



Air, Energy & Mining Division

October 7, 2021

Patrick Montalban
Monte Grande Gathering, LLC
PO Box 200
Cut Bank, MT 59427

Dear Mr. Montalban:

Montana Air Quality Permit #5215-02 is deemed final as of October 7, 2021, by the Department of Environmental Quality (Department). This permit is for a Natural Gas Production Facility. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

A handwritten signature in black ink that reads "Julie A. Merkel".

Julie A. Merkel
Permitting Services Section Supervisor
Air Quality Bureau
(406) 444-3626

A handwritten signature in black ink that reads "Troy M. Burrows".

Troy M. Burrows
Air Quality Specialist
Air Quality Bureau
(406) 444-1452

JM:TMB
Enclosure

MONTANA AIR QUALITY PERMIT

Issued To: Monte Grande Gathering, LLC
PO Box 200
Cut Bank, MT 59427

MAQP: #5215-02
Application Complete: 9/8/2021
Department's Decision Issued: 9/21/2021
Permit Final: 10/7/2021

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Monte Grand Gathering, LLC. (Monte Grand), 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

Monte Grand proposes to operate a stationary natural gas compressor engine and associated equipment, which will be located at Section 22, Township 33 North, and Range 5 East (48.602950, -112.244151), in Glacier County, Montana.

B. Current Permit Action

On September 8, 2021, the Department received an application to modify MAQP #5215-01. The modification changes the owner name, address, and responsible official. **MAQP 5215-02** replaces 5215-01.

Section II: Conditions and Limitations

A. Emission Limitations

1. The 600 hp Waukesha F2895GL natural gas compressor engine shall be of four-stroke rich-burn design and operated with a non-selective catalytic reduction (NSCR) unit and an air/fuel ratio (AFR) controller (ARM 17.8.752).
2. The pound per hour (lb/hr) emission limitations for the natural gas compressor engine shall be determined using the following equation and pollutant-specific grams per brake horsepower-hour (g/bhp-hr) emission factors (ARM 17.8.752):

Emission Factors:

Oxides of Nitrogen (NO _x)	1.5 g/bhp-hr (.003307 lb/bhp-hr)
Carbon Monoxide (CO)	2.0 g/bhp-hr (.004400 lb/bhp-hr)
Volatile Organic Compounds (VOC)	0.5 g/bhp-hr (.001103 lb/bhp-hr)

3. The auxiliary generator engine shall not exceed a maximum capacity of 600 horsepower (hp) (ARM 17.8.749).

4. Monte Grand 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).
5. Monte Grand 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).
6. Monte Grand 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).
7. Monte Grand shall comply with all applicable standards and limitations, and the reporting, recordkeeping and notification requirements contained in 40 CFR 60, Subpart KKK, as it applies to equipment leaks of volatile organic compounds from onshore natural gas processing plants (ARM 17.8.340 and 40 CFR 60, Subpart KKK).
8. Monte Grand shall comply with all applicable standards and limitations, and the reporting, recordkeeping and notification requirements contained in 40 CFR 60, Subpart IIII, 40 CFR 60, Subpart JJJJ and 40 CFR 60, Subpart OOOO (ARM 17.8.340, 40 CFR 60, Subpart JJJJ and 40 CFR60, Subpart OOOO).
9. Monte Grand shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR 63, Subpart ZZZZ (ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ).

B. Testing Requirements

1. The compressor engine shall be initially tested for NO_x and CO concurrently. The initial source testing shall be conducted within 180 days of the initial start-up date of the compressor engine. The compressor engine shall be tested on an every 4-year basis, or according to another testing/monitoring schedule as may be approved by the department, for NO_x and CO (ARM 17.8.105 and ARM 17.8.749).
2. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
3. The Department of Environmental Quality (Department) may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. Monte Grand 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 to calculate operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

Monte Grand shall submit the following information annually to the Department by March 1 of each year; the information may be submitted along with the annual emission inventory (ARM 17.8.505).

2. Monte Grand shall notify the Department 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 Department, 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 Monte Grand 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. These records may be stored at a location other than the plant site upon approval by the Department (ARM 17.8.749).

D. Notification

Monte Grand shall provide the Department with notification of the actual start-up date of the natural gas compressor engine within 15 days of the actual startup date (ARM 17.8.749).

