PRELIMINARY DETERMINATION
ON PERMIT APPLICATION

Date of Mailing: March 11, 2025

Name of Applicant: Rainbow to Rest, PLLC

Source: Incinerator

Proposed Action: The Department of Environmental Quality (DEQ) proposes to issue a permit, with conditions, to the above-named applicant. The application was assigned Permit Application Number 5330-00.

Proposed Conditions: See attached Preliminary Determination of MAQP #5330-00.

Public Comment: Any member of the public desiring to comment must submit comments to DEQAir@mt.gov or to the address below. Comments may address DEQ's analysis and Preliminary Determination, Draft Environmental Assessment, or the information submitted in the application. All comments are due by April 10, 2025. Copies of the application and DEQ's analysis may be requested at https://deq.mt.gov (at the bottom of the home page, select *Request Public Records).* For more information, you may contact DEQ at (406) 444-3490, or DEQAir@mt.gov

Departmental Action: DEQ intends to make a Decision on the application following the Public Comment period. A copy of the Decision will be available on DEQ's website, https://deq.mt.gov/public/publicnotice (select *AIR).* The permit shall become final on the date stated in the Decision, unless the Board of Environmental Review (Board) orders a stay on the permit.

Procedures for Appeal: Any person who is directly and adversely affected by DEQ's Decision may request a hearing before the Board. The appeal must be filed by the date that will be stated in the Decision. The request for a hearing must contain an affidavit setting forth the grounds for the request. The hearing will be held under the provisions of the Montana Administrative Procedures Act. Submit requests for a hearing to: Chairman, Board of Environmental Review, P.O. Box 200901, Helena, MT 59620, or the Board Secretary: DEQBERSecretary@mt.gov.

For DEQ,

Craig Henrikson

Craig Henrikson for Eric Merchant
Permitting Services Section Supervisor
Air Quality Bureau
(406) 444-3626

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

EM:EH
Enclosures

MONTANA AIR QUALITY PERMIT

Issued To: Rainbow to Rest, PLLC
3701 Eastside Highway
Stevensville, MT 59870

MAQP: #5330-00
Application Complete: 02/10/2025
Preliminary Determination Issued: 03/11/2025
DEQ's Decision Issued:
Permit Final:

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Rainbow to Rest (RTR), 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. Permitted Equipment

One natural gas-powered cremation unit, a Burn-Easy R&K Incinerator, Model 34 Heat Lined Incinerator with secondary afterburner, with a 75 pound per hour (lb/hr) feed rate with a maximum 0.185 MMBtu/hr main chamber rating, and a maximum 0.185 MMBtu/hr secondary chamber rating.

B. Plant Location

This facility is located in Section 34, Township 9 North, Range 20 West, in Ravalli County, Montana. The physical address of this facility is 3701 Eastside Highway, in Stevensville, Montana.

Section II: Conditions and Limitations

A. Operational Requirements

1. RTR shall not incinerate/cremate any material other than animal remains and any corresponding container unless approved in writing by the Department of Environmental Quality (DEQ) for material other than what would be normally termed, animal remains (ARM 17.8.749).

2. The cremation unit shall be equipped with a secondary combustion chamber controlled with an afterburner. RTR shall preheat the main chamber to a minimum of 1,325 degrees Fahrenheit with a 1/2 second retention time, prior to igniting a charge in the primary chamber burner. RTR shall maintain the secondary chamber temperature such that no single reading is less than 1,550 degrees Fahrenheit in the secondary chamber during cremation. The operating temperatures shall be maintained during operation and for one-half hour after waste feed has stopped (ARM 17.8.752).

3. RTR shall develop procedures (operating procedures manual) for the cremation unit and keep a physical copy of the operating procedures manual onsite at all

times. All personnel who operate the cremation unit shall be trained in the use of the operating procedures. RTR shall keep training records and supply those training records and a copy of the operating procedures manual to DEQ upon request (ARM 17.8.749 and 17.8.752).

