

**October 2021 Annual Progress Report,
Documenting the Continued Lack of Alternative
Capacity and the Progress Towards the Closure
of the Coal-Fired Boilers**

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Delta, Utah



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Table of Contents

1.0	Executive Summary	3
2.0	Background	3
2.1	<i>The CCR Impoundments</i>	3
2.2	<i>Coal Combustion Residuals Rule</i>	4
2.3	<i>State of Utah CCR Program</i>	4
3.0	Alternative Closure	4
3.1	<i>CCR Impoundments Closure Requirements</i>	4
3.2	<i>Continued Lack of Alternative Disposal Capacity</i>	5
3.3	<i>Cessation by a Date Certain</i>	5
3.4	<i>Compliance with All Other Requirements</i>	6
3.5	<i>Annual Progress Report</i>	7
4.0	Report Completion	7

1.0 Executive Summary

Intermountain Power Service Corporation (IPSC) has prepared this progress report to document the continued lack of alternative coal combustion residual disposal capacity either on-site or off-site and the progress towards the closure of the coal-fired boilers, as required by the United States Environmental Protection Agency's 2015 Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals (CCR) from Electric Utilities, 40 CFR 257 Subpart D (the "Federal CCR Rule") (and the corresponding Utah CCR Rule at Utah Admin. Code R315-319 (the "State CCR Rule") (collectively, the "CCR Rules")).

Section 2.0 provides background on the CCR Impoundments. Section 3.0 documents, pursuant to § 257.103(f)(2)(x) and R315-319-103(b)(1)(iii), the continued lack of alternative CCR disposal capacity and reports on progress toward closure of the coal-fired boilers by a date certain. Section 4.0 describes IPSC's compliance with the requirement to prepare and post this report.

2.0 Background

Intermountain Power Agency (IPA) is the owner of the Intermountain Power Project (IPP), a 1900-megawatt coal-fired, steam electric generation station located near Delta, Utah and allied transmission systems that deliver electricity to California, Utah, and Nevada. IPSC is the operating company responsible for the IPP's day-to-day operations. The IPP has been in continuous commercial operation since 1986 and delivers energy to 35 participants in the project that principally serve Utah and Southern California.

IPA and IPSC have been diligently implementing all substantive and procedural requirements of the U.S. Environmental Protection Agency's ("EPA's") CCR Rule since its effective date in October 2015. Meanwhile, due to a loss of existing customers, a weak market for coal-fueled electricity and environmental regulatory issues that impact the project's economic viability, IPA and IPSC announced in May 2017 that they will cease electricity generation using coal in 2025. The IPP participants are moving forward with plans to develop new natural gas/hydrogen-fueled electricity generation at the project site.

2.1 *The CCR Impoundments*

The IPP is located in rural Utah on a more than 4,600-acre site in the Sevier Desert, and there are no surface waters on the site. IPSC operates the two CCR Impoundments and also operates a CCR landfill. When the site was first developed in the late 70s to early 80s, extensive geotechnical studies were conducted to guide the design of facilities and advance environmental controls, including a process water and groundwater monitoring system, and lined impoundments. IPSC has taken a proactive approach to CCR management to ensure protection of the environment and promote reuse of resources.

IPSC operates the CCR Impoundments and its landfill in accordance with multiple state permitting programs. Since its inception, the IPP has been regulated by the Utah Department of Environmental Quality ("UDEQ"). Although the IPP is a zero-discharge facility, IPA and IPSC have held a Groundwater Discharge Permit for the project through the UDEQ Division of Water Quality since 2001, which requires IPSC to monitor compliance at wells located adjacent and downgradient to IPSC's lined ponds and permitted facilities, sets groundwater protection levels, and requires semi-annual reporting. IPSC has also

held a Class IIIb Combustion Byproducts Landfill permit since the early 1990s through 2017, upon the State of Utah's implementation of its CCR rule.

IPSC submitted an application to UDEQ for a permit to operate a coal combustion residual landfill and coal combustion residual surface impoundments under Utah's CCR rule on September 9, 2016. The State of Utah approved the Intermountain Generating Facility Coal Combustion Residuals Permit on November 23, 2020. The IPP's CCR Impoundments are also subject to regular inspection by the Utah Division of Water Rights Dam Safety Section for the condition of embankments, foundations, shore stability, freeboard, settlement monuments, staff gauges, and piezometers.

2.2 *Coal Combustion Residuals Rule*

On April 17, 2015, the EPA published its final rule regulating CCR as a solid waste under Subtitle D of the Resource Conservation and Recovery Act ("RCRA"). 80 Fed. Reg. 21302 (Apr. 17, 2015). Beginning with an effective date of October 19, 2015, the final rule established extensive requirements for existing and new CCR surface impoundments, including groundwater monitoring requirements, location standards, and closure requirements.

