

FACT SHEET
U.S. Environmental Protection Agency, Region 9
Draft Modification to the Class III Underground Injection Control Area Permit
Permit Number R9UIC-CA3-FY19-1
5E Boron Americas, Fort Cady Project

Location:

The Fort Cady Project is located in Township 8 North, Range 5 East, and portions of Sections 25, 26, 27 and 36 in San Bernardino County, California, approximately 17 miles east of Newberry Springs, California as depicted in Figure 1 in Appendix A of the Permit. The location is two and one-half (2.5) miles south of I-40 and the Burlington Northern Santa Fe Railway Pisgah siding in the Mojave Desert.

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I. Purpose of the Fact Sheet

The U.S. Environmental Protection Agency, Region 9 (EPA) has prepared this Fact Sheet for a draft modification to the Underground Injection Control (UIC) Class III Area Permit for 5E Boron Americas (5E). Pursuant to the UIC regulations in Title 40 of the Code of Federal Regulations (CFR) §124.8, the purpose of this Fact Sheet is to briefly describe the Draft Permit Modification, EPA's considerations that went into preparing the Draft Permit Modification, and the public comment process associated with the UIC Permit Modification.

II. Description of the Draft Permit Modification

Background on the Draft Permit Modification

The existing Permit authorizes 5E to construct and operate a Class III injection well facility for injection of dilute hydrochloric (HCl) acid solution or sulfuric and/or carbonic acid solution into

the colemanite orebody and recover boric acid-laden solution to produce boric acid, borate, gypsum, HCl acid, Sulfate of Potash (SOP), and metal salts.

The Permit became effective in August 2020. Subsequently, 5E (previously Fort Cady California Corporation) has been working toward obtaining authorization to inject. On November 20, 2023, EPA authorized 5E to commence injection and recovery operations for six (6) months following the date of initial injection, subject to the Permit's terms and the following conditions:

1. Additional monitoring: *Part II Section F Monitoring Program* in the Permit must be modified to require additional monitoring due to uncertainties regarding the plugging of existing wellbores as provided in *Part II Section D Corrective Action (Plugging and Abandonment Plan)* of the Permit. The additional monitoring is intended to confirm the injection fluid is contained within the permitted injection zone, and to ensure the existing wellbores are not providing a conduit for injection fluids to migrate outside of the permitted injection zone.
2. Update the groundwater flow model more frequently: *Part II Section J Operational and Post-Rinse Audits* must be modified to require more frequent updates to the groundwater flow model to consider operating data and to better address the uncertainties onsite described above.
3. Mining exclusion zone at the bottom of the orebody: The Permit must be modified to include a mining exclusion zone at the bottom of the orebody to protect the USDW that lies below the orebody in Unit 3 and geologic Unit 4 from any potential fluid migration.

The proposed modification addresses all three conditions as described below:

1. In Part II.F.1, the proposed modification includes observation wells OW-9, OW-10, and OW-11 to address the additional monitoring condition. The additional observation wells (OWs) will be placed within 500 feet of the pilot I/R wells and will be used to monitor the movement of mining related solutions and observe the hydraulic responses within Unit 3 and the orebody surrounding the pilot I/R wells. The data obtained from these observation wells will be used for model calibration, as described below. Figures have also been added to identify the location and depict the proposed completion of the new OWs.
2. Part II. J. of the proposed modification includes increased frequency of groundwater flow model updates. Instead of requiring an updated groundwater flow modeling report every five (5) years after the first year, the proposed modification requires the groundwater model to be updated after three months of operation with the new OWs and annually thereafter until mine closure. The Permittee may request reduced frequency for groundwater flow model updates from annual to a longer time period if the updated groundwater flow model from a given year does not vary significantly from the prior year's model, with written approval from EPA.