4. The design capacity of the cremation unit shall not exceed 75 pounds per hour (lb/hr) (ARM 17.8.749).

5. RTR shall use natural gas as a fuel and maintain good combustion practices to minimize emissions (ARM 17.8.752).

B. Emission Limitations

1. RTR shall not cause or authorize to be discharged into the atmosphere from the cremation unit any visible emissions that exhibit an opacity of 10% or greater averaged over six consecutive minutes (ARM 17.8.749 and ARM 17.8.752).

2. RTR shall not cause or authorize to be discharged into the atmosphere from the cremation unit any particulate matter emissions in excess of 0.10 gr/dscf, corrected to 12% CO_2 (ARM 17.8.749 and 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 17.8.106).

2. DEQ may require further testing (ARM 17.8.105).

D. Operational Reporting Requirements

1. RTR shall supply DEQ with annual production information for all emission points, as required by DEQ in the annual emission inventory request. The request will include, but is not limited to, all sources of emissions identified in the emission inventory contained in the permit analysis. Production information shall be gathered on a calendar-year basis and submitted to DEQ by the date required in the emission inventory request. Information shall be in the units required by DEQ. This information may be used to calculate operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

2. RTR shall notify DEQ of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include the addition of a new emissions unit, change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation. The notice must be submitted to DEQ, in writing, 10 days prior to startup or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change and must include the information requested in ARM 17.8.745(l)(d) (ARM 17.8.745).

3. All records compiled in accordance with this permit must be maintained by RTR 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 DEQ, and must be submitted to the DEQ upon request. These records may be stored at a location other than the plant site upon approval by DEQ (ARM 17.8.749).

4. RTR shall record the daily quantity (mass) of material incinerated/cremated and the daily hours of operation of the cremation unit (date, start time, end time, and operator) (ARM 17.8.749).

E. Continuous Emissions Monitoring Systems

1. RTR shall install, calibrate, maintain, and operate continuous monitoring and recording equipment on the permitted cremation unit to measure the secondary chamber exit gas temperature, as required by Section II.A.2 (ARM 17.8.752).

F. Notification

1. RTR shall provide DEQ with written notification of the start-up date of the cremation unit within 15 days after start-up (ARM 17.8.749).

SECTION III: General Conditions

A. Inspection – RTR shall allow DEQ's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment such as Continuous Emission Monitoring Systems (CEMS) or Continuous Emission Rate Monitoring Systems (CERMS), or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.

B. Waiver – The permit and the terms, conditions, and matters stated herein shall be deemed accepted if RTR fails to appeal as indicated below.

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving RTR 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 DEQ's decision may request, within 15 days after DEQ renders its decision, upon affidavit setting forth the grounds therefor, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay DEQ's decision, unless the Board issues a stay upon receipt of a petition and a finding

that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of DEQ's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, DEQ's decision on the application is final 16 days after DEQ's decision is made.

F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by DEQ at the location of the source.

G. Permit Fee – Pursuant to Section 75-2-220, MCA, failure to pay the annual operation fee by RTR 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
Rainbow to Rest, PLLC
MAQP #5330-00

I. Introduction/Process Description

Rainbow to Rest, PLLC (RTR) owns and operates a pet crematorium. The facility is located in Stevensville, Montana, Section 34, Township 9 North, Range 20 West and is known as the Rainbow to Rest facility.

A. Permitted Equipment

One natural gas-powered cremation unit, a Burn-Easy R&K Incinerator, Model 34 Heat Lined Incinerator with secondary afterburner, with a 75 pound per hour (lb/hr) feed rate with a maximum 0.185 MMBtu/hr main chamber rating, and a maximum 0.185 MMBtu/hr secondary chamber rating.

B. Source Description

The crematorium has a maximum incineration design capacity of 75 lb/hr of animal remains. The crematorium is natural gas powered for combustion in the primary chamber with a 0.185 MMBtu/hr rating and secondary auxiliary burner with a 0.185 MMBtu/hr rating.

This crematorium is designed to heat both the primary chamber to 1400 degrees Fahrenheit and the secondary chamber (afterburner) to 1,600 degrees Fahrenheit.

The primary chamber is to be heated to a minimum of 1,325 Fahrenheit prior to placing animal remains in the chamber. The secondary chamber is to be heated to 1,600 degrees Fahrenheit prior to commencing cremation. Complete combustion is ensured by maintaining the secondary chamber at or above 1,600 degrees Fahrenheit throughout the cremation process. Retention time in the secondary chamber is greater than 1/2 second to ensure complete combustion.

