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

Attn: Michele Robertson, Byron Conrad and Pam Norris

**Re: SEMI-ANNUAL REPORT DOCUMENTING PROGRESS IN REMEDY SELECTION
FOR THE FLY ASH POND AND BOTTOM ASH POND
Cholla Power Plant – Navajo County, Arizona**

Pursuant to 40 Code of Federal Regulations (CFR) Section (§) 257.97(a) of the Coal Combustion Residuals (CCR) Rule, Arizona Public Service Company (APS) is required to prepare a semi-annual report describing progress selecting a remedy for CCR units that have been identified as potentially impacting groundwater based on a statistical assessment of groundwater data collected at the Cholla Power Plant located in Navajo County, Arizona (the Site). This letter serves as the first semi-annual report prepared after initiating corrective measures at the Site Fly Ash Pond (FAP) and Bottom Ash Pond (BAP) on January 14, 2019.

1. Summary of Activities Completed to Date

Following a demonstration of need for a corrective measures assessment extension, dated April 15, 2019, Wood Environment & Infrastructure Solutions, Inc. (Wood) finalized a report presenting an *Assessment of Corrective Measures for the Fly Ash Pond and the Bottom Ash Pond* on June 14, 2019. The assessment documents the development and evaluation of various corrective measures for the two CCR units including:

- Operation of existing seepage collection systems at the FAP and BAP;
- Future dewatering of the ponds with subsequent closure;
- Installation and operation of various arrays of groundwater intercept systems; and
- Monitored natural attenuation of CCR constituents.

2. Future Planned Activities

As identified in the *Assessment of Corrective Measures for the Fly Ash Pond and the Bottom Ash Pond*, additional site characterization is necessary prior to selection and design of the FAP and BAP remedies. Currently planned activities include:

- *Moenkopi Moqui Investigation at the FAP.* At least one new well will be advanced on the south side of I-40 to investigate the presence and quality of groundwater in the Moqui formation downgradient of the FAP.
- *Aquifer Testing Downgradient of the FAP.* Aquifer testing will be conducted at various locations downgradient of the FAP to better understand aquifer properties in this region of the Site.



- *Preparation of Alternative Source Demonstrations (ASDs) for Arsenic and Cobalt at the FAP.* ASDs for these constituents will be prepared to demonstrate whether the source of Groundwater Protection Standard exceedances in groundwater downgradient of the FAP is leakage of arsenic or cobalt mass from the FAP.
- *Stratified Sampling of Water in the BAP.* To assess spatial- and depth-specific variations in cobalt concentrations in BAP water, a water sampling characterization program will be implemented.
- *Leaching Evaluation at the BAP.* Bottom ash as well as distinct geological units found at the BAP (i.e., the alluvium, the Chinle, the Moenkopi Holbrook, and the Moenkopi Moqui) will be sampled and evaluated for CCR Rule constituents and then subject to leach testing in a licensed environmental laboratory to evaluate the potential source of cobalt observed in compliance wells at the BAP.
- *Bottom Ash Pond Dewatering Projection.* A water balance will be developed to project pond dewatering at the BAP.
- *Seepage Intercept System Evaluation, Optimization, and Testing.* Existing systems at both the FAP and BAP will be evaluated and optimization strategies will be investigated. If feasible, testing will be conducted to better understand the influence of these systems in intercepting seepage discharges to the downgradient alluvial aquifer.

The next semi-annual report documenting progress in remedy selection at the Site will be prepared no later than January 15, 2020.

Respectfully submitted,

Wood Environment & Infrastructure Solutions, Inc.



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