AES PUERTO RICO RELEASES ITS CORRECTIVE MEASURES ASSESSMENT FOR GROUNDWATER IN SPANISH AND ENGLISH

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What you need to know:

Haley & Aldrich is an environmental consulting and engineering firm that has extensive experience with coal combustion residuals, or CCR. Study of groundwater at the AES Puerto Rico temporary AGREMAX™ Staging Area confirms that there is no impact on drinking water or human health and there is no evidence of impact to the environment. However, there are levels of three constituents above groundwater protection standards immediately adjacent to the Staging Area.

Haley & Aldrich has completed a Corrective Measures Assessment for groundwater at the Staging Area. Five corrective measures alternatives have been identified that each meet the Threshold Criteria in the CCR Rule. These alternatives are evaluated and compared based on the Balancing Criteria specified in the CCR Rule.

The final balancing criterion, the degree to which community concerns are addressed by a potential remedy, will be evaluated after AES Puerto Rico receives comments from the public, through both a public meeting and on-line submittal. The Corrective Measures Assessment report is available for review in both English and Spanish.

AES is committed to providing safe, reliable, and affordable energy to the people of Puerto Rico, and will continue to comply with the CCR Rule and all applicable federal and state environmental regulations.

AES is announcing the release of its Corrective Measures Assessment for groundwater at the AES Puerto Rico temporary AGREMAX™ Staging Area. The report was completed as part of compliance with the EPA's coal combustion residuals (CCR) Rule, a comprehensive set of requirements established in 2015 for the safe management of CCR. The CCR Rule lays out a prescriptive, phased process for monitoring groundwater, and then addressing any potential adverse groundwater impacts through corrective action, when required. AES is committed to providing safe, reliable, and affordable energy to the people

of Puerto Rico, and will continue to comply with the CCR Rule and all applicable federal and state environmental regulations.

What do the groundwater results show?

Based on groundwater monitoring results for the temporary Agremax™ Staging Area conducted under the CCR Rule, environmental experts have concluded that, based on the sampling results, there are levels above groundwater protection standards for three assessment monitoring constituents (Appendix IV constituents in the CCR Rule): selenium, lithium, and molybdenum. These sampling results from the monitoring wells at the edge of the Staging Area are not representative of groundwater in other locations. In fact, the CCR Rule groundwater investigation demonstrates that the impacts of the Staging Area are limited. To evaluate extent, nature & extent temporary groundwater monitoring wells were located at the property boundary – located less than 200 feet downgradient from the CCR Rule wells, which are located directly adjacent to the Staging Area. The analytical results demonstrate that there are no concentrations of the constituents above GWPS in these wells. In other words, concentrations of lithium, molybdenum and selenium are not elevated beyond the Site property boundary.

What do the groundwater monitoring results mean? Is drinking water affected?

A separate study conducted by leading environmental experts concludes that there is no impact on drinking water or human health. The study also confirms that there is no evidence of impact the environment. Concentrations of CCR-derived constituents are not elevated beyond the Site property boundary.

What is a Corrective Measures Assessment?

When levels of constituents in groundwater are found above groundwater protection standards, the CCR Rule calls for corrective measures to be evaluated. The Corrective Measures Assessment report evaluates potential corrective measures to remediate groundwater for the constituents present above groundwater protection standards.

How are the Corrective Measures Developed?

The CCR Rule requires that the corrective measures under consideration meet the Threshold Criteria specified in the Rule. Remedies must:

1. Be protective of human health and the environment;
2. Attain the groundwater protection standard;
3. Control the source(s) of releases so as to reduce or eliminate, to the maximum extent feasible, further releases of constituents listed in Appendix IV to the CCR Rule into the environment;
4. Remove from the environment as much of the contaminated material that was released from the CCR unit as is feasible, taking into account factors such as avoiding inappropriate disturbance of sensitive ecosystems; and
5. Comply with standards for management of wastes.

What are the Corrective Measures that AES Puerto Rico is Evaluating?

Experts retained by AES Puerto Rico developed five alternatives to address the CCR Rule constituents, lithium, molybdenum, and selenium present in groundwater at levels above the groundwater protection standards. These are:

- **Alternative 1:** Prevent AGREMAX™ Contact with the Ground by Installation of a Synthetic Liner and Employ Monitored Natural Attenuation (MNA)
- **Alternative 2:** Hydraulic Containment of Groundwater via Groundwater Pumping with Treatment
- **Alternative 3:** Hydraulic Containment of Groundwater via Groundwater Pumping with Recirculation
- **Alternative 4**: Hydraulic Containment of Groundwater via Groundwater Pumping with Barrier Wall and Treatment
- **Alternative 5:** Hydraulic Containment of Groundwater via Groundwater Pumping with Barrier Wall and Recirculation

Table I of the Corrective Measures Assessment Report presents these alternatives and provides the groundwater remedy components for each.

How are the Corrective Measures Evaluated?

The corrective measures are then evaluated using the Balancing Criteria identified in the CCR Rule:

1. The long- and short-term effectiveness and protectiveness of the potential remedy(s), along with the degree of certainty that the remedy will prove successful;
2. The effectiveness of the remedy in controlling the source to reduce further releases;
3. The ease or difficulty of implementing a potential remedy(s); and
4. The degree to which community concerns are addressed by a potential remedy(s).

The Corrective Measures Assessment Report presents the five alternatives and evaluates each of them in the context of the Balancing Criteria 1 through 3. The fourth balancing criterion, the degree to which community concerns are addressed by a potential remedy(s), will be evaluated after comments are received from the public. Comments can be provided in writing through the AES PR CCR Public Website [http://aespuertorico.com/ccr/] beginning December 13, 2019 through January 13, 2020, and at the public meeting on December 12, 2019 from 2:00 pm – 5:00 at the Centro de Usos Múltiples Comunidad Olimpo, Barrio Olimpo, Calle 1, Guayama, PR 00784.

Table II of the Corrective Measures Assessment Report provides a visual summary of the evaluation of each alternative with respect to each of the detailed components of the balancing criteria.

How will Corrective Measure Decision be Made?

The Corrective Measures Assessment, and the input received during the public comment period, will be used to identify and select a final corrective measure for implementation at the AES Puerto Rico temporary AGREMAX™ Staging Area.