



THE STATE
of **ALASKA**
GOVERNOR BILL WALKER

**Department of Environmental
Conservation**

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

555 Cordova
Anchorage, Alaska 99501
Main: 907-269-7503
Fax: 907-269-7687
www.dec.alaska.gov

File No: 2442.38.014

December 2, 2015

Ms. Marlo Draper
Bureau of Land Management
222 West 7th Avenue, #13
Anchorage, Alaska 99513

Re: *Draft-Final Feasibility Study Report*
Red Devil Mine

Dear Ms. Draper:

The Alaska Department of Environmental Conservation (DEC) has reviewed the Bureau of Land Management's revised responses to both Contaminated Sites Program's and Solid Waste Program's comments on the August 2015 *Draft-Final Feasibility Study (FS) Report* for the BLM Red Devil Mine site which were provided via electronic mail on November 2, 2015. The original BLM responses were revised following the October 13th comment resolution meeting.

After reviewing the revised responses and the associated advanced copy of sections of the revised FS, which was provided for review on November 30th, we believe that many of our comments have been resolved. However, there still remain some significant issues upon which we disagree, specifically regarding 1) the identification of Applicable or Relevant and Appropriate Requirements (ARARs), 2) use of concrete cloth for covering Monofill 2, and 3) the hydrologic modeling for the on-site repository. The BLM's revised responses on these items are not acceptable.

ARARs

Contrary to the BLM response to comments, DEC believes that the combination of tailings, waste rock, contaminated soil, and contaminated sediment proposed to be placed into the on-site repository in Alternatives 3a-3d is 'polluted soil' for two reasons. First, this material is being "placed" into a landfill under the Resource Conservation and Recovery Act (RCRA) Area of Contamination (AOC) policy. The AOC policy states that "Placement does occur, and additional RCRA requirements may be triggered, when wastes are moved from one AOC to another (e.g., for consolidation) or when waste is actively managed (e.g., treated ex-situ) within or outside the AOC and returned to the land." In Alternatives 3a-3d, there is ex-situ treatment of the soil and tailings by stabilizing with Portland cement, therefore the waste is being "placed" as defined by the AOC policy. Second, this soil constitutes polluted soil under 18 Alaska Administrative Code (AAC) 60.990(97)(B) – *a residue or material that is placed into a landfill and contains a hazardous substance in a concentration exceeding the applicable cleanup levels*. Note that while "mining waste" may be excluded from the definition of industrial solid waste, polluted soil is not excluded. The material that is

proposed to be placed in the repository includes both petroleum and/or hazardous substance-contaminated soil, tailings, waste rock, and contaminated sediment. Therefore, the substantive requirements for landfills containing industrial solid waste, which by definition includes polluted soil, are applicable.

Additionally, BLM states that the substantive landfill requirements are not relevant and appropriate because the repository will not contain “municipal solid waste.” As discussed, the substantive requirements are those for an industrial solid waste landfill under 18 AAC 60.485. As 18 AAC 60.485 is applicable, the design standards under 18 AAC 60.330 for industrial solid waste landfills that contain polluted soil are cited within and are also applicable. BLM has stated that the requirements are not relevant and appropriate because of the AOC policy, an issue which is addressed above. Finally, DEC is not claiming that DEC approval of a work plan is required under the definition of polluted soil, as specified under 18 AAC 60.990(97)(A). DEC asserts that this material is polluted soil under (B) of that provision, which does not require work plan approval for soil to be classified as polluted soil. Therefore, DEC contends that if the standards for industrial solid waste landfills containing polluted soil are not applicable, as we believe they are, then they are relevant and appropriate.

Finally, it is unclear why BLM acknowledges and lists RCRA requirements for long term monitoring, maintenance, and cover design as relevant and appropriate in response to the Environmental Protection Agency’s (EPA) comments, but that DEC’s requirements are not.

Use of Concrete Cloth

DEC believes that the concrete cloth material proposed for capping Monofill 2 under Alternatives 3a and 3b has not been established as an appropriate alternative landfill cover. DEC has requested additional information to show appropriate lifespan, hydraulic conductivity, and sub-arctic performance as a landfill cover, however this documentation has not been provided. Although BLM cites other successful uses in sub-arctic climate, in those instance the material was used as a ditch liner, which is one of the intended uses of the material. Concrete cloth has not been tested as liner or cover in any Alaska landfill applications, and without clear demonstration of the efficacy, is not appropriate in this case.

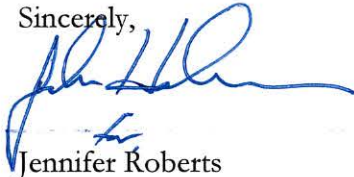
Hydrologic Modeling

DEC disagrees that the submitted hydrologic modeling indicates that a bottom liner would not be necessary for the repository, as presented in Alternatives 3a and 3b. Alaska solid waste regulations require that an industrial waste landfill be designed and constructed with a liner and leachate collection system that meet the standards in 18 AAC 60.330(b). Alternatively, BLM may provide an appropriate demonstration of the efficacy of the proposed system under 18 AAC 60.330(b)(1), however the modeling that has been presented is not complete and is not accepted as meeting the requirements of demonstration. Generally, multiple runs of the hydrologic models for landfills are presented to include temporal variations, variations of a liner system and/or underlining soils, variations in slope, variations in waste thickness, and variations in contaminants. In addition, the models must include consideration of precipitation for the first two years of operations when no cover will be in place.

BLM’s response to DEC’s request for additional modeling efforts has been an explanation as to why the model was designed in a certain way but a refusal to provide the additional demonstrations.

We hope that these issues can be resolved prior to moving forward with the Proposed Plan so that all agencies are in agreement.

Sincerely,



Jennifer Roberts
Program Manager

cc: Anne Marie Palmieri, DEC-CSP (via electronic mail only)
Jenn Currie, Law (via electronic mail only)
Matt Wilkening, EPA (via electronic mail only)
David Schade, DNR (via electronic mail only)
Ali Hamade, DHSS (via electronic mail only)
Jacob Cunha, ADF&G (via electronic mail only)
Marty Brewer, DEC-Solid Waste (via electronic mail only)
Lori Aldrich, DEC-Solid Waste (via electronic mail only)
Bob Blankenburg, DEC-Solid Waste (via electronic mail only)
Ted Wu, DEC-CSP (via electronic mail only)
Bill Richards, E&E (via electronic mail only)
Andrea Gusty, The Kuskokwim Corporation (via electronic mail only)