigned a state identification number by the Iowa Department of Natural Resources (IDNR), which is 29-UDP-01-15. As of December 30, 2021, BGS no longer used coal as a fuel source.

The annual inspection of the CCR surface impoundments at BGS was completed by a qualified PE on May 16, 2023. The annual inspection was completed to ensure that the design, construction, operation, and maintenance of the CCR surface impoundments at BGS are consistent with recognized and generally accepted good engineering standards.

The annual inspection of the CCR surface impoundments at BGS included a review of available information regarding the status and condition of the CCR surface impoundments. The information reviewed included relevant files available in the operating record at the time of the annual inspection, as well as the Alliant Energy CCR Rule Compliance Data and Information website entries for BGS (ccr.alliantenergy.com). These files for the CCR surface impoundments at BGS include, but is not limited to, CCR surface impoundment design and construction information (history of construction), hazard potential classification, structural stability assessment, safety factor assessment, hydrologic and hydraulic capacities (inflow flood control plan), results of 7-day inspections and instrumentation monitoring by a qualified person, and results of the previous annual inspection.

The annual inspection also included a visual inspection of the CCR surface impoundments to identify signs of distress or malfunction of the CCR surface impoundments and appurtenant structures. Additionally, the visual inspection included hydraulic structures underlying the base of the CCR surface impoundments or passing through the dikes of the CCR surface impoundments for structural integrity and continued safe and reliable operation.

2. ANNUAL INSPECTION REPORTING CRITERIA

The following sub-sections address the annual inspection reporting criteria per §257.83(b)(2) of the CCR Rule for the existing CCR surface impoundments located at BGS.

2.1 BGS Ash Seal Pond

2.1.1 Changes in Geometry (§257.83(b)(2)(i))

After conducting the annual inspection, as well as review of available information provided by BGS pertaining to the status and condition of the existing CCR surface impoundment, and discussions with BGS facility personnel who oversee and maintain the operation, maintenance, and inspection activities of the existing CCR surface impoundment, consolidation activities have started in anticipation of closure and there have been no identified changes in outer boundaries of the impoundment geometry since the previous annual inspection.

2.1.2 Existing Instrumentation (§257.83(b)(2)(ii))

Instrumentation that supports the operation of the BGS Ash Seal Pond was removed during consolidation activities, which consisted of removal of the CCR and placement of backfill.

The staff gauge water elevation data, since the previous annual inspection, was provided by IPL. The staff gauge measurements were collected at the same time as the 7-day inspections. The water elevation data included measurements collected between May 3, 2022 and April 25, 2023. Review of the provided staff gauge water elevation data indicated that the water elevation was below the bottom of the staff gauge during the 7-day inspections

for the entire period. Therefore, there is no maximum water elevation recorded within the BGS Ash Seal Pond.

2.1.3 Depth and Elevation of Impounded CCR and Water (§257.83(b)(2)(iii))

The approximate minimum, maximum, and present depths and elevations of the impounded CCR and water in the BGS Ash Seal Pond since the previous annual inspection were determined using information that was collected during the annual inspection, as well as from historical information that was previously provided from IPL.

- At the time of the annual inspection, water was not observed to be present within the BGS Ash Seal Pond. Therefore, the minimum and present depth and elevation of water within the CCR surface impoundment was unable to be recorded.
- After review of staff gauge water elevation data provided by IPL since the previous annual inspection, no water has been present.
- From the 1965 drawing of the original structural site preparation grading plan contours, the bottom contour elevation of the BGS Ash Seal Pond was approximately 12 feet below the top of crest of the south embankment at an elevation of 521 feet.
- At the time of the annual inspection, CCR had been removed from the BGS Ash Seal Pond, with only incidental CCR remaining near the railroad and the condenser discharge pipe. The impoundment was backfilled with sand and clay. IPL indicated that areas with incidental CCR remaining will receive final cover prior to certifying completion of closure activities.

2.1.4 Storage Capacity of Impounding Structure (§257.83(b)(2)(iv))

The storage capacity (i.e. water volume) of the CCR surface impoundment at the time of the annual inspection was not estimated because of the status of the impoundment. Once closure is complete there will be no storage of stormwater or process water.

2.1.5 Volume of Impounded CCR and Water (§257.83(b)(2)(v))

The volume of impounded CCR and water (i.e. total volume, not including freeboard) within the BGS Ash Seal Pond at the time of the annual inspection was minimal because the CCR had been removed from the impoundment during consolidation activities. Only incidental CCR remains near the railroad and the condenser discharge pipe. The impoundment was backfilled with sand and clay.

