



2026 Annual Landfill Inspection

William J. Neal Station Legacy Surface Impoundment



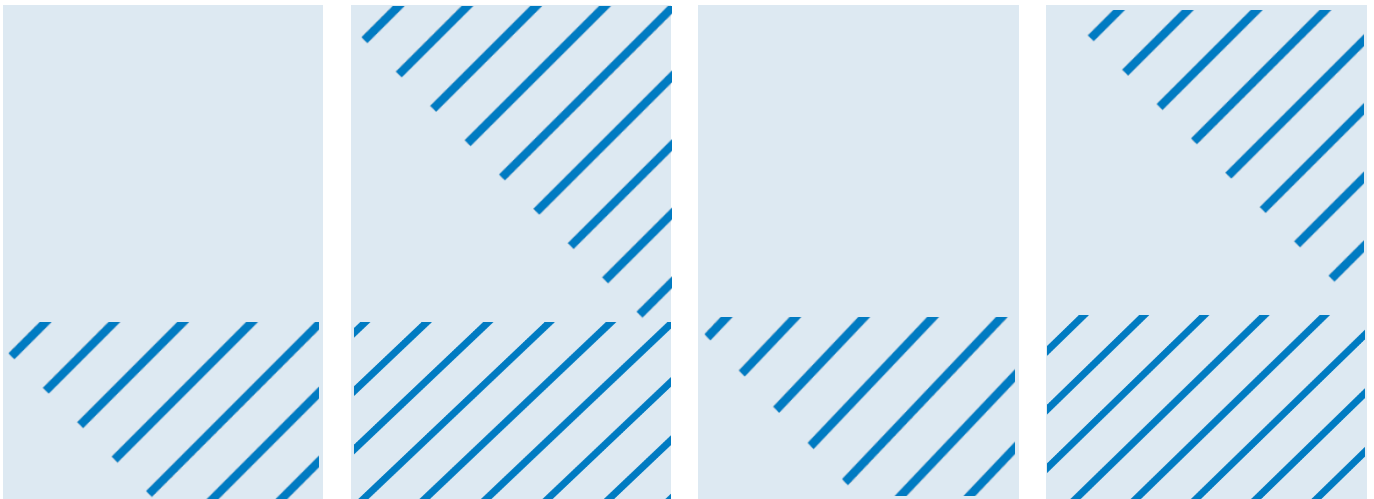
Prepared for
Basin Electric Power Cooperative

Prepared by
Barr Engineering Co.

July 2026

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Certification

I hereby certify that I have examined the facility and, being familiar with the provisions of 40 CFR Part 257 Subpart D, attest that this Annual Surface Impoundment Inspection report has been prepared in accordance with good engineering practice, including consideration of applicable industry standards and the requirements of 40 CFR § 257.84.



Kevin L. Solie
Barr Engineering Co.
ND Registration PE-9488

July 24, 2026

Date

2026 Annual Legacy Impoundment Inspection

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1 Introduction

In accordance with 40 CFR § 257.84(b)(2), the purpose of this document is to fulfill the requirements for an Annual Inspection Report prepared by a Qualified Professional Engineer (QPE) to ensure the design, construction, operation, and maintenance of the closed Basin Electric Power Cooperative (Basin Electric) William J. Neal (WJN) Legacy Surface Impoundment is consistent with recognized and generally accepted good engineering standards.

Based on the date WJN ceased providing power to electric power transmission systems, it is considered an “inactive facility” under the 2024 Coal Combustion Residual (CCR) Legacy Rule and appears to fall under Legacy Rule regulation. Owners of Legacy surface impoundments were required to make an applicability determination and prepare an applicability report, indicating whether or not the unit is subject to the Legacy Rule. After evaluating the data acquired during the course of the WJN field investigation, it was determined that small portions (both limited in area and volume) of the surface impoundment footprint appear to contain both CCRs and liquids and, consequently, the CCR unit appears to meet the definition of a legacy surface impoundment (based on 2024 CCR Legacy Rule). As of the time of this report, it is known that EPA is currently considering regulatory changes that may affect the regulatory status of the unit.

Barr Engineering Co. (Barr) prepared a final Legacy Rule Applicability Report (Barr, 2026) for the Legacy surface impoundment at WJN on April 24, 2026, and Basin Electric ceased operating under the Legacy Rule applicability extension provisions. The Barr applicability determination may be reevaluated based on proposed or future regulatory decisions.

