



# **Alternative Closure Annual Progress Report**

## **Coal Combustion Residuals Rule Compliance**

Facility  
Healy Power Plant  
2.5 Mile Healy Spur Road  
Healy, Alaska

July 31, 2020  
(Amended August 5, 2020)  
(Amended September 8, 2020)  
(Amended September 21, 2020)

This is the second annual progress report following notification made in July 2018 of Golden Valley Electric Association's (GVEA) intent to comply with the alternative closure requirements under §257.103 of the coal combustion residuals (CCR) rule (CCR Rule) for the four CCR units at the Healy Power Plant near Healy, Alaska. The CCR units include three unlined CCR surface impoundments (the Ash Pond, the Recirculating Pond and the Emergency Overflow Pond) and an Ash Drying Area defined as a CCR landfill under the CCR Rule. This progress report documents GVEA's efforts toward establishing an alternative handling process for CCR as required under §257.103. On August 28, 2020, the United States Environmental Protection Agency (USEPA) published final revisions (CCR Closure Part A)<sup>1</sup> to the CCR Rule, including new provisions under the alternative closure requirements of §257.103. GVEA is committed to compliance with all applicable rules and regulations.

CCR materials produced from each of the two generating units (Unit 1 and Unit 2) at the Healy Power Plant undergo different interim processes in preparation for final disposal at the nearby surface coal mine. These processes are described in detail at GVEA's publically available CCR website<sup>2</sup> and in several posted documents such as the 2018 *Corrective Measures Assessment Report*.<sup>3</sup> Presently, CCR and non-CCR wastes from Unit 1 are processed in the four CCR units to dewater and prepare CCR for safe transport and final disposal offsite. CCR from Unit 2 do not enter the CCR units, but instead are collected in intermediate storage silos and loaded directly to trucks for transport and final disposal at the nearby surface coal mine. The CCR units at the Healy Power Plant site do not receive CCR waste for final disposal.

Under §257.101(b)(1)(ii) of the CCR Rule, GVEA is required to cease placement of CCR and non-CCR waste in the three CCR surface impoundments and either retrofit or close the ponds. GVEA is currently overseeing plant upgrades to manage CCR and non-CCR waste streams from Unit 1 and eliminate the need for the CCR units, but at this time there is no fully-functional alternative CCR handling process in place. GVEA must continue to process CCR and non-CCR waste through the existing CCR units in order to provide power to GVEA's cooperative member owners until the necessary plant modifications are complete.

Plant modifications currently under construction are designed to convey all Unit 1 CCR (i.e., fly ash and slag/bottom ash) to the Unit 2 CCR handling systems and circumvent the CCR units. Unit 2 has recently undergone an extended outage to complete the first phase of modifications to its fly ash and bottom ash handling systems. Control systems are being modified to automate Unit 1's new fly ash handling system. Additionally, Unit 2 is being upgraded to allow handling of rerouted bottom ash from Unit 1. It is expected that the upgraded Unit 2 fly ash handling system will be able to fully process Unit 1's fly ash by the end of 2020; this will reduce the amount of CCR routed through the surface impoundments by 80%. GVEA plans to use Unit 2's bottom ash system to process Unit 1's bottom ash by the end of the first quarter of 2021, which will divert the remaining 20% of CCR from the CCR units.

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<sup>1</sup><https://www.federalregister.gov/documents/2020/08/28/2020-16872/hazardous-and-solid-waste-management-system-disposal-of-coal-combustion-residuals-from-electric>

<sup>2</sup> <http://gvea.com/energy/ccrrulecompliance>

<sup>3</sup> [http://gvea.com/images/Environmental/HPP\\_CCR\\_GW\\_CMA\\_201808.pdf](http://gvea.com/images/Environmental/HPP_CCR_GW_CMA_201808.pdf)

Upon completion of the current upgrade projects, all of Unit 1's CCR will be handled through Unit 2's processing systems during normal operations. However, the new Unit 1 CCR handling system for bottom ash will only operate when the Unit 2 plant is in operation. Consequently, further modifications will be needed to address Unit 1's bottom ash CCR waste during Unit 2 shutdowns. In addition, Unit 1's non-CCR waste streams are currently processed in the CCR units. An alternative handling system must be developed to manage non-CCR waste from Unit 1 before the CCR units can be closed.

GVEA monitors groundwater at the Healy Power Plant for constituents listed in Appendix IV of the CCR Rule and evaluates detected concentrations for statistically significant exceedances of groundwater protection standards. On March 1, 2018, GVEA issued a notification that its groundwater monitoring and analysis program had identified some Appendix IV constituents exceeding applicable groundwater protection standards.

When this progress report was originally drafted on July 31, 2020, GVEA planned to cease placement of waste in the CCR units later than April 11, 2021 under the alternative closure procedures in §257.103 of the CCR Rule while completing plant modifications to eliminate and close the CCR units. Upon review of the new alternative closure procedures for CCR impoundments promulgated in CCR Closure Part A, and following communication with representatives of USEPA,<sup>4</sup> GVEA concluded that the demonstrations required to gain USEPA's approval for alternative closure under §257.103(f) were unlikely to be achievable by the November 30, 2020 deadline. Instead, GVEA plans to accelerate plant upgrades that will allow the plant to cease placement of all waste in the CCR units as promptly as is feasible and no later than April 11, 2021.