2.1.6 Structural Weaknesses and Disruptive Conditions (§257.83(b)(2)(vi))

After review of available information provided by BGS pertaining to the status and condition of the existing CCR surface impoundment, discussions with BGS facility personnel who oversee and maintain the operation, maintenance, and inspection activities of the existing CCR surface impoundment, as well as conducting the on-site visual inspection of the existing CCR surface impoundment, there have been no identified appearances of an actual or potential structural weakness of the existing CCR surface impoundment and appurtenant structures.

Regarding the existing conditions of the BGS Ash Seal Pond, there were no existing conditions identified along the upstream and downstream slopes of the embankments that were disrupting or have the potential to disrupt the operation and safety of the existing CCR surface impoundment.

2.1.7 Other Changes Affecting Stability or Operation of Impounding Structure (§257.83(b)(2)(vii))

After review of available information provided by BGS pertaining to the status and condition of the existing CCR surface impoundment, as well as discussions with BGS facility personnel who oversee and maintain the operation, maintenance, and inspection activities of the existing CCR surface impoundment, other than the ongoing consolidation activities, there have been no other identified changes that have affected the stability or operation of the BGS Ash Seal Pond since the previous annual inspection. At the time of inspection, the surface impoundment was no longer receiving process water and material consolidation was in progress in anticipation of impoundment closure.

2.2 BGS Main Ash Pond

2.2.1 Changes in Geometry (§257.83(b)(2)(i))

After conducting the annual inspection, as well as review of available information provided by BGS pertaining to the status and condition of the existing CCR surface impoundment, and discussions with BGS facility personnel who oversee and maintain the operation, maintenance, and inspection activities of the existing CCR surface impoundment, consolidation activities have started and there have been no identified changes in outer boundaries of the impoundment geometry since the previous annual inspection. CCR has been consolidated to the BGS Main Ash Pond, which has increased the height of CCR within the impoundment in certain areas.

2.2.2 Existing Instrumentation (§257.83(b)(2)(ii))

In the past, instrumentation that supported the operation of the BGS Main Ash Pond included a staff gauge to monitor the water elevation of the CCR surface

impoundment. This instrumentation has been removed as result of the earthwork activities.

The staff gauge water elevation data, since the previous annual inspection, was provided by IPL. The staff gauge measurements were collected at the same time as the 7-day inspections. The water elevation data included measurements collected between May 3, 2022 and April 25, 2023. After review of the provided staff gauge water elevation data, the maximum water elevation recorded within the BGS Main Ash Pond was 530.85 feet (May 10, 2022).

2.2.3 Depth and Elevation of Impounded CCR and Water (§257.83(b)(2)(iii))

The approximate minimum, maximum, and present depths and elevations of the impounded CCR and water in the BGS Main Ash Pond since the previous annual inspection were determined using information that was collected during the annual inspection, as well as from historical information that was previously provided from IPL.

- At the time of the annual inspection, water was not observed to be present within the BGS Main Ash Pond. Therefore, the minimum and present depth and elevation of water within the CCR surface impoundment was unable to be recorded.
- From staff gauge water elevation data provided by IPL since the previous annual inspection, the minimum water elevation within the BGS Main Ash Pond was unable to be recorded because there was no water as result of dewatering activities. The maximum water elevation within the BGS Main Ash Pond was recorded to be 530.85 feet (May 10, 2022).

- From the 1965 drawing of the original structural site preparation grading plan contours, the bottom contour elevation that was present prior to the construction of the BGS Main Ash Pond was approximately 524 feet.
- Depths of CCR could not be determined as consolidation activities were taking place during the Annual Inspection. The BGS Main Ash Pond received CCR from both the BGS Ash Seal Pond and the BGS Upper Ash Pond. A Closure Construction Documentation Report will contain information on the final elevations of the BGS Main Ash Pond once closure has been completed.

2.2.4 Storage Capacity of Impounding Structure (§257.83(b)(2)(iv))

The storage capacity (i.e. water volume) of the CCR surface impoundment at the time of the annual inspection was not estimated because the impoundment had been dewatered as part of the ongoing consolidation activities.

