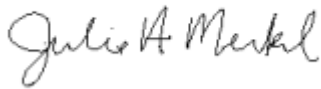


October 21, 2021

Abby Ingram
Wild Horse Veterinary Clinic
7273 MT Hwy 200
Plains, MT 59859

Dear Ms. Ingram:

Montana Air Quality Permit #4456-01 is deemed final as of October 15, 2021, by the Department of Environmental Quality (Department). This permit is for an animal remains incinerator. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.



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



John P. Proulx
Environmental Scientist 2
Air Quality Bureau
(406) 444-5391

JM:JPP
Enclosure

Montana Department of Environmental Quality
Air, Energy & Mining Division

Montana Air Quality Permit #4456-01

Wild Horse Veterinary Clinic
7273 MT Hwy 200
Plains, MT 59859

October 15, 2021



Montana Air Quality Permit

Issued To: Wild Horse Veterinary Clinic
7273 MT Hwy 200
Plains, MT 59859

MAQP: #4456-01
Administrative Amendment (AA)
Received: 9/16/2021
Department's Decision on AA: 9/29/2021
Permit Final: 10/15/2021

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Wild Horse Veterinary Clinic (Wild Horse), pursuant to Sections 75-2-204, 211, and 215 of the Montana Code Annotated (MCA), as amended, and the Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

SECTION I: Permitted Facilities

A. Plant Location

Wild Horse is located at 7273 MT Highway 200, Plains, MT 59859. The legal description is Section 16, Township 20 North, Range 26 West, in Sanders County, Montana.

B. Current Permit Action

On September 16, 2021, the Department of Environmental Quality, Air Quality Bureau (Department) received a request to transfer ownership of the MAQP from Lynch Creek Animal Clinic to Wild Horse Veterinary Clinic. The current permit action is an administrative amendment pursuant to the ARM 17.8.764 that transfers ownership of the MAQP, as requested.

SECTION II: Conditions and Limitations

A. Operational Requirements

1. Wild Horse shall not incinerate/cremate any material other than animal remains and the corresponding container, unless otherwise approved in writing by the Department of Environmental Quality (Department) (ARM 17.8.749).
2. The secondary chamber of the incinerator shall be preheated to a minimum temperature of 1600 °F prior to igniting the primary chamber burner. The operating temperature of the secondary chamber of the incinerator shall be maintained at a minimum of 1600 °F (with no single reading less than 1600 °F) during operation and for the one-half hour after the feed has stopped (ARM 17.8.752).
3. Wild Horse shall install, operate, and maintain the incinerator and temperature sensing device(s) according to manufacturer's recommendation. An operations and maintenance manual shall be maintained on site and submitted to the Department upon request.

Wild Horse shall require all personnel who operate the incinerator/crematorium to familiarize themselves with the operating manual and procedures (ARM 17.8.752).

B. Emission Limitations

Wild Horse shall not cause or authorize to be discharged into the atmosphere from the incinerator/crematorium:

1. Visible emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.752); and
2. Any particulate emissions in excess of 0.10 grains per dry standard cubic foot (gr/dscf) corrected to 12% carbon dioxide (CO₂) (ARM 17.8.752).

C. Testing Requirements

1. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.9.106).
2. The Department may require testing (ARM 17.8.105).

D. Monitoring and Recordkeeping Requirements

1. Wild Horse shall install, maintain and operate continuous monitoring and recording equipment to measure the secondary chamber exit temperature during operation (ARM 17.8.749).
2. Wild Horse shall record the daily quantity of material incinerated/cremated and the daily hours of operation (ARM 17.8.749).
3. Wild Horse shall maintain on site a log of maintenance activities for the incinerator and temperature determining equipment. The log shall be submitted to the Department upon request (ARM 17.8.749).

E. Operational Reporting Requirement

1. Wild Horse 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 units as 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).

2. Wild Horse 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 emission 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 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 Wild Horse 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).

F. Notification Requirements

Wild Horse shall provide the Department with written notification of the actual start-up date of the crematorium postmarked within 15 days after the actual start-up date (ARM 17.8.749).