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 DEQ. Upon request, DEQ 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 DEQ, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by DEQ.

3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by DEQ, any source or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq*., Montana Code Annotated (MCA).

   RTR 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 DEQ upon request.

4. ARM 17.8.110 Malfunctions. (2) DEQ must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.

5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

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

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
9. ARM 17.8.222 Ambient Air Quality Standard for Lead
10. ARM 17.8.223 Ambient Air Quality Standard for PM_{10}
11. ARM 17.8.230 Fluoride in Forage

RTR must maintain compliance with the applicable ambient air quality standards.

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

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source

installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.

2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, RTR 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 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this rule.

6. ARM 17.8.324 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.

7. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). This facility is not an NSPS affected source because it does not meet the definition of any NSPS subpart defined in 40 CFR Part 60.

8. ARM 17.8.341 Emission Standards for Hazardous Air Pollutants. This source shall comply with the standards and provisions of 40 CFR Part 61, as appropriate.

   This facility is not an NESHAPS affected source because it does not meet the definition of any subpart defined in 40 CFR Part 61.

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:
   This facility is not an NESHAPS affected source because it does not meet the definition of any subpart defined in 40 CFR Part 63.

D. ARM 17.8, Subchapter 4 – Stack Height and Dispersion Techniques, including, but not limited to:

1. ARM 17.8.401 Definitions. This rule includes a list of definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.402 Requirements. RTR must demonstrate compliance with the ambient air quality standards with a stack height that does not exceed Good Engineering Practices (GEP). The proposed height of the new or modified stack for RTR is below the allowable 65-meter GEP stack height.

E. 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 DEQ. RTR submitted the appropriate permit application fee for the current permit action.

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 DEQ by each source of air contaminants holding an air quality permit (excluding an open burning permit) issued by DEQ. The air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

   An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. DEQ may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that prorate the required fee amount.

F. 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. RTR does not have a PTE greater than 25 tons per year however, in accordance with MCA 75-2-215, an air permit must be obtained prior to the construction and operation of an incinerator, regardless of potential to emit. Since RTR must obtain an air quality permit, all normally applicable requirements apply.

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. RTR submitted the required permit application for the current permit action. 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. RTR submitted an affidavit of publication of public notice for the 18th of December issue of the *Bitterroot Star*, a newspaper of general circulation in the Town of Stevensville in Ravalli County, as proof of compliance with the public notice requirements.

6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by DEQ must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.

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 DEQ 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 RTR 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 DEQ's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.

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 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.

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 DEQ.

15. ARM 17.8.770 Additional Requirements for Incinerators. This rule specifies the additional information that must be submitted to the DEQ for incineration facilities subject to 75-2-215, Montana Code Annotated (MCA).

16. ARM 17.8.771 Mercury Emission Standards for Mercury-Emitting Generating Units. This rule identifies mercury emission limitation requirements, mercury control strategy requirements, and application requirements for mercury-emitting generating units.

G. 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).

H. 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 #5330-00 for RTR, 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 PM_{10} nonattainment area.

d. This facility is not subject to any current NSPS.

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

f. This source is not a Title IV affected source, or a solid waste combustion unit.

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

Based on these facts, DEQ determined that RTR 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, RTR will be required to obtain a Title V Operating Permit.

III. BACT Determination

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

DEQ prepared the following BACT analysis and determination. The following control options have been reviewed and analyzed by DEQ to determine BACT.

The control options selected have controls and control costs comparable to other recently permitted similar sources and can achieve the appropriate emission standards.