Section III: General Conditions

- A. **Inspection** – Monte Grand 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 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 Monte Grand fails to appeal as indicated below.

- C. **Compliance with Statutes and Regulations** – Nothing in this permit shall be construed as relieving Monte Grand 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 Department's decision may request, within 15 days after the Department 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 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, failure to pay the annual operation fee by Monte Grand 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
Monte Grand Gathering, LLC.
MAQP #5215-02

I. Introduction/Process Description

Monte Grand Gathering, LLC. (Monte Grand) owns and operates a natural gas compressor engine and associated equipment. The facility is located in Section 22, Township 33 North, and Range 5 East (48.602950, -112.244151), in Glacier County, Montana.

A. Permitted Equipment

- 1 – 600 brake horsepower (bhp) four-stroke rich-burn Waukesha F2895GL natural gas compressor engine with nonselective catalytic reduction (NSCR) unit and air/fuel ratio (AFR) controller.
- 1 – 600 horsepower (hp) diesel-fired Auxiliary Generator Engine
- 1 – Ethylene Glycol Dehydration Unit
- 2 – Natural Gas Storage Tanks and Vents (Natural Gasoline)
- 1 – Emergency Shutdown Flare
- Associated Equipment

B. Source Description

The facility boosts field gas through the gas transmission system to a gas plant for processing.

C. Permit History

On September 28, 2018, the Department received an application from Monte Grand Gathering, LLC., for a Montana Air Quality Permit. The application was for a 600-brake horsepower natural gas compressor engine located in Section 22, Township 33 North, and Range 5 East (48.602950, -112.244151), Glacier County, Montana. The MAQP was assigned number 5215-00. **MAQP #5215-00** was issued on December 24, 2018.

On December 12, 2018, the Department received an application to modify MAQP #5215-00. The modification adds a 600 horsepower (hp) diesel-fired auxiliary generator engine, an ethylene glycol dehydration unit, 2 natural gas storage tanks, and an emergency shutdown flare to the emissions inventory. **MAQP 5215-01** replaced 5215-00.

D. Current Permit Action

On September 8, 2021, the Department received a notice of a change of ownership, address, and responsible official. **MAQP #5215-02** replaces MAQP #5215-01.

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 (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 emission 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.*, Montana Code Annotated (MCA).

Monte Grand 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 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
 11. ARM 17.8.230 Fluoride in Forage
- 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, Monte Grand 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). Monte Grand is considered an NSPS affected facility under 40 CFR Part 60 and is subject to the requirements of the following subparts.
 - a. 40 CFR 60, Subpart A – General Provisions apply to all equipment or facilities subject to an NSPS Subpart as listed below:
 - b. 40 CFR 60, Subpart KKK – Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants. A source is subject to this subpart if it owns or operates a compressor station, dehydration unit, sweetening unit, underground storage tank, field gas gathering system, or liquefied natural gas unit. Monte Grand is subject to this subpart part because it owns and operates a dehydration unit.
 - c. 40 CFR 60, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE). Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are manufactured after April 1, 2006, and are not fire pump engines, and owners and operators of stationary CI ICE that modify or reconstruct their stationary CI ICE after July 11, 2005, are subject to this subpart. Based on the information submitted by Monte Grand, the CI ICE equipment to be used under MAQP #5215-02 may be subject to this subpart because the engine is considered a stationary combustion ignition, internal combustion engine.
 - d. 40 CFR 60, Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (CI ICE). Owners or operators of stationary spark ignition (SI) internal combustion engine (ICE) that commence construction, modification, or reconstruction after June 12, 2006, where the stationary ICE is manufactured after July 1, 2007, for engines greater than 500 bhp, or after January 1, 2008, for engines less

than 500 bhp. This NSPS will apply if the engine remains, or will remain, at the permitted location for more than 12 months, or a shorter period of time for an engine located at a seasonal source.

A seasonal source remains at a single location on a permanent basis (at least 2 years) and operates three months or more each year. Because the natural gas SI ICE engines were modified after July 1, 2007, this NSPS does apply.

