

**City Water, Light & Power
CCR Surface Impoundments**

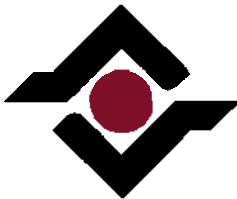
Groundwater Monitoring System Certification

40 CFR Section §257.91(f)

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GROUNDWATER MONITORING SYSTEM CERTIFICATION – CCR SURFACE IMPOUNDMENTS

City Water, Light and Power (CWLP) owns and operates two (2) existing coal combustion residual (CCR) surface impoundments located north and east of the former Lakeside Power Generating Station and Dallman Power Generating Station. The rules promulgated by the U.S. Environmental Protection Agency (EPA) pertaining to Disposal of CCR from Electric Utilities published in 40 CFR Part 257 on April 17, 2015 in Federal Register are applicable to the two surface impoundments; the Lakeside Ash Pond and the Dallman Ash Pond.

The CCR Rule, 40 CFR Subpart D – Standards for the Disposal of CCRs, Section §257.91 requires groundwater monitoring system that consists of 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;
- 2) accurately represent the quality of groundwater passing the waste boundary of the CCR unit consisting of a downgradient monitoring system installed at the waste boundary that ensures detection of groundwater contamination in the uppermost aquifer and the ability to monitor all potential contaminant pathways;
- 3) consists of a sufficient number of monitoring wells, appropriately spaced and screened based upon site-specific technical information including aquifer thickness, groundwater flow rate, groundwater flow direction including seasonal and temporal fluctuations in groundwater flow and 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;
- 4) consists of a minimum of one upgradient and three downgradient monitoring wells (note: the existing monitoring system exceeds the minimum requirement, consisting of two upgradient and four downgradient monitoring wells); and
- 5) monitoring wells constructed in a manner that maintains the integrity of the monitoring well borehole, consisting of a screened interval packed with appropriately sized sand/gravel that enables the collection of groundwater samples, and has an annular space sealed to prevent the contamination of samples and groundwater.

The Groundwater Monitoring Program has been revised (April 2018) for the replacement of well AW-3. It was determined that the specific parameter concentrations in well AW-3 were not consistent with the adjacent wells, including wells contained in the monitor well network for the permitted CCR landfill. AW-3 was further evaluated to ensure samples could be collected that would represent groundwater moving beneath the unit and provide data determining whether the groundwater was affected by the CCR impoundment. The integrity of the well may be suspect and replacement of the well was warranted. The replacement well (RW-3) was installed within 10 feet of the original well, containing nearly identical depths and well screen intervals.

The above information is contained in the Groundwater Monitoring Program maintained in the facility operating record. The groundwater monitoring system at the Lakeside and Dallman Ash Ponds meets the requirements of 40 CFR Section §257.91.



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6-7-18

Date