This report documents the annual inspection performed by Kevin L. Solie, ND P.E. No. 9488, on July 8, 2026. Other annual inspection activities, including review of available information regarding the status and condition of the CCR unit and storage capacity evaluations, were completed before and after the on-site inspection. Mr. Solie is familiar with the facility and has visited the site numerous times over the past two years.

2 Review of Existing Information

2.1 Facility File Review

Basin Electric owns and previously operated WJN, a coal-fired electrical generation station located in McHenry County, ND. The facility is located south and west of the intersection of US Highway 52 and 14th Ave N near Velva, ND. A single, 45-megawatt unit operated at the site from 1952 until WJN ceased operations in the late 1980s. WJN was subsequently decommissioned and demolished in the late 1990s. CCRs, including fly ash and sludge, from WJN were deposited in a disposal area (WJN surface impoundment) located west of the plant site. The facility was formerly permitted by the ND Department of Health (now ND Department of Environmental Quality or NDDEQ) under Permit SU-024.

The original surface impoundment encompassed approximately 44 acres. During closure, Basin Electric consolidated waste into a smaller area (estimated to be 18.5 acres) located in the eastern portion of the 44-acre site. The unit has been closed and reclaimed in accordance with NDDEQ requirements, including the installation of a cover system comprised of including an 18-inch-thick compacted clay layer overlain by an additional 18 inches of cover soil. The cover system was graded to promote runoff and has been revegetated with native grasses. Site closure was completed in 1990 under NDDEQ oversight, and an affidavit of closure (a.k.a. deed notice) was completed by Basin Electric and was subsequently recorded by the McHenry County Register of Deeds in September of the same year. The site was reviewed by the EPA and received a No Further Remedial Action Planned (NFRAP) designation in March 2000. The site serves as wildlife habitat and is occasionally hayed to manage the vegetation.

A review of existing records for the facility confirms the design and construction of the engineered cover system for the CCR unit was generally consistent with recognized and accepted good engineering standards.

2.2 Results of Weekly Inspections

During 2026, qualified individuals (staff from Verendrye Electric, a member-cooperative of Basin Electric or Basin Electric environmental staff) conducted weekly inspections of the CCR unit for any appearance of actual or potential structural weakness and other conditions which were disrupting or had the potential to disrupt the operation or safety of the CCR unit. Appearances of structural weakness may include but are not limited to: (1) signs of piping and other internal erosion; (2) transverse, longitudinal, and desiccation cracking; (3) slides, bulges, boils, sloughs, scarps, sinkholes, or depressions; (4) animal burrows; (5) excessive or lacking vegetative cover; and (6) slope erosion. Weekly inspection reports from April 29, 2026, through July 1, 2026 were reviewed as part of this annual inspection effort, and no deficiencies were found. A review of the weekly inspection reports for the WJN Legacy Surface Impoundment indicated no signs of actual or potential structural weakness or other adverse conditions as described above.

2.3 Results of Previous Annual Inspections

As the facility recently came under regulation via the CCR Legacy Rule, no previous annual QPE inspections have been performed. Future annual reports will include the review of previous reports.

3 Onsite Inspection and Operational Review

An on-site inspection was completed on July 8, 2026, by Kevin L. Solie, ND PE No. 9488, to visually identify signs of distress or malfunction of the closed surface impoundment. The inspection consisted of an on-foot inspection of the perimeter embankments, transects across the cover system, and an assessment of access control measures, signage, final cover condition, and piezometers. All areas were readily accessible, allowing the unhindered observation of the ground surface. The site is closed and does not operate as a surface impoundment.

Based on the visual inspection of the CCR unit on July 8, 2026, and a review of available facility records, the following points are addressed:

- i. This is the first annual QPE inspection report; as such, there are no previous inspection reports for review. Closure of the site occurred in the early 1990s, and based on a review of air photos, there have been no observable changes in the geometry of the impounding structure.
- ii. Instrumentation: Piezometers were installed inside the surface impoundment perimeter as part of the Legacy Field Investigation. Piezometer water level measurements were last taken on April 10, 2026.
- iii. The maximum recorded reading since the previous annual inspection: The impoundment was closed with a sloping cover system and does not contain standing water. Based on borings at the site, CCRs in the closed surface impoundment range from approximately 2 to 27 feet in thickness and generally show no liquids, except in isolated areas. Limited field investigation (piezometer) measurements appear to indicate a maximum liquid depth of approximately 4.5 feet above the base of the ash.
- iv. The approximate minimum depth of impounded water and CCR since the previous annual inspection: The majority of the surface impoundment has been dewatered and shows no evidence of impounded water (0 feet in most locations).
- v. The approximate maximum depth of impounded water and CCR since the previous annual inspection: The impoundment was closed with a sloping cover system and does not contain standing water. While there is no surface expression of impounded water, it appears up to 4.5 feet of CCRs at the base of the impoundment may seasonally contain water.
- vi. The depth and elevation of the impounded water and CCR: Available data are limited; however, based on piezometer readings taken April 10, 2026, it appears 3.18 feet of CCRs may contain water, corresponding to a water elevation of 1,567.5 feet amsl.
- vii. The remaining storage capacity: Zero. The surface impoundment is closed and does not accept waste.
- viii. The approximate volume of the impounded water and CCR: The closed surface impoundment contains approximately 125,000 cubic yards of CCRs, but only a small portion of the impoundment appears to contain both CCRs and liquids.