SECTION III: General Conditions

- A. Inspection – Wild Horse 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 all the terms, conditions, and matters stated herein shall be deemed accepted if Wild Horse fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations - Nothing in this permit shall be construed as relieving Wild Horse 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 who are 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 the 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 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 Wild Horse 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 (MAQP) Analysis
Wild Horse Veterinary Clinic
MAQP #4456-01

I. Introduction/Process Description

Wild Horse Veterinary Clinic (Wild Horse) operates an animal remains incinerator. The facility is located at 7273 MT Highway 200, Plains, MT 59859. The legal description is Section 16, Township 20 North, Range 26 West, in Sanders County, Montana.

A. Permitted Equipment

Wild Horse owns and operates a 1995 Shenandoah Model P16-T controlled air incinerator rated for a maximum of 60 pounds per hour of animal remains, fired on liquefied petroleum gas (LPG). The primary chamber has a maximum rated design capacity of 316,000 British Thermal Units per hour (BTU/hr) and the secondary chamber has a maximum rated design capacity of 414,500 BTU/hr. The design calls for a minimum secondary chamber operating temperature of 1600 degrees Fahrenheit (°F).

B. Source Description

Wild Horse uses the controlled air incinerator described above to incinerate animal remains.

C. Permit History

MAQP #4456-00 was issued to Lynch Creek Animal Hospital on November 26, 2009.

D. Current Permit Action

On September 16, 2021, the Department of Environmental Quality, Air Quality Bureau (Department) received a request to transfer ownership of the MAQP from Lynch Creek Animal Clinic to Wild Horst Veterinary Clinic. The current permit action is an administrative amendment pursuant to the ARM 17.8.764 that transfers ownership of the MAQP, as requested. **MAQP #4456-01** replaces MAQP #4456-00.

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. Upon request, the Department will provide references for locations 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).

Wild Horse 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. 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.

Wild Horse must maintain compliance with the applicable ambient air quality standards. As part of the risk assessment required for issuance of an MAQP for incinerators, the Department conducted SCREEN3 modeling, an Environmental Protection Agency (EPA)-approved air dispersion model. The conservative screening analysis demonstrated that the Wild Horse incinerator, as permitted, would comply with all applicable ambient air quality standards and demonstrated negligible risk to human health as required for permit issuance.

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. 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 (PM). (2) Under this rule, Wild Horse 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 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 (CO₂) 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. While Wild Horse is required to comply with the Emission Limitations specified in Section II.B of MAQP #4456-01, this rule does not apply to the incinerator because Wild Horse has applied for and received an air quality permit in accordance with ARM 17.8.770 and MCA 75-2-215 for this unit.
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 17.8.340 Standard of Performance and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 Code of Federal Regulations (CFR) Part 60, Standards of Performance for New Stationary Sources (NSPS). The Wild Horse incinerator is not an NSPS-affected source because it does not meet the definition of any NSPS subpart defined in 40 CFR Part 60.

D. ARM 17.8, Subchapter 5 - Air Quality Permit Application, Operation, and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper

application fee is paid to the Department. A permit fee is not required because the current permit actions 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 (TPY) of any pollutant. Wild Horse does not have the PTE greater than 25 TPY of any pollutant; however, in accordance with the MCA 75-2-215, an air quality permit must be obtained prior to the construction and operation of any incinerator, regardless of potential incinerator emissions. Because Wild Horse obtained an air quality permit, all normally applicable requirements apply in this case.
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 because the current 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 Wild Horse 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 17.8.762 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 altered 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.
12. 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).
13. 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.

14. 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.
15. 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, MCA.

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 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 TPY 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 stationary source having:
 - a. PTE greater than (>) 100 TPY of any pollutant;
 - b. PTE > 10 TPY of any one hazardous air pollutant (HAP), PTE > 25 TPY of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
 - c. PTE > 70 TPY 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 #4456-00 for Wild Horse, the following conclusions were made:
 - a. The facility's PTE is less than 100 TPY for any pollutant;
 - b. The facility's PTE is less than 10 TPY for any one HAP and less than 25 TPY for all

HAPs;

- c. This source is not located in a serious PM₁₀ nonattainment area;
- d. This facility is not subject to any current NSPS;
- e. This facility is not subject to any current NESHAP standards;
- f. This source is not a Title IV affected source
- 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 Wild Horse will be a minor source of emissions as defined under Title V. Therefore, a Title V operating permit is not required.

H. MCA 75-2-103, Definitions provides, in part, as follows:

- 1. "Incinerator" means any single or multiple-chambered combustion device that burns combustible material, alone or with a supplemental fuel or catalytic combustion assistance, primarily for the purpose of removal, destruction, disposal, or volume reduction of all or any portion of the input material.
- 2. "Solid waste" means all putrescible and nonputrescible solid, semisolid, liquid, or gaseous wastes, including, but not limited to...air pollution control facilities...

