AIR QUALITY PERMIT

Issued to: Luzenac America, Inc.
Three Forks Mill
2150 Bench Road
Three Forks, MT 59752

Permit: #2282-13
Administrative Amendment (AA) Request
Received: 6/1/07
Department Decision on AA: 7/30/07
Permit Final: 8/15/07
AFS#: 031-0006

An air quality permit, with conditions, is hereby granted to Luzenac America, Inc. – Three Forks Mill (Luzenac), 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/Permitted Facility

The talc processing plant, including milling, refining, and packaging of talc, is located in Section 36, Township 2 North, Range 1 East, Gallatin County, Montana. A complete list of permitted equipment is included in Section I.A. of the permit analysis to this permit.

B. Current Permit Action

In accordance with the provisions contained in ARM 17.8.745 (de minimis rule), on June 1, 2007, the Department received notification of a changed condition of operation that does not result in any increase in potential emissions from the Luzenac facility and a request for an administrative amendment to Permit #2282-12 in accordance with ARM 17.8.764. Specifically, Luzenac requested clarification and re-characterization of the requirement contained in Section II.A.11 of Permit #2282-12, which limited Amino-Silane coating throughput in the talc product coating system. Luzenac is proposing to maintain the applicable throughput limit but change the condition specifically limiting Amino-Silane coating throughput to a more general requirement limiting Silane-compound throughput. The current permit action amends the condition as requested.

Further, in accordance with the de minimis rule, on January 22, 2007, Luzenac provided the Department with written notification for the addition of a stationary ore unloading pit and associated equipment. The current permit action updates the list of facility equipment and the emission inventory contained in the Permit Analysis to include the stationary ore unloading pit and associated equipment.

SECTION II: Conditions and Limitations

A. Emission Control Requirements

1. Stack emissions from each grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, and storage bin constructed after August 31, 1983, are limited to 0.05 grams per dry standard cubic meter (g/dscm) (0.02 grains per dry standard cubic foot (gr/dscf)) of particulate and 7% opacity. This includes, but is not limited to, the following equipment (40 CFR 60, Subpart OOO and ARM 17.8.340).

Emitting Unit ID	Equipment Name – ID	Pollution Control Device	NSPS
EU004	66" Roller mill – M504	Fabric filter baghouse	OOO
EU004	66" Roller mill feed bin – V580	Fabric filter baghouse	OOO
EU004	(3) Roller mill packers - PK1554A,B,C	Fabric filter baghouse	OOO
EU004	Roller mill storage bin 1 – V1551	Fabric filter baghouse	OOO
EU004	Roller mill storage bin 2 – V1552	Fabric filter baghouse	OOO
EU004	Roller mill storage bin 3 – V1553	Fabric filter baghouse	OOO
EU004	Roller mill packer bin – V1554	Fabric filter baghouse	OOO
EU004	Coarse powder conveying collector – V2015	Fabric filter baghouse	OOO
EU004	Coarse powder bulk bag packer bin – V2080	Fabric filter baghouse	OOO
EU004	ACM 3 – V1140	Fabric filter baghouse	OOO
EU004	ACM 3 feed bin – V1180	Fabric filter baghouse	OOO
EU004	(4) MV packers – PK1504A,B,C,D	Fabric filter baghouse	OOO
EU004	MV storage bin 1 – V1501	Fabric filter baghouse	OOO
EU004	MV storage bin 2 – V1502	Fabric filter baghouse	OOO
EU004	MV storage bin 3 – V1503	Fabric filter baghouse	OOO
EU004	MV packer bin – V1504	Fabric filter baghouse	OOO
EU004	CMV packer bin – V1594	Fabric filter baghouse	OOO
EU004	(3) CMV packers – PK1596A,B,C	Fabric filter baghouse	OOO
EU004	Silo 4 – V404	Fabric filter baghouse	OOO
EU004	Silo 5 – V405 (Including Vacuum System 3 – V1374)	Fabric filter baghouse	OOO
EU004	Silo 6 – V406	Fabric filter baghouse	OOO
EU004	Silo 7 – V407	Fabric filter baghouse	OOO
EU004	Packing room fugitive collector – V1584	Fabric filter baghouse	OOO
EU004	Crude load-out crusher – RC062	Fabric filter baghouse	OOO
EU004	Crude load-out conveyors – C061, C063, C06 C076, C077	Fabric filter baghouse	OOO
EU004	Crude load-out bucket elevator – E064	Fabric filter baghouse	OOO
EU004	Crude load-out spout – H066	Fabric filter baghouse	OOO
EU004	Product classifier – F1760	Fabric filter baghouse	OOO
EU004	FEM holding tank – V412	Fabric filter baghouse	OOO
EU004	ZSC holding tank – V414	Fabric filter baghouse	OOO
EU004	Coated holding tank – V413	Fabric filter baghouse	OOO
EU004	Coated packer bin – V1900	Fabric filter baghouse	OOO
EU004	Coating system feed bin – V1880	Fabric filter baghouse	OOO
EU004	(3) Coated packers – PKR1904A,B,C	Fabric filter baghouse	OOO
EU004	Coated densifier feed bin – V1980	Fabric filter baghouse	OOO
EU004	Coated product conveying collector – V1850	Fabric filter baghouse	OOO
EU004	Coated Packaging Recovery Collector – V199	Fabric filter baghouse	OOO
EU004	Portable railcar feeder/conveyor	None	OOO
EU004	Crude load-out feed hoppers & conveyor – SF060, SF073, C074	None	OOO
EU004	Crude load-out crusher hopper baghouse	Fabric filter baghouse	OOO

When any of the above sources are exhausted into the packaging building, instead of to the atmosphere, Luzenac shall not cause to be discharged into the atmosphere, from any building enclosing any transfer point on a conveyor belt or any other affected facility, any visible fugitive emissions except emissions from a vent as defined in 40 CFR 60.671 (40 CFR 60, Subpart OOO and ARM 17.8.340).

2. Luzenac shall not cause or authorize to be discharged into the outdoor atmosphere, from any affected equipment, any visible fugitive emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart OOO).

3. The following stack emissions are limited to 0.02 gr/dscf of particulate and 20% opacity for all sources previously covered by Permits #1519, #1703, and #282, including, but not limited to, the following (ARM 17.8.749):

    a. ACM Mill #1
    b. ACM Mill #2
    c. ACM 50-Ton Feed Bin #1
    d. ACM 50-Ton Feed Bin #2
    e. CMV Silo #1
    f. CMV Silo #2
    g. FEM Classifier #1
    h. FEM Classifier #2
    i. Reclaiming Material Dust Collector
    j. Bulk Loading – Trucks
    k. Bulk Loading – Rail Cars

4. Stack emissions from the Rotary Dryer are limited to 10% opacity and 0.057 g/dscm (40 CFR 60, Subpart UUU and ARM 17.8.340).