- ix. There are no appearances of an actual or potential structural weakness of the impoundment, nor are there any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the surface impoundment and appurtenant structures.
- x. There are no other changes that may affect the stability or operation of the impounding structure since the previous annual inspection.

3.1 Visual Inspection of CCR Unit

The surface impoundment was visually inspected for structural weakness, including an on-foot inspection of impoundment embankments. Visual inspection items and results are summarized in the following table:

Table 3-1 Summary of Visual Inspection

Item	Structural Weakness Description	Visibly Present/Deficient (Yes/No)	Notes
1	Excessive, turbid, or sediment-laden seepage	No	No seepage present.
2	Signs of piping and other internal erosion	No	No piping present.
3	Transverse, longitudinal, and desiccation cracking	No	No cracking present
4	Slides, bulges, boils, sloughs, scarps, sinkholes, or depressions	No	No structural weaknesses identified.
5	Changes in geometry of impounding structure	No	No geometry changes observed.
6	Damage to liner systems	N/A	Site is closed with no liner visible.
7	Abnormally high or low pool levels	N/A	Site is closed and does not impound water.
8	Animal burrows	No	No burrows of significance observed.
9	Excessive or lacking vegetative cover	No	Vegetation appeared uniformly well-established and well-maintained on the cover system and perimeter embankments. The cover vegetation is periodically mowed.
10	Slope erosion	No	No erosion noted.
11	Debris	N/A	The unit is closed and does not contain standing water. No debris is present.

3.2 Visual Inspection of Hydraulic Structures

Drawing 0CY-9004 (Basin Electric, 1988) depicts an east-west pipeline, extending west approximately 900 feet from the eastern margin of the surface impoundment. The pipeline is believed to have been used to sluice CCRs to the impoundment. The pipeline outfall terminated within the pond and appears to have daylighted above the surface of the ash. It is not known if the pipeline was removed during closure; there is no evidence the pipeline still exists, except for a pipeline warning sign at the top of the east berm. Even

if abandoned in place, the pipeline does not pose a risk to the impoundment because of prior dewatering and closure activities, its size, and the time elapsed since closure.

3.3 Other Changes

No other changes to the surface impoundment design, maintenance, or operations were observed that could affect the stability or operation of the impounding structure.

4 Summary and Conclusions

The annual inspection revealed no appearance of actual or potential structural weakness of the CCR unit. No signs of distress or malfunction of the CCR unit were observed during the inspection and no changes have occurred that affect the stability or operation of the facility. The design, construction, operation and maintenance of the facility are consistent with recognized and generally accepted good engineering standards and industry practices. No corrective measures are recommended for the WJN Legacy Surface Impoundment.

5 References

Barr, 2026. Coal Combustion Residual Legacy Rule Applicability Report, William J. Neal Station, Velva, North Dakota, April 2026.

Basin Electric, 1988. Drawing Number 0CY-9004, William J. Neal Station, Velva, North Dakota, Solid Waste Landfill Attachment "B", November 1988.

Attachment A

Photolog



Subject: Sign at entrance to site

Location: William J. Neal Station, Velva, ND

Date: July 8, 2026

Comments: Sign appears consistent with Legacy Rule requirements.



Subject: Access road, example of signage and chain gate

Location: William J. Neal Station, Velva, ND

Date: July 8, 2026

Comments: Access to site is controlled by a locked gate, fences, multiple signs along perimeter and natural barriers (shelterbelt).



Subject: View to southeast across cover system, piezometers (white) in distance

Location: William J. Neal Station, Velva, ND

Date: July 8, 2026

Comments: Vegetation on cover system is uniform and thick, showing no evidence of erosion.



Subject: East perimeter embankment – view to north

Location: William J. Neal Station, Velva, ND

Date: July 8, 2026

Comments: Embankment is well-vegetated and shows no signs of erosion or instability.