I. MCA 75-2-215, Solid or Hazardous Waste Incineration - Additional permit requirements:

- 1. MCA 75-2-215 requires air quality permits for all new solid waste incinerators; therefore, Wild Horse must obtain an air quality permit.
- 2. MCA 75-2-215 requires the applicant to provide, to the Department's satisfaction, a characterization and estimate of emissions and ambient concentrations of air pollutants, including hazardous air pollutants, from the incineration of solid waste. The information in the initial permit application fulfilled this requirement.
- 3. MCA 75-2-215 requires that the Department reach a determination that the projected emissions and ambient concentrations constitute a negligible risk to public health, safety, and welfare. The Department completed a health risk assessment, based on an emissions inventory and ambient air quality modeling, for this MAQP application. Based on the results of the emission inventory, modeling, and the health risk assessment, the Department determined that Wild Horse complies with this requirement.
- 4. MCA 75-2-215 requires the application of pollution control equipment or procedures that meet or exceed BACT. The Department determined that operating Wild Horse's incinerator according to the manufacturer-recommended operation

procedures constitutes BACT.

III. Best Available Control Technology (BACT) Analysis

A BACT determination is required for each new or modified source. Wild Horse 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. In addition, MCA 75-2-215 requires a BACT determination for all pollutants, not just criteria pollutants.

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

IV. Emission Inventory**

Wild Horse Veterinary Clinic								
Emissions	PM	PM ₁₀	NO _x	CO	SO _x	VOC	HAPs	PB
Incinerator	0.61	0.61	0.47	0.39	0.29	0.39	0.00	0.01
Propane	0.02	0.02	0.45	0.26	ND	0.03	0.00	0.00
Total	0.63	0.63	0.92	0.65	0.29	0.42	0.00	0.01

**HAPs emissions show zero due to rounding – HAPs emissions are shown following conventional pollutant calculations.

Emissions Inventory Notes:

- PM = particulate matter emissions
- PM-10 = particulate matter with an aerodynamic diameter of 10 microns or less emissions
- NO_x = oxides of nitrogen emissions
- SO_x = oxides of sulfur emissions
- VOC = volatile organic compounds emissions
- HAPs = hazardous air pollutant emissions
- Pb = lead emissions
- g/sec = grams per second of emissions
- EF = emissions factor
- MMscf/hr = million standard cubic feet per hour
- MMBTU/hr = million British thermal units per hour

LPG Combustion

Maximum Firing Capacity: 730500 BTU/hr (Lynch Creek Application Info)
 Heat Content of LPG: 91500000 BTU/1,000 gallons(AP-42 Table 1.5-1 Note a - propane)
 Operating Hours/yr 8760

PM Emissions

Emissions Factor: 0.7 lb/1,000 gal (AP-42 Table 1.5-1 (07/2008))
 Calculations: $0.7 \text{ lb/1,000 gal} * 91500000 \text{ BTU/1,000 gal}^{-1} * 730500 \text{ BTU/hr} * 8760 \text{ hr/yr} = 48.96 \text{ lb/yr}$
 $48.9554754098361 \text{ lb/yr} * 0.0005 \text{ ton/lb} = \mathbf{0.02 \text{ ton/yr}}$

PM-10 Emissions

Emissions Factor: 0.7 assume PM = PM-10
 Calculations: $0.7 \text{ lb/1,000 gal} * 91500000 \text{ BTU/1,000 gal}^{-1} * 730500 \text{ BTU/hr} * 8760 \text{ hr/yr} = 48.96 \text{ lb/yr}$
 $48.9554754098361 \text{ lb/yr} * 0.0005 \text{ ton/lb} = \mathbf{0.02 \text{ ton/yr}}$

NOx Emissions

Emissions Factor: 13 lb/1,000 gal (AP-42 Table 1.5-1 (07/2008))
 Calculations: $13 \text{ lb/1,000 gal} * 91500000 \text{ BTU/1,000 gal}^{-1} * 730500 \text{ BTU/hr} * 8760 \text{ hr/yr} = 909.17 \text{ lb/yr}$
 $909.173114754098 \text{ lb/yr} * 0.0005 \text{ ton/lb} = \mathbf{0.45 \text{ ton/yr}}$

