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Technical Memorandum

To: Charles Reece IV, PE
Arizona Electric Power Cooperative, Inc.

File No: 17-2015-4019

From: Francisco J. Garza, PE

Reviewed: Daniel N. Fr chet te, PhD, PE

Tel: (602) 733-6000

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Re: Post-Closure Plan
Apache Generating Station
Arizona Electric Power Cooperative, Inc.
Cochise County, Arizona

1.0 INTRODUCTION AND SCOPE

The Environmental Protection Agency (EPA) has finalized national regulations to provide a comprehensive set of requirements for the safe disposal of coal combustion residuals (CCRs), commonly known as coal ash, from coal-fired power plants. The rule establishes technical requirements for CCR landfills and surface impoundments under subtitle D of the Resource Conservation and Recovery Act (RCRA), the nation's primary law for regulating solid waste. The final rule provides greater clarity on technical requirements in response to questions received during the comment period. Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) is pleased to provide Arizona Electric Power Cooperative, Inc. (AEPCO) with this Post-Closure Plan for the Ash and Scrubber Sludge Disposal facilities in accordance with 40 CFR   257 and 261 (2015), Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities.

The development of this Post-Closure Plan included a review of existing data and the EPA requirements for CCRs. The Post-Closure Plan recommendations are discussed in subsequent sections.



2.0 POST-CLOSURE PLAN

The original facility life was estimated at 20 years, but the sales of fly ash have extended the anticipated life of the facility until 2035. This Post-Closure Plan meets the requirements set forth in 40 CFR § 257.104 Post-Closure Care requirements, specifically § 257.104 (b)(1) through (3) and § 257.104 (d)(1)(i) through (iii). The post-closure care period shall be 30 years in accordance with § 257.104 (c)(1) except as provided in § 257.104 (c)(2).

§ 257.104 (b)(1)

The post-closure activities will include maintenance of the integrity and effectiveness of the final cover system in accordance with § 257.104 (b)(1). This includes repairs to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and runoff from eroding or otherwise damaging the final cover.

§ 257.104 (b)(2)

The CCR unit is not subject to the requirements of this section since a leachate collection and removal system doesn't exist.

§ 257.104 (b)(3)

Maintenance of the groundwater monitoring system will be ongoing to ensure that the groundwater can be monitored in accordance with §§ 257.90 through 257.98. Details of the groundwater monitoring program are provided in a separate report.

§ 257.104 (d)(1)(i)

The monitoring and maintenance activities will include annual inspections and repairs on an as needed basis for items in § 257.104 (b)(1) and § 257.104 (b)(3). Annual inspections of the CCR unit will be in accordance with § 257.84 (b)(1) (i) and (ii). The annual inspection will include a review of the available information regarding the status and condition of the CCR unit, including, but not limited to files available in the operating record (e.g. the results of inspections and results of previous annual inspections) in accordance with § 257.84 (b)(1)(i). The annual inspection will include a visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit in accordance with § 257.84 (b)(1)(ii). A qualified professional must prepare an inspection report in accordance with § 257.84 (b)(2) and include at a minimum the following:

- Changes in geometry (§ 257.84 (b)(2)(i));
- Approximate volume of CCR contained in the unit (§ 257.84 (b)(2)(ii));
- Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit (§ 257.84 (b)(2)(iii)); and
- Any other change(s) which may have affected the stability or operation of the CCR unit since the previous annual inspection (§ 257.84 (b)(2)(iv)).

The post-closure monitoring schedule is included as Table 1.

Table 1 – Proposed Post-Closure Monitoring Schedule

Item	Activity Type	Frequency
Groundwater monitoring system	Inspection	Semi-annually
Final cover system	Inspection	Yearly

This schedule should be used as a guideline, and will need to be adjusted based on actual conditions.

§ 257.104 (d)(1)(ii)

The contact information for the post-closure activities are as follows:

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§ 257.104 (d)(1)(iii)

The planned land use of the property during the post-closure period will be pasture land and will be available for open space. The perimeter security fence will remain in-place to secure the facility.