5. Fugitive emissions from sources not affected by any New Source Performance Standard are limited to 20% opacity (ARM 17.8.308). This includes, but is not limited to, the following sources of fugitive emissions:

    a. Haul Roads
    b. Ore Handling
    c. Ore Storage-Outdoor
    d. Waste Stockpile-Outdoor
    e. Topsoil Stockpiles
    f. Access roads or general plant property

6. Luzenac shall treat all unpaved portions of the access roads, parking lots, and general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the 20% opacity limitation (ARM 17.8.749).

7. Luzenac shall operate their control equipment to provide the maximum air pollution control for which it was designed (ARM 17.8.752).

8. Luzenac shall install, operate, and maintain baghouses to control emissions from the following equipment (ARM 17.8.752):

    a. FEM Holding Tank
    b. ZSC Holding Tank
    c. Coating System, including the Coating System Feed Bin, Feeder, Turbulizer, and Ward Mill
    d. Coated Holding Tank
    e. Packaging System, including Coated Densifier Feed Bin, Densifier #1, Densifier #2, Packer Bin, and Impeller Packers
    f. Vacuum System #4
    g. Product Classifier

9. Luzenac shall not cause or authorize to be discharged into the atmosphere, from the Vacuum System #4:

    a. Particulate matter (PM) in excess of 0.02 gr/dscf (ARM 17.8.752)
    b. Visible emissions that exhibit an opacity of 10% or greater (ARM 17.8.752)

10. Luzenac shall not cause or authorize to be discharged into the atmosphere, from the Pallet Conveyor Airwall:

    a. Particulate matter in excess of 0.0044 gr/dscf (ARM 17.8.752 and ARM 17.8.749)
    b. Visible emissions that exhibit an opacity of 10% or greater (ARM 17.8.752 and ARM 17.8.749)

11. Silane-compound use at the facility shall be limited to 62.45 tons during any rolling 12-month time period (ARM 17.8.752).

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. All NSPS affected equipment, as defined in 40 CFR Part 60, shall be initially tested and compliance demonstrated with the applicable emission limitations within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial start up, unless otherwise approved by the Department in writing (40 CFR 60.8 and ARM 17.8.105).

3. Process rates during testing must be at specific conditions that are representative of maximum operating capacity or maximum permitted capacity, unless otherwise agreed upon in writing by the Department and Luzenac (ARM 17.8.106).

4. The tests shall be performed according to EPA methods as specified in 40 CFR Part 60, Appendix A (ARM 17.8.106).

5. The Department may require further testing (ARM 17.8.105).

C. Operational and Emission Inventory Reporting Requirements

1. Luzenac shall supply the Department with annual production information for all emission points, as required by the Department 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 Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used for calculating operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

2. Luzenac shall notify the Department of any construction or improvement project conducted pursuant to ARM 17.8.745(1), that would include a 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 or the addition of a new emission unit.

   The notice must be submitted to the Department, in writing, 10 days prior to start up 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(1)(d) (ARM 17.8.745).

3. All records compiled in accordance with this permit must be maintained by Luzenac 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 Department, and must be submitted to the Department upon request (ARM 17.8.749).

4. Luzenac shall document, by month, the amount of Silane-compound used at the facility. By the 25th day of each month, Luzenac shall total the amount of Silane-compound used for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.11. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

D. Notification

Luzenac shall comply with the notification requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

SECTION III: General Conditions

A. Inspection – Luzenac shall allow the Department'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 (CEMS, 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 Luzenac fails to appeal as indicated below.

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Luzenac 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 – Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, 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 Department'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 Department'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 Department's decision on the application is final 16 days after the Department'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 Department at the location of the source.

G. Permit Fee – Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by Luzenac may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.

H. Construction Commencement – Construction must begin within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked (ARM 17.8.762).

Permit Analysis
Luzenac America, Inc.
Permit #2282-13

I. Introduction/Process Description

A. Permitted Facility

Emitting Unit ID	Emitting Unit	Pollution control device	NSPS
EU001	Boiler 1	None	NA
EU002	Boiler 2	None	NA
EU003	Primary crusher – RC025	Fabric filter baghouse	NA
EU003	Secondary crusher – RC035	Fabric filter baghouse	NA
EU003	Belt conveyors – C030, C040, C050, C060	Fabric filter baghouse	NA
EU003	Bucket elevator – E045	Fabric filter baghouse	NA
EU003	60” Roller mill – M104	Fabric filter baghouse	NA
EU003	60” Roller mill feed bin – V180	Fabric filter baghouse	NA
EU003	54” Roller mill – M204	Fabric filter baghouse	NA
EU003	54” Roller mill feed bin – V280	Fabric filter baghouse	NA
EU003	FEM 1 – F807	Fabric filter baghouse	NA
EU003	FEM 1 feed bin – V880	Fabric filter baghouse	NA
EU003	FEM 1 cooling collector – F811	Fabric filter baghouse	NA
EU003	FEM 2 – F907	Fabric filter baghouse	NA
EU003	FEM 2 feed bin – V980	Fabric filter baghouse	NA
EU003	FEM 2 cooling collector – F911	Fabric filter baghouse	NA
EU003	Powder bulk bag packer bin – V1380	Fabric filter baghouse	NA
EU003	Powder bulk bag storage bin – V1390	Fabric filter baghouse	NA
EU003	Pellet mill feed bin – V380	Fabric filter baghouse	NA
EU003	Natural gas pellet dryer 1 – C307	Fabric filter baghouse	NA
EU003	Natural gas pellet dryer 2 – C313	Fabric filter baghouse	NA
EU003	Air pellet dryer 3 – C315	Fabric filter baghouse	NA
EU003	CMV packer bin – V384	Fabric filter baghouse	NA
EU003	CMV direct bulk bag packers – C319	Fabric filter baghouse	NA
EU003	Silo 1 – V401	Fabric filter baghouse	NA
EU003	Silo 2 – V402	Fabric filter baghouse	NA
EU003	Silo 3 – V403	Fabric filter baghouse	NA
EU003	Silo 8 – V408	Fabric filter baghouse	NA
EU003	Silo 9 – V409	Fabric filter baghouse	NA
EU003	Silo 10 – V410	Fabric filter baghouse	NA
EU003	Silo 11 – V411	Fabric filter baghouse	NA
EU003	Vacuum system 1 – V1366	Fabric filter baghouse	NA
EU003	Vacuum system 2 – V1576	Fabric filter baghouse	NA
EU003	Plant feed hopper baghouse	Fabric filter baghouse	NA
EU003	Plant feed hopper & conveyor – SF015, C020	None	NA
EU003	Product classifier feed bin – F1701, F1702	Fabric filter baghouse	NA
EU004	66" Roller mill – M504	Fabric filter baghouse	OOO
EU004	66" Roller mill feed bin – V580	Fabric filter baghouse	OOO
EU004	(3) Roller mill packers - PK1554A,B,C	Fabric filter baghouse	OOO
EU004	Roller mill storage bin 1 – V1551	Fabric filter baghouse	OOO
EU004	Roller mill storage bin 2 – V1552	Fabric filter baghouse	OOO
EU004	Roller mill storage bin 3 – V1553	Fabric filter baghouse	OOO
EU004	Roller mill packer bin – V1554	Fabric filter baghouse	OOO
EU004	Coarse powder conveying collector – V2015	Fabric filter baghouse	OOO
EU004	Coarse powder bulk bag packer bin – V2080	Fabric filter baghouse	OOO
EU004	ACM 3 – V1140	Fabric filter baghouse	OOO