- e. 40 CFR 60, Subpart OOOO – Crude Oil and Natural Gas Production, Transmission, and Distribution. Any owner or operation of a reciprocating compressor which is a single reciprocation compressor located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment may be subject to this part. Based on information provided by Monte Grand, the natural gas compressor engine is subject to this subpart because it is a reciprocation engine located between the wellhead and custody transfer.
9. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. The source, as defined and applied in 40 CFR Part 63, shall comply with the requirements of 40 CFR Part 63, as listed below:
 - a. 40 CFR 63, Subpart A – General Provisions apply to all equipment or facilities subject to an NESHAP Subpart as listed below:
 - b. 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants (HAPs) for Stationary Reciprocating Internal Combustion Engines (RICE). An owner or operator of a stationary reciprocating internal combustion engine (RICE) at a major or area source of HAP emissions is subject to this rule except if the stationary RICE is being tested at a stationary RICE test cell/stand. An area source of HAP emissions is a source that is not a major source. Based on the information submitted by Monte Grand, the RICE equipment to be used under MAQP #5215-02 is subject to this subpart because the RICE is a stationary engine located at an area source of HAP emissions.
- 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. A permit fee is not required for the current permit action because the permit action is considered an administrative permit change.
 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 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:

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 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. Monte Grand has a PTE greater than 25 tons per year of Oxides of Nitrogen (NO_x) and Carbon Monoxide (CO); 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 do not require a permit under 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. 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.
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 required BACT analysis is included in Section III of this permit 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 Monte Grand 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 17.8.759 Review of Permit Applications. This rule describes the Department'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.
11. ARM 17.8.760 Additional Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those applications that require 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 Department.
16. ARM 17.8.770 Additional Requirements for Incinerators. This rule specifies the additional information that must be submitted to the Department for incineration facilities subject to 75-2-215, Montana Code Annotated (MCA).
17. 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 Department 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 #5215-02 for Monte Grand, 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 subject to NSPS (40 CFR 60 Subpart A, Subpart KKK, Subpart IIII, Subpart JJJJ, and Subpart OOOO).
- e. This facility is subject to NESHAP standards (40 CFR 63 Subpart A and Subpart ZZZZ).
- f. This source is not a Title IV affected source.
- g. This source is not a solid waste combustion unit.
- h. This source is not an EPA designated Title V source.

Based on these facts, the Department determined that Monte Grand 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, Monte Grand will be required to obtain a Title V Operating Permit.

III. BACT Determination

A BACT determination is required for each new or modified source. Monte Grand 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

Emissions:

CONTROLLED	tons/year						
	PM	PM ₁₀	PM _{2.5}	NOx	CO	VOC	SO ₂
600 bhp Compressor Engine	0.003	0.003	0.003	8.69	15.35	2.90	0.02
600 hp Auxiliary Generator	5.78	5.78	5.78	63.07	14.45	6.61	5.39
Glycol Dehydration Unit	--	--	--	--	--	1.51	--
Natural Gas Storage Tanks w/ Vent	--	--	--	--	--	5.31	--
Emergency Flare	2.83E-4	2.83E-4	7.0E-5	3.73E-3	3.13E-3	2.05E-4	2.0E-5
Total Emissions	5.783	5.783	5.783	77.71	29.81	16.33	5.41

Calculations:

Compressor Engine

Note: Emissions are based on the power output of the engine (600 hp).

Operational Capacity of Engine = 600 bhp	600	bhp
Hours of Operation = 8,760.00 hours	8760	hours
BTU per MMscf = 0 btu/MMscf	0.001145	btu/MMscf
BTU per SCF = 6,917 scf/hr	6916.7	scf/hr
Grams per Pound = 0.002205 g/lb	0.002205	g/lb

PM Emissions:

PM Emissions = 0.003 ton/yr (Assume all PM < 1.0 um)	0.003	ton/yr
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PM₁₀ Emissions:

Emission Factor = 0.0000771 lbs/mmBtu (AP-42, Sec. 2.3, Table 2.3-3, 10/96)	7.71E-05	lbs/mmBtu
Calculation: (6,916.7 scf/hr) * (0.001145 btu/MMscf) * (0.0000771 lbs/mmBtu) * (8,760 hours) * (ton/2000 lb) = 0.003 ton/yr	0.003	ton/yr

