

February 22, 2024

Christopher Anderson
Sun Mountain Lumber
PO Box 389
Deer Lodge, MT 59722

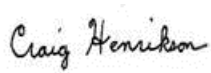
Sent via email: chris.a@sunmtnlumber.com

RE: Final Permit Issuance for MAQP #2588-05

Dear Mr. Anderson:

Montana Air Quality Permit (MAQP) #2588-05 is deemed final as of February 22, 2024, by DEQ. This permit is for Sun Mountain Lumber, a lumber mill. All conditions of the Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For DEQ,



Craig Henrikson
Acting APS Supervisor
Air Quality Bureau
(406) 444-6711



Emily Hultin
Air Quality Engineering Scientist
Air Quality Bureau
(406) 444-2049

Montana Department of Environmental Quality
Air, Energy & Mining Division
Air Quality Bureau

Montana Air Quality Permit #2588-05

Sun Mountain Lumber
NW¼, NW¼, Section 25, Township 2 South, Range 9 West, Park County
P.O. Box 389
Deer Lodge, MT 59722

February 22, 2024



MONTANA AIR QUALITY PERMIT

Issued To: Sun Mountain Lumber
P.O. Box 389
Deer Lodge, MT 59722

MAQP: #2588-05
Application Complete: 01/11/2024
Administrative Amendment (AA) Request
Received: 01/11/2024
DEQ's Decision on AA: 02/06/2024
Permit Final: 02/22/2024

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Sun Mountain Lumber (Sun Mountain), pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

Section I: Permitted Facilities

A. Plant Location:

Sun Mountain Lumber is located approximately 2 miles southwest of Livingston, Montana and about one-half mile from Interstate 90 along Highway 89 (NW¹/₄, NW¹/₄, Section 25, Township 2 South, Range 9 West, Park County).

B. Current Permit Action:

The current permitting action is an administrative amendment for an intent to transfer ownership R-Y Timber, Inc. is now Sun Mountain Lumber.

Section II: Conditions and Limitations

A. Emission Limitations

1. Sun Mountain shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any sources installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304). This includes the Cleaver Brooks natural gas boiler and cyclones on pneumatic transfer systems installed after November 23, 1968.
2. Sun Mountain shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).
3. Sun Mountain shall treat all unpaved portions of the haul roads, access roads, parking lots, or general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.4 (ARM 17.8.749).

4. Sun Mountain Lumber shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over 6 consecutive minutes [ARM 17.8.304(1)]. This includes cyclones on pneumatic transfer systems installed before November 23, 1968.

B. Testing Requirements

1. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
2. The Department of Environmental Quality (DEQ) may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. Sun Mountain shall supply the DEQ with annual production information for all emission points, as required by the DEQ in the annual emission inventory request. The request will include, but is not limited to, all sources of emissions identified in the emission inventory contained in the permit analysis.

Production information shall be gathered on a calendar-year basis and submitted to the DEQ by the date required in the emission inventory request. Information shall be in the units required by the DEQ. This information may be used to calculate operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505). Sun Mountain shall submit the following information annually to the DEQ by March 1 of each year; the information may be submitted along with the annual emission inventory (ARM 17.8.505).

- a. Annual millcut in mmbf.
 - b. Amount of natural gas combusted in the Cleaver Brooks natural gas boiler (Mscf/yr)
 - c. Hours of operation and average airflow rate, in standard cubic feet per minute (scfm), for the two shavings cyclones (burner and truck loadout).
 - d. Current acreage of disturbed area and percent exposed.
 - e. Application schedule for water or chemical dust suppressant, including hours of operation of water truck on plant grounds, if any.
2. Sun Mountain shall notify the DEQ of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include ***the addition of a new emissions unit***, change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation. The notice must be submitted to the DEQ, in writing, 10 days prior to startup or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing

the de minimis change, and must include the information requested in ARM 17.8.745(l)(d) (ARM 17.8.745).

3. All records compiled in accordance with this permit must be maintained by Sun Mountain as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the DEQ, and must be submitted to the DEQ upon request. These records may be stored at a location other than the plant site upon approval by the DEQ (ARM 17.8.749).

SECTION III: General Conditions

- A. Inspection – Sun Mountain shall allow the DEQ’s representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment such as Continuous Emission Monitoring Systems (CEMS) or Continuous Emission Rate Monitoring Systems (CERMS), or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver – The permit and the terms, conditions, and matters stated herein shall be deemed accepted if Sun Mountain fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Sun Mountain of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.* (ARM 17.8.756).
- D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties, or other enforcement action as specified in Section 75-2-401, *et seq.*, MCA.
- E. Appeals – Any person or persons jointly or severally adversely affected by the DEQ’s decision may request, within 15 days after the DEQ renders its decision, upon affidavit setting forth the grounds therefor, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the DEQ’s decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the DEQ’s decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the DEQ’s decision on the application is final 16 days after the DEQ’s decision is made.
- F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by the DEQ at the location of the source.

- G. Permit Fee – Pursuant to Section 75-2-220, MCA, failure to pay the annual operation fee by Sun Mountain may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
- H. Duration of Permit – Construction or installation must begin or contractual obligations entered into that would constitute substantial loss within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall expire (ARM 17.8.762).

Montana Air Quality Permit Analysis
Sun Mountain Lumber
MAQP #2588-05

I. Introduction/Process Description

Sun Mountain Lumber (Sun Mountain) owns and operates a lumber mill. The facility is located approximately 2 miles southwest of Livingston, MT; 42 miles north of Yellowstone National Park, the nearest PSD Class I area; and about 5 miles northwest of the PSD Class II Absaroka-Beartooth Wilderness. A more detailed site description is contained in the original permit application and subsequent submittal.

A. Permitted Equipment:

The facility consists of the following emission sources (permit **#2588-05**):

1. Shaving to burner cyclone;
2. Shaving to truck loadout cyclone;
3. Fugitive dust - log yard;
4. Fugitive dust - mill/planer;
5. Fuel usage - diesel;
6. Log debarker;
7. 17.14 MMBtu/hr Cleaver Brooks natural gas boiler;
8. Standard dry kiln;

B. Source Description:

Sun Mountain Lumber (Sun Mountain) is a lumber mill located approximately 2 miles southwest of Livingston, MT; 42 miles north of Yellowstone National Park, the nearest PSD Class I area; and about 5 miles northwest of the PSD Class II Absaroka-Beartooth Wilderness.

C. Permit History:

Brand S Corporation was issued permit **#2588-00** on January 5, 1990 for a silo-type wood-waste burner to be located at the Livingston lumber mill. Permit #2588-00 also included all other sources of air emissions at the Livingston mill. The BACT analysis and determination for the silo wood-waste burner is contained in the analysis section of permit #2588-00.

Permit #2588-00 required Brand S to perform a source test on the silo burner to demonstrate compliance with the particulate emission limit contained in the permit and to corroborate the emission factors used in the permit analysis emission inventory. Brand S was not able to develop a testing strategy that was acceptable to the department, so Brand S requested and received extensions of the source testing deadline contained in permit #2588-00.

After the issuance of the silo burner permit #2588-00, Brand S obtained contracts to ship all of the hogfuel and sawdust waste produced at the mill. Therefore, the mill waste was no longer burned and consequently the mill discontinued the use of the silo burner.

On April 3, 1992, Brand S was issued permit **#2588-01** which postponed the source testing deadline and suspended the ambient air monitoring requirements until the silo burner was used on a regular basis.

On August 10, 1993, permit **#2588-02** was issued to Brand S to construct and operate a natural gas-fired boiler and drying kilns at the lumber mill in Livingston, Montana. The natural gas-fired boiler, Cleaver Brooks Model CB200-400-150, is a 400 horsepower firetube boiler with steam production capability of approximately 13,800 pounds of steam per hour (pph). The kiln is a Standard Brand of the Standard Dry Kiln Company. The kiln was originally built in the 1950's and has not been used for several years. The kiln has been at the site for years but was not assembled.

The boiler is used to heat the drying kilns. Steam from the boiler passes through a heat exchanger system in the kilns to heat the kiln air. Loads of lumber are rolled into the kiln where heated air is blown past the lumber. An average temperature of 185° F is maintained for approximately five days for each load. Air escapes from the kilns through numerous roof vents. Particulate emissions from the kiln roof vents are negligible and have not been included in the emission inventory. Any roof vent emissions from the kilns are a fugitive source because they are not routed through a stack (See Section III, BACT Analysis, Dry Kiln, permit #2588-02).

In addition to the request for a permit alteration, the emission testing requirements have been removed from the permit. No viable test method was developed to test for particulate emissions from silo wood-waste burners, so it is not possible to demonstrate compliance with the particulate emission limitation of ARM 16.8.1407(4). Since permit #2588-02 was issued, the department has revised the Wood-Waste Burner Rule (ARM 16.8.1407) to remove the particulate emission limitation.

Permit modification **#2588-03** transferred the permit from Brand S Lumber Company to R-Y Timber. In addition, the notification requirements for the Cleaver Brooks boiler were met and consequently removed from the permit; the actual start-up date of the boiler was January 1995. Also, all requirements pertaining to the silo wood-waste burner were removed from the permit; the silo wood-waste burner was removed from the site in 1993. Finally, Attachment 1, Ambient Air Monitoring Plan, was removed from the permit to reflect the department's approval to discontinue dustfall monitoring at the site because the requirements are no longer applicable to the olivine silo burner.

During the last permitting action, the department determined that the NSPS requirements of 40 CFR 60 Subpart Dc may not have been applicable to the Cleaver Brooks natural gas boiler. R-Y Timber confirmed that these requirements were not applicable; the boiler was manufactured on 4/31/78, and the cost of rebuilding was \$31,967.00 versus \$75,578.00 for a new unit. However, all notification requirements had already been met, but R-Y Timber remained subject to reporting and recordkeeping requirements for the life of the boiler.

The permitting action involved removing the NSPS reporting and recordkeeping requirements of 40 CFR 60 Subpart Dc for the Cleaver Brooks natural gas boiler. Permit #2588-04 replaced permit #2588-03.

D. Current Permit Action:

The current permitting action is an intent to transfer ownership R-Y Timber, Inc. is now Sun Mountain Lumber. The new company owner is Christopher Anderson. **MAQP #2588-05** replaces MAQP #2588-04.

E. Additional Information:

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT)/Reasonably Available Control Technology (RACT) determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the permit.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department of Environmental Quality (DEQ). Upon request, the DEQ will provide references for the location of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1 – General Provisions, including but not limited to:

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the DEQ, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the DEQ.
3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the DEQ, any source or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

Sun Mountain shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the DEQ upon request.

4. ARM 17.8.110 Malfunctions. (2) The DEQ must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.
5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

B. ARM 17.8, Subchapter 2 – Ambient Air Quality, including, but not limited to the following:

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
9. ARM 17.8.222 Ambient Air Quality Standard for Lead
10. ARM 17.8.223 Ambient Air Quality Standard for PM₁₀

Sun Mountain must maintain compliance with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3 – Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, Sun Mountain shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.
3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this rule.

4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.
 5. ARM 17.8.316 Incinerators. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any incinerator, particulate matter in excess of 0.10 grains per standard cubic foot of dry flue gas, adjusted to 12% carbon dioxide and calculated as if no auxiliary fuel had been used. Further, no person shall cause or authorize to be discharged into the outdoor atmosphere from any incinerator emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes.
 6. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this rule.
 7. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank is equipped with a vapor loss control device as described in (1) of this rule.
 8. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). This facility is not an NSPS affected source because it does not meet the definition of any NSPS subpart defined in 40 CFR Part 60.
- D. ARM 17.8, Subchapter 5 – Air Quality Permit Application, Operation, and Open Burning Fees, including, but not limited to:
1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the DEQ. A permit application fee was not required for the current permit action because the permit change is considered an administrative permit change.
 1. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the DEQ by each source of air contaminants holding an air quality permit (excluding an open burning permit) issued by the DEQ. The air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The DEQ may insert into

any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that prorate the required fee amount.

- E. ARM 17.8, Subchapter 7 – Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:
2. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
 3. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit modification to construct, modify, or use any air contaminant sources that have the potential to emit (PTE) greater than 25 tons per year of any pollutant. Sun Mountain has a PTE greater than 25 tons per year of TSP; therefore, an air quality permit is required.
 4. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
 5. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
 6. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements.
(1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. A permit application was not required for the current permit action because the permit change is considered an administrative permit change. 7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. An affidavit of publication of public notice was not required for the current permit action because the permit change is considered an administrative permit change.
 7. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the DEQ must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
 8. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.
 9. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the DEQ at the location of the source.

10. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving Sun Mountain of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
11. ARM 17.8.759 Review of Permit Applications. This rule describes the DEQ's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.
12. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or modified source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.
13. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
14. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
15. ARM 17.8.765 Transfer of Permit. This rule states that an air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the DEQ.
16. ARM 17.8.770 Additional Requirements for Incinerators. This rule specifies the additional information that must be submitted to the DEQ for incineration facilities subject to 75-2-215, Montana Code Annotated (MCA).
16. ARM 17.8.771 Mercury Emission Standards for Mercury-Emitting Generating Units. This rule identifies mercury emission limitation requirements, mercury control strategy requirements, and application requirements for mercury-emitting generating units.

F. ARM 17.8, Subchapter 8 – Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.
2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification, with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source because this facility is not a listed source and the facility's PTE is below 250 tons per year of any pollutant (excluding fugitive emissions).

G. ARM 17.8, Subchapter 12 – Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any source having:
 - a. PTE > 100 tons/year of any pollutant;
 - b. PTE > 10 tons/year of any one hazardous air pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the DEQ may establish by rule; or
 - c. PTE > 70 tons/year of particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) in a serious PM₁₀ nonattainment area.
2. ARM 17.8.1204 Air Quality Operating Permit Program. (1) Title V of the FCAA amendments of 1990 requires that all sources, as defined in ARM 17.8.1204(1), obtain a Title V Operating Permit. In reviewing and issuing MAQP #2588-05 for Sun Mountain, the following conclusions were made:
 - a. The facility's PTE is less than 100 tons/year for any pollutant.
 - b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year for all HAPs.
 - c. This source is not located in a serious PM₁₀ nonattainment area.
 - d. This facility is not subject to any current NSPS.
 - e. This facility is not subject to any current NESHAP standards.
 - f. This source is not a Title IV affected source, or a solid waste combustion unit.

- g. This source is not an EPA designated Title V source.
- h. As allowed by ARM 17.8.1204(3), the DEQ may exempt a source from the requirement to obtain an air quality operating permit by establishing federally enforceable limitations which limit that source's potential to emit.
 - i. In applying for an exemption under this section, the owner or operator of the source shall certify to the DEQ that the source's potential to emit, does not require the source to obtain an air quality operating permit.
 - ii. Any source that obtains a federally enforceable limit on potential to emit shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit.

Based on these facts, the DEQ determined that Sun Mountain will be a minor source of emissions as defined under Title V. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit, Sun Mountain will be required to obtain a Title V Operating Permit.

III. BACT Determination

A BACT determination is required for each new or modified source. Sun Mountain shall install on the new or modified source the maximum air pollution control capability which is technically practicable and economically feasible, except that BACT shall be utilized.

A BACT analysis was not required for the current permit action because the current permit action is considered an administrative permit action.

IV. Emission Inventory

****CO = carbon monoxide**

(fil) = filterable

HAPs = hazardous air pollutants

hp = horsepower

lb = pound

N/A = not applicable

ND = no data available

NO_x = oxides of nitrogen

PM = particulate matter

PM₁₀ = particulate matter with an aerodynamic diameter of 10 microns or less

PM_{2.5} = particulate matter with an aerodynamic diameter of 2.5 microns or less

SO₂ = sulfur dioxide

TPH = tons per hour

TPY = tons per year

VOC = volatile organic compounds

yr = year

Source	TSP (TPY)	PM-10 (TPY)	NO _x (TPY)	VOC (TPY)	CO (TPY)	Sox (TPY)
Shaving Cyclone to Burner	14.88	5.95				

Shaving Cyclone to Truck	14.88	5.95				
Fuel Usage (Diesel)	0.91	0.91	14.68	1.07	6.33	1.60
Fugitive Dust – Log Yard	4.09	1.47				
Fugitive Dust – Mill/Planer	1.42	0.51				
Log Debarking	4.16	2.29				
Cleaver Brooks Bioler	0.46	0.46	10.30	0.43	2.58	0.04
Standard Dry Kiln	NA	NA				
Total Emissions (TPY)	40.8	17.54	24.98	1.50	8.91	1.64

Footnotes:

a. Inventory reflects maximum allowable emissions for all pollutants based on maximum production and year-round operation (8,760 hours). The facility did not take limits on production or hours of operation.

Shaving Cyclone to Burner

Production Flowrate: 13227 scfm (Designed flow rate)
Hours of operation: 8760 hrs {Maximum Potential}
Fraction of year operating: 1.00 %/yr

TSP Emissions

Emission Factor: 2.25 lbs/scfm {3-07-008-05, AFSSCC page 143}
Control Efficiency: 0%
Calculations: $13227 \text{ scfm} * 2.25 \text{ lbs/scfm} * 1.00 \text{ %/yr} * 0.0005 \text{ tons/lb} = 14.88 \text{ tons/yr}$

PM-10 Emissions:

Emission Factor: 0.90 lbs/scfm {3-07-008-05, AFSSCC page 143}
Control Efficiency: 0%
Calculations: $13227 \text{ scfm} * 0.90 \text{ lbs/scfm} * 1.00 \text{ %/yr} * 0.0005 \text{ tons/lb} = 5.95 \text{ tons/yr}$

Shaving Cyclone to Truck

Production Flowrate: 13227 scfm (Designed flow rate)
Hours of operation: 8760 hrs {Maximum Potential}
Fraction of year operating: 1.00 %/yr

TSP Emissions

Emission Factor: 2.25 lbs/scfm {3-07-008-05, AFSSCC page 143}
Control Efficiency: 0%
Calculations: $13227 \text{ scfm} * 2.25 \text{ lbs/scfm} * 1.00 \text{ %/yr} * 0.0005 \text{ tons/lb} = 14.88 \text{ tons/yr}$

PM-10 Emissions:

Emission Factor: 0.90 lbs/scfm {3-07-008-05, AFSSCC page 143}

Control Efficiency: 0%
Calculations: $13227 \text{ scfm} * 0.90 \text{ lbs/scfm} * 1.00 \text{ \%/yr} * 0.0005 \text{ tons/lb} =$
5.95 tons/yr

Fuel Usage - Diesel

Annual Production: (105% of 1990 production) 102.6 10³ gal/yr

TSP Emissions

Emission Factor: 17.7 lbs/10³ gal {AP-42 Vol. II Mobile Sources}
Control Efficiency: 0.0%
Calculations: $102.60 \text{ 10}^3 \text{ gal/yr} * 17.7 \text{ lbs/10}^3 \text{ gal} * 0.0005 \text{ tons/lb} =$
0.91 tons/yr

PM-10 Emissions:

Emission Factor: 17.7 lbs/10³ gal {AP-42 Vol. II Mobile Sources}
Control Efficiency: 0.0%
Calculations: $102.60 \text{ 10}^3 \text{ gal/yr} * 17.7 \text{ lbs/10}^3 \text{ gal} * 0.0005 \text{ tons/lb} = 0.91 \text{ tons/yr}$

NOx Emissions:

Emission Factor: 286.10 lbs/10³ gal {AP-42 Vol. II Mobile Sources}
Control Efficiency: 0.0%
Calculations: $102.60 \text{ 10}^3 \text{ gal/yr} * 286.10 \text{ lbs/10}^3 \text{ gal} * 0.0005 \text{ tons/lb} = 1$
4.68 tons/yr

VOC Emissions:

Emission Factor: 20.9 lbs/10³ gal {AP-42 Vol. II Mobile Sources}
Control Efficiency: 0.0%
Calculations: $102.60 \text{ 10}^3 \text{ gal/yr} * 20.9 \text{ lbs/10}^3 \text{ gal} * 0.0005 \text{ tons/lb} =$
1.07 tons/yr

CO Emissions:

Emission Factor: 123.46 lbs/10³ gal {AP-42 Vol. II Mobile Sources}
Control Efficiency: 0.0%
Calculations: $102.60 \text{ 10}^3 \text{ gal/yr} * 123.46 \text{ lbs/10}^3 \text{ gal} * 0.0005 \text{ tons/lb} =$
6.33 tons/yr

SOx Emissions:

Emission Factor: 31.20 lbs/10³ gal {AP-42 Vol. II Mobile Sources}
Control Efficiency: 0.0%
Calculations: $102.60 \text{ 10}^3 \text{ gal/yr} * 31.2 \text{ lbs/10}^3 \text{ gal} * 0.0005 \text{ tons/lb} =$
1.60 tons/yr

Fugitive Dust - Log Yard

Operating Hours 8760 Hours/Yr
Vehicle Miles Traveled 7732 VMT/Yr (105% of 1990 production)
(1990 production was 95% of capacity)

Control Efficiency is 50% for watering.

TSP Emission Factor is determined by the following equation:

$$E = 5.9 * k * (s/12) * (S/30) * (W/3) ** 0.7 * (w/4) ** 0.5 * PR$$

Where:

E= TSP Emission Factor in Lbs/Vehicle Mile Traveled (VMT)

k= Particle sizing constant for TSP 1.0

s= Silt Content in percent 4.8 %

S= Average Speed of vehicles in mph 5.0 mph

W= Average weight of vehicles in Tons 55.4 Tons

w= Average number of wheels on vehicles 4 wheels

PR= Precipitation Ratio based on the following:

110 Days with more than .01" of Precipitation

$$PR = (365 \text{ days} - 110 \text{ days}) / 365 \text{ Days} = 0.6986$$

TSP Emissions:

TSP Emission Factor 2.12 Lbs/VMT

$$E(\text{TSP}) = (7732 \text{ VMT/Yr})(2.12 \text{ Lbs/VMT})(0.5)$$

$$E(\text{TSP}) = 8180 \text{ Lbs/Yr}$$

or 4.09 Tons/Yr

PM10 Emission Factor is determined by the following equation:

$$E = 5.9 * k * (s/12) * (S/30) * (W/3) ** 0.7 * (w/4) ** 0.5 * PR$$

Where:

E= PM10 Emission Factor in Lbs/Vehicle Mile Traveled (VMT)

k= Particle sizing constant for PM10 0.36

s= Silt Content in percent 4.8 %

S= Average Speed of vehicles in mph 5.0 mph

W= Average weight of vehicles in Tons 55.4 Tons

w= Average number of wheels on vehicles 4 wheels

PR= Precipitation Ratio based on the following:

110 Days with more than .01" of Precipitation

$$PR = (365 \text{ days} - 110 \text{ days}) / 365 \text{ Days} = 0.6986$$

PM10 Emissions:

PM10 Emission Factor 0.76 Lbs/VMT

$$E(\text{PM10}) = (7732 \text{ VMT/Yr})(0.76 \text{ Lbs/VMT})(0.5)$$

$$E(\text{PM10}) = 2945 \text{ Lbs/Yr}$$

or 1.47 Tons/Yr

Fugitive Dust - Mill/Planer

Operating Hours 8760 Hours/Yr

Vehicle Miles Traveled 6392 VMT/Yr (105% of 1990 production)
(1990 production was 95% of capacity)

Control Efficiency is 50% for watering.

TSP Emission Factor is determined by the following equation:

$$E = 5.9 * k * (s/12) * (S/30) * (W/3) ** 0.7 * (w/4) ** 0.5 * PR$$

Where:

E= TSP Emission Factor in Lbs/Vehicle Mile Traveled (VMT)

k= Particle sizing constant for TSP 1.0

s= Silt Content in percent 4.8 %

S= Average Speed of vehicles in mph 5.0 mph

W= Average weight of vehicles in Tons 16.0 Tons

w= Average number of wheels on vehicles 4 wheels

PR= Precipitation Ratio based on the following:

110 Days with more than .01" of Precipitation

$$PR = (365 \text{ days} - 110 \text{ days}) / 365 \text{ Days} = 0.6986$$

TSP Emissions:

TSP Emission Factor 0.89 Lbs/VMT

$$E(\text{TSP}) = (6392 \text{ VMT/Yr})(0.89 \text{ Lbs/VMT})(0.5)$$

$$E(\text{TSP}) = 2835 \text{ Lbs/Yr}$$

or 1.42 Tons/Yr

PM10 Emission Factor is determined by the following equation:

$$E = 5.9 * k * (s/12) * (S/30) * (W/3) ** 0.7 * (w/4) ** 0.5 * PR$$

Where:

E= PM10 Emission Factor in Lbs/Vehicle Mile Traveled (VMT)

k= Particle sizing constant for PM10 0.36

s= Silt Content in percent 4.8 %

S= Average Speed of vehicles in mph 5.0 mph

W= Average weight of vehicles in Tons 16.0 Tons

w= Average number of wheels on vehicles 4 wheels

PR= Precipitation Ratio based on the following:

110 Days with more than .01" of Precipitation

$$PR = (365 \text{ days} - 110 \text{ days}) / 365 \text{ Days} = 0.6986$$

PM10 Emissions:

PM10 Emission Factor 0.32 Lbs/VMT

$$E(\text{PM10}) = (6392 \text{ VMT/Yr})(0.32 \text{ Lbs/VMT})(0.5)$$

$$E(\text{PM10}) = 1021 \text{ Lbs/Yr}$$

or 0.51 Tons/Yr

Log Debarking

Lumber Production: 100.00 MMBF/yr (Based on Maximum Production Rate)

Tons of logs processed: 100.00 MMBF/yr * 4164 tons/MMBF = 416400 tons/yr

(Department Estimate)

TSP Emissions:

Emission Factor: 0.02 lbs/ton {3-07-008-01, AFSEF page 143}

Calculations: $416400 \text{ tons/yr} * 0.02 \text{ lbs/ton} * 0.0005 \text{ tons/lb} = 4.16 \text{ tons/yr}$

PM-10 Emissions:

Emission Factor: 0.011 lbs/ton {3-07-008-01, AFSEF page 143}

Calculations: $416400 * \text{tons/yr} * 0.011 \text{ lbs/ton} * 0.0005 \text{ tons/lb} = 2.29 \text{ tons/yr}$

Cleaver Brooks Boiler

Fuel Consumption Rate: 16800 ft³/hr {Information from company}

TSP Emissions:

Emission Factor: 6.20 lbs/10⁶ ft³ gas {AP-42, Table 1.4-1, Rev. 10/92}

Fuel Consumption: 147.17 10⁶ ft³/yr {Information from company}

Calculations: $147.17 * 10^6 \text{ ft}^3/\text{yr} * 6.20 \text{ lbs}/10^6 \text{ ft}^3 \text{ gas} * 0.0005 \text{ tons/lb} = 0.46 \text{ tons/yr}$