EU004	ACM 3 feed bin – V1180	Fabric filter baghouse	OOO
EU004	(4) MV packers – PK1504A,B,C,D	Fabric filter baghouse	OOO
EU004	MV storage bin 1 – V1501	Fabric filter baghouse	OOO
EU004	MV storage bin 2 – V1502	Fabric filter baghouse	OOO
EU004	MV storage bin 3 – V1503	Fabric filter baghouse	OOO
EU004	MV packer bin – V1504	Fabric filter baghouse	OOO
EU004	CMV packer bin – V1594	Fabric filter baghouse	OOO
EU004	(3) CMV packers – PK1596A,B,C	Fabric filter baghouse	OOO
EU004	Silo 4 – V404	Fabric filter baghouse	OOO
EU004	Silo 5 – V405 (Including Vacuum System 3 – V1374)	Fabric filter baghouse	OOO
EU004	Silo 6 – V406	Fabric filter baghouse	OOO
EU004	Silo 7 – V407	Fabric filter baghouse	OOO
EU004	Packing room fugitive collector – V1584	Fabric filter baghouse	OOO
EU004	Crude load-out crusher – RC062	Fabric filter baghouse	OOO
EU004	Crude load-out conveyors – C061, C063, C065 C076, C077	Fabric filter baghouse	OOO
EU004	Crude load-out bucket elevator – E064	Fabric filter baghouse	OOO
EU004	Crude load-out spout – H066	Fabric filter baghouse	OOO
EU004	Product classifier – F1760	Fabric filter baghouse	OOO
EU004	FEM holding tank – V412	Fabric filter baghouse	OOO
EU004	ZSC holding tank – V414	Fabric filter baghouse	OOO
EU004	Coated holding tank – V413	Fabric filter baghouse	OOO
EU004	Coated packer bin – V1900	Fabric filter baghouse	OOO
EU004	Coating system feed bin – V1880	Fabric filter baghouse	OOO
EU004	(3) Coated packers – PKR1904A,B,C	Fabric filter baghouse	OOO
EU004	Coated densifier feed bin – V1980	Fabric filter baghouse	OOO
EU004	Coated product conveying collector – V1850	Fabric filter baghouse	OOO
EU004	Coated Packaging Recovery Collector – V1990	Fabric filter baghouse	OOO
EU004	Portable railcar feeder/conveyor	None	OOO
EU004	Crude load-out feed hoppers & conveyor – SF060, SF073, C074	None	OOO
EU004	Crude load-out crusher hopper baghouse	Fabric filter baghouse	OOO
EU005	ACM 1 – V640	Fabric filter baghouse	NA
EU006	ACM 1 feed bin – V680	Fabric filter baghouse	NA
EU007	ACM 2 – V740	Fabric filter baghouse	NA
EU008	ACM 2 feed bin – V780	Fabric filter baghouse	NA
EU009	CMV product silo 1 – V382	Fabric filter baghouse	NA
EU010	CMV product silo 2 – V383	Fabric filter baghouse	NA
EU011	FEM 1 classifier – F817	Fabric filter baghouse	NA
EU012	FEM 2 classifier – F917	Fabric filter baghouse	NA
EU013	Reclaim collector – V1354	Fabric filter baghouse	NA
EU014	RM/CMV truck load-out bin/spout – V1304	Fabric filter baghouse	NA
EU015	RM rail load-out bin – V1305	Fabric filter baghouse	NA
EU015	CMV rail load-out surge bin/spout – V381	Fabric filter baghouse	NA
EU016	Vacuum system 4 – V2110	Fabric filter baghouse	NA
EU017	Crude load-out dryer – C075	Fabric filter baghouse	UUU
EU018	Haul roads	Water/Chemical	NA
EU018	Ore storage (outdoor)	Water/Chemical	NA
EU018	Ore storage (indoor)	Water/Chemical	NA
EU018	Access roads or general plant property	Water/Chemical	NA
EU018	LPG Exhaust	None	NA
EU018	Diesel exhaust	None	NA
EU018	Truck Unloading	None	NA
EU018	Ore Handling (plant)	None	NA
EU018	Ore Handling (load-out), including stationary railcar load-out facility	None	NA

EU018	Haul trucks	None	NA
EU018	Light vehicles	None	NA
EU018	Loaders	None	NA
EU019	Pallet conveyor airwall – AW1926	Airwall	NA
EU020	Silane-Compound	NA	NA
EU021	Packaging System	NA	OOO
EU022	Fabric Filter Baghouse Control	Fabric Filter Baghouse	OOO

B. Site Location

The Three Forks Mill is located in Section 36, Township 2 North, Range 1 East, in Gallatin County, Montana.

C. Permit History

Permit #142-080270 was issued to United Sierra Division, Cyprus Mines Corporation on June 3, 1970, for two bag-type dust collectors.

Permit #188-090670 was issued to United Sierra Division on June 8, 1970, for the reject processing Bauer Mill with Flex-Kleen Model 84FK-80 dust collector.

Permit #673-121973 was issued to United Sierra Division on September 19, 1973, for the talc plant modernization and expansion.

Permit #1519 was issued on November 13, 1980, to Cyprus Industrial Minerals Company for a Mikro Pulsaire Dust Collector and Bin Vent Collector. The permit also covered CMV Silo #1, CMV Silo #2, JS-30 Classifier #1, JS-30 Classifier #2, Reclaiming Material Dust Collector, Bulk Loading Trucks and Bulk Loading-Rail Cars. This permit application identified information on three dust collectors (letter dated August 21, 1980). Review indicates a number of these dust collectors were constructed in 1974 as part of the plant modernization and expansion. Some of the dust collectors were constructed prior to 1974.

Permit #1703 was issued on August 3, 1982, and modified on November 22, 1983. The permit was issued to Cyprus Industrial Minerals Company for the #1 and #2 ACM Mills, ACM 50 Ton Feed Bin #1, ACM 50 Ton Feed Bin #2, and one major dust collector. The original permit application included nine Vertical Mills, plus related dust collectors, bin vents, and silos; but, on December 14, 1982, the Department of Environmental Quality (Department) was notified by Cyprus that the construction project had changed.

