



solutions and action

Interstate Power and Light Company

Burlington Generating Station

CCR Surface Impoundment Annual Inspection Report

154.018.029.001

Report issued: June 15, 2026

Hard Hat Services

ph: 877-630-7428

hardhatinc.com

932 N. Wright St., Suite 160

Naperville, IL 60563

Executive Summary

This annual inspection report for the Coal Combustion Residual (CCR) surface impoundments at the Burlington Generating Station (BGS) has been prepared in accordance with the requirements of the United States Environmental Protection Agency 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 the CCR surface impoundments. Primarily, the annual inspection report focuses 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.

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 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 Requirements.....	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))	3
2.1.4 Storage Capacity of Impounding Structure (§257.83(b)(2)(iv))	4
2.1.5 Volume of Impounded CCR and Water (§257.83(b)(2)(v)).....	4
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))	5
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))	6
2.2.4 Storage Capacity of Impounding Structure (§257.83(b)(2)(iv))	7
2.2.5 Volume of Impounded CCR and Water (§257.83(b)(2)(v)).....	7
2.2.6 Structural Weaknesses and Disruptive Conditions (§257.83(b)(2)(vi))	8
2.2.7 Other Changes Affecting Stability or Operation of Impounding Structure (§257.83(b)(2)(vii))	9
2.3 BGS Economizer Pond	9
2.3.1 Changes in Geometry (§257.83(b)(2)(i))	9
2.3.2 Existing Instrumentation (§257.83(b)(2)(ii))	9
2.3.3 Depth and Elevation of Impounded CCR and Water (§257.83(b)(2)(iii))	10
2.3.4 Storage Capacity of Impounding Structure (§257.83(b)(2)(iv))	11

2.3.5	Volume of Impounded CCR and Water (§257.83(b)(2)(v)).....	11
2.3.6	Structural Weaknesses and Disruptive Conditions (§257.83(b)(2)(vi))	12
2.3.7	Other Changes Affecting Stability or Operation of Impounding Structure (§257.83(b)(2)(vii))	12
2.4	BGS Upper Ash Pond	12
2.4.1	Changes in Geometry (§257.83(b)(2)(i))	12
2.4.2	Existing Instrumentation (§257.83(b)(2)(ii))	13
2.4.3	Depth and Elevation of Impounded CCR and Water (§257.83(b)(2)(iii))	13
2.4.4	Storage Capacity of Impounding Structure (§257.83(b)(2)(iv))	14
2.4.5	Volume of Impounded CCR and Water (§257.83(b)(2)(v))	14
2.4.6	Structural Weaknesses and Disruptive Conditions (§257.83(b)(2)(vi))	14
2.4.7	Other Changes Affecting Stability or Operation of Impounding Structure (§257.83(b)(2)(vii))	15
3.	CERTIFICATION.....	16

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 Requirements

The CCR Rule requires annual inspections by a qualified professional engineer (PE) for 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-SDP-13-23C. 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 22, 2026. 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, 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 former BGS Ash Seal Pond was removed during 2023 construction closure activities, which consisted of removal of the CCR and placement of backfill. There is no remaining instrumentation installed within the BGS Ash Seal Pond. The surface has been graded to drain stormwater water. Therefore water elevation data is no longer collected.

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 former 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 former BGS Ash Seal Pond because the area is now graded to send surface stormwater runoff into the Mississippi River. Therefore, the minimum and present depth and elevation of water within the CCR surface impoundment was not collected.
- 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.
- Nearly all the CCR has been removed from the former BGS Ash Seal Pond, with only limited amounts of CCR remaining near the railroad and the condenser discharge pipe. The remaining amounts of CCR were closed in place. The impoundment was backfilled with sand and clay. The areas with limited amounts of CCR remaining have received 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 zero. The former BGS Ash Seal Pond had been regraded as part of the 2023 closure construction activities. Storm or process water is no longer impounded within the former BGS Ash Seal Pond.

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 former BGS Ash Seal Pond at the time of the annual inspection includes zero cubic yards from water and limited quantities of CCR remain in place. The CCR remaining is located near the railroad and the condenser discharge pipe. A Closure Construction Documentation Report is

being prepared and will contain information on the CCR volume remaining in place at the BGS Ash Seal Pond.

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 former 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 consolidation activities, there have been no other identified changes that have affected the stability or operation of the former BGS Ash Seal Pond since the previous annual inspection.

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, there have been no identified changes in outer boundaries of the impoundment geometry since the previous annual inspection.

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 was removed as part of the 2023 closure construction activities and will not be replaced. There is no remaining instrumentation installed within the BGS Main Ash Pond. The surface has been capped and graded to drain stormwater. Therefore, water elevation data is no longer collected.

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 former 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 by IPL.

- At the time of the annual inspection, water was not present within the BGS Main Ash Pond. The impoundment closure construction activities have been completed, and the impoundment has been graded to drain stormwater from the top of the capped

impoundment. The staff gauge has been removed. Therefore, the minimum and present depth and elevation of water within the CCR surface impoundment were not recorded.