CO Emissions

Emissions Factor: 7.5 lb/1,000 gal (AP-42 Table 1.5-1 (07/2008))
 Calculations: $7.5 \text{ lb/1,000 gal} * 91500000 \text{ BTU/1,000 gal}^{-1} * 730500 \text{ BTU/hr} * 8760 \text{ hr/yr} = 524.522950819672 \text{ lb/yr}$
 $524.522950819672 \text{ lb/yr} * 0.0005 \text{ ton/lb} = \mathbf{0.26 \text{ ton/yr}}$

SOx Emissions

Emissions Factor: ND (LPG has very low sulfur content - no data is available)
 Calculations:

VOC Emissions

Emissions Factor: 1 lb/1,000 gal (AP-42 Table 1.5-1 (07/2008))
 Calculations: $1 \text{ lb/1,000 gal} * 91500000 \text{ BTU/1,000 gal}^{-1} * 730500 \text{ BTU/hr} * 8760 \text{ hr/yr} = 69.94 \text{ lb/yr}$
 $69.936393442623 \text{ lb/yr} * 0.0005 \text{ ton/lb} = \mathbf{0.03 \text{ ton/yr}}$

Crematorium Emissions

Maximum Capacity: 60 lb/hr (Lynch Creek Application Info)
 Operating Hours/yr: 8760 hr/yr

PM Emissions

Emissions Factor: 4.67 lb/ton (AP-42 Table 2.3-2 (07/1993))
 Calculations: $4.67 \text{ lb/ton} * 60 \text{ lb/hr} * 0.0005 \text{ ton/lb} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = \mathbf{0.61 \text{ ton/yr}}$

PM-10 Emissions

Emissions Factor: 4.67 lb/ton assume PM = PM-10
 Calculations: $4.67 \text{ lb/ton} * 60 \text{ lb/hr} * 0.0005 \text{ ton/lb} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = \mathbf{0.61 \text{ ton/yr}}$

NOx Emissions

Emissions Factor: 3.56 lb/ton (AP-24 Table 2.3-1 (07/1993))
 Calculations: $3.56 \text{ lb/ton} * 60 \text{ lb/hr} * 0.0005 \text{ ton/lb} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = \mathbf{0.47 \text{ ton/yr}}$

CO Emissions

Emissions Factor: 2.95 lb/ton (AP-24 Table 2.3-1 (07/1993))
 Calculations: $2.95 \text{ lb/ton} * 60 \text{ lb/hr} * 0.0005 \text{ ton/lb} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = \mathbf{0.39 \text{ ton/yr}}$

SOx Emissions

Emissions Factor: 2.17 lb/ton (AP-24 Table 2.3-1 (07/1993))
 Calculations: $2.17 \text{ lb/ton} * 60 \text{ lb/hr} * 0.0005 \text{ ton/lb} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = \mathbf{0.29 \text{ ton/yr}}$

VOC Emissions

Emissions Factor: 3 lbs/ton (AFSSCC 5-02-005-05, 03/90)
 Calculations: $3 \text{ lbs/ton} * 60 \text{ lb/hr} * 0.0005 \text{ ton/lb} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = \mathbf{0.39 \text{ ton/yr}}$

Crematorium HAPs emissions

Bromoform

Emission Factor: 0.000029 lbs/ton (AFSSCC 5-02-005-05)
Calculations: $0.000029 \text{ lbs/ton} * 60 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} =$ 0.0076212 lb/yr
3.8106E-06 ton/yr
1.09618E-07 g/sec

Carbon Tetrachloride

Emission Factor: 0.0000574 lbs/ton (AFSSCC 5-02-005-05)
Calculations: $0.0000574 \text{ lbs/ton} * 60 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} =$ 0.01508472 lb/yr
7.54236E-06 ton/yr
2.16968E-07 g/sec

Chloroform

Emission Factor: 0.0000545 lbs/ton (AFSSCC 5-02-005-05)
Calculations: $0.0000545 \text{ lbs/ton} * 60 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} =$ 0.0143226 lb/yr
7.1613E-06 ton/yr
2.06007E-07 g/sec

1,2-Dichloropropane

Emission Factor: 0.00132 lbs/ton (AFSSCC 1-02-009-01)
Calculations: $0.00132 \text{ lbs/ton} * 60 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} =$ 0.346896 lb/yr
0.000173448 ton/yr
4.98952E-06 g/sec