Permit #2282 was issued on June 19, 1986, to Cyprus Industrial Minerals Company for a new Rail Loadout and Rotary Dryer.

On January 22, 1993, Luzenac requested a name change. On July 1, 1992, Luzenac America, Inc purchased all properties in Montana previously owned by Cyprus Minerals Company.

Permit #2282-01 was issued on September 13, 1994, to allow Luzenac to construct and operate the following equipment:

a. Roller Mill Storage Bin #1 – V1551
b. Roller Mill Storage Bin #2 – V1552
c. Roller Mill Storage Bin #3 – V1553
d. MV Storage Bin #1 – V1501
e. MV Storage Bin #2 – V1502
f. MV Storage Bin #3 – V1503

g. Roller Mill Packer Bin – V1554
h. Roller Mill Packers (3)
i. CMV Packer Bin – V1594
j. CMV Packers (3)
k. MV Packer Bin – V1504
l. MV Packers (4)
m. CMV Transfer Conveyor and Bucket Elevator
n. Packaging Room Fugitive Dust Control
o. Packaging Conveyors
p. Pelletizer

This new automated packaging equipment, related feed bins, dust collectors, and fans were used for the filling and palletizing of 50-pound bags of talc. This equipment was to be used instead of the existing packaging equipment, which had been in operation since the early 1970s. The existing equipment was not removed, but Luzenac did not plan to use it on a regular basis at that time. The change to the packaging system did not affect the production capacity of the plant.

The new automated packaging equipment handled three types of products: Mistron Vapor (fine grind), Compacted Mistron Vapor (pelletized), and Roller Mill (coarse grind). Only one system, or product type, can be operated at a given time with the automatic palletizing line. The emissions from the automatic packaging equipment were calculated at 14.26 tons/year. The permit review was based on all the equipment operating at the same time for modeling purposes.

The discharge from DC #1520, DC #1590, DC #1584, and DC #1570 is directed back into the packaging room during the winter months to help conserve heating costs. The discharge is ducted to the atmosphere during the summer months. The stack emission limitations apply at all times and the method of compliance remained the same. The method of compliance with the visible emissions is Method 9 (7% opacity) when the discharge is to atmosphere and a Method 22 (0% opacity) when the discharge is directed back into the packaging room. The other discharges are to atmosphere at all times.

The material collected from all the baghouses will be put back into the process at various points.

Permit #2282-02 was issued on October 16, 1994, to construct and install a new 66" Roller Mill Feed Bin and 66" Roller Mill System, along with associated fabric filters. Silos #4, #5, #6, and #7, which were installed in 1983, 1986, 1986, and 1986, respectively, were also permitted.

Permit #2282-03 was issued on July 3, 1995. Luzenac proposed to add a third ACM mill, feed bin, and related fabric filter controls to the operation to increase the process rate through the Roller Mill System. Also included in this permitting action was the replacement of existing equipment on the #3 Vacuum Cleanup System. Specifically, a portable HiVac unit was replaced with a MikroPul Reverse Pulse Jet dust collector. This system collects spillage throughout the plant.

Permit #2282-04 was issued on September 5, 1998. Luzenac proposed a Product Classifier Circuit that consists of a 30-inch air classifier, dust collection system, and two pneumatic conveying systems to transport coarse and fine-cut powder from the classifier to existing packaging or processing systems. The project also included converting the existing Semi-bulk Bag Fill Bin into the Classifier Feed Bin and changing the baghouse used for the

primary and secondary crushers into the baghouse for the Product Classifier. A new baghouse was proposed to be installed to control emissions from the primary and secondary crusher.

This permit alteration was required because the potential to emit (PTE) for the new Product Classifier was greater than 15 tons per year. The activities involving the conversion of the Semi-bulk Bag Fill Bin and using a new baghouse on the crusher did not require a permit. The Semi-bulk Bag Fill Bin conversion would not result in an increase in emissions. A baghouse is not required by permit on the crushers; therefore, changing the control equipment on the crushers did not trigger permitting requirements.

The allowable emissions from the Product Classifier will result in an emission increase of 3.82 tons per year of particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}). The Product Classifier is a 40 CFR 60, Subpart OOO, affected facility. Testing and reporting requirements for Subpart OOO were included in the permit. Permit #2282-04 replaced Permit #2282-03.

Permit #2282-05 was issued on April 14, 1999. Luzenac proposed installation of a new coating system, new storage facilities, and new packaging system. The new coating and packaging systems are to be installed in the former old packaging area of the mill. The new silos are to be constructed immediately to the south of the existing silos.

Talc will be coated with Silane-compound in the coating system. Equipment in the coating system included the FEM Holding Tank, Coating System Feed Bin, Loss-in-Weight Feeder, Turbulizer, and Ward Mill. Particulate emissions from the coating system are to be controlled by a baghouse. Silane-compound will be pumped into the turbulizer and mixed with talc. After the coating process, the material will be pneumatically conveyed to storage silo's CB Tank #1 (now referred to as the Coated Holding Tank) and CB Tank #2. Particulate emissions will be controlled by a baghouse on each tank. VOC emissions from the coating process will occur primarily in the CB Tanks. Section II.A.14 limits the facility's use of Silane-compound to 62.45 tons per year. This process limit results in VOC emissions of 39.0 tons per year.

Talc is pneumatically conveyed to the new coated product packaging system directly from the existing FEM 1 and 2 systems, from CB Tank #1 (now referred to as the Coated Holding Tank) and CB Tank #2, or from the New ZSC Holding Tank. The ZSC Holding Tank will store talc that has been coated with Zinc Stearate in the FEM system. Particulate emissions from the ZSC Holding Tank will be controlled by a baghouse.

Equipment in the coated product packaging system included a Coated Product Packaging Feed Bin (now referred to as the Coated Densifier Feed Bin), two Densifiers, a Packer Bin, and three Packers. Particulate emissions from the coated product packaging system are to be controlled by a baghouse on the Coated Product Packaging Feed Bin. For industrial hygiene purposes, two Airwalls will be installed. One will be installed at the packers and the other near the bag cleaning area to filter ambient air in the immediate area. In addition, a new vacuum system will be installed. Particulate emissions from the Vacuum System #4 will be controlled by a vacuum-rated baghouse. The changes proposed in Permit Application #2282-05 will result in an increase in allowable emissions of approximately 10.8 tons per year of PM_{10} and 39.0 tons per year of VOCs. The testing requirements were also clarified to specifically state that testing included both opacity and particulate matter (PM).