- 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.
- During 2023 closure construction activities, the former BGS Main Ash Pond received most of the CCR from the former BGS Ash Seal Pond and some CCR from the former BGS Upper Ash Pond. A Closure Construction Documentation Report is being prepared and will likely contain information on the CCR volume and final cover elevations of the former BGS Main Ash Pond. As result, the maximum elevation of CCR and the deposition thickness has not been determined, although it is likely similar to past Annual Inspection Reports.

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 zero. The former BGS Main Ash Pond had been regraded as part of the 2023 closure construction activities. The final surface directs stormwater runoff off the impoundment. Stormwater is no longer impounded within the BGS Main Ash Pond.

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 former BGS Main Ash Pond at the time of the annual inspection was estimated based on consolidation of CCR from the former BGS Ash Seal Pond and the former BGS Upper Ash Pond.

The volume of impounded water is zero, because the impoundment no longer can retain stormwater or process water. 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 former 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 former BGS Main Ash Pond and only incidental amounts had been received from the former BGS Upper Ash Pond. Therefore, the best estimate of CCR within the former BGS Main Ash Pond is 595,900 cubic yards. The final amount of in place CCR will be determined as part of the final Closure Report.

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.

Regarding the existing conditions of the former 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 are no changes that have affected the stability or operation of the former BGS Main Ash Pond since the previous annual inspection.

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 no changes in the geometry since the previous annual inspection.

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

In the past, instrumentation that supported the operation of the former BGS Economizer Pond included a staff gauge to monitor the water elevation of the CCR surface impoundment. This instrumentation has been removed because of the 2023 closure construction activities and will not be replaced. There is no remaining instrumentation installed within the former BGS Economizer Pond. The surface has been capped and graded to drain; therefore water elevation data is no longer collected.

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 former 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 by IPL.

- At the time of the annual inspection, water was not observed to be present within the former BGS Economizer Pond. The impoundment closure construction activities have been completed, and the impoundment has been graded to drain stormwater from the top of the capped impoundment. The staff gauge has been removed. Therefore, the minimum and present depth and elevation of water within the CCR surface impoundment were not recorded.
- 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 former BGS Economizer Pond was approximately 521 feet.
- During 2023 closure construction activities, the former BGS Economizer Pond received most of the CCR from the former BGS Upper Ash Pond and some CCR from the former BGS Ash Seal Pond. A Closure Construction Documentation Report is being prepared and will likely contain information on the CCR volume and final cover elevations of the former BGS Economizer Ash Pond. Therefore the maximum elevation of CCR and the deposition thickness has not been determined, although it is likely to be slightly thicker than past Annual Inspection Reports.

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 zero. The former BGS Economizer Ash Pond had been regraded as part of the closure consolidation activities. Storm or process water is no longer impounded within the former BGS Economizer Ash Pond.

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 former BGS Economizer Pond at the time of the annual inspection was estimated based on consolidation of CCR from mostly the former BGS Upper Ash Pond and minimally from the former BGS Ash Seal Pond. The volume of impounded water is zero, because the impoundment no longer can retain stormwater and process water has been removed from the impoundment. 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 former BGS Upper Ash Pond CCR materials have been largely consolidated into the former BGS Economizer Pond footprint. Therefore the best estimate of CCR within the former BGS Economizer Pond is 723,200 cubic yards. The final amount of in place CCR will be determined as part of the final Closure Report.

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 former 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 are no changes that have affected the stability or operation of the former BGS Economizer Pond since the previous annual inspection.

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 changes in the geometry since the previous annual inspection.

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

In the past, instrumentation that supported the operation of the former BGS Upper Ash Pond included a Parshall flume discharge structure and ultrasonic level indicator to measure and record the flow of the discharged water, as well as a staff gauge to monitor the water elevation of the CCR surface impoundment. The ultrasonic level indicator was removed as part of the 2023 closure construction activities; therefore the stormwater flow rates are no longer recorded. The Parshall flume remains in place, although under normal conditions the water elevation is below the discharge structure.

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 former 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 observed approximately two feet below the Parshall flume invert elevation.
- The stormwater discharge flows have not been recorded since the 2023 closure construction activities; therefore the maximum and minimum depths are unknown.

- 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 of the 2023 closure construction activities, which included the removal of the CCR, changes in the impoundment surface area, and bathymetry within the BGS Upper Ash Pond. The former BGS Upper Ash Pond is now a stormwater detention pond and no longer receives any process water from the facility, therefore the water storage volume has not been calculated.

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 former BGS Upper Ash Pond was not estimated because of the 2023 closure construction activities, which included the removal of the CCR, changes in the impoundment surface area, and bathymetry within the BGS Upper Ash Pond. Therefore, the CCR no longer contributes to the total volume within the impoundment.

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 associated with the former BGS Upper Ash Pond.

Regarding the existing conditions of the former 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 has been one identified change that has the potential to affect the stability or operation of the former BGS Upper Ash Pond since the previous annual inspection.

During the annual inspection, stormwater seepage was observed on the downstream slope about halfway up the embankment, approximately 100 feet west of the Parshall flume discharge structure. Facility staff is aware of the seepage and will continue to monitor it during 7-day inspections to confirm that the current conditions do not degrade the embankment. IPL is currently developing a plan to address the stormwater seepage.



solutions and action

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: _____

Date: _____

