

ECS

STATE OF COLORADO

John W. Hickenlooper, Governor
Larry Wolk, MD, MSPH
Executive Director and Chief Medical Officer

Dedicated to protecting and improving the health and environment of the people of Colorado

4300 Cherry Creek Dr. S. Laboratory Services Division
Denver, Colorado 80246-1530 8100 Lowry Blvd.
Phone (303) 692-2000 Denver, Colorado 80230-6928
Located in Glendale, Colorado (303) 692-3090

www.colorado.gov/cdphe



Colorado Department
of Public Health
and Environment

Certified Mail 7012 1640 0000 0801 6181
Return Receipt Requested

January 29, 2014

Mr. Ray Lazuk
Freeport-McMoRan Company
Climax Molybdenum Mine
Highway 91 – Fremont Pass
Climax, Colorado 80429

RECEIVED

FEB 04 2014

Division of Reclamation,
Mining & Safety

Re: **Technical Review Determination: Incomplete**
Application for Certificate of Designation Application
Climax Molybdenum Mine Composting Operation
SW/LAK/CLI 2.1

Mr. Lazuk,

The Colorado Department of Public Health and the Environment (the "Department") Hazardous Materials and Waste Management Division (the "Division") has received the following application for a certificate of designation (the "CD Application") addressing an existing composting operation at the Climax Mine (the "Facility") located at Fremont Pass, Colorado.

"Biosolids Composting Engineering Design and Operation Plan". Prepared by: Climax Molybdenum Company Climax Mine. Document dated: January 2014. Document received: January 22, 2014.

The Division has reviewed the above referenced CD Application to determine if the submittal meets the minimum requirements of the *Regulations Pertaining to Solid Waste Sites and Facilities* (6 CCR 1007-2, Part 1) (the "Regulations"). Based on this technical review the Division has determined the CD Application is incomplete. The Division requests the Facility address the following comments and forward an updated Engineering Design and Application (EDOP) Plan.

- 1) The Division has been delegated the authority to develop and implement statutory responsibilities as presented by the Regulations in accordance with CRS 30-20-101.5. The CD Application references other regulation, policy, and permits as appropriate substitute for the solid waste Regulations pertaining to composting operations. It is the position of the Division to ensure, as possible, cost-effective implementation of the solid waste Regulations in a manner that does not double regulate a facility while maintaining a prioritization to identify methods and policies that focus on protection of public health and the environment for all solid waste sites in accordance with the solid waste Regulations. Given this consideration, the Division has the following comments and requests for the additional regulations, policies, and permits presented in the CD Application.
 - a. Sections 1.0 and 2.2 discuss the distribution and land application of biosolids in accordance with 5 CCR 1002-64 (Regulation 64). The EDOP additionally references Section 64.12 of Regulation 64, Table 1, as criteria for unrestricted use. The solid waste Regulations addressing composting were, in part, based on Regulation 64 requirements to avoid conflict with the Water Quality Control Division (WQCD) requirements. Note that the biosolid permits require that land application approvals meet specific

requirements of Table 3 of Regulation 64.12(A) for Class A materials, these are the same standards as Table 1 of the solid waste Regulations per Section 14.5.1. The concentrations referenced for on-site use of biosolids do not meet the land application (Regulation 64) or the unrestricted compost use (solid waste Regulation) maximum allowable concentration requirements. Please remove all references to Regulation 64, Table 1, Section 64.12 in the EDOP. Unrestricted use of the composted biosolids for the EDOP will be regulated in accordance with 6 CCR 1007-2, Part 1, Section 14.5.1, Table 1.