On March 22, 1999, Luzenac submitted written comments on the preliminary determination. Luzenac commented that 40 CFR 60, Subpart OOO, states that a 7% opacity limit is the only emission limit set for a baghouse that controls emissions from only an individual, enclosed

storage bin (40 CFR 60.672(f)). The Department removed the particulate testing requirements for the FEM Holding Tank, ZSC Tank, and CB Tanks #1 and #2 prior to issuing the final permit. Luzenac was still required to conduct opacity testing. The Department retained the particulate matter limit of 0.02 gr/dscf for the FEM Holding Tank, ZSC Holding Tank, and CB Tanks #1 and #2; however, initial testing was not required.

On July 21, 1999, the Department received a request from Luzenac to remove testing requirements for:

a. The 66" Roller Mill System
b. The three Roller Mill Storage Bins (#1-V1551, #2-V1552, and #3-V1553)
c. The three MV Storage Bins (#1-V1501, #2-V1502, and #3-V1503)
d. The four Product Silos (#4-V404, #5-V405, #6-V406, and #7-V407)

Because the units are all considered process equipment, all have very low emissions, and some have successfully demonstrated compliance in the past, the Department agreed to remove the testing for these units. The permitting action was done as a modification because the emissions will not change or increase as a result of this action.

This modification incorporated the newly submitted information concerning the design modifications for the new coating, storage, and packaging system. The design modifications included:

a. CB Tank #1 is now referred to as the Coated Holding Tank;

b. CB Tank #2 will not be constructed as part of the project, but Luzenac would like to leave it in the permit, as it may be constructed at a later date;

c. Coated Product Packaging Feed Bin, now referred to as the Coated Densifier Feed Bin. This baghouse will not be used to control emissions from the packer bin and packers as originally permitted. The Coated Packer Bin will, instead, be vented by the existing Re-run Fugitive Collector, which will be refurbished and relocated. This baghouse will also provide primary dust control for the bagging operations through pick-up points near the packer spouts, and will provide dust control for a reject bag rerun hopper; and

d. Spillage from the packaging operation will be collected and returned to the plant's existing Central Reclaim System, as will material recycled through the reject bag rerun hopper.

The design changes resulted in overall reduced emissions from the new processes. The reduction in emissions as a result of the design modifications will reduce the emissions by 1.8 tons per year.

The modification also included the addition of the 20-ton semi-bulk bag fill bin #4 for improved material handling of the semi-bulk bag fill system. This additional bin was added under ARM 17.8.705(1)(r) and therefore, did not require a permit, but was added to the permit at this time for clarification purposes. **Permit #2282-06** replaced Permit #2282-05.

On September 21, 1999, the Department received a request from Luzenac to remove testing requirements for the Roller Mill Packers. The Department agreed with this change because the Roller Mill Packers are vented inside the mill building. **Permit #2282-07** replaced Permit #2282-06.

On November 18, 1999, the Department received a request for a de minimis determination for the installation of a vacuum-rated baghouse, which would be used to move coated talc from the Ward Mill under negative pressure to the Coated Holding Tank. Originally, Luzenac had planned to use a rotary airlock feeder and positive pressure to convey the coated talc from the Ward Mill; however, this system proved to be inadequate upon startup.

As a result of this new system, it was no longer necessary to vent the Ward Mill back to the coating system feed bin as proposed in the original design. The new vacuum-rated baghouse, referred to as the Coated Product Conveying Collector, was an IAC Model No. 54TB-FRIP-21:S6 Pulse Jet Filter, venting approximately 750 acfm of air through 21 bags at a 5.2:1 air-to-cloth ratio. The increase in emissions resulting from this new baghouse, which was ultimately used as process equipment for conveying purposes, was 0.56 tons per year (TPY) of PM_{10}. Because the increase in emissions was below the 15-TPY threshold for de minimis, and the change did not conflict with existing limitations within the permit, the Department agreed that this change at the facility was a de minimis change. **Permit #2282-08** replaced Permit #2282-07.

On February 4, 2000, the Department received, from Luzenac, a revised request for a de minimis determination and modification of Permit #2282-08 for the installation of a new vacuum-rated baghouse referred to as the Coarse Powder Conveying Collector (IAC Model No. 54TB-FRI-14:S6 pulse jet filter). The request was revised from a previous permit modification request, containing incorrect information, submitted to the Department on January 26, 2000. The Coarse Powder Conveying Collector would have the capacity to vent up to 700 acfm of air through 14 bags at a 7.8:1 air-to-cloth ratio.

The Coarse Powder Conveying Collector would be utilized as a process application (pneumatic conveyor) to convey talc from the Coarse Powder Bulk Bag Packing Bin (V2080) under negative pressure. Because the Coarse Powder Conveying Collector would be utilized as a process application and not as a pollution control device, the de minimis determination was made using maximum uncontrolled emission calculations with the baghouse in place. The potential emissions from the proposed Coarse Powder Conveying Collector are less than 15 TPY. Therefore, the addition of the baghouse complies with ARM 17.8.705(1)(r) and this permit action was considered a permit modification.

The Coarse Powder Conveying Collector was subject to new source performance standards (NSPS) under 40 CFR Part 60, Subpart OOO. Because the baghouse would vent exclusively inside the mill building, Luzenac requested that the Department evaluate and remove the requirement for initial Method 5 and Method 9 source testing, for the purpose of demonstrating compliance.

Further, on February 8, 2000, the Department received a separate request for modification of air quality Permit #2282-08. The modification request involved the removal of testing requirements for other process equipment subject to 40 CFR 60, Subpart OOO. During a review of construction progress at the Three Forks Mill, Luzenac discovered that several stacks requiring initial Method 5 and or Method 9 source testing vent exclusively within the mill with no associated outdoor emissions. As with the Coarse Powder Conveying Collector described previously, because the affected equipment vents exclusively to the indoor mill environment, Luzenac requested that the initial source testing requirements be removed from the following list of NSPS affected process equipment:

a. Coated Densifier Feed Bin (V1980)
b. Coarse Powder Bulk Bag Packer Bin (V2080, Formerly the 20 ton Semi-Bulk Bag Fill Bin #4)

c. Coating System Feed Bin (V1880)
d. Coated Packer Bin (V1900)
e. Coated Product Conveyor Collector

40 CFR, Subpart OOO, does not contain any provisions to exempt a source from initial source testing requirements. Further, 40 CFR 60 does not contain provisions to waive performance source testing on the sole basis of indoor venting of emissions. However, the "Administrator" or administrative authority, as defined in 40 CFR 60.8, can waive the requirement for initial performance source testing on a case-by-case basis. Through source testing, Luzenac has demonstrated to the Department's satisfaction that similar emission sources within the talc mill have been consistently in compliance and, thus, at the "Administrator's" discretion, met the criteria for initial source testing waiver under 40 CFR 60.8(b)(4).

Therefore, the question was whether the Department is the "Administrator" and has administrative authority to waive the initial source testing requirements for the above-cited equipment under 40 CFR 60.8. In accordance with current Department guidance regarding this issue, the Department must acquire formal EPA approval prior to issuance of the waiver.

