

GROUNDWATER MONITORING SYSTEM CERTIFICATION
40 CFR 257.91(f)
PLANT YATES ASH POND (AP-1)
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.

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

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The groundwater monitoring network locations were chosen to monitor background and downgradient conditions at AP-1 based on the prevailing groundwater flow direction at Plant Yates using groundwater elevations recorded during background monitoring. Figure 1 presents a representative potentiometric surface. One well (YGWA-47) is designated for monitoring of upgradient conditions and three wells (YGWC-44, YGWC-45, and YGWC-46) 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 upper portion of the bedrock, where the primary flow of groundwater is likely to occur.

CERTIFICATION

I hereby certify that the groundwater monitoring system for the CCR Unit located at Georgia Power's Plant Yates located at 708 Dyer Road, Newnan, Georgia, and designated as Ash Pond 1 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.



Richard T. Deason, P.E.
Licensed State of GA, PE No. 27467
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