

September 4, 2019

Derrick Dease
Holcim (US) Inc.
3500 Highway 120
Florence, CO 81226

RE: Boettcher Limestone Quarry, Permit No. M-1977-348, Technical Revision No. 10 (TR-10), Adequacy Review No. 2

Mr. Dease:

The Division of Reclamation, Mining and Safety (Division) has completed its review of the adequacy response submitted on July 23, 2019 for Technical Revision (TR-10). While there were some discrepancies and potential errors identified in the materials submitted, the Division believes the predominant remaining adequacy issues in TR-10 can be summarized by the following:

- 1) The information provided does not address all CKD disposal areas on site, particularly the Dry Fill CKD area located south of the A2 disposal areas.
- 2) The information provided does not account for all potential pathways for groundwater flow at the site, including fracture and/or conduit flow, the presence of which has been documented in the permit file and is also suggested by the data presented in this revision.
- 3) The information provided does not include adequate upgradient and/or background monitoring data for the site.
- 4) The information provided does not adequately demonstrate how the results of the tritium age dating study pertains to the groundwater quality observed on site.
- 5) The information provided does not specify the parameters and their respective concentrations which the operator is proposing the Division accept as representative of ambient groundwater conditions at the site.

Water Quality Control Commission's Regulation No. 41.5(C)(6)(b)(ii) requires groundwater quality (for all groundwater to which standards have not already been assigned in this state, including this site) to be maintained for each parameter at whichever of the following levels is less restrictive: existing ambient quality as of January 31, 1994, or that quality which meets the most stringent criteria set forth in Tables 1 through 4 of "The Basic Standards of Ground Water" (Table Value Standards). The groundwater sampled at this site shows Table Value Standard exceedances for the following parameters: Arsenic, Barium, Boron, Chloride, Fluoride, Gross



Alpha, Iron, Manganese, Nitrate as N, Nitrate + Nitrite as N, Selenium, Sulfate, Thallium, Uranium, and TDS > 10,000 mg/L (adequate background TDS values not obtained). Accordingly, the operator has submitted TR-10 requesting the Division, in its authority as an implementing agency, exercise its best professional judgement in reviewing the information submitted to determine that no new or increased sources of groundwater contamination have been initiated on site subsequent to January 31, 1994, and therefore, the groundwater data provided is representative of existing quality as of that date. As follows, in order for the Division to approve TR-10, the operator must specify the parameters and their respective concentrations which the operator is proposing the Division accept as representative of existing ambient quality at this site.

This concludes the Division's 2nd adequacy review of the materials submitted for TR-10. The decision date for TR-10 is currently set for **October 4, 2019**. If additional time is needed to address the remaining adequacy items, an extension request must be received by our Office prior to the decision date.

If you have any questions, you may contact me by telephone at 303-866-3567, ext. 8129, or by email at amy.eschberger@state.co.us.

Sincerely,



Amy Eschberger
Environmental Protection Specialist

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