- b. Sections 2.0, 2.2, 2.3 and a table in the CD Application reference biosolid classifications for the composting operations (Class A and Class B). As stated above, the compost operations will be regulated in accordance with 6 CCR 1007-2, Part 1. Therefore, the compost operations must be identified per type and class in accordance with Sections 14.1.4 and 14.2 of the solid waste Regulations. Clearly state the type and class for the composting operation in the EDOP. Remove references to other regulatory classifications in EDOP (e.g. Class A and Class B).
 - c. Section 2.2 and 2.3 address compost sampling requirements, frequency, and acceptable maximum constituent concentration. Remove all references and/or requirements not associated with Sections 14.4.3(K) and 14.5 of the solid waste Regulations and update the EDOP appropriately per the solid waste Regulations. Specifically, Section 14.3.3(K) addresses processes to assure pathogen reduction, Section 14.5.1 addresses composting standards, 14.5.2 addresses sampling frequency requirements, and Sections 14.5.3 and 14.5.6 addresses exceedances and processes to address such exceedances.
 - d. Closure and Post-Closure is deferred to the approved "Climax Mine Reclamation Plan (M-1977-493), AM-06, Section E – Reclamation Plan". In an appendix of the EDOP include the relevant parts addressing reclamation of the CD area.
 - e. Include in an appendix the procedures followed in accordance to the "Emergency Response Action Plan" (ERAP) referenced in the EDOP. These procedures should be clearly defined and included in the EDOP. The reader should not need to reference multiple documents for on-site procedures to be followed and the Division needs to approve the procedure to assure regulatory compliance with the solid waste Regulations.
 - f. Provide copies in an appendix of any relevant SOPs referenced in the EDOP.
- 2) Based on the identified type and classification per solid waste Regulations (see item 1b above) clearly state in Section 2.0 and 7.1 of the EDOP in a table the acceptable composting materials and feedstocks along with a statement that no other materials will be accepted for the composting operations. Assure the remaining statements in the EDOP do not conflict with this item. There is no need to remove any prohibited materials statements in the EDOP as these are appropriate for the EDOP to comply with Section 14.3.3(A) of the Regulations. State that any additional feedstocks, bulking materials, or other materials used in the compost operation not specifically stated in the EDOP will require Divisional approval prior to use.
 - 3) Include in section 7.1.2 of the EDOP the prohibited materials defined by 14.3.3 of the solid waste Regulations.
 - 4) The term "off-site" has been identified as a term requiring a specific definition in the EDOP as off-site either references the CD Application boundary which is the boundary around the composting operations, or it can be argued to mean the Climax Mine property boundaries. Based on this concern, please clarify in the CD Application by incorporating the following definitions and use of terms:
 - a. Define in the CD Application "off-site" as any area beyond the surveyed CD boundary which is the boundary of the composting operations (account for any future expansions of the composting operation). Off-site is also known as the Certification of Designation (CD) Boundary or as defined by Section 1.2 of the Regulations the Point of Compliance.

