

Technical Memorandum

Date: Tuesday, June 22, 2021

Project: Omaha Public Power District, Nebraska City Station, NC2 Ash Disposal Area

To: OPPD

From: HDR Engineering, Inc.

Subject: Semiannual Update for Selection of Remedy

The Omaha Public Power District (OPPD) operates the Nebraska City Station NC2 Ash Disposal Area in accordance with the United States Environmental Protection Agency's (EPA) Disposal of Coal Combustion Residuals (CCR), as specified in 40 CFR 257. The purpose of this technical memorandum is to provide an update describing the progress in selecting and designing a remedy for corrective action at the NC2 Ash Disposal Area and therefore, satisfies the requirements specified in 40 CFR 257.97(a).

The NC2 Ash Disposal Area transitioned from detection monitoring to assessment monitoring following the fall 2019 sampling event due to calcium detected as a statistically significant increase (SSI) above the background threshold value in monitoring well NC2MW-2. An alternate source demonstration (ASD) for calcium was unsuccessful, and OPPD published a notification of the SSI (dated April 24, 2020). An assessment monitoring program was initiated in accordance with 40 CFR 257.95. In response to the initiation of assessment monitoring in April 2020, site investigations were conducted to evaluate and refine the potential source(s) of the constituents of interest (COIs) downgradient of the NC2 Ash Disposal Area. A report entitled Site Assessment Report, dated June 18, 2020, concluded windblown ash from the NC2 Ash Disposal Area was a major contributor of elevated concentrations of calcium and lithium in both soil and groundwater downwind/downgradient of the NC2 Ash Disposal Area.

Results of assessment monitoring (40 CFR 257.95) indicated two COIs at statistically significant levels (SSLs) over groundwater protection standards (GWPS); arsenic and lithium in NC2MW-7. An evaluation of the natural variation of arsenic at the site was conducted and submitted to NDEE in a November 6, 2019 report entitled Title 132 Groundwater Assessment Report. The NDEE approved the ASD for arsenic due to natural variation on May 5, 2020. As a result, arsenic at NC2MW-7 is not considered an SSL for corrective measures. In accordance with 40 CFR 257.95(g), OPPD published notification of the detected SSLs on November 25, 2020. In correspondence dated December 14, 2020, OPPD notified Nebraska Department of Environment and Energy (NDEE) of their intent to initiate corrective measures at the NC2 Ash Disposal Area.

After notification of the SSL, a desktop analysis of potentially applicable corrective measures for the remediation of the COI identified as an SSL above its GWPS. The evaluation was submitted to OPPD in a December 22, 2020, report, entitled Assessment of Corrective Measures at Omaha Public Power District (OPPD) NC2 Ash Landfill. Additionally, in accordance with NDEE Title 132, Chapter 7, 005.07B and Title 118, Appendix A, Step 7, a report entitled Title 132/118:

Nature and Extent Study, dated December 17, 2020, was submitted to the NDEE. The NDEE approved the report to characterize the nature and extent of the COI (lithium) and established a preliminary cleanup level in accordance with NDEE Title 118. As remedial actions, NDEE proposed long-term groundwater monitoring and institutional controls.

OPPD has continued to comply with both NDEE solid waste regulations (Title 132 and Title 118) and the EPA's CCR regulations (40 CFR 257), including semiannual groundwater sampling and statistical analysis. OPPD has made progress towards "selection of remedy" by conducting an evaluation of potential mitigation techniques for windblown ash, as presented in a report entitled NC2 Windblown Ash Mitigation Report, dated February 23, 2021.

The following activities are scheduled to be completed or initiated within the next 6-month period:

- Conduct a public meeting to discuss the results of the corrective measures assessment, windblown ash mitigation techniques, and the proposed selected remedy, in accordance with 40 CFR 257.96(e).
- Formal selection of remedy and preparation of final report in accordance with 40 CFR 257.97(a).