2.3 *State of Utah CCR Program*

On September 1, 2016, the State of Utah enacted its state CCR regulations that were substantially identical to the CCR Rule at that time and reflected the same standards and timelines, including the closure triggers and alternative closure timelines. Utah Admin. Code R315-319.

3.0 Alternative Closure

3.1 *CCR Impoundments Closure Requirements*

Pursuant to R315-319-101(a)(1):

[I]f at any time after October 19, 2015 an owner or operator of an existing unlined CCR surface impoundment determines in any sampling event that the concentrations of one or more constituents listed in appendix IV to Rule R315-319 are detected at statistically significant levels above the groundwater protection standard established under R315-319-95(h) for such CCR unit, within six months of making such determination, the owner or operator of the existing unlined CCR surface impoundment must cease placing CCR and non-CCR wastestreams into such CCR surface impoundment and either retrofit or close the CCR unit in accordance with the requirements of R315-319-102.

The CCR Impoundments at IPP are subject to closure under Rule R315-319-101(a)(1) because a sampling event detected concentrations of one or more constituents listed in Appendix IV at levels above the groundwater protection standard under Rule R315-319-95(h). The CCR Impoundments became subject to closure under Rule R315-319-101(a)(1) on July 14, 2018. In addition, pursuant to § 257.101(a):

[A]s soon as technically feasible, but not later than April 11, 2021, an owner or operator of an existing unlined CCR surface impoundment must cease placing CCR and non-CCR wastestreams

into such CCR surface impoundment and either retrofit or close the CCR unit in accordance with the requirements of §257.102. . . . The timeframe specified in paragraph (a)(1) of this section does not apply if the owner or operator complies with the alternative closure procedures specified in §257.103.

Pursuant to R315-319-103(b)(1):

Notwithstanding the provisions of Subsections R315-319-101(a), (b)(1), and (d), a CCR unit may continue to receive CCR if the owner or operator of the CCR unit certifies that the facility will cease operation of the coal-fired boilers within the timeframes specified in Subsections R315-319-103(b)(2) through (4), but in the interim period, prior to closure of the coal-fired boiler, the facility must continue to use the CCR unit due to the absence of alternative disposal capacity both on-site and off-site of the facility.

And pursuant to § 257.103(f)(2):

Notwithstanding the provisions of §257.101(a) . . . a CCR surface impoundment may continue to receive CCR and/or non-CCR wastestreams if the facility will cease operation of the coal-fired boiler(s) and complete closure of the impoundments within the timeframes specified in paragraph (f)(2)(iv) of this section, but in the interim period (prior to closure of the coal-fired boiler), the facility must continue to use the CCR surface impoundment due to the absence of alternative disposal capacity both on-site and off-site of the facility.

3.2 Continued Lack of Alternative Disposal Capacity

There continues to be no alternative CCR disposal capacity available on-site or off-site for the IPP. Consistent with EPA's example provided in the preamble to the CCR Rule, the CCR Impoundments provide the only on-site or off-site disposal option for wet CCR waste. Because the majority of the IPP's wet bottom ash, and Flue Gas Desulfurization sludge is wet waste, the IPP's only disposal option is in the on-site impoundments. Not only is it infeasible to transport wet CCR waste to an off-site disposal facility, there continues to be no other facility in Utah that is currently permitted to accept wet CCR waste. Indeed, any such facility would have to comply with the requirements of the CCR Rule. Similarly, no wet waste can be disposed in the IPP's on-site CCR Landfill.

In accordance with EPA's preamble discussion and given IPA and IPSC's plans to shutter the coal units by 2025, IPA and IPSC are not obligated to demonstrate efforts to develop alternative capacity.

3.3 Cessation by a Date Certain

As indicated above, IPA and IPSC will cease operation of the coal units in 2025. Accordingly, on September 12, 2018, IPA and IPSC certified that they will close the CCR Impoundments before October 17, 2028, as required by § 257.103(b)(3) (now § 257.103(f)(2)(iv)(B)) and R315-319-103(b)(3) and that the IPP qualifies for alternative closure under by § 257.103(b)(1) (now § 257.103(f)(2)) and R315-319-103(b)(1). Pursuant to the Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals From Electric Utilities; A Holistic Approach to Closure Part A: Deadline To Initiate Closure final rule effective September 28, 2020, IPA and IPSC submitted a demonstration to EPA for an extension to the deadline for unlined CCR surface impoundments to stop receiving waste on November 30, 2020.

Substantial steps have been taken towards shuttering the coal units at IPP. IPA contracted with the engineering firm Sargent & Lundy to complete a conceptual decommissioning cost study for the coal units, which is expected to guide decommissioning going forward. IPSC also retained the engineering firm Stantec to prepare a detailed report evaluating closure alternatives for the CCR units. Updated closure plans prepared by Stantec were uploaded to the operating record and submitted to the state in November of 2020 by IPSC. UDEQ sent a letter to IPSC concurring with the amended plans on January 28, 2021.