2.2.5 Volume of Impounded CCR and Water (§257.83(b)(2)(v))

The volume of impounded CCR and water (i.e. total volume, not including freeboard) within the BGS Main Ash Pond at the time of the annual inspection was estimated based on consolidation of CCR from the BGS Ash Seal Pond and the BGS Upper Ash Pond. Amendment No. 2 of the Closure Plan for Existing CCR Surface Impoundments, by SCS Engineers states the pre-closure estimated quantities of CCR include:

- BGS Ash Seal Pond – approximately 108,800 cy
- BGS Main Ash Pond – approximately 487,100 cy
- Economizer Ash Pond – Approximately 535,400 cy

- Upper Ash Pond – approximately 187,800 cy

At the time of the Annual Inspection, the BGS Ash Seal Pond CCR materials had been removed and the best estimate is that most of the CCR material had been consolidated to the BGS Main Ash Pond and only incidental amounts had been received from the BGS Upper Ash Pond. Therefore, the best estimate of CCR within the BGS Main Ash Pond is 595,900 cubic yards.

2.2.6 Structural Weaknesses and Disruptive Conditions (§257.83(b)(2)(vi))

After review of available information provided by BGS pertaining to the status and condition of the existing CCR surface impoundment, discussions with BGS facility personnel who oversee and maintain the operation, maintenance, and inspection activities of the existing CCR surface impoundment, as well as conducting the on-site visual inspection of the existing CCR surface impoundment, there have been no identified appearances of an actual or potential structural weakness of the existing CCR surface impoundment. Additionally, there were no identified issues with the structural integrity of the hydraulic structures (two corrugated metal pipe culverts) associated with the BGS Main Ash Pond.

Regarding the existing conditions of the BGS Main Ash Pond, there were no existing conditions identified along the upstream and downstream slopes of the embankments that were disrupting or have the potential to disrupt the operation and safety of the existing CCR surface impoundment.

2.2.7 Other Changes Affecting Stability or Operation of Impounding Structure (§257.83(b)(2)(vii))

After review of available information provided by BGS pertaining to the status and condition of the existing CCR surface impoundment, as well as discussions with BGS facility personnel who oversee and maintain the operation,

maintenance, and inspection activities of the existing CCR surface impoundment, there is one change that has affected the stability or operation of the BGS Main Ash Pond since the previous annual inspection. Process water is no longer pumped to the BGS Main Ash Pond.

During prior annual inspections, a seep area in the southeast corner of the impoundment has been observed. This area has been monitored by the facility staff since the discovery for worsening conditions or for any other issues that could affect the stability or operations of the impoundment. The inspections did not indicate any worsening of the area. Recently, the seep area has been reinforced with additional soil.

2.3 BGS Economizer Pond

2.3.1 Changes in Geometry (§257.83(b)(2)(i))

After conducting the annual inspection, as well as review of available information provided by BGS pertaining to the status and condition of the existing CCR surface impoundment, and discussions with BGS facility personnel who oversee and maintain the operation, maintenance, and inspection activities of the existing CCR surface impoundment, there have been several identified changes in the geometry since the previous annual inspection. The BGS Economizer Ash Pond footprint has changed slightly due to the consolidation of CCR in anticipation of closure activities but remains similar to the operational footprint. The side slopes have been reduced to approximately 4:1 and the overall height has appeared to have increased.

2.3.2 Existing Instrumentation (§257.83(b)(2)(ii))

Instrumentation that supports the operation of the BGS Economizer Pond was removed during consolidation activities.

The staff gauge water elevation data, since the previous annual inspection, was provided by IPL. The staff gauge measurements were collected at the same time as the 7-day inspections. The water elevation data included measurements collected between May 3, 2022 and April 25, 2023. After reviewing the provided staff gauge water elevation data, the maximum water elevation recorded within the BGS Economizer Pond was 547.0 feet (May 17, 2022).

2.3.3 Depth and Elevation of Impounded CCR and Water (§257.83(b)(2)(iii))

The approximate minimum, maximum, and present depths and elevations of the impounded CCR and water in the BGS Economizer Pond since the previous annual inspection were determined using information that was collected during the annual inspection, as well as from historical information that was previously provided from IPL.

