

GROUNDWATER MONITORING SYSTEM CERTIFICATION
40 CFR §257.91(f)
PLANT HAMMOND ASH POND 3 (AP-3)
GEORGIA POWER COMPANY

EPA's "Disposal of Coal Combustion Residuals from Electric Utilities" Final Rule (40 CFR Part §257 and Part §261), §257.91, requires the owner or operator of an existing CCR Unit to install a groundwater monitoring system. The owner or operator must obtain a certification from a qualified professional engineer stating that the groundwater monitoring system has been designed and constructed to meet the requirements of 40 CFR Part §257.91.

According to 40 CFR §257.91(a), the groundwater monitoring system must consist of a sufficient number of wells, installed at appropriate locations and depths, to yield groundwater samples from the uppermost aquifer that:

1. Accurately represent the quality of background groundwater that has not been affected by leakage from a CCR unit; and
2. Accurately represent the quality of groundwater passing the waste boundary of the CCR unit.

40 CFR §257.91(b) states that the number, spacing, and depths of groundwater monitoring system must be determined based upon site-specific technical information that must include a characterization of:

1. Aquifer thickness, groundwater flow rate, groundwater flow direction, including seasonal and temporal fluctuations in groundwater flow; and
2. Saturated and unsaturated geologic units and fill materials overlying the uppermost aquifer, materials comprising the uppermost aquifer, and materials comprising the confining unit defining the lower boundary of the uppermost aquifer, including, but not limited to, thicknesses, stratigraphy, lithology, hydraulic conductivities, porosities and effective porosities.


Constructed Well Network

Groundwater monitoring wells were installed to meet the performance standards described above. Locations were selected based on the AP-3 footprint and site geologic and hydrogeologic considerations. A map depicting the monitoring well network for AP-3 is included in Figure 1.


The groundwater monitoring network locations were chosen to monitor background and downgradient conditions at AP-3 based on the prevailing groundwater flow direction in vicinity of AP-3 using groundwater elevations recorded during background monitoring. Figure 1 presents a representative potentiometric surface. One well (HGWA-122) is designated for monitoring of upgradient conditions and three wells (HGWA-120, HGWA-121A, and HGWA-124) are designated for monitoring of downgradient conditions. The downgradient monitoring wells provide adequate coverage to detect potential impacts from the CCR impoundment. Both background and downgradient wells are screened in the highly weathered bedrock and upper portion of the bedrock, where the primary flow of groundwater is likely to occur.

CERTIFICATION

I hereby certify that the groundwater monitoring system located at Georgia Power's Plant Hammond Ash Pond 3 (AP-3) has been designed and constructed to meet the requirements of 40 CFR Part §257.91. The upgradient and downgradient monitoring wells provide adequate coverage to detect potential impacts from the CCR impoundment.



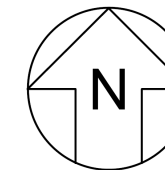
Whitney B. Law, P.E.
Licensed Professional Engineer, No. PE036641



April 17, 2019
Date

Attachment

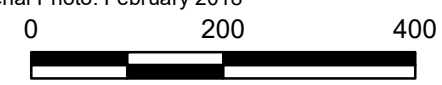
Figure 1: Well Network and Potentiometric Surface Map (June 2018)



- LEGEND**
- Monitoring Well (Groundwater elevation, ft AMSL)
 - Piezometer (Groundwater Elevation, ft AMSL)
 - Groundwater Elevation Iso-Contour (ft, AMSL)
 - Approximate Groundwater Flow Direction



- Notes:**
1. Water level elevation recorded on June 4, 2018. Elevation provided in feet above mean sea level (ft AMSL) in North American Vertical Datum (NAVD) 88.
 2. Aerial Photo: February 2018



SCALE IN FEET

WELL NETWORK AND POTENTIOMETRIC SURFACE MAP (JUNE 2018)

GEORGIA POWER COMPANY
 PLANT HAMMOND AP-3
 ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA

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FIGURE 1