Therefore, in a letter dated March 6, 2000, the Department requested a formal determination from EPA regarding this issue. The Department did not waive the initial source testing requirement for the above-cited NSPS affected sources, pending EPA's response and formal determination regarding this issue. In a letter to EPA, the Department requested administrative authority and included that if the Department did not receive a determination from EPA, it would be assumed that EPA agrees with the source testing waiver and has given the State of Montana administrative authority to formally waive the initial source testing as described above. The Department did not receive a response from EPA and thus assumed administrative authority and waived NSPS testing as described above.

As defined in Section II.A.15 and II.A.16 of this permit, because the Coated Product Conveying Collector (baghouse) and the Coarse Powder Conveying Collector (baghouse) are utilized to convey talc from individual enclosed storage bins, the sources are subject to opacity limits, but not particulate limits as defined in 40 CFR 60, Subpart OOO.

Finally, the current permit action changed the name of the 20-ton Semi-Bulk Bag Fill Bin #4 to the Coarse Powder Bulk Bag Packer Bin (V2080). **Permit #2282-09** replaced Permit #2282-08.

On April 18, 2000, the Department received a request for a de minimis determination and modification of Permit #2282-09. The proposed action involved utilizing the baghouse venting the Powder Bulk Bag Storage Bin (V1390) to recover talc lost during packaging in the Coated Product portion of the Luzenac plant. To facilitate this, Luzenac utilized an existing (unused) duct, extended from the Powder Bulk Bag Storage Bin baghouse (V1390) to the Coated Product Packaging hopper. Previously, talc spilled during bag filling operations was collected in the hopper and removed by an educator. In a previous permit action, Luzenac permitted a Coated Product Packaging Airwall to recover secondary fugitive dust in the packaging area. However, in an effort to minimize noise and other industrial hygiene related concerns, the changes under **Permit #2282-10** replaced the previously permitted Coated Product Packaging Airwall and eliminated the need for the educator on the hopper. Finally, because the baghouse previously utilized to vent the Powder Bulk Bag Storage Bin (V1390) now vents the Coated Product Packaging operation, Luzenac re-furbished and re-installed the Twin Bin Vent baghouse, which was removed from service in 1999, to vent the Powder Bulk Bag Storage Bin. In addition, the name of the former Powder

Bulk Bag Storage Bin (V1390) baghouse was changed to the Coated Product Packaging baghouse and the name of the former Twin Bin Vent baghouse was changed to the Powder Bulk Bag Storage Bin baghouse.

In addition to the above-cited request, the permit action also involved stack modifications for the Coated Product Packaging baghouse and the new Powder Bulk Bag Storage Bin Baghouse. These stacks, initially installed to vent within the mill building, were extended through the walls to vent to the outdoor atmosphere. Again, this change was made to reduce industrial hygiene and other safety concerns.

Further, on July 1, 2000, the Department received a separate de minimis determination and request for modification of Permit #2282-09. This request involved installing a baghouse (product collector) on one of the Crude Load-Out hoppers and the Plant Feed hopper, which were previously uncontrolled emission points. The Crude Load-Out baghouse controls emissions from two sources, including the Crude Load-Out Hopper and stockpiling in the Dry Bay, and the Plant Feed baghouse controls emissions from the Plant Feed Hopper only.

Potential emissions from the project, as a whole, were less than 15 tons per year. Therefore, addition of the Coated Product Packaging baghouse, the new Powder Bulk Bag Storage Bin baghouse, the Crude Load-Out baghouse, and the Plant Feed baghouse were accomplished in accordance with ARM 17.8.705(1)(r) and the permit action was considered a permit modification. Potential emission calculations for this permitting action are contained in the emission inventory in Section III of the permit analysis for Permit #2282-10.

It was determined that the Coated Packaging Recovery Collector (baghouse) is subject to new source performance standards (NSPS) under 40 CFR Part 60, Subpart OOO. Further, it was determined that the Powder Bulk Bag Storage bin collector (baghouse) is not an affected facility and therefore, is not subject to 40 CFR Part 60, Subpart OOO. Finally, the baghouses controlling fugitive emissions from the Crude Load-Out and Plant Feed hoppers are not subject to NSPS, as they are exempt pursuant to 40 CFR 60.672(d). Permit #2282-10 replaced Permit #2282-09.

On June 7, 2002, the Department received notification of the installation and operation of a portable feeder/conveyor to be used for railcar talc ore unloading operations at the Luzenac facility. Potential uncontrolled emissions from the portable feeder/conveyor were determined to be less than 15 tons per year; therefore, the equipment was added to the permitted equipment list in accordance with ARM 17.8.705(1)(r). An emission inventory demonstrating compliance with ARM 17.8.705(1)(r) was included in Section IV of the permit analysis for this permit.

Further, the June 7, 2002, submittal from Luzenac indicated that railcar unloading operations, such as that proposed, were not subject to the requirements of 40 CFR 60, Subpart OOO (NSPS). The Department disagreed with this determination, in part. In accordance with 40 CFR 60, Subpart OOO, the material transfer points between the railcar and the portable feeder and the material transfer point between the portable conveyor and the talc ore stock pile were not subject to NSPS requirements. However, the material transfer point between the portable feeder and conveyor was determined to be subject to NSPS requirements.

In addition, on September 23, 2002, during permit processing, the Department received a request to change the existing testing schedule for NSPS affected sources from an every 4-year test schedule to an every 5-year test schedule. In accordance with the Department's "Revised Testing Schedule" guidance (December 4, 1998), after the required initial compliance source test, NSPS affected sources with the PTE less than 50 tons per year shall be tested, "as required by the Department".

Because numerous baghouses and bin vents at the Luzenac facility are considered process equipment rather than control equipment, calculation and determination of the potential to emit from these sources is based on the grain loading control factor of the process baghouse or bin vent associated with the NSPS affected source. Using the grain loading control factor of 0.02 gr/dscf (NSPS Limit) results in a calculated potential to emit of less than 50 tons per year for each NSPS affected process baghouse and/or bin vent at the Luzenac facility. Therefore, in accordance with the Department's "Revised Testing Schedule" the Department modified Luzenac's testing schedule for affected sources from required testing on an every 4-year schedule to testing "as required by the Department" for all affected units. The affected units remained subject to initial source testing requirements, unless otherwise noted. **Permit #2282-11** replaced Permit #2282-10. Finally, various sections of the permit were updated to reflect current Department permitting language and format.

On May 2, 2003, the Department received a request from Luzenac for an administrative amendment to Permit #2282-11. Specifically, Luzenac requested a change to the emitting unit (EU) identification numbers in the permit to correspond with the proposed EU identification numbers under an ongoing Title V operating permit modification (#OP2282-01).