The Ash Drying Area is defined as an existing CCR landfill under the CCR Rule. Under §257.101(d), the CCR landfill is subject to closure within 6 months of determining that the landfill has not demonstrated compliance with the location restriction of §257.64(a), unless the owner complies with alternative closure procedures specified in §257.103(a)(1). Because the Ash Drying Area must be operated concurrently with the CCR surface impoundments at the Healy Power Plant, GVEA must continue to place CCR from Unit 1 at the Ash Drying Area for processing until the final placement of waste in the CCR impoundments occurs (no later than April 11, 2021). GVEA certifies that no alternative capacity is available on- or off-site to manage the waste in place of the CCR landfill while plant upgrades are in progress to eliminate the CCR units. GVEA continues to make progress toward eliminating the CCR units from plant processes and subsequently closing the CCR units and remains in compliance with all other requirements of the CCR Rule. Consequently, GVEA plans to pursue closure of the Healy Power Plant's CCR landfill under the alternative closure procedures of §257.103(a)(1).

Over the coming months GVEA will continue to engineer and construct alternative systems to fully bypass the CCR units, plan for final closure and removal of the CCR units, and evaluate corrective measures to address constituents of concern in groundwater beneath the site. Table

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<sup>4</sup> Virtual meetings between GVEA and EPA personnel to discuss CCR compliance at the Healy Power Plant occurred on August 7, August 12, and August 27, 2020.

1 presents GVEA’s planned tasks and anticipated completion dates to maintain compliance with the CCR Rule and to proceed toward final closure of the CCR units.

**Table 1. CCR Rule Compliance Tasks and Anticipated Completion Dates**

<b>Task</b>	<b>Anticipated Completion Date</b>
Modifications to Unit 1 and Unit 2 fly ash handling systems to process fly ash from Unit 1	December 2020
Analytical modeling of groundwater geochemistry to evaluate natural attenuation processes and estimate remediation timeframe	December 2020
Amend Closure and Post-Closure Plan	February 10, 2021
Complete upgrades to Unit 1 and Unit 2 CCR and non-CCR waste handling systems	March 2021
Cease placement of (CCR and non-CCR) waste and commence closure of CCR units	April 11, 2021
Issue revised Corrective Measures Assessment Report	August 2021
Complete CCR removal from the Ash Drying Area (i.e., CCR landfill)	October 11, 2021
Public meeting to discuss results of revised Corrective Measures Assessment Report	February 2022
Select a groundwater remedy	April 2022
Complete CCR removal from CCR surface impoundments	November 2022

Tasks and anticipated completion dates presented in Table 1 are tentative and subject to change. The onset of Covid-19-related health concerns in March 2020 has exacerbated challenges in completing work during the extremely short summer construction season in Healy, Alaska. GVEA has implemented policies to protect essential plant workers by minimizing exposure to outside parties. Formal restrictions on state and international travel have delayed or disallowed the arrival of specialized contractors, many of whom travel from areas outside Alaska. GVEA has managed to proceed with the planned Unit 2 outage and upgrade projects in 2020 and continues to pursue engineering and design contracts for further plant modifications in support of timely CCR closure. Although the anticipated dates are tentative, GVEA is committed to cease placement of CCR in CCR units at the Healy Power Plant no later than April 11, 2021.

This progress report has been placed in GVEA’s facility operating record to satisfy the requirements under §257.105(i)(11) of the CCR Rule, and posted to GVEA’s CCR website in accordance of §257.107(i)(11). Because GVEA expects to commence closure no later than April 11, 2021, no further Alternative Closure Annual Progress Reports are planned. If unforeseen delays should necessitate placement of CCR in the CCR landfill beyond April 11, 2021, an Alternative Closure Annual Progress Report will be completed no later than 12 months from the date of this notification (by July 31, 2021). The progress report will document progress made,

problems encountered, and remaining steps necessary to establish alternative handling for Unit 1's CCR and non-CCR wastes.

GVEA believes it is in compliance with alternative closure requirements for CCR landfills under §257.103(a)(1) of the CCR Rule. Specifically, GVEA has:

- Certified that there is no on- or off-site alternative to the capacity served by the existing CCR landfill at the Healy Power Plant, consistent with §257.103(a)(1)(i).
- Documented that efforts have been and continue to be made to develop alternative capacity and implement it as soon as is feasible, in compliance with §257.103(a)(1)(ii).
- Remained in and documented compliance with all other requirements including the requirement to conduct necessary corrective action under §257.103(a)(1)(iii).
- Prepared annual progress reports documenting the lack of alternative capacity and the progress towards development of alternative capacity consistent with §257.103(a)(1)(iv).
- Committed to cease placing CCR and non-CCR in CCR units and initiate closure of CCR units once alternative capacity is available, in compliance with §257.103(a)(2) and §257.103(a)(3).
- Made the required notices and progress reports, or acknowledged intention to make such reports as appropriate, consistent with §257.103(c).
- Complied with recordkeeping, notification, and Internet requirements in compliance with §257.103(d).

### Certification

I hereby certify that the coal ash from Unit 1 must continue to be managed in the existing unlined surface impoundments (Ash Pond, Recirculating Pond, and Emergency Overflow Pond) and at the Ash Drying Area due to absence of an alternative disposal capacity at the Healy Power Plant at this time, and I am familiar with the provisions of Title 40 of the Code of Federal Regulations Parts 257 and 261 and the final rule to regulate the disposal of Coal Combustion Residuals (CCR) as a solid waste.



Naomi J. Morton Knight, P.E.  
Environmental Officer

9/21/2020  
Date