NO_x BACT:

Step 1: Identify All Control Technologies

By design, the proposed cremation unit will have a second, afterburner chamber. In addition to the afterburner, the control technologies for Oxides of Nitrogen (NO_x) reduction identified in Table 1 below constitute available technologies, listed top-down by effectiveness:

Table 1. Technologies Available

Technology
Afterburner with Selective Catalytic Reduction (SCR)
Afterburner with Selective Noncatalytic Reduction (SNCR)
Afterburner with Addition of Low NO_X Burners
Afterburner

Step 2: Eliminate Technically Infeasible Control Options

Selective Catalytic Reduction (SCR): SCR is a process involving the chemical reduction of NO_x using a metal-based catalyst to increase the rate that NO_x is reduced. Typically, this technology is used in stationary source fossil fuel-fired combustion units, such as the proposed cremation unit. However, SCR is generally used for sources that require a high level of NO_x reduction, potentially reaching up to 100% reduction in NO_x levels. The proposed crematorium uses natural gas, thus, potential emissions of all regulated pollutants, including NO_x, are low. SCR is typically incorporated into continuously operating systems, whereas a crematorium operates in a batch mode, meaning it requires cooldown between runs to allow for the collection of residual remains. The optimum operating range for SCR practices is typically 480 to 800 ºF and the typical incinerator exhaust stream is 1600 ºF, falling outside of that optimum operating range. Based on this, SCR is deemed technically infeasible and removed from further consideration.

Selective Noncatalytic Reduction (SNCR): SNCR is a post-combustion control technology based on the chemical reduction of nitrogen oxides into molecular nitrogen and water vapor using urea or ammonia injection (Section 4 NO_X Controls). SNCR is typically used on boilers, thermal incinerators, municipal and hazardous waste combustions units, cement kilns, process heaters, and glass furnaces. SNCR is not typically seen on cremation units. SNCR is also less effective at lower levels of uncontrolled NOX. SNCR is better suited for applications with high levels of PM in the waste gas stream than SCR (Air Pollution Control Technology Fact Sheet). Based off this, and that Montana DEQ has never required this is practice, SNCR is deemed technically infeasible and removed from further consideration.

Low NO_X Burners: A survey in 2022 by GeoInsight, found no Low NO_X Burners are commercially available for this type of application, being installed in addition to an afterburner on a crematorium. Therefore, Low NO_X Burners have been deemed technically infeasible and are removed from further consideration (San Joaquin Valley Unified Air Pollution Control District Best Available Control Technology (BACT) Guideline 1.9.3*).

Table 2. Technically Feasible Technologies

Technology	**Technically Feasible**
Afterburner with Selective Catalytic Reduction (SCR)	No
Afterburner with Selective Noncatalytic Reduction (SNCR)	No
Afterburner with Addition of Low NO_X Burners	No
Afterburner	Yes

Step 3: Rank Remaining Control Technologies by Control Effectiveness

The remaining technologies include those listed in Table 3 below.

Table 3. Ranked Control Technologies

Technology	**Ranking**
Afterburner	1

Because the proposed cremation unit inherently incorporates a secondary chamber or afterburner, SCR, SNCR, and Low NO_X Burners, constitute add-on controls resulting in greater NO_X control effectiveness than a secondary chamber alone.

Step 4: Evaluate Most Effective Controls and Document Results

Proper design includes relying on good turbulence, high temperature and the residence time within the secondary chamber. Turbulence is achieved with proper introduction of air into the combustion chambers. Temperature is achieved by preheating the primary and secondary chambers to 1,400- and 1,600-degrees Fahrenheit prior to placing the remains and associated container. The secondary chamber is also required to maintain at a minimum operating temperature of 1,600 ºF. Residence time is achieved by sizing the secondary chamber large enough to support final combustion within the secondary combustion chamber. This design incorporates no heat recovery from the secondary combustion chamber and therefore, the stack volume operates effectively as an extension of the secondary combustion chamber volume. When the volume of the secondary combustion chamber and stack are combined the average residence time is over one second.

Step 5: Identify BACT

RTR proposes to install and operate a crematorium equipped with a secondary chamber designed specifically to reduce the amount of pollutants, including NO_X, emitted by the cremation unit/incinerator. Previous research by DEQ, including similar BACT analyses for crematoriums, have not required additional air pollution control equipment beyond incorporation of a secondary chamber, which maintains a stable temperature and retention of combustion gases within and effectively reduces NO_X emissions.

Therefore, DEQ determined that proper unit design that includes preheating the primary and secondary chambers to 1,400- and 1,600-degrees Fahrenheit before inserting the remains, maintaining the secondary chamber at or above 1,600 degrees Fahrenheit, and proper operation and maintenance of the crematorium with no additional control constitutes BACT.