Ethyl Benzene

Emission Factor: 0.00161 lbs/ton (AFSSCC 5-02-005-05)
Calculations: $0.00161 \text{ lbs/ton} * 60 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} =$ 0.423108 lb/yr
0.000211554 ton/yr
6.0857E-06 g/sec

Naphthalene

Emission Factor: 0.0116 lbs/ton (AFSSCC 5-02-005-05)
Calculations: $0.0116 \text{ lbs/ton} * 60 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} =$ 3.04848 lb/yr
0.00152424 ton/yr
4.38473E-05 g/sec

Tetrachloroethylene

Emission Factor: 0.0000403 lbs/ton (AFSSCC 1-02-009-01)
Calculations: $0.0000403 \text{ lbs/ton} * 60 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} =$ 0.01059084 lb/yr
5.29542E-06 ton/yr
1.52331E-07 g/sec

1,1,2,2-Tetrachloroethane

Emission Factor: 0.00011 lbs/ton (AFSSCC 5-02-005-05)
Calculations: $0.00011 \text{ lbs/ton} * 60 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} =$ 0.028908 lb/yr
0.000014454 ton/yr
4.15793E-07 g/sec

Toluene

Emission Factor: 0.00462 lbs/ton (AFSSCC 5-02-005-05)
Calculations: $0.00462 \text{ lbs/ton} * 60 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} =$ 1.214136 lb/yr
0.000607068 ton/yr
1.74633E-05 g/sec

Vinylidene Chloride

Emission Factor: 0.000071 lbs/ton (AFSSCC 5-02-005-05)
Calculations: $0.000071 \text{ lbs/ton} * 60 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} =$ 0.0186588 lb/yr
9.3294E-06 ton/yr
2.68376E-07 g/sec

Xylene

Emission Factor: 0.0022 lbs/ton (AFSSCC 5-02-005-05)
Calculations: $0.0022 \text{ lbs/ton} * 60 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} =$ 0.57816 lb/yr
0.00028908 ton/yr
8.31586E-06 g/sec

TOTAL HAPS =

5.70596616 lb/yr
0.002852983 ton/yr
8.20707E-05 g/sec

LPG HAPs Emissions (ASSUME NATURAL GAS EMISSIONS)