In addition, Luzenac proposed the removal of the condition contained in Section II.A.4 of the existing permit to allow for additional product type packaging operations. The condition limited Luzenac to packaging only one type of product at any given time in the automated packaging system and was established under Permit #2282-01. Based on review of the permit action and analysis conducted for Permit #2282-01, the Department determined that the condition was inappropriately included in the permit.

Further, the proposed packaging line changes included the installation and operation of 2 additional new pick-up points for the existing packaging room fugitive collector (V1584). Since these pick-up points vent directly to the packaging room fugitive collector (V1584), which is permitted for capacity operations, the installation and operation of the new pick-up points did not increase potential emissions. Finally, the Department updated all rule references to reflect the recent ARM Chapter 17.8, Subchapter 7, rule revisions. **Permit #2282-12** replaced Permit #2282-11.

D. Current Permit Action

In accordance with the provisions contained in the Administrative Rules of Montana (ARM) 17.8.745 (de minimis rule), on June 1, 2007, the Department received notification of a changed condition of operation that does not result in any increase in potential emissions from the Luzenac facility and a request for an administrative amendment to Permit #2282-12 in accordance with ARM 17.8.764. Specifically, Luzenac requested clarification and re-characterization of the requirement contained in Section II.A.11 of Permit #2282-12, which limited Amino-Silane coating throughput in the talc product coating system. Luzenac is proposing to maintain the applicable throughput limit but change the condition specifically limiting Amino-Silane coating throughput to a more general requirement limiting Silane-compound throughput. The current permit action amends the condition as requested.

Further, In accordance with the de minimis rule, on January 22, 2007, Luzenac provided the Department with written notification for the addition of a stationary ore unloading pit and associated equipment. The current permit action updates the list of facility equipment and the emission inventory contained in the Permit Analysis to include the stationary ore unloading pit and associated equipment. **Permit #2282-13** replaces Permit #2282-12.

E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT) 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 and are available, upon request, from the Department. Upon request, the Department will provide references for 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 emissions of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, 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 Department.

3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, 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.*, MCA.

   Luzenac 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 Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department 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 which, without resulting in reduction in 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 that a public nuisance is created.

B. ARM 17.8, Subchapter 2, Ambient Air Quality. The following ambient air quality standards or requirements apply, including, but not limited to:

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 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter

6. ARM 17.8.221 Ambient Air Quality Standard for Visibility
7. ARM 17.8.222 Ambient Air Quality Standard for Lead
8. ARM 17.8.223 Ambient Air Quality Standard for PM_{10}

Luzenac 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 an outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.

   Some of the equipment installed at this facility is subject to NSPS. ARM 17.8.304(4)(d) exempts NSPS sources from the 20% opacity limit if the applicable Subpart has a visible emission standard.

2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of 20% for all fugitive emissions sources and that reasonable precautions be taken to control emissions of airborne particulate.

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 section.

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 17.8.322 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.

6. ARM 17.8.324(3) Hydrocarbon Emissions--Petroleum Products. 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 permanently submerged fill pipe, unless such a tank is equipped with a vapor loss control device as described in (1) of this rule.

7. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS).

   a. 40 CFR 60, Subpart OOO – Standards of Performance for Non-Metallic Mineral Processing Plants. Luzenac sources subject to NSPS include, but are not limited to, the facilities identified in Section II.A of the permit.

   b. 40 CFR 60, Subpart UUU – Standards of Performance for Calciners and Dryers. This subpart is applicable to dryers, such as that used at the Luzenac facility, which were constructed or reconstructed after April 23, 1986. Since the Crude Rotary Dryer was constructed after April 23, 1986, Subpart UUU is applicable to this source at the Luzenac facility.

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 Department. Luzenac was not required to submit an application fee for the current permit action because it is considered an administrative amendment to the permit.

2. 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 Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department. 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 Department 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 which pro-rate the required fee amount.

E. ARM 17.8, Subchapter 7, Permit, Construction and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a facility to obtain an air quality permit or permit alteration if they construct, alter or use any air contaminant sources that have the potential to emit greater than 25 tons per year of any pollutant. Luzenac has the potential to emit more than 25 tons per year of PM_{10}; therefore, an air quality permit is required.

3. 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.

4. ARM 17.8.745 Montana Air Quality Permits—Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that are not subject to the Montana Air Quality Permit Program.

5. 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. (7) This rule also 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. The current permit action is an administrative amendment and does not require a permit application or public notice.

6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department 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.

7. 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 current permit action is an administrative amendment and does not require a BACT analysis.

8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.

9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving Luzenac 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*.

10. 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.

11. 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).

12. 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. The current permit is an administrative amendment.

13. 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 Department.

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.

Talc processing does not constitute a listed source. Luzenac does have the potential to emit more than 250 ton/yr of particulate; however, the current permit action will not increase emissions at the plant to a level which exceeds any applicable significant emission threshold as defined in ARM 17.8, Subchapter 8. Therefore, the current permit action does not trigger major New Source Review.

G. ARM 17.8, Subchapter 10 – Preconstruction Permit Requirements for Major Stationary Sources or Major Modifications Located Within Attainment or Unclassified Areas, including, but not limited to:

ARM 17.8.1004 When Air Quality Preconstruction Permit Required. The current permit action is not a major modification. Therefore, the requirements of this subchapter do not apply to the current permit action.

H. 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 Federal Clean Air Act (FCAA) is defined as any stationary source having:

   a. PTE > 100 tons/year of any pollutant;

   b. PTE > 10 tons/year of any one Hazardous Air Pollutant (HAP), 25 tons/year of a combination of all HAPs, or a lesser quantity as the Department may establish by rule; or

   c. Sources with the PTE > 70 tons/year of PM_{10} in a serious PM_{10} 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 Montana Air Quality Permit #2282-12 for Luzenac, the following conclusions were made:

   a. The facility's PTE is greater than 100 tons/year for PM_{10}.

   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 PM_{10} nonattainment area.

   d. This facility is subject to the NSPS requirements under 40 CFR 60, Subpart OOO, Standards of Performance for Non-Metalic Mineral Processing and 40 CFR 60, Subpart UUU, Calciners and Dryers in Mineral Industries, as applicable to the facility.

   e. This facility is not subject to any current NESHAP standards.

   f. This source is not a Title IV affected source, nor a solid waste combustion unit.

   g. This source is not an EPA designated Title V source.

3. ARM 17.8.1224 Additional Requirements for Operational Flexibility and Air Quality Operating Permit Changes That Do Not Require Revisions. (1) A source holding an air quality operating permit is authorized to make changes within a permitted facility without requiring an air quality operating permit revision if the requirements of this rule are met.

Based on these facts, the Department determined that Luzenac is subject to the Title V operating permit program. However, in accordance with ARM 17.8.1224, the current permit action does not require a Title V operating permit revision.