RTR shall develop procedures (operating procedures manual) for the cremation unit and keep a physical copy of the operating procedures manual onsite at all times. All personnel who operate the cremation unit shall be trained in the use of the operating procedures. RTR shall keep training records and supply those training records and a copy of the operating procedures manual to DEQ upon request.

The BACT conclusions prescribed under MAQP #5330-00 provide comparable controls and control cost to other recently permitted similar sources and are capable of achieving the appropriate emission standards. The control options selected have controls and control costs comparable to other recently permitted similar sources and are capable of achieving the appropriate emission standards.

<u>$PM/PM_{10}/PM_{2.5}$ BACT:</u>

Step 1: Identify All Control Technologies

By design, the proposed cremation unit will have a second, afterburner chamber. In addition to the standard afterburner, the control technologies for particulate matter (PM) reduction identified in Table 1 below constitute available technologies, listed top-down by effectiveness:

Table 1. Technologies Available

Technology
Afterburner with Baghouse
Afterburner with Wet Scrubber (Spray Tower)
Afterburner with Dry Scrubber
Afterburner with Venturi Scrubber
Afterburner

Step 2: Eliminate Technically Infeasible Control Options

Baghouse: A baghouse utilizes fabric filters to control PM emissions in industrial applications where high-efficiency particle collection is required. Their primary benefit is their ability to remove particles in a range of sizes from submicrons to several hundred microns in diameter to control efficiencies at 99 percent or greater (Regulations).

Wet Scrubber: A wet scrubber process would be technically feasible for the reduction of PM emissions from the proposed cremation unit. A wet scrubber utilizes a liquid to remove pollutants from an exhaust stream through the process of absorption. Most wet scrubbers operate in an excess of 90% removal efficiencies, depending on pollutant (Scrubber for Gaseous Control). For this analysis, a spray tower will be analyzed. A spray tower is the simplest type of scrubber. In this type of scrubber, particulate-laden air passes into a chamber where it contacts a liquid spray produced by spray nozzles. Typical control efficiencies for particles larger than 5 microns is as great as 90%, and for particles below 3 microns is around 50% (Section 6 Particulate Matter Controls – Wet Scrubber). Wet scrubbers typically are best for applications with inlet temperatures of less than 700 ºF. The temperature of the cremation unit is approximately 1,600 ºF. The addition of a wet scrubber is not generally seen in practice for this type of unit and Montana DEQ has not required this in past BACT determinations. Therefore, a Wet Scrubber (Spray Tower) is deemed technically infeasible and will not be evaluated for further consideration.

Electrostatic Precipitator (ESP): Is a particle control device that uses electrical forces to move the particles out of the flowing gas stream and onto collector plates. Once the particles are on the plates, they must be removed from the plates without reentraining them into the gas stream. This is usually accomplished by knocking the particles loose from the plates, allowing the collected layer of particles to slide down into a hopper from which they are evacuated (Section 6 Particulate Matter Controls – ESP). Most dry ESPs operate at a maximum temperature of 700 ºF and most wet ESPs operate at a maximum temperature of 190◦F (Monitoring by Control Technique – Electrostatic Precipitator). This incinerator will operate at approximately 1,600 ºF, making an ESP incapable of handling these temperatures. Therefore, an ESP is deemed technically infeasible and will not be considered for further consideration.

Venturi Scrubber: A venturi scrubber is a specific type of wet scrubber that has a "converging-diverging" flow channel where the system of the cross-sectional area of the channel decreases then increases along the length of the channel. In the converging section, the decrease in area causes the waste gas velocity and turbulence to increase. The scrubbing liquid is injected into the scrubber slightly upstream of the throat or directly into the throat section. These types of scrubbers are more expensive than a spray tower, cyclonic, or tray tower scrubbers, but have higher collection efficiencies ranging from 70 to 99% for particles larger than 1 micron in diameter and greater than 50% for submicron particles (Section 6 Particulate Matter Controls – Wet Scrubber). Per the EPA Fact Sheet (EPA-452/F-03-017), the optimal temperature range for a venturi scrubber to reduce PM emissions for exhaust streams is 40 to 750 ºF. This cremation unit will have an exhaust stream around 1600 ºF, falling outside of that optimal temperature range. Therefore, a venturi scrubber is deemed infeasible and will not be evaluated for further consideration.