Maximum Capacity: 0.7305 MMBTU/hr
 Operating Hours: 8760 hr/yr

Burner Maximum Design Capacity	7.31E-01 MMBtu/hr	or	7.99E-04 MMscf/hr
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HAP	EF	X MMscf/hr	= lb/hr	X (g/lb)	/ (hr/sec)	= (g/s)	% of Total
2-Methylnaphthalene	2.40E-05	7.99E-04	1.92E-08	453.6	3600	2.42E-09	0.001%
3-Methylchloranthrene	1.80E-06	7.99E-04	1.44E-09	453.6	3600	1.81E-10	0.000%
7,12-Dimethylbenz(a)anthracene	1.60E-05	7.99E-04	1.28E-08	453.6	3600	1.61E-09	0.001%
Acenaphthene	1.80E-06	7.99E-04	1.44E-09	453.6	3600	1.81E-10	0.000%
Acenaphthylene	1.80E-06	7.99E-04	1.44E-09	453.6	3600	1.81E-10	0.000%
Anthracene	2.40E-06	7.99E-04	1.92E-09	453.6	3600	2.42E-10	0.000%
Benzene	2.10E-03	7.99E-04	1.68E-06	453.6	3600	2.11E-07	0.111%
Benz(a)anthracene	1.80E-06	7.99E-04	1.44E-09	453.6	3600	1.81E-10	0.000%
Benzo(a)pyrene	1.20E-06	7.99E-04	9.59E-10	453.6	3600	1.21E-10	0.000%
Benzo(b)fluoranthene	1.80E-06	7.99E-04	1.44E-09	453.6	3600	1.81E-10	0.000%
Benzo(k)fluoranthene	1.80E-06	7.99E-04	1.44E-09	453.6	3600	1.81E-10	0.000%
Benzo(g,h,i)perylene	1.20E-06	7.99E-04	9.59E-10	453.6	3600	1.21E-10	0.000%
Chrysene	1.80E-06	7.99E-04	1.44E-09	453.6	3600	1.81E-10	0.000%
Dibenzo(a,h)anthracene	1.20E-06	7.99E-04	9.59E-10	453.6	3600	1.21E-10	0.000%
Dichlorobenzene	1.20E-03	7.99E-04	9.59E-07	453.6	3600	1.21E-07	0.064%
Fluoranthene	3.00E-06	7.99E-04	2.40E-09	453.6	3600	3.02E-10	0.000%
Fluorene	2.80E-06	7.99E-04	2.24E-09	453.6	3600	2.82E-10	0.000%
Formaldehyde	7.50E-02	7.99E-04	5.99E-05	453.6	3600	7.55E-06	3.971%
Hexane	1.80E+00	7.99E-04	1.44E-03	453.6	3600	1.81E-04	95.316%
Indeno(1,2,3,c,d)pyrene	1.80E-06	7.99E-04	1.44E-09	453.6	3600	1.81E-10	0.000%
Naphthalene	6.10E-04	7.99E-04	4.87E-07	453.6	3600	6.14E-08	0.032%
Phenanthrene	1.70E-05	7.99E-04	1.36E-08	453.6	3600	1.71E-09	0.001%
Pyrene	5.00E-06	7.99E-04	3.99E-09	453.6	3600	5.03E-10	0.000%
Toluene	3.40E-03	7.99E-04	2.72E-06	453.6	3600	3.42E-07	0.180%
Arsenic	2.00E-04	7.99E-04	1.60E-07	453.6	3600	2.01E-08	0.011%
Beryllium	1.20E-05	7.99E-04	9.59E-09	453.6	3600	1.21E-09	0.001%
Cadmium	1.10E-03	7.99E-04	8.79E-07	453.6	3600	1.11E-07	0.058%
Chromium, total	1.40E-03	7.99E-04	1.12E-06	453.6	3600	1.41E-07	0.074%
Cobalt	8.40E-05	7.99E-04	6.71E-08	453.6	3600	8.46E-09	0.004%
Lead	5.00E-04	7.99E-04	3.99E-07	453.6	3600	5.03E-08	0.026%
Manganese	3.80E-04	7.99E-04	3.04E-07	453.6	3600	3.83E-08	0.020%
Mercury	2.60E-04	7.99E-04	2.08E-07	453.6	3600	2.62E-08	0.014%
Nickel	2.10E-03	7.99E-04	1.68E-06	453.6	3600	2.11E-07	0.111%
Selenium	2.40E-05	7.99E-04	1.92E-08	453.6	3600	2.42E-09	0.001%

Total HAPs: 1.90E-04

V. Existing Air Quality

Wild Horse is located at 7273 MT Highway 200, Plains, MT 59859. The legal description is Section 16, Township 20 North, Range 26 West, in Sanders County, Montana. The immediate area where the facility is located is designated as attainment/unclassified. Parts of Sanders County are designated as nonattainment for PM₁₀. The current permit action will not cause degradation of any National Ambient Air Quality Standards or Montana Ambient Air Quality Standards because the current permit action is an administrative change.

VI. Ambient Air Impact Analysis

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. Health Risk Assessment

A health risk assessment was conducted to determine if the incinerator/crematorium complied with the negligible risk requirement of MCA 75-2-215. The environmental effects unrelated to human health were not considered in determining compliance with the negligible risk standard but were evaluated as required by the Montana Environmental Policy Act, in determining compliance with all applicable rules or other requirements requiring protection of public health, safety, and welfare and the environment.

Pursuant to ARM 17.8.770(1)(c), pollutants may be excluded from the human health risk assessment if the department determines that exposure from inhalation is the only appropriate pathway to consider in the human health risk assessment and if the ambient concentrations of the pollutants (calculated using the potential to emit; enforceable limits or controls may be considered) are less than the levels specified in Table 1 or Table 2 of ARM 17.8.770.

Wild Horse's proposed incinerator has a stack height of 20 feet, a stack exit temperature of 1600 °F, and a flow rate of 800 actual cubic feet per minute (ACFM) with a 1-foot diameter stack. Ambient air modeling was accomplished using Screen 3 software; an EPA approved ambient air modeling software used for conservative modeling. Ambient air impacts were modeled for the hazardous air pollutants identified in the potential to emit calculations of Section IV. The emission inventory did not contain sufficient quantities of any pollutant on the Department's list of pollutants for which non-inhalation impacts must be considered; therefore, the Department determined that inhalation risk was the only necessary pathway to consider. No pollutants exceeded the levels specified in Table 1 or Table 2 of ARM 17.8.770.