- At the time of the annual inspection, water was not observed to be present within the BGS Economizer Pond. Therefore, the minimum and present depth and elevation of water within the CCR surface impoundment was unable to be recorded.
- From staff gauge water elevation data provided by IPL since the previous annual inspection, the minimum water elevation within the BGS Economizer Pond was not recorded because there was no water as result of dewatering activities. The maximum water elevation within the BGS Economizer Pond was recorded to be 547.0 feet (May 17, 2022).
- From the 1965 drawing of the original structural site preparation grading plan contours, the bottom contour elevation that was present

prior to the construction of the BGS Economizer Pond was approximately 521 feet.

- Depths of CCR could not be determined as consolidation activities were taking place during the Annual Inspection. The BGS Economizer Pond received CCR from both the BGS Ash Seal Pond and the BGS Upper Ash Pond. A Closure Construction Documentation Report will contain information on the final status of the BGS Economizer Pond once closure has been completed.

2.3.4 Storage Capacity of Impounding Structure (§257.83(b)(2)(iv))

The storage capacity (i.e. water volume) of the CCR surface impoundment at the time of the annual inspection was not estimated because the impoundment had been dewatered as part of the ongoing consolidation activities.

2.3.5 Volume of Impounded CCR and Water (§257.83(b)(2)(v))

The volume of impounded CCR and water (i.e. total volume, not including freeboard) within the BGS Economizer Pond at the time of the annual inspection was estimated based on consolidation of CCR from the BGS Ash Seal Pond and the BGS Upper Ash Pond. Amendment No. 2 of the Closure Plan for Existing CCR Surface Impoundments, by SCS Engineers states the pre-closure estimated quantities of CCR include:

- BGS Ash Seal Pond – approximately 108,800 cy
- BGS Main Ash Pond – approximately 487,100 cy
- Economizer Ash Pond – Approximately 535,400 cy
- Upper Ash Pond – approximately 187,800 cy

At the time of the Annual Inspection, the BGS Upper Ash Pond CCR materials had been half removed and placed into the BGS Economizer Pond footprint. Therefore, the best estimate of CCR within the BGS Economizer Pond is 629,300 cubic yards.

2.3.6 Structural Weaknesses and Disruptive Conditions (§257.83(b)(2)(vi))

After review of available information provided by BGS pertaining to the status and condition of the existing CCR surface impoundment, discussions with BGS facility personnel who oversee and maintain the operation, maintenance, and inspection activities of the existing CCR surface impoundment, as well as conducting the on-site visual inspection of the existing CCR surface impoundment, there have been no identified appearances of an actual or potential structural weakness of the existing CCR surface impoundment. Additionally, there were no identified issues with the structural integrity of the hydraulic structures because they had been removed.

Regarding the existing conditions of the BGS Economizer Pond, there were no existing conditions identified along the upstream and downstream slopes of the embankments that were disrupting or have the potential to disrupt the operation and safety of the existing CCR surface impoundment.

2.3.7 Other Changes Affecting Stability or Operation of Impounding Structure (§257.83(b)(2)(vii))

After review of available information provided by BGS pertaining to the status and condition of the existing CCR surface impoundment, as well as discussions with BGS facility personnel who oversee and maintain the operation, maintenance, and inspection activities of the existing CCR surface impoundment, there have been no other identified changes that have affected the stability or operation of the BGS Economizer Pond since the previous

annual inspection. At the time of inspection, the surface impoundment was no longer receiving process water and material consolidation was in progress in anticipation of impoundment closure.

2.4 BGS Upper Ash Pond

2.4.1 Changes in Geometry (§257.83(b)(2)(i))

After conducting the annual inspection, as well as review of available information provided by BGS pertaining to the status and condition of the existing CCR surface impoundment, and discussions with BGS facility personnel who oversee and maintain the operation, maintenance, and inspection activities of the existing CCR surface impoundment, there have been no identified changes in the outer boundaries of the impoundment geometry since the previous annual inspection. CCR was in the process of being removed from the BGS Upper Ash Pond and placed into the BGS Economizer Pond.

2.4.2 Existing Instrumentation (§257.83(b)(2)(ii))

In the past, instrumentation that supported the operation of the BGS Upper Ash Pond included a Parshall flume discharge structure and equipment to measure the flow of the discharged water, as well as a staff gauge to monitor the water elevation of the CCR surface impoundment. This instrumentation is still in place but is not utilized as result of dewatering activities.

The flow data associated with the NPDES Outfall 001 discharge (i.e. maximum daily flow), since the previous annual inspection, was provided by IPL from May 1, 2022 and April 30, 2023. There were no recorded inundation events throughout this timeframe where the Mississippi River flooding sent back waters into the BGS Upper Ash Pond. Reviewing the provided flow data, the

maximum daily flow recorded through NPDES Outfall 001 was 1.80 million gallons (May 6, 2022).

