



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105-3901

**MINOR MODIFICATION TO PERMIT NO. R9UIC-AZ3-FY11-1
ISSUED TO FLORENCE COPPER, INC.**

In accordance with 40 CFR §144.41, this permit for the Florence Copper Inc. Production Test Facility is hereby modified, under the authority of the Underground Injection Control (UIC) program. This permit modification includes changes in construction of monitoring devices, increased monitoring for demonstration of Part II mechanical integrity, and completion of the M57R-O well subject to EPA review and approval.

The modification of the well location and completion, monitoring devices, and mechanical integrity sections of the permit adds conditions and revises the following parts of the permit (for clarity, changes are shown with removals struck out and new additions in bold).

PART II. SPECIFIC PERMIT CONDITIONS, C. WELL CONSTRUCTION

Page 10, Part II.C.1.c. Location of PTF Wells

- c. The Permittee replaced monitoring well M57-O. The Permittee shall complete the replacement well (M57R-O) in accordance with the proposed construction and location details subject to EPA's review and approval. The Permittee shall submit the final well location coordinates, distances in feet from the closest section lines in Section 28, and latitude/longitude coordinates of the replacement well constructed under this permit.**

Page 14, Part II.C.6.d. Conductivity Sensors

A conductivity sensor (CS) shall be **installed on** ~~strapped to the well screens of recovery, observation, and multi-level sampling wells~~ at regular intervals **to demonstrate external mechanical integrity and confirm hydraulic control** ~~facilitate electrical resistivity profiling of the formation~~ during injection and recovery operations as depicted in Drawings M-8 and M-9 in Appendix B. Conductivity sensors shall be installed with a spacing of 20 feet between sensors through the LBFU/Oxide interface in the annulus of observation wells. **Electrical Resistivity Tomography sensors used to confirm operational parameters are installed on the observation and recovery wells within the wellfield, generally at depths of 500 to 1200 feet below ground surface.**

Page 15, Part II.C.9.c.

- c. The Permittee submitted a notice of completion of construction (EPA Form 7520-9) to EPA for replacement well M57R-O for EPA review and approval.**

PART II. SPECIFIC PERMIT CONDITIONS, E. WELL OPERATION

Page 18, Part II.E.3.ii.A.

- A. A monitoring program, as defined at Part II.F.6 of this permit, designed to verify the absence of fluid movement through vertical channels adjacent to the well bore in observation and multi-level sampling wells. **As part of this monitoring program, the Permittee shall conduct temperature logging in multi-level sampling wells at least once per quarter during the life of the wells.**

All other permit conditions remain unchanged.

This minor modification is effective on July 25, 2019.



Tomás Torres, Division Director
Water Division, USEPA Region 9