PM_{2.5} Emissions

Emission Factor = 0.0000771 lbs/mmBtu (AP-42, Sec. 2.3, Table 2.3-3, 10/96)	7.71E-05	lbs/mmBtu
Calculation: (6,916.7 scf/hr) * (0.001145 btu/MMscf) * (0.0000771 lbs/mmBtu) * (8,760 hours) * (ton/2000 lb) = 0.003 ton/yr	0.003	ton/yr

NOx Emissions:

Emission Factor = 1.5 g/bhp*hr (BACT)	1.5	g/bhp*hr
Calculation: (1.5 g/bhp*hr) * (600 hp) * (8,760 hours) * (0.002205 g/lb) * (ton/2000 lb) = 8.69 ton/yr	8.69	ton/yr

CO Emissions:

Emission Factor = 2.65 g/bhp*hr (BACT)	2.65	g/bhp*hr
Calculation: (2.7 g/bhp*hr) * (600 hp) * (8,760 hours) * (0.002205 g/lb) * (ton/2000 lb) = 15.35 ton/yr	15.35	ton/yr

VOC Emissions:

Emission Factor = 0.5 g/bhp*hr (BACT)	0.50000	g/bhp*hr
Calculation: (0.5 g/bhp*hr) * (600 hp) * (8,760 hours) * (0.002205 g/lb) * (ton/2000 lb) = 2.90 ton/yr	2.90	ton/yr

SO_x Emissions:

Emission Factor = 0.000588 lbs/mmBtu (AP-42, Sec. 3.3, Table 3.3-1, 10/96)	5.88E-04	lbs/mmBtu
Calculation: (6,916.7 scf/hr) * (0.001145 btu/MMscf) * (0.0005880 lbs/mmBtu) * (8,760 hours) * (ton/2000 lb) = 0.020 ton/yr	0.02	ton/yr

Diesel Generator (Large)

Note: Emissions are based on the power output of the engine (600 hp).

Operational Capacity of Engine = 600 hp	600	hp
Hours of Operation = 8,760.00 hours	8760	hours

PM Emissions:

PM Emissions = 5.78 ton/yr (Assume all PM < 1.0 um)	5.78	ton/yr
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PM-10 Emissions:

Emission Factor = 0.0022 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)	0.0022	lbs/hp-hr
Calculation: (600 hp) * (8,760 hours) * (0.0022 lbs/hp-hr) * (ton/2000 lb) = 5.78 ton/yr	5.78	ton/yr

PM2.5 Emissions

Emission Factor = 0.0022 lbs/hp-hr (Assume all PM < 1.0 um)	0.0022	lbs/hp-hr
Calculation: (600 hp) * (8,760 hours) * (0.0022 lbs/hp-hr) * (ton/2000 lb) = 5.78 ton/yr (Assume all PM < 1.0 um)	5.78	ton/yr

NOx Emissions:
 Emission Factor = 0.024 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96) 0.024 **lbs/hp-hr**
 Calculation: (600 hp) * (8,760 hours) * (0.024 lbs/hp-hr) * (ton/2000 lb) = 63.07 ton/yr 63.07 **ton/yr**

CO Emissions:
 Emission Factor = 0.0055 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96) 5.50E-03 **lbs/hp-hr**
 Calculation: (600 hp) * (8,760 hours) * (0.0055 lbs/hp-hr) * (ton/2000 lb) = 14.45 ton/yr 14.45 **ton/yr**

VOC Emissions:
 Emission Factor = 0.0025141 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, TOC, Exhaust & Crankcase, 10/96) 2.51E-03 **lbs/hp-hr**
 Calculation: (600 hp) * (8,760 hours) * (0.0025141 lbs/hp-hr) * (ton/2000 lb) = 6.61 ton/yr 6.61 **ton/yr**

SOx Emissions:
 Emission Factor = 0.00205 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96) 2.05E-03 **lbs/hp-hr**
 Calculation: (600 hp) * (8,760 hours) * (0.00205 lbs/hp-hr) * (ton/2000 lb) = 5.39 ton/yr 5.39 **ton/yr**

Emergency Flare

Note: Emissions are based on the power output of the engine (0.00000851 hp).
 Operational Capacity of Engine = 0 MMScf 0.00000851 **MMScf**
 Hours of Operation = 8,760 hours 8,760 **hours**

PM Emissions:
 PM Emissions = 0.000283 ton/yr (Assume all PM < 1.0 um) 0.000283281 **ton/yr**