The staff gauge water elevation data, since the previous annual inspection, was provided by IPL. The staff gauge measurements were collected at the same time as the 7-day inspections. The water elevation data included measurements collected between May 3, 2022 and April 25, 2023. After review of the provided staff gauge water elevation data, the estimated maximum water elevation recorded within the BGS Upper Ash Pond was 527.40 feet (May 10, 2022).

2.4.3 Depth and Elevation of Impounded CCR and Water (§257.83(b)(2)(iii))

The approximate minimum, maximum, and present depths and elevations of the impounded CCR and water in the BGS Upper Ash Pond since the previous annual inspection were determined using information that was collected during the annual inspection, as well as from historical information that was previously provided from IPL.

- At the time of the annual inspection, water was not observed to be present within the BGS Upper Ash Pond. Therefore, the minimum and present depth and elevation of water within the CCR surface impoundment was unable to be recorded.
- From staff gauge water elevation data provided by IPL since the previous annual inspection, the minimum water elevation within the BGS Upper Ash Pond was not provided because there was no water as result of dewatering activities. The maximum water elevation within the BGS Upper Ash Pond was recorded to be 527.4 (May 10, 2022).

- From the 1965 drawing of the original structural site preparation grading plan contours, the bottom contour elevation that was present prior to the construction of the BGS Upper Ash Pond was approximately 521 feet.

2.4.4 Storage Capacity of Impounding Structure (§257.83(b)(2)(iv))

The storage capacity (i.e. water volume) of the CCR surface impoundment at the time of the annual inspection was not estimated because the impoundment had been dewatered during consolidation activities.

2.4.5 Volume of Impounded CCR and Water (§257.83(b)(2)(v))

The volume of impounded CCR and water (i.e. total volume, not including freeboard) within the BGS Upper Ash Pond at the time of the annual inspection was estimated based on consolidation of approximately half of the BGS Upper Ash Pond CCR to the BGS Economizer Pond. Amendment No. 2 of the Closure Plan for Existing CCR Surface Impoundments, by SCS Engineers states the pre-closure estimated quantities of CCR include:

- BGS Ash Seal Pond – approximately 108,800 cy
- BGS Main Ash Pond – approximately 487,100 cy
- Economizer Ash Pond – Approximately 535,400 cy
- Upper Ash Pond – approximately 187,800 cy

At the time of the Annual Inspection, the BGS Upper Ash Pond had been half removed, therefore the best estimate of CCR in the BGS Upper Ash Pond is 93,900 cubic yards.

2.4.6 Structural Weaknesses and Disruptive Conditions (§257.83(b)(2)(vi))

After review of available information provided by BGS pertaining to the status and condition of the existing CCR surface impoundment, discussions with BGS facility personnel who oversee and maintain the operation, maintenance, and inspection activities of the existing CCR surface impoundment, as well as conducting the on-site visual inspection of the existing CCR surface impoundment, there have been no identified appearances of an actual or potential structural weakness of the existing CCR surface impoundment. Additionally, there were no identified issues with the structural integrity of the hydraulic structures (NPDES Outfall 001) associated with the BGS Upper Ash Pond.

Regarding the existing conditions of the BGS Upper Ash Pond, there were no existing conditions identified along the upstream and downstream slopes of the embankments that were disrupting or have the potential to disrupt the operation and safety of the existing CCR surface impoundment.

2.4.7 Other Changes Affecting Stability or Operation of Impounding Structure (§257.83(b)(2)(vii))

After review of available information provided by BGS pertaining to the status and condition of the existing CCR surface impoundment, as well as discussions with BGS facility personnel who oversee and maintain the operation, maintenance, and inspection activities of the existing CCR surface impoundment, there have been no other identified changes that have affected the stability or operation of the BGS Upper Ash Pond since the previous annual inspection. At the time of inspection, the surface impoundment was no longer receiving process water and material consolidation was in progress in anticipation of impoundment closure.

3. CERTIFICATION

To meet the requirements of 40 CFR 257.83(b), I Mark W. Loerop hereby certify that I am a licensed professional engineer in the State of Iowa; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in 40 CFR 257.83(b).

By:  _____

Name: MARK LOEROP _____

Date: JUNE 20, 2023 _____