Table 2. Technically Feasible Technologies

Technology	Technically Feasible
Afterburner with Baghouse	Yes
Afterburner with Wet Scrubber (Spray Tower)	No
Afterburner with Electrostatic Precipitator	No
Afterburner with Venturi Scrubber	No
Afterburner	Yes

Step 3: Rank Remaining Control Technologies by Control Effectiveness

Because the proposed cremation unit inherently incorporates a secondary chamber or afterburner, a Baghouse constitutes an add-on control resulting in greater PM control effectiveness than a secondary chamber alone. After extensive research, it was determined that no addition add-on control of a baghouse for a crematorium has been achieved in practice. While it would have a higher control efficiency than the afterburner alone, it will no longer be considered and is deemed technically infeasible.

Table 3. Ranked Control Technologies

Technology	Ranking
Afterburner	1

Step 4: Evaluate Most Effective Controls and Document Results

BACT for products of combustion/incineration PM resulting from crematorium operations is typically proper crematorium design and operation. Proper design includes relying on good turbulence, high temperature and the residence time within the secondary chamber.

Proper design includes relying on good turbulence, high temperature and the residence time within the secondary chamber. Turbulence is achieved with proper introduction of air into the combustion chambers. Temperature is achieved by preheating the primary chamber to 1,400 degrees Fahrenheit and the secondary chamber to a minimum of 1,600 degrees Fahrenheit prior to placing the remains and associated container. The secondary chamber is required to maintain at a minimum operating temperature of 1,600 ºF. Residence time is achieved by sizing the secondary chamber large enough to support final combustion within the secondary combustion chamber. This design incorporates no heat recovery from the secondary combustion chamber and therefore, the stack volume operates effectively as an extension of the secondary combustion chamber volume. When the volume of the secondary combustion chamber and stack are combined the average residence time is over one second.

Step 5: Identify BACT

RTR proposes to install and operate a crematorium equipped with a secondary chamber designed specifically to reduce the amount of pollutants, including PM, emitted by the incinerator. Previous research done by DEQ, including similar BACT analyses for crematoriums, have not required additional air pollution control equipment beyond the control of the secondary chamber, which maintains a stable temperature and retention of combustion gases within.

Based on these conclusions, DEQ determined that proper unit design that includes preheating the primary chamber and the secondary chamber to 1,400- and 1,600-degrees Fahrenheit before inserting the remains and maintaining the secondary chamber at or above 1,600 degrees Fahrenheit, and proper operation and maintenance of the crematorium with no additional control constitutes BACT for $PM/PM_{10}/PM_{2.5}$.

RTR shall develop procedures (operating procedures manual) for the cremation unit and keep a physical copy of the operating procedures manual onsite at all times. All personnel who operate the cremation unit shall be trained in the use of the operating procedures. RTR shall keep training records and supply those training records and a copy of the operating procedures manual to DEQ upon request.

The control options selected have controls and control costs comparable to other recently permitted similar sources and are capable of achieving the appropriate emission standards. The BACT conclusions prescribed under MAQP #5330-00 provide comparable controls and control cost to other recently permitted similar sources and are capable of achieving the appropriate emission standards.

SO_X BACT:

Step 1: Identify All Control Technologies

The new incinerator will have a second, afterburner chamber. In addition to the standard afterburner, the following control technologies for sulfur oxides (SO_x) reduction are available:

Table 1. Technologies Available

Technology
Afterburner with Wet Scrubber
Afterburner with Dry Scrubber (SDA method)
Afterburner with Dry Scrubber (CDS method)
Afterburner with Baghouse
Afterburner

Step 2: Eliminate Technically Infeasible Control Options

Wet Scrubber: A wet scrubber process would be technically feasible for the reduction of SO_X emissions from the proposed cremation unit. A wet scrubber utilizes a liquid to remove pollutants from an exhaust stream through the process of absorption. Most wet scrubbers operate in an excess of 90% removal efficiencies, depending on pollutant (