The Screen 3 Modeling results are shown below:

Crematorium HAPs Emissions Modeling

*** SCREEN3 MODEL RUN ***

*** VERSION DATED 96043 ***

SIMPLE TERRAIN INPUTS:

SOURCE TYPE	=	POINT
EMISSION RATE (Gram/Second)	=	0.820707E-04
STACK HEIGHT (Meters)	=	6.0960
STK INSIDE DIAM (Meters)	=	0.3048
STK EXIT VELOCITY (Meters/Second)	=	5.1744
STK GAS EXIT TEMP (Kelvin)	=	1144.2611
AMBIENT AIR TEMP (Kelvin)	=	293.0000
RECEPTOR HEIGHT (Meters)	=	0.0000
URBAN/RURAL OPTION	=	RURAL

BUILDING HEIGHT (Meters)	=	0.0000
MIN HORIZ BLDG DIM (Meters)	=	0.0000
MAX HORIZ BLDG DIM (Meters)	=	0.0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. Meter: **0.2478E-01 ug/m³**

LPG HAPs Emissions Modeling

All input parameters remained the same except the emissions rate shown below:

EMISSION RATE (Gram/Second)	=	0.190000E-03
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MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. Meter: **0.5737E-01 ug/m³**

RISK ASESMENT

Although no pollutants for which emissions factors are established exceeded the levels specified in Table 1 or Table 2 of ARM 17.8.770, the Department conducted a full risk assessment. The Department determined that the calculated Cancer Risks demonstrate a negligible risk to human health and the environment. As documented in the table below and in accordance with the Department's negligible risk requirement, no single HAP concentration results in a Cancer Risk greater than 1.00E-06 and the sum of all Cancer Risks are less than 1.00E-05. Further, the sum of the Chronic Non-cancer Reference Exposure Level (CNCREL) hazard quotients is less than 1.0 as required to demonstrate compliance with the negligible risk requirement.

