

August 16, 2021

Elliott Russell
Colorado Division of Reclamation, Mining, and Safety
1313 Sherman St, Rm 215
Denver, CO 80203

Delivered Via Email

RE: Adequacy Review Response TR-01, M-2020-054

Mr. Russell

Each of the adequacy questions/comments raised in your office's August 16, 2021 letter are addressed below.

- 1. The Operator states an air permit has been applied for the air burner. Please commit to providing the Division with a copy of the approved air permit.*

Air permit 21OA0610 is currently under review by the Colorado Department of Public Health and Environment. A copy of the permit will be provided upon approval.

- 2. The Operator states a maximum of 100 tons of slash/trees and 100 tons of ash would be kept onsite at any one time. Please provide the approximate volume (cubic yards) of these two materials in order for the Division to calculate a removal/disposal task within the reclamation cost estimate.*

Slash has a density of roughly 0.28 tons/CY and wood ash has a density of roughly 0.5 tons/CY. There the maximum slash pile will be 357 CY and the maximum ash stored onsite will be 200 CY.

- 3. In accordance with Rule 3.1.5, 6.3.4(j), and 6.3.4(l), please provide details on how the Operator will mitigate wind and water erosion on the ash stockpile to prevent impacts to the hydrologic balance and to protect off-site lands from damage.*

All ash will be stored within the Storage & Operations yard, which is surrounded by a stormwater containment berm to prevent offsite discharge of sediment. The ash piles will be covered by a tarp when not actively in use to prevent the loss of ash

- 4. Please discuss if and how fuel will be stored on-site for the air burner.*

A small diesel tank (<1000 gallons) will be kept on-site. Secondary containment for at least 110% of the tank volume will be maintained. The fuel tanks will be kept in the Storage & Operations Yard.

Please contact me with any additional items.

Regards,



Ben Langenfeld, P.E.
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Air Curtain Destructor (ACD) Permit

Permit number: **21PO0610**

Issuance: **1**

Date issued: August 23, 2021

Permit Expiration: August 23, 2026

Issued to: **Advantage Mining & Reclamation LLC**

Plant AIRS ID: 777/4746
Physical Location: Homebased at 1116 Looney Lane, Alma
County: Park County
General Description: Use of an Air Curtain Destructor to burn trees and slash

Equipment or activity subject to this permit:

AIRS Point	Description
001	Self-contained refractory walled air curtain burner Make: Air Burners, Inc., Model: S223, S/N: TBD Design rated at 9 tons per hour

THIS PERMIT IS GRANTED SUBJECT TO ALL RULES AND REGULATIONS OF THE COLORADO AIR QUALITY CONTROL COMMISSION AND THE COLORADO AIR POLLUTION PREVENTION AND CONTROL ACT C.R.S. (25-7-101 et seq), TO THOSE GENERAL TERMS AND CONDITIONS INCLUDED IN THIS DOCUMENT AND THE FOLLOWING SPECIFIC TERMS AND CONDITIONS:

AIR CURTAIN DESTROYER OPEN BURNING CONDITIONS (Colorado AQCC Regulation No. 9, Section IV.B.4):

1. This Air Curtain Destructor (ACD) must burn only yard waste, wood waste, clean lumber, or any mixture thereof generated as a result of projects to reduce the risk of wildfire.
2. The permit holder must ensure the device meets the following emission limits:
 - a. Opacity limit is 10 percent, averaged over 6 minutes, except during startup and malfunctions.
 - b. Opacity limit is 35 percent, averaged over 6 minutes; during startup period within first 30 minutes of operation;
 - c. No more than one startup period per day, not to exceed 30 minutes; and
 - d. These limits apply at all times except during malfunctions.



3. This ACD must not be co-located with another ACD or any other facility that is required to have an air quality permit or any commercial or industrial facility.
4. This ACD must be erected and operated in accordance with the manufacturer's recommendation. Additionally, this ACD must be operated such that:
 - a. The air curtain blower is operated at all times after startup;
 - b. No wood can extend above the air curtain to break the air curtain's "seal" since this would permit smoke and ash to escape.
5. This ACD must meet the following if a trench device:
 - a. Trench dimensions must follow manufacturer's recommendations;
 - b. Trenches must be maintained with a rectangular opening and vertical sidewalls;
 - c. Bottom of trench must be above water table and not collect groundwater seepage;
 - d. Trench must be protected from surface runoff by a berm or other barrier; and
 - e. Trench cannot be in land filled material containing any solid waste, including construction and demolition debris.
6. This ACD must not exceed the manufacturer's recommended throughput or 20 tons per hour, whichever is less.
7. This ACD must be operated during daylight hours and not to exceed 13 hours per day.
8. This ACD must emit less than 100 tons of any criteria pollutant per calendar year.
9. The ACD operator must ensure the fire is extinguished prior to departure from the project site or a fire watch patrol will remain behind to ensure there is no risk to escape or nighttime smoke production; extinguished fire must produce no visible smoke.
10. This ACD must be set back from an occupied structure on other property, and the perimeter of restricted public access must be:
 - a. Minimum 300 ft., for any location where the ACD is operated 14 days or more per year; or
 - b. Minimum 150 ft., for any location where the ACD is operated for less than 14 days per year.
11. This ACD must meet Division's reporting and record keeping requirements. See example record keeping table in Appendix A of this permit.

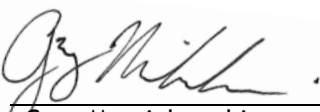
GENERAL OPEN BURNING CONDITIONS (Colorado AQCC Regulation No. 9, Section IV.C):

12. All operations shall be subject to inspection by the Division. The permittee must maintain at the burn site the original or a copy of the permit that shall be made available without unreasonable delay to the inspector.

13. If at any time the Division determines that the permittee has not complied with any term or condition of the permit, the permit is subject to partial or complete suspension or revocation or imposition of additional conditions. All burning activity subject to the permit must be terminated immediately upon notice of suspension or revocation. In addition to suspension or revocation of the permit, the Division or local agency may take any other enforcement action authorized under state or local law.

Requirements for Portable Sources:

14. When relocating this equipment, the owner or operator must (Reference: Regulation Number 3, Part A, Section II.C.1.f):
- Submit a Relocation Notice each time this equipment is moved to a new location. The Relocation Notice must be received by the Division at least ten (10) days prior to the change in location.
 - Keep a record of all relocation notices submitted to the Division.

By: 
Greg Marcinkowski
Permit Engineer

Permit History

Issuance	Date	Description
Issuance#1	This Issuance	Issued to Advantage Mining & Reclamation LLC.

Notes to Permit Holder (as of date of permit issuance):

- This source is subject to the following additional requirements of the Hazardous Materials and Waste Management Division:
 - Ash shall not be disposed of onsite without a certificate of designation as defined in CRS 30-20-100.5 et seq.
 - Ash managed onsite shall be stored in a bermed area so as to be protective of run-on and run-off (i.e. precipitation and storm water). Necessary berm height shall be specified based on preventing run-on from the 25 yr., 24 hr. storm. Compaction specifications shall be provided for constructing the berms. Water must be removed from bermed areas within fifteen (15) calendar days of precipitation event. All water management operations must be conducted in accordance with applicable permits and best management practices.
 - Ash stored onsite temporarily shall be managed so as to minimize fugitive dust emissions on-site and eliminate dust emissions off-site. This may be accomplished via wetting or other means such as tarping, wind fences or soil cover.

- d. Any ash beneficially used onsite shall be characterized to ensure that it will not release contaminants into the environment, and to ensure that there is a nutrient benefit supporting the reuse.
 - e. Transportation of ash, including onsite movement, shall occur in equipment designed to prevent leakage or dispersion of the material during transport.
 - f. Abandoned materials on-site following the burner operations will be considered solid waste and subject to the Regulations Pertaining to Solid Waste Sites and Facilities (6 CCR 1007-2, Part 1).
- 2) This source is subject to the Common Provisions Regulation Part II, Subpart E, Affirmative Defense Provision for Excess Emissions during Malfunctions. The permittee must notify the Division of any malfunction condition which causes a violation of any emission limit or limits stated in this permit as soon as possible, but no later than noon of the next working day, followed by written notice to the Division addressing all of the criteria set forth in Part II.E.1. of the Common Provisions Regulation. See: <https://www.colorado.gov/pacific/cdphe/aqcc-regs>.
- 3) This permit is valid for a term of five years from the date it was issued by the Division. A revised application must be submitted no later than 30 days before the five-year term expires. Furthermore, a revised application must be submitted upon any change in ownership.

Appendix A

Example Operating and Inspection Log for Air Curtain Destructors

AIRS ID: _____

Permit Number: _____

Manufacturer's Maximum throughput (in tons/hour): _____

Date of Startup	Time of Startup	Time Extinguished	Is anything protruding above the air curtain? Circle one. <i>If YES, describe steps to eliminate the break in curtain.</i>
			YES / NO
			YES / NO
			YES / NO
			YES / NO
			YES / NO
			YES / NO
			YES / NO
			YES / NO
			YES / NO
			YES / NO
			YES / NO
			YES / NO
			YES / NO
			YES / NO
			YES / NO
			YES / NO
			YES / NO
			YES / NO
			YES / NO