III. Emission Inventory

Facility-Wide PM_{10} Emission Inventory		
EU Number	**Emitting Unit Name and Number**	**PM_{10} Emissions (tons/year)**
EU001	Boiler 1	1.51
EU002	Boiler 2	1.80
EU003	EU003 - Primary and Secondary crushers – RC025 and RC035; Belt conveyors – C030, C040, C050, C060; Bucket elevator – E045	146.04
EU003	60” Roller mill – M104	94.91
EU003	60” Roller mill feed bin – V180	94.91
EU003	54” Roller mill – M204	57.69
EU003	54” Roller mill feed bin – V280	57.69
EU003	FEM 1 – F807	36.26
EU003	FEM 1 feed bin – V880	36.26
EU003	FEM 1 cooling collector – F811	36.26
EU003	FEM 2 – F907	36.26
EU003	FEM 2 feed bin – V980	36.26
EU003	FEM 2 cooling collector – F911	36.26
EU003	Powder bulk bag packer bin – V1380	94.91
EU003	Powder bulk bag storage bin – V1390	57.69
EU003	Pellet mill feed bin – V380	120.44
EU003	Natural gas pellet dryer 1 – C307; Natural gas pellet dryer 2 – C313; Air pellet dryer 3 – C315	251.44
EU003	CMV packer bin – V384	120.44
EU003	CMV direct bulk bag packers – C319	Ventilated by Pellet Dryers
EU003	Silo 1 – V401	31.22
EU003	Silo 2 – V402	31.22
EU003	Silo 3 – V403	57.69
EU003	Silo 8 – V408	57.69
EU003	Silo 9 – V409	57.69
EU003	Silo 10 – V410	57.69
EU003	Silo 11 – V411	46.29
EU003	Vacuum system 1 – V1366	17.96
EU003	Vacuum system 2 – V1576	17.96
EU003	Product classifier feed bin – F1701, F1702	57.69
EU003	Plant feed hopper baghouse	0.72
EU003	Plant feed hopper & conveyor – SF015, C020	0.72
EU004	66" Roller mill – M504	2.15
EU004	66" Roller mill feed bin – V580	1.04
EU004	(3) Roller mill packers - PK1554A,B,C	Ventilated by Roller Mill Packer Bin (V1554)
EU004	Roller mill storage bin 1 – V1551	1.13
EU004	Roller mill storage bin 2 – V1552	1.13
EU004	Roller mill storage bin 3 – V1553	1.13
EU004	Roller mill packer bin – V1554	2.67
EU004	Coarse powder conveying collector – V2015	0.44
EU004	Coarse powder bulk bag packer bin – V2080	0.78
EU004	ACM 3 – V1140	7.23
EU004	ACM 3 feed bin – V1180	1.50

EU004	(4) MV packers – PK1504A,B,C,D	Ventilated by MV Packer Bin (V1504)
EU004	MV storage bin 1 – V1501	1.13
EU004	MV storage bin 2 – V1502	1.13
EU004	MV storage bin 3 – V1503	1.13
EU004	MV packer bin – V1504	3.20
EU004	CMV packer bin – V1594	2.67
EU004	(3) CMV packers – PK1596A,B,C	Ventilated by CMV Packer Bin (V1594)
EU004	Silo 4 – V404	1.35
EU004	Silo 5 – V405 (Including Vacuum System 3 – V1374)	1.71
EU004	Silo 6 – V406	1.35
EU004	Silo 7 – V407	1.35
EU004	Packing room fugitive collector – V1584	9.93
EU004	Crude load-out crusher – RC062; Crude load-out conveyors – C061, C063, C065, C076, C077; Crude load-out bucket elevator – E064	3.44
EU004	Crude load-out spout – H066	1.51
EU004	Product classifier – F1760	6.68
EU004	FEM holding tank – V412	0.78
EU004	ZSC holding tank – V414	0.78
EU004	Coated holding tank – V413	0.78
EU004	Coated packer bin – V1900	1.91
EU004	Coating system feed bin – V1880	0.78
EU004	(3) Coated packers – PKR1904A,B,C	Ventilated by Coated Packer Bin (V1900)
EU004	Coated densifier feed bin – V1980	0.78
EU004	Coated product conveying collector – V1850	0.47
EU004	Coated Packaging Recovery Collector – V1990	3.34
EU004	Portable railcar feeder/conveyor	4.60
EU004	Crude load-out crusher hopper baghouse	0.72
EU004	Crude load-out feed hoppers & conveyor – SF060, SF073, C074	0.72
EU005	ACM 1 – V640	7.23
EU006	ACM 1 feed bin – V680	1.04
EU007	ACM 2 – V740	7.23
EU008	ACM 2 feed bin – V780	1.04
EU009	CMV product silo 1 – V382	1.04
EU010	CMV product silo 2 – V383	1.04
EU011	FEM 1 classifier – F817	4.91
EU012	FEM 2 classifier – F917	4.91
EU013	Reclaim collector – V1354	10.02
EU014	RM/CMV truck load-out bin/spout – V1304	110.21
EU015	RM rail load-out bin – V1305	1.50
EU015	CMV rail load-out surge bin/spout – V381	7.49
EU016	Vacuum system 4 – V2110	0.31
EU017	Crude load-out dryer – C075	22.97
EU018	Haul roads; Haul trucks; Light vehicles; Loaders; Forklifts; Dump Trucks; Stationary Railcar Load-Out Facility; Access roads or genera property	10.47
EU018	Ore storage (Indoor and Outdoor)	0.24
EU018	Diesel exhaust	0.54
EU018	Gasoline fuel combustion	0.04
EU018	LPG fuel	0.006
EU018	Truck Unloading	0.004
EU018	Ore Handling (plant)	0.08

EU018	Ore Handling (load-out)	0.08
EU018	Building Vents	2.75
EU019	Pallet conveyor airwall – AW1926	0.99
Total Potential PM_{10} Emissions		**2019.15**

- A complete emission inventory is on file with the Department.

IV. BACT Determination

A BACT determination is required for each new or modified source. Luzenac shall install on the new sources the maximum air pollution control capability, which is technically practicable and economically feasible, except that the BACT shall be utilized. The current permit action is an administrative amendment and does not require BACT review.

V. Existing Air Quality

The air quality of this area is classified as either better than national standards or unclassifiable/ attainment of the National Ambient Air Quality Standards (NAAQS) for criteria pollutants.

VI. Ambient Air Impact Analysis

The current permit action will not result in any increase in potential emissions; therefore, the Department determined that this permit action will not cause or contribute to an exceedance of any ambient air quality standard.

VII. Taking or Damaging Implication Analysis

As required by 2-10-101 through 105, MCA, the Department conducted a private property taking and damaging assessment and determined there are no taking or damaging implications.

VIII. Environmental Assessment

The current permit action is an administrative amendment and does not require an environmental assessment.

Permit Analysis Prepared By: M. Eric Merchant
Date: July 13, 2007