

## **Valmont Station CCR Impoundments Demonstration for Extension of Time**

Consistent with 40 CFR § 257.102(f)(2) of the Coal Combustion Residuals (CCR) Rule, PSCo is providing this demonstration for extension of time to complete groundwater corrective actions.

Public Service Company of Colorado (PSCo), an Xcel Energy Company, is the owner of Valmont Station, which historically was a coal-fired, steam turbine electric generating station. The station was retired from coal-fired operations on September 30, 2017. During operations with coal, PSCo operated two CCR impoundments to temporarily store bottom ash generated at Valmont Station prior to beneficial use or final disposal in the permitted on-site landfill. The impoundments were originally constructed to a depth of approximately 25-feet below grade with sheet piling to a depth of approximately 30 feet around the perimeter of each impoundment.

Pursuant to section 257.102(g), PSCo prepared a Notification of Intent to initiate closure and placed it into the operating record, posted to Valmont Station's CCR Website, and notified the state as required by 257.105, 257.106 and 257.107. Per section 257.102(c), PSCo has completed physical removal of the CCR and decontamination of the underlying bedrock. Physical closure of the impoundments was completed in 2018 with oversight by a Qualified Professional Engineer. The physical closure activities and demonstration that constituent concentrations throughout the CCR unit and any areas affected by releases from the CCR unit have been removed are documented in the October 16, 2018 CCR Removal Certification report. Accordingly, all physical closure and removal were completed, and all decontamination also has been completed, except for completion of groundwater corrective actions.

While the physical closure, removal, and decontamination was completed and many of the groundwater monitoring requirements have been performed, additional time is needed to complete groundwater corrective action. Pursuant to Section 257.94(b) of the Rule, PSCo installed and began sampling a groundwater monitoring system by October 17, 2017. Detection monitoring SSLs were identified in January 2018, assessment monitoring SSLs were identified in October 2018 and the ACM was completed in June 2019. PSCo intends that the remedy will be comprised of source removal (complete) and monitored natural attenuation (MNA) as an additional component. Groundwater monitoring requirements have been performed and documented through the following:

- Groundwater Monitoring System Certification,
- Determination of Statistically Significant Increases over Background per 257.93(h)(2),
- Groundwater Protection Standards and Determination of SSLs per 257.95(g),
- Assessment of Corrective Measures (ACM), and
- Annual Groundwater Monitoring and Corrective Action Annual Report and Semi-Annual Remedy Selection and Design Progress Reports.

Under section 257.102(c), CCR removal and decontamination of the CCR unit are complete "when constituent concentrations throughout the CCR unit and any areas affected by releases from the

CCR unit have been removed and groundwater monitoring concentrations do not exceed the [applicable] groundwater protection standard.” Closure by removal was complete when all CCR and areas affected by releases from the CCR Unit were removed in 2018. Decontamination will be complete when groundwater monitoring concentrations no longer exceed the applicable groundwater protection standards, and the remedy will be complete when these standards have been met for a period of three consecutive years.

Implementation of the groundwater monitoring and corrective action requirements following the steps and timeframes in the CCR Rule requires multiple years to implement. Furthermore, if exceedances are identified and ACM is triggered, the time necessary to complete the ACM, select design, procure, construct, and implement a remedy and operate the remedy until groundwater protection standards are met can easily span ten years or more. Once groundwater standards are initially met, Section 257.98(c) requires that groundwater protection standards continue to be met for three consecutive years of sampling before the remedy is considered complete.

Physical closure and removal were completed within five years. Ongoing groundwater corrective action to meet groundwater protection standards will continue. As EPA has noted, “the existing timelines to complete closure by removal of CCR were not designed to also provide sufficient time to complete groundwater corrective action” within a five-year (or even seven year) period.<sup>1</sup>

PSCo has completed physical closure and removal of the CCR impoundments at Valmont Station and continues assessment monitoring and evaluation of whether monitored natural attenuation, in combination with the previous source removal, is working as an effective remedy to meet the groundwater protection standard established pursuant to 257.95(h) for constituents listed in Appendix IV. Completion of the remedy (i.e., demonstration that decontamination of the groundwater is complete and has been met for three consecutive years) will take several additional years. Accordingly, PSCo is making this demonstration for additional time needed for groundwater corrective action to meet groundwater protection standards.

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*I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.*

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<sup>1</sup> See 85 Fed. Reg. 12456, 12469 (Mar 3, 2020), Proposed Rule: Hazardous and Solid Waste Management System: Disposal of CCR; A Holistic Approach to Closure Part B: Alternate Demonstration for Unlined Surface Impoundments; Implementation of Closure.