COMBINED CREMATORY AND LPG COMBUSTION NEGLIGIBLE RISK ASSESSMENT ⁽¹⁾						
HAP	Annual Modeled HAP Concentration	Cancer URF ⁽²⁾ (µg/m ³) ⁻¹	Cancer Risk ⁽³⁾	CNCREL ⁽⁶⁾ µg/m ³	CNCREL Quotient ⁽⁷⁾	Notes
Bromoform	3.31E-06 ug/m3	1.10E-06	3.64E-12	ND	ND	
Carbon Tetrachloride	6.55E-06 ug/m3	1.50E-05	9.83E-11	1.90E+02	3.45E-08	
Chloroform	6.22E-06 ug/m3	ND	ND	9.80E+01	6.35E-08	Source of URF Unknown, Likely Carcinogen
1,2-Dichloropropane ⁽⁴⁾	1.51E-04 ug/m3	1.90E-05	2.86E-09	4.00E+00	3.77E-05	
Ethyl Benzene	1.84E-04 ug/m3	ND	ND	1.00E+03	1.84E-07	
Naphthalene	1.32E-03 ug/m3	3.40E-05	4.50E-08	3.00E+00	4.41E-04	Includes component from natural gas
Tetrachloroethylene ⁽⁵⁾	4.60E-06 ug/m3	5.90E-06	2.71E-11	2.70E+02	1.70E-08	
1,1,2,2-Tetrachloroethane	1.26E-05 ug/m3	5.80E-05	7.28E-10	ND	ND	
Toluene	5.27E-04 ug/m3	ND	ND	5.00E+03	1.05E-07	
Vinylidene Chloride	8.10E-06 ug/m3	ND	ND	2.00E+02	4.05E-08	Source of URF Unknown, suspected carcinogen
Xylene	2.51E-04 ug/m3	ND	ND	1.00E+02	2.51E-06	
2-Methylnaphthalene	7.29E-08 ug/m3	ND	ND	ND	ND	
3-Methylchloranthrene	5.47E-09 ug/m3	6.30E-03	3.45E-11	ND	ND	
7,12-Dimethylbenz(a)anthracene	4.86E-08 ug/m3	7.10E-02	3.45E-09	ND	ND	
Acenaphthene	5.47E-09 ug/m3	ND	ND	ND	ND	
Acenaphthylene	5.47E-09 ug/m3	ND	ND	ND	ND	
Anthracene	7.29E-09 ug/m3	ND	ND	ND	ND	
Benzene	6.38E-06 ug/m3	7.80E-06	4.98E-11	3.00E+01	2.127E-07	
Benzo(a)anthracene	5.47E-09 ug/m3	1.10E-04	6.02E-13	ND	ND	
Benzo(a)pyrene	3.65E-09 ug/m3	1.10E-03	4.01E-12	ND	ND	
Benzo(b)fluoranthene	5.47E-09 ug/m3	1.10E-04	6.02E-13	ND	ND	
Benzo(k)fluoranthene	5.47E-09 ug/m3	1.10E-04	6.02E-13	ND	ND	
Benzo(g,h,i)perylene	3.65E-09 ug/m3	ND	ND	ND	ND	
Chrysene	5.47E-09 ug/m3	1.10E-05	6.02E-14	ND	ND	
Dibenz(a,h)anthracene	3.65E-09 ug/m3	1.20E-03	4.37E-12	ND	ND	
1,4-Dichlorobenzene(p)	3.65E-06 ug/m3	1.10E-05	4.01E-11	8.00E+02	4.557E-09	
Fluoranthene	9.11E-09 ug/m3	ND	ND	ND	ND	
Fluorene	8.51E-09 ug/m3	ND	ND	ND	ND	
Formaldehyde	2.28E-04 ug/m3	5.50E-09	1.25E-12	9.80E+00	2.325E-05	
Hexane	5.47E-03 ug/m3	ND	ND	7.00E+02	7.812E-06	
Indeno(1,2,3,c,d)pyrene	5.47E-09 ug/m3	1.10E-04	6.02E-13	ND	ND	
Naphthalene ⁽⁸⁾	1.85E-06 ug/m3					included in crematorium portion
Phenanthrene	5.16E-08 ug/m3	ND	ND	ND	ND	
Pyrene	1.52E-08 ug/m3	ND	ND	ND	ND	
Toluene ⁽⁶⁾	1.03E-05 ug/m3					included in crematorium portion
Arsenic	6.08E-07 ug/m3	4.30E-03	2.61E-09	3.00E-02	2.025E-05	
Beryllium	3.65E-08 ug/m3	2.40E-03	8.75E-11	2.00E-02	1.823E-06	
Cadmium	3.34E-06 ug/m3	1.80E-03	6.02E-09	2.00E-02	0.0001671	
Chromium, total	4.25E-06 ug/m3	1.20E-02	5.10E-08	1.08E-01	3.938E-05	includes chromium(III) & (IV)
Cobalt	2.55E-07 ug/m3	ND	ND	1.00E-04	0.0025519	
Lead	1.52E-06 ug/m3	ND	ND	1.50E+00	1.013E-06	
Manganese	1.15E-06 ug/m3	ND	ND	5.00E-02	2.309E-05	
Mercury	7.90E-07 ug/m3	ND	ND	3.00E-01	2.633E-06	
Nickel	6.38E-06 ug/m3	ND	ND	9.00E-02	7.088E-05	
Selenium	7.29E-08 ug/m3	ND	ND	2.00E+01	3.646E-09	
TOTAL RISK			1.12E-07		3.39E-03	

Animal Remains

Propane (Natural Gas Factors)

(1) Source of chronic dose-response values is from Table 1: Prioritized Chronic Dose-Response Values for Screening Risk Assessments (6/12/07), from www.epa.gov/ttn/atw/toxsource/table1.pdf.
(2) Cancer Chronic Inhalation Unit Risk Factor, units 1/µg/m³
(3) Cancer Risk is unitless and is calculated by multiplying the predicted concentration by the URF.
(4) AKA Propylene dichloride
(5) AKA Tetrachloroethene, perchloroethylene.
(6) Chronic Noncancer Reference Exposure Level
(7) CNCREL Quotient Value is calculated by dividing the modeled HAP concentration by the CNCREL.
(8) The natural gas combustion component is accounted for in the crematorium emissions
ND Not Determined because no value is provided in Table 1: Prioritized Chronic Dose Response Values for Screening Risk Assessments (www.epa.gov/ttn/atw/toxsource/table1.pdf, 6/12/07).

VIII. Ambient Air Impact Analysis

Based on the information provided and the conditions established in MAQP #4456-00, 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.

IX. Taking or Damaging Implication Analysis

As required by 2-10-101 through 105, MCA, the Department has conducted a 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.

X. 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: John P. Proulx

Date: September 20, 2021