3. The proposed modification addresses the lower mining exclusion zone at Section II.C.6 of the Permit and states that the lower mining exclusion zone is the bottom twenty (20) feet of Unit 3 and the Permittee shall only inject fluids at depths between the upper and lower exclusion zones unless the Permittee has received written approval from EPA to expand the injection interval. To ensure construction is consistent with this injection interval, the proposed language requires the Permittee to case and cement all injection wells to comply with the mining exclusion zones.

In addition to the proposed modifications that address the three conditions described above, the proposed modification includes the following changes:

- Adding a Glossary of Terms after the Table of Contents of the Permit.
- Replacing “orebody” with the term “Unit 3” throughout the Permit where appropriate and including a definition of the orebody in Part 1 of the Permit as averaging 1% or greater boric oxide located within Unit 3. Reference to the orebody in the Permit is retained where it meets this definition. The terminology change updates the vertical extent of Unit 3 and clarifies the definition and vertical extent of the portion of the orebody within Unit 3. EPA is also updating the geology depths, adding a Figure in Appendix A to illustrate the geology units, and including the geological description for the units on the Figure.
- Clarifying the permit language at Part II.F.2.c of the Permit that the Permittee may request a reduction in frequency in sampling (from semi-annually) for constituents in List 2 (including List 2a) if there are no exceedances of the constituent’s alert level for four (4) consecutive sampling events, in accordance with written approval from EPA, and deleting at Part II.F.5 of the Permit the existing reduction in frequency language.
- Updating the page numbers in the Table of Contents and listing the new figures in the Appendices.
- Deleting some language that is duplicative at Part II.C.1 and a typographical error at Part II.A.2.a.

If the proposed Permit modification is approved, 5E would be permitted to continue to inject beyond the six (6) months following the date of initial injection. EPA believes the proposed modification is protective of underground sources of drinking water (USDWs), defined at 40 CFR §144.3, as required by the Safe Drinking Water Act (SDWA).

III. Public Comment Process

Public Participation

EPA requests public comment on the draft modifications, which are identified in red font. Red font indicates new language and struck-through red font indicates deleted language. The public has thirty (30) days to review and comment on the conditions proposed to be modified (40 CFR §§ 124.5(c)(2), 124.10). EPA will accept comments on the modified language in writing through the end of the comment period. During this period, all written comments on

the draft permit modification should be emailed to the email of the EPA contact listed above. If you are unable to submit comments electronically, written comments may be mailed to the address of the EPA contact listed above.

During the comment period, any interested person may request a public hearing on the Draft Permit Modification. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing (40 CFR §124.11).

EPA's draft permit modification, the Public Notice, and this Fact Sheet may be accessed online at the following EPA website: <https://www.epa.gov/uic/uic-permits-epas-pacific-southwest-region-9>.

All persons, including the applicant, who object to the modification to the Permit or EPA's decision to prepare a Draft Permit Modification must raise all reasonably ascertainable issues and submit all reasonable arguments supporting their position by the close of the comment period (40 CFR §124.13).

Final Decision-Making Process

After the close of the public comment period, EPA will review and consider all comments received, revise the permit modification, if necessary, and issue a response to comments with EPA's final permit modification decision. EPA's response to comments will be available online at the following EPA website: <https://www.epa.gov/uic/uic-permits-epas-pacific-southwest-region-9>.

The response to comments will contain a response to all significant comments on the draft permit modification and any changes in the draft permit modification with the reasons for the changes. EPA will notify all commenters regarding the EPA's decision, which will be to either approve or deny the permit modification. The final decision shall become effective no sooner than thirty (30) days after the service of the notice of decision.

Within thirty (30) days after the final decision has been issued, any person who filed comments on the draft permit modification or takes issue with any changes to the permit modification may petition the Environmental Appeals Board to review the decision. Commenters are referred to 40 CFR §124.19 for procedural requirements of the appeal process. If no comments request a change in the draft permit modification, the permit modification shall become effective immediately upon issuance (40 CFR §124.15).

EPA is committed to protecting the environment and human health, which includes keeping the public informed and seeking input from the communities we serve. We welcome your comments on the draft permit modification. For any questions and comments, please contact Nancy Rumrill.