

## Edison Electric Institute

### CCR Management Unit Groundwater Deadlines White Paper

**Issue:** The facility evaluation regulations allow for a CCR management unit (CCRMU) to be found and delineated throughout 2026. Therefore, some CCRMU may not be delineated until late 2026. The groundwater regulations require the placement of groundwater (GW) wells and a minimum of 8 independent baseline samples (among other things listed below) by May 8, 2028. An owner that does not delineate a CCRMU prior to May 2026 would not have sufficient time to place GW wells and conduct quarterly sampling to obtain a minimum of 8 independent baseline samples to meet the May 8, 2028, deadline.

#### FER Requirements:

The Facility Evaluation Report, Part 2 (FER 2) must be completed no later than **February 8, 2027**. 40 CFR 257.75(d)(1). The FER 2 requires an extensive summary of information related to the subject units through a physical evaluation of the facility, including “where necessary field sampling.” *Id.* Together, with the Facility Evaluation Report, Part 1 (FER 1), the reports provide information to identify and delineate any CCRMU. (See, e.g., 40 CFR 257.75(d)(1)(viii) “The size of each CCR management unit, including the general lateral and vertical dimensions and an estimate of the volume of CCR contained within the unit.”)

Based on the FER 2 timeline, the evaluation and delineation efforts will be ongoing through 2026 to meet the February 8, 2027, deadline.

#### Groundwater Monitoring and Analysis Requirements:

The regulations require that groundwater monitoring systems for CCRMU meet the requirements of § 257.90(b)(3) by **May 8, 2028**. According to 40 CFR 257.90(b)(3) the requirements for groundwater monitoring include:

- Design and installation of a groundwater monitoring system;
- Development of a groundwater sampling and analysis program;
- Initiation of a detection monitoring program to include a minimum of 8 independent samples for each background and downgradient well;
- Beginning evaluation of groundwater monitoring data for statistically significant increases (SSIs) over background and statistically significant levels (SSLs) over groundwater protection standards.

The requirements in § 257.90(b)(3) for CCRMU groundwater monitoring cross-reference various requirements throughout the rule for the establishment of adequate groundwater monitoring systems and the requirements for detection monitoring. Specifically, among other things, groundwater monitoring systems are required to accurately represent groundwater passing the waste boundary of the CCRMU and the quality of background groundwater and include a minimum number of wells to meet performance standards based on site-specific systems. 40 CFR 257.91. Moreover, some units may be better monitored through a multiunit system. Adequate knowledge of the units and site is needed to design a system that meets the monitoring standards. EPA recognized the “importance of proper site characterization as the foundation for designing a groundwater monitoring system...” 89 Fed. Reg. at 39064.

After installation of the groundwater monitoring system, the regulations require collection and analysis of a minimum of 8 independent samples of background and downgradient monitoring wells by May 8, 2028. 40 CFR 257.90(b)(3)(iii)-(v).

Overall, pursuant to 40 CFR 257.90(b)(3), all of the actions - from CCRMU identification and delineation to design and installation of groundwater monitoring systems to collection and analysis of data - must be completed by the combined deadline of May 8, 2028.

**Analysis:** The regulations do not provide sufficient time to complete the necessary actions to identify and delineate CCRMU through the FER process and meet the May 8, 2028, deadline for installation of compliant groundwater monitoring systems and collection and analysis of groundwater data. As adopted, the regulations assume that the FER process and the groundwater monitoring actions can proceed concurrently.

In practice, however, installation of wells prior to completion of CCRMU characterization is impractical as you may fail to meet the requirement to install wells at the waste boundary if the CCRMU is not fully delineated.

Timing to meet 40 CFR 257.90(b)(3)

To meet the May 8, 2028, timeline, some members anticipate having to initiate the placement of wells as early as the fall of 2025. Factors that influence this timing include:

- The number of potential CCRMU present at a site adding complexity in establishing a compliance monitoring system.
- Seasonal weather impacts on the ability to complete field work.
- Limited availability of qualified drilling contractors and equipment.
- Limited availability of qualified sampling contractors, consultants, and licensed engineers to complete the analysis.

For facilities on this timeframe, this requires initiation of installation of a groundwater monitoring network a full 18 months prior to the FER 2 report deadline.

*Example situations where a CCRMU is not delineated by May 2026.*

Situation 1: An individual CCRMU that would have its own GW network.

Situation 2: A CCRMU that will be part of a multi-unit GW system.

Situation 3: A CCRMU that could impact the location of background wells.

Situation 4: Facility evaluation identified several potential historical beneficial uses of CCR, boundaries of historical use are not established, or in linear features across site.

Situation 5: Identification of historical deposition/management of CCR on the ground, not a discrete site with defined boundaries that requires field sampling to determine nature and extent of affected area.

**Recommendation:** The EPA should move the GW monitoring deadline to August 2029, which is thirty months from the completion of FER Part 2. This is based on 24 months to complete GW monitoring as provided in the 2015 CCR Rule plus an additional 6 months due to the limited availability of drillers which is well documented in the Legacy rulemaking record. The initial GW Monitoring Report would then be due on 1/31/30.