- b. Define in the CD Application "mine boundary" as the property boundary or any land or property owned, leased, or where mining operations associated with the Climax Molybdenum Company Climax Mine occur.
 - c. Provide a surveyed map (figure) along with a legal description of the composting operations CD boundary to identify the point of compliance for the CD Application.
 - d. If available, a surveyed map (figure) along with a legal description of the Mine Boundary. If no survey exists provide a map (figure) showing the current Mine Boundary as approved by the Department of Reclamation, Mining, and Safety (DRMS).
- 5) Clearly state in Section 2.4 of the EDOP (Records) the requirements in accordance with Section 14.7 of the solid waste Regulations. Section 2.4 should clearly address:
 - a. What records will be maintained as operations records in accordance with 14.7.1 and 14.7.3 of the solid waste Regulations;
 - b. Clarify the requirements for the annual report due on May 1st of each year in accordance with 14.7.3; and,
 - c. State that the Facility will send a copy of the Regulation 64 annual report to the solid waste unit. Note that the Regulation 64 annual report has been identified as requiring different information than the solid waste Regulation annual report. The copy request is for tracking purposes only to assure the Facility is submitting both annual reports and to allow the Division to better track composting operational records.
- 6) Add a section addressing the requirements of Section 14.4.2(L) (1 – 5 and 8 – 10) of the solid waste Regulations. Items 6 and 7 can be omitted due to the groundwater monitoring waiver included in the EDOP. However, given the discussion on the location on the composting operation being conducted on the top of the Robinson Tailing Storage Facility, the depth of this layer beneath the composting site should be defined in any description of the hydrogeologic characterization of the Facility and/or cross-sections.
- 7) Develop a concise and clear statement, preferably in a table format, that addresses the requirements of Section 14.4.2(D) (1 – 5) of the solid waste Regulations that presents the maximum facility capacity and types of materials to be composted in the EDOP.
- 8) Include in an appendix the relevant parts of the referenced ERAP, "EPA General Biosolids Permit", and any other documentation specifically addressing contingency items discussed in Section 7.0 of the EDOP. Such supporting materials should specifically state process and procedures to be followed to be considered an appropriate alternative to these regulatory requirements as defined by Section 14.3.3 (C), (D), (G), (H), and (I) of the solid waste Regulations. The reader of the EDOP should not need to find another document to understand such approved process and procedures. The EDOP should have all details required by these Regulations clearly defined.
- 9) In an appendix in the EDOP include a waste characterization plan that addresses in the requirements of Section 2.1.2 of the solid waste Regulations. Should any other regulation, policy, or permit be utilized to meet this regulatory requirement assure the process and procedure as outlined by the alternative regulation, policy, or permit is clearly presented for the user of the EDOP.
- 10) Appendix C of the EDOP presents a surface water control waiver. Provide the following support materials referenced in this waiver.
 - a. A map of the location of Robinson Pond relative to the composting operation along with surface flow pathways (arrows) showing surface water flow and the catchment area for this water control area. Include other surface water structures referenced in the EDOP such as the Chalk Mountain interceptor ditch, Eagle Park Reservoir, etc.

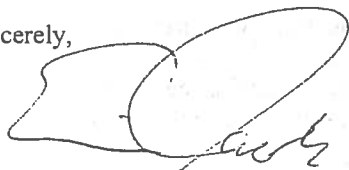
Mr. Ray Lazuk
Freeport-McMoRan Company
January 29, 2014
Page 4 of 4

- b. The volume of Robinson Pond and calculations showing the volume of water in the catchment area for the 25-year, 24-hour storm.
 - c. An engineering drawing of the referenced "wet/dry" cap.
- 11) Appendix C of the EDOP presents a leachate waiver. Provide the following support materials referenced in this waiver.
- a. Include the referenced Water Quality Monitoring Plan and a map showing the location of groundwater monitoring wells within the mine boundary.
- 12) Contact Enrique Martinez at 303-691-4054 to make arrangements to meet the financial assurance requirements for the Facility.

Note that the Department is authorized to bill for its review of technical submittals pursuant to Section 1.7 of the Regulations Pertaining to Solid Waste Sites and Facilities (6 CCR 1007-2). An invoice for the Division's review of the above referenced documents will be transmitted under separate cover. Our fees and billing ceilings may be viewed online at <http://www.cdphe.state.co.us/regulations/solidwaste/100702part1SWRegs.pdf>.

Thank you for your continued diligence in meeting our objectives of ensuring the health of the public and the environment through compliance with applicable state and federal regulation. Should you have any additional questions or concerns, please contact me at 303-692-3430 or by email at eric.jacobs@state.co.us.

Sincerely,



Eric K. Jacobs, P.G.
Solid Waste Permitting Unit
Solid Waste and Material Management Program
Hazardous Materials and Waste Management Division

cc: Alan Hanson, Summit County Planning Department
Eric Scott, Colorado Division of Reclamation, Mining, and Safety

ec: Jerry Henderson, Solid Waste Compliance Assurance Unit Leader
Brian Long, Solid Waste Compliance Assurance Unit
Enrique Martinez, Division Financial Assurance Specialist

H:\Working File\Projects\County Lake\Climax Mine\CD Application\140129 Comments Letter and Request for Update FINAL.doc