3.4 *Compliance with All Other Requirements*

IPA and IPSC are in compliance with all other requirements of 40 C.F.R. Part 257 Subpart D and R315-319, including:

- Place notification in the CCR Impoundments' operating records identifying the constituents that have exceeded the protection standards by August 13, 2018 pursuant to §§ 257.95(g) and 257.105(h)(8) [R315-319-95(g), -105(h)(8)].
- Send notification to the State Director by September 12, 2018 pursuant to § 257.106(d) and (h)(6) [R315-319-106(d), (h)(6)].
- Place notification on the CCR Impoundments' CCR websites by September 12, 2018 pursuant to § 257.107(d) and (h)(6) [R315-319-107(d), (h)(6)].
- Initiate an assessment of corrective measures by October 12, 2018 pursuant to §§ 257.95(g)(3)(i), (g)(5) and 257.96 [R315-319-95(g)(3)(i), (g)(5), -96].
- Place notification in the CCR Impoundments' operating records of initiating the assessment of corrective measures by November 11, 2018 pursuant to §§ 257.95(g)(5) and 257.105(h)(9) [R315-319-95(g)(5), -105(h)(9)].
- Complete an assessment of corrective measures by January 10, 2019 pursuant to § 257.96(a) [R315-319-96(a)].
- Discuss the results of the corrective measures assessment at least 30 days prior to the selection of remedy, in a public meeting with interested and affected parties pursuant to § 257.96(e) [R315-319-96(e)].
- Prepare semiannual reports describing the progress in selecting and designing the remedy pursuant to § 257.97(a) [R315-319-97(a)].
- Select a remedy and prepare a report describing the selected remedy and how it meets the standards specified in the rule pursuant to § 257.97(a) [R315-319-97(a)].

Furthermore, any potential risks to human health and the environment from the continued operation of the CCR surface impoundment have been adequately mitigated. Identified as Best Available Technology

(BAT) within the IGF's DWQ-issued, Groundwater Discharge Permit, each of the two surface impoundments is underlain by a liner constructed of 80-mil, high density polyethylene (HDPE) material that lines the interior of each impoundment. As part of its DWQ permit, historically, currently, and for the foreseeable future, IPSC implements Best Management Practices (BMPs) that are intended to help inspect for and remediate (if and when necessary) the potential release of CCR material contained within the two CCR surface impoundments.

On a daily basis, IPSC conducts visual inspections of the CCR surface impoundments to monitor water levels in the impoundments. IPSC conducts a more detailed inspection of the CCR units weekly to investigate for visible signs of actual and/or potential conditions that have resulted and/or might result in a potential release of CCR material from a surface impoundment to the surrounding environment. BMPs include monitoring of water levels inside each impoundment, inspecting exposed (daylighted) sections of HDPE liner material, inspecting interior and exterior embankment material, and inspecting for any other abnormal conditions that might result in, and/or indicate, actual and/or potential release of CCR material from a surface impoundment. Every 30 days, IPSC conducts an instrumentation inspection on each of the CCR units. A Professional Engineer completes an annual visual inspection of the CCR units and reviews the facility's operating record each year. Additionally, on an annual basis, IPSC contracts an independent contractor to conduct liner inspections.

Likewise, routine groundwater quality monitoring is also used as a means by which potential releases of CCR constituents can be identified. For instance, in the event that one or more CCR constituents is identified within a groundwater monitoring well for the first time, and/or there is an apparent anomalous increase in a constituent concentration in a monitoring well, IPSC will utilize the groundwater quality data as part of its basin monitoring program. If such data indicates the potential of a new leak, IPSC will investigate (and repair, if needed) the potential for a leak in the up-gradient, surface impoundment.

IPSC field staff are required to report any potential release incident or threat of release to IPSC's Environmental Group immediately. IPSC investigates and remediates (if and where necessary) the suspect and/or apparent release area. Additionally, as stipulated by its Groundwater Discharge Permit, IPSC must report a release incident to the DWQ, typically within five days of identification of the release incident. The report must include a description of the release and its cause; the timeframe of the release; the estimated timeframe of ongoing release, whether it can be repaired immediately; as well as measures implemented to reduce, eliminate, and prevent reoccurrence of the release.

3.5 *Annual Progress Report*

By completing this progress report, IPA and IPSC fully comply with the requirement to prepare annual progress reports documenting the continued lack of alternative capacity and the progress towards shuttering the coal units. IPA and IPSC have not encountered any problems since certifying that they will close the CCR Impoundments before October 17, 2028.

4.0 Report Completion

As required by § 257.103(f)(2)(x) and R315-319-103(c)(2), IPA and IPSC have prepared and placed this report in the CCR Impoundments' operating records.