PM-10 Emissions:
 Emission Factor = 7.6 lb/MMScf (AP-42, Sec. 1.4, Table 1.4-2, 10/96) 7.60 **lb/MMScf**
 Calculation: (7.60 lb/MMScf) * (0.0000085 MMScf) * (8760 hours) * (ton/2000 lb) = 0.000283 ton/yr 0.000283 **ton/yr**

PM2.5 Emissions:
 Emission Factor = 1.9 lb/MMScf (AP-42, Sec. 1.4, Table 1.4-2, 10/96) 1.90 **lb/MMScf**
 Calculation: (1.90 lb/MMScf) * (0.0000085 MMScf) * (8760 hours) * (ton/2000 lb) = 0.000071 ton/yr 7.08202E-05 **ton/yr**

NOx Emissions:
 Emission Factor = 100 lb/MMScf (AP-42, Sec. 1.4, Table 1.4-2, 10/96) 100.00 **lb/MMScf**
 Calculation: (100.00 lb/MMScf) * (0.0000085 MMScf) * (8760 hours) * (ton/2000 lb) = 0.003727 ton/yr 0.00372738 **ton/yr**

CO Emissions:
 Emission Factor = 84 lb/MMScf (AP-42, Sec. 1.4, Table 1.4-2, 10/96) 84.00 **lb/MMScf**
 Calculation: (84.00) * (0.0000085 MMScf) * (8760 hours) * (ton/2000 lb) = 0.003131 ton/yr 0.003130999 **ton/yr**

VOC Emissions:
 Emission Factor = 5.5 lb/MMScf (AP-42, Sec. 1.4, Table 1.4-2, 10/96) 5.50 **lb/MMScf**
 Calculation: (5.50 lb/MMScf) * (0.0000085 MMScf) * (8760 hours) * (ton/2000 lb) = 0.000205 ton/yr 0.000205006 **ton/yr**

SOx Emissions:
 Emission Factor = 0.6 lb/MMScf (AP-42, Sec. 1.4, Table 1.4-2, 10/96) 0.60 **lb/MMScf**
 Calculation: (0.60 lb/MMScf) * (0.0000085 MMScf) * (8760 hours) * (ton/2000 lb) = 0.000022 ton/yr 2.23643E-05 **ton/yr**

TANKS 4.0.9d

Emissions Report - Summary Format

Tank Identification and Physical

Characteristics

5215-02 – Single Vertical Fixed Roof Tank Great Falls, Montana

Identification

User Identification: 5215-02
 City: Great Falls
 State: Montana
 Company:
 Type of Tank: Vertical Fixed Roof Tank
 Description: Monte Grand Mainline 1

Tank Dimensions

Shell Height (ft): 16.00
 Diameter (ft): 20.00
 Liquid Height (ft): 16.00
 Avg. Liquid Height (ft): 10.00
 Volume (gallons): 37,601.32
 Turnovers: 1.00
 Net Throughput(gal/yr): 37,601.32
 Is Tank Heated (y/n): N

Paint Characteristics

Shell Color/Shade: White/White
 Shell Condition: Good
 Roof Color/Shade: White/White
 Roof Condition: Good

Roof Characteristics

Type: Cone
 Height (ft) 3.00
 Slope (ft/ft) (Cone Roof) 0.30

Breather Vent Settings

Vacuum Settings (psig): -0.03
 Pressure Settings (psig) 0.03

Meteorological Data used in Emissions Calculations: Great Falls, Montana (Avg Atmospheric Pressure = 12.88 psia)

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight	Liquid Mass Frac.	Vapor Mass Frac.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Natural Gasoline	All	46.46	40.74	52.17	44.77	3.6064	3.1435	4.1249	73.3409	0.0100	0.0024	79.76	78.11
Benzene					0.7923	0.6674	0.9361	78.1100					Option 2: A=6.905, B=1211.033, C=220.79
Heptane (-n)					0.4032	0.3360	0.4820	100.2000	0.2800	0.0340	100.20		Option 3: A=37358, B=8.2585
Hexane (-n)					1.3299	1.1325	1.5550	86.1700	0.1000	0.0401	86.17		Option 2: A=6.876, B=1171.17, C=224.41
Pentane (-n)					5.0202	4.3850	5.7300	72.1500	0.6100	0.9235	72.15		Option 3: A=27691, B=7.558

Emissions Report for: Annual

5215-02 - Vertical Fixed Roof Tank Great Falls, Montana

Components	Single Tank Losses(lbs)				Total Losses
	Working Loss	Breathing Loss	Total Emissions		
Natural Gasoline	236.80	2,417.22	2,654.01		2.65401
Benzene	0.57	5.78	6.34		0.00634
Heptane (-n)	8.06	82.30	90.36		0.09036
Pentane (-n)	218.67	2,232.20	2,450.87		2.45087
Hexane (-n)	9.50	96.94	106.44		0.10644

Case Name: MAQP #2428-12
File Name:
Date: March 03, 2010

DESCRIPTION:

Description: Ethylene Glycol Hydrate Prevention based on
10/16/2001 sample taken from the gas going
into the heat exchanger

Annual Hours of Operation: 8760.0 hours/yr

WET GAS:

Temperature: 70.00 deg. F
Pressure: 540.00 psig
Wet Gas Water Content: Subsaturated
Specified Wet Gas Water Content: 33.79 lbs. H₂O/MMSCF

Component	Conc. (vol %)
Carbon Dioxide	3.9900
Nitrogen	3.0700
Methane	78.0500
Ethane	7.0700
Propane	3.9000
Isobutane	0.7000
n-Butane	1.4000
Isopentane	0.4200
n-Pentane	0.3300
n-Hexane	0.1100
Other Hexanes	0.1500
Heptanes	0.8100
2,2,4-Trimethylpentane	0.0241
Benzene	0.0054
Toluene	0.0112
Ethylbenzene	0.0020
Xylenes	0.0065

DRY GAS:

Flow Rate: 20.0 MMSCF/day

LEAN GLYCOL:

Glycol Type: EG
Water Content: 20.0 wt% H₂O
Recirculation Ratio: 3.0 gal/lb H₂O

COLD SEPARATOR:

Temperature: -40.0 deg. F
Pressure: 530.0 psig

PUMP:

Glycol Pump Type: Electric/Pneumatic

Page: 1

GRI-GLYCalc VERSION 4.0 - EMISSIONS SUMMARY

Case Name: MAQP #2428-12

File Name:

Date: March 03, 2010

UNCONTROLLED REGENERATOR EMISSIONS

Component	lbs/hr	lbs/day	tons/yr
Methane	0.4814	11.553	2.1094
Ethane	0.5957	14.296	2.6091
Propane	0.2123	5.095	0.9298
Isobutane	0.0294	0.705	0.1286
n-Butane	0.0627	1.504	0.2746
Isopentane	0.0152	0.365	0.0667
n-Pentane	0.0020	0.048	0.0087
n-Hexane	0.0023	0.055	0.0101
Other Hexanes	0.0038	0.092	0.0168
Heptanes	0.0054	0.130	0.0237
2,2,4-Trimethylpentane	0.0001	0.003	0.0006
Benzene	0.0079	0.189	0.0345
Toluene	0.0010	0.023	0.0043
Ethylbenzene	0.0008	0.020	0.0036
Xylenes	0.0030	0.071	0.0130
Total Emissions	1.4229	34.150	6.2323
Total Hydrocarbon Emissions	1.4229	34.150	6.2323
Total VOC Emissions	0.3459	8.300	1.5148
Total HAP Emissions	0.0151	0.362	0.0661
Total BTEX Emissions	0.0127	0.304	0.0554

V. Existing Air Quality

The permit is for a stationary facility located in Section 22, Township 33 North, and Range 5 East (48.602950, -112.244151), Glacier County, Montana. Glacier County has been designated as unclassified/attainment with ambient air quality standards, and where there are no major air pollution sources in the surrounding areas.

VI. Air Quality Impacts

The Department determined that there will be no impacts from this permitting action because this permitting action is considered an administrative action. Therefore, the Department 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 #2786-10, the Department determined that there will be no impacts from this permitting action. The Department believes it will not cause or contribute to a violation of any ambient air quality standard.

VII. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, the Department conducted the following private property taking and damaging assessment.

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)

Based on this analysis, the Department determined there are no taking or damaging implications associated with this permit action.

VIII. 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: Troy Burrows
 Date: September 14, 2021