

Date: April 15, 2024
To: Nikou Hesari
From: Dave Erickson
Subject: Semi-Annual Progress Report for Selecting and Designing Remedy
Hunter Power Plant – CCR Landfill

In compliance with the requirements of the Coal Combustion Residuals (CCR) *Final Rule*, § 257.97(a), included herein is a semi-annual progress report for remedy selection and design. The Corrective Measures Assessment for the Hunter CCR Landfill was completed and posted to the plant operating record on 6/11/2019. The preferred alternative in the assessment was re-design and/or optimization of the existing horizontal well capture system, to address localized groundwater impacts. To date, the following activities have been completed in the selecting and designing a remedy:

- **6/28/2019:** Contract was initiated to complete an inspection of existing horizontal well system and to scope the work needed to evaluate the remedy.
- **7/23/2019:** Conducted a public meeting to discuss the results of the corrective measures assessment.
- **8/20/2019:** A site visit was completed by the project engineer to inspect and document the current condition of the existing horizontal well system. Research began on inspection, cleaning, and upgrade methods for the existing system.
- **8/26/2019:** Received comments from Heal Utah, Utah Clean Energy, and the Sierra Club. Comments were reviewed and addressed in Remedy Selection Report.
- **9/23/2019:** Contract was finalized to inspect each horizontal well using a mobile camera. Equipment will be on site during the inspection to clean the wells if warranted.
- **11/12/2019:** Inspection caps were removed from the horizontal capture wells in an attempt to inspect well integrity. Well construction prevented the camera from entering the wells to perform the inspections, due to the size of the internal opening.
- **June 2020:** The initial vendor tasked with performing inspections was unable to successfully retrofit their camera equipment to fit the well openings. Additional vendor sources to perform the well inspections were sought for procurement.
- **October 2020:** Remedy selection report, nature and extent report, and corrective measures sampling and analysis plan were placed in the plant operating record. The remedy selection report was also placed on the CCR website.
- **January 2021:** Performed full inspection of existing horizontal wells. The drainage from the wells continues to decrease and some routine maintenance was required.
- **March 2021:** An investigation to assess liquids in the landfill waste was attempted using Geoprobe direct push drilling methods. The drilling method could not reach the desired depths.
- **March 2022.** Sonic drilling was completed in the landfill to support an assessment of potential liquid in the landfill waste. Three new monitoring wells were installed downgradient of ELF-14. They include: ELF-15, ELF-16, and ELF-17. ELF-5 and ELF-6 were deepened due to decreasing water levels.

- **May-October 2022.** Sampling and evaluation of data acquired from the new monitoring wells installed in the landfill is ongoing, to determine if additional corrective measures are needed.
 - **January 2023.** Results from 2022 assessment monitoring revealed Appendix IV constituents above their groundwater protection standards in monitoring well ELF-14. Because this well is the most downgradient well east of the landfill, additional monitoring well(s) may be required to comply with the CCR Rule.
 - **February 2023.** As part of compliance with CCR Rule requirements § 257.95(g), PacifiCorp has sent a notification letter to the downgradient property owner and posted it on PacifiCorp's CCR website and in the Plant operating record. The notification was sent to the adjacent property owner to determine if proposed actions to install additional monitoring wells are acceptable to them. Representatives from the Bureau of Land Management (BLM) who own the property, indicated during a follow-up meeting, additional monitoring wells were not necessary. As a result, additional wells were not installed.
 - **March 2023.** A report is being developed detailing the findings of the supplemental investigations completed at the Hunter Landfill. This report will be used to evaluate if additional corrective measures are needed to address groundwater impacted by landfill discharge.
 - **July 2023.** The supplemental investigation report was completed and placed in the Plant operating record. The report concluded interim corrective measures have been highly effective in reducing liquids in the landfill and capturing impacted groundwater beneath the landfill. These measures included removal of free liquids in process water prior to its disposal in the landfill (2007) and the installation of horizontal wells beneath the landfill (2016). The combined actions have significantly reduced the saturated thickness in the landfill and reduced impacted groundwater beneath and around the landfill. The report makes the following recommendations:
 1. Continue monitoring effluent production from the horizontal well system.
 2. Abandon groundwater monitoring wells that have become dry as the result of horizontal well groundwater capture and install new deeper wells to facilitate groundwater monitoring as needed.
 3. Continue assessment monitoring to determine if reduced leachate / impacted groundwater is influencing Appendix III and Appendix IV constituent concentrations.
 - **April 2024.** Due to the remedial efforts implemented at the landfill between 2007 and 2016, continued declines in groundwater elevations and/or dry wells have been observed as part of regular groundwater monitoring. Monitoring of groundwater elevations and water quality will continue to ensure water is being removed from the system and the footprint of downgradient impacts in groundwater continues to be reduced.
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Upcoming tasks relative to the CCR Landfill will include the following:

- Continue to monitor effluent production in existing horizontal wells;
- Abandon dry monitoring wells and install new, deeper wells to facilitate groundwater monitoring as needed; and
- Continue semi-annual groundwater monitoring.