2023-07-15

Arizona Public Service Company
400 N. 5th Street
Phoenix, Arizona 85004

Subject: Semiannual Report Documenting Progress In Remedy Selection
Fly Ash Pond And Bottom Ash Pond
Cholla Power Plant – Navajo County, Arizona

In accordance with 40 Code of Federal Regulations (CFR) Section (§) 257.97(a) of the Coal Combustion Residuals (CCR) Rule, this Semiannual Remedy Selection Progress Report (Semiannual Report) has been prepared on behalf of Arizona Public Service Company (APS) to document progress in selection of remedies for CCR units which have been identified as potentially impacting groundwater at the APS Cholla Power Plant, located in Navajo County, Arizona (the Site). The identified applicable site CCR units include the Fly Ash Pond (FAP) and the Bottom Ash Pond (BAP). Semiannual progress reporting to support remedy selection began on July 15, 2019. The most recent update was provided in the *Annual Groundwater Monitoring and Corrective Action Report (GMCAR) for 2022*, dated January 31, 2023. This Semiannual Report serves as the ninth update on remedy selection progress at the Site and documents activities completed to date in 2023.

SUMMARY OF ACTIVITIES COMPLETED IN 2023

Activities completed by APS in the first half of 2023 in support of remedy selection for the FAP and the BAP include the following:

- *Groundwater Monitoring at the FAP and BAP.* Groundwater monitoring, per requirements CFR § 257.95, has continued at both the FAP and BAP at a minimum on a semiannual basis.
- *Integration of Extraction Wells into Seepage Collection System Operations at the FAP.* Construction of improvements to the Geronimo and Hunt Seepage Collection Systems was completed and start up and operation began in January 2023. Completed activities associated with incorporating the extraction wells into the system and ongoing performance monitoring will be documented in the 2023 GMCAR.
- Integration of Extraction Wells and Improvements to Intercept Trenches into Seepage Collection System Operations at the BAP. Design of improvements to make the Seepage Collection Systems operate more effectively was initiated in early 2023.
- *Operation of Existing FAP and BAP Seepage Collection Systems.* As part of interim response measures at both the FAP and BAP, existing seepage collection systems have continued to operate during the first half of 2023. Annual contaminant mass removal estimates from both seepage collection systems as they stand to date were calculated for 2022 and will continue to be calculated and included in the 2023 GMCAR.

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- *Numerical Groundwater Model Update*. The numerical groundwater model for the FAP and BAP was updated to assess potential water quality impacts and support selection of a groundwater remedy for the CCR units. Hydrogeologic and water quality data obtained to date were used to update and calibrate the model. The modeling procedures and results will be documented in a summary report in accordance with industry standards and guidelines and included as an appendix to the Remedy Selection Report.
- *Evaluation of FAP Dewatering Strategies*. A pilot-test field program to evaluate the extent and removal of drainable pore water upgradient of the FAP dam was conducted in May and June 2023. Multiple wells were installed through the ash to the alluvium underlying the FAP and testing was performed. Data are currently being evaluated. A summary of results will be presented in the 2023 GMCAR.
- *Remedy Selection Reports for the FAP and the BAP.* Preparation of a remedy selection report continued through the beginning of 2023 to document how the selected remedy will meet the requirements of 40 CFR §257.97(b).

FUTURE PLANNED ACTIVITIES

APS plans to perform the following activities in support of remedy selection during the second half of 2023 (and in upcoming years, as noted):

- *Integration of Extraction Wells and improvements to Intercept Trenches into Seepage Collection System Operations at the BAP*. The installation of extraction wells and improvements to seepage intercept trenches at the BAP will likely begin in late 2023. Completed activities associated with incorporating the extraction wells and intercept trenches into the system will be documented in the 2023 GMCAR.
- *Continued Operations of Existing FAP and BAP Seepage Collection Systems*. The seepage systems at both the FAP and BAP will continue to serve as part of interim response measures at both CCR units until remedial activities begin. The updated seepage collection systems at both units will also likely be a part of final selected remedies.
- *BAP In-Situ Remedy Pilot Study*. Based on recommendations put forth in the bench-scale evaluation, a pilot-scale study of in-situ strategies for cobalt remediation may be conducted at the BAP. The pilot-scale study would implement testing of groundwater oxidation amendments at near select wells. Implementation and assessment of the pilot-scale study would likely be part of initial remedial activities for adaptive remedy options.
- *Remedy Selection Reports for the FAP and BAP.* Preparation of a remedy selection report documenting how the selected remedy will meet the requirements of 40 CFR §257.97(b) will continue during the second half of 2023.
- *Initiation of Remedial Activities*. Upon completion of the FAP and BAP Remedy Selection Reports, within 90 days APS will initiate and begin documentation of remedial activities for each CCR unit pursuant to 40 CFR §257.98(a).

Respectfully submitted,

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