PM-10 Emissions:

Emission Factor: 6.20 lbs/10⁶ ft³ gas {AP-42, Table 1.4-1, Rev. 10/92}

Fuel Consumption: 147.17 10⁶ ft³/yr {Information from company}

Calculations: $147.17 * 10^6 \text{ ft}^3/\text{yr} * 6 \text{ lbs}/10^6 \text{ ft}^3 \text{ gas} * 0.0005 \text{ tons/lb} = 0.46 \text{ tons/yr}$

NO_x Emissions:

Emission Factor: 140 lbs/10⁶ ft³ gas {AP-42, Table 1.4-1, Rev. 10/92}
Fuel Consumption: 147.17 10⁶ ft³/yr {Information from company}
Calculations: 147.17 * 10⁶ ft³/yr * 140 lbs/10⁶ ft³ gas * 0.0005 tons/lb =
10.30 tons/yr

VOC Emissions:

Emission Factor: 5.80 lbs/10⁶ ft³ gas {AP-42, Table 1.4-1, Rev. 10/92}
Fuel Consumption: 147.17 10⁶ ft³/yr {Information from company}
Calculations: 147.17 * 10⁶ ft³/yr * 5.80 lbs/10⁶ ft³ gas * 0.0005 tons/lb =
0.43 tons/yr

CO Emissions:

Emission Factor: 35 lbs/10⁶ ft³ gas {AP-42, Table 1.4-1, Rev. 10/92}
Fuel Consumption: 147.17 10⁶ ft³/yr {Information from company}
Calculations: 147.17 * 10⁶ ft³/yr * 35 lbs/10⁶ ft³ gas * 0.0005 tons/lb =
2.58 tons/yr

SO_x Emissions:

Emission Factor: 0.6 lbs/10⁶ ft³ gas {AP-42, Table 1.4-1, Rev. 10/92}
Fuel Consumption: 147.17 10⁶ ft³/yr {Information from company}
Calculations: 147.17 * 10⁶ ft³/yr * 0.6 lbs/10⁶ ft³ gas * 0.0005 tons/lb =
0.04 tons/yr

Standard Dry Kiln

Kiln Production Rate: 24.00 MMBF/yr (Based on Maximum Production Rate)

Tons of lumber processed: 24.00 MMBF/yr * 2.5 lbs/BF * 0.0005 tons/lb = 30000 tons/yr

TSP Emissions: < 0.01 lbs/ton (negligible)

PM-10 Emissions: < 0.01 lbs/ton (negligible)

V. Existing Air Quality

DEQ determined that there will be no impacts from this permitting action because this permitting action is considered an administrative action. Therefore, DEQ believes this action will not cause or contribute to a violation of any ambient air quality standard.

VI. Air Quality Impacts

The DEQ determined that there will be no impacts from this permitting action because this permitting action is considered an administrative action. Therefore, the DEQ believes this action will not cause or contribute to a violation of any ambient air quality standard.

VII. Ambient Air Impact Analysis

Based on the information provided and the conditions established in MAQP #2588-05, the DEQ determined that there will be no impacts from this permitting action. The DEQ believes it will not cause or contribute to a violation of any ambient air quality standard.

VIII. Taking or Damaging Implication Analysis

YES	NO	
	X	1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	X	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	X	4. Does the action deprive the owner of all economically viable uses of the property?
	X	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)].
		5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
	X	6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)
	X	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally?
	X	7a. Is the impact of government action direct, peculiar, and significant?
	X	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	X	7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?
	X	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

This permitting action is considered an administrative action; therefore, a private property taking and damaging assessment is not required.

IX. Environmental Assessment

This permitting action will not result in an increase of emissions from the facility and is considered an administrative action; therefore, an Environmental Assessment is not required.

Analysis Prepared by: Emily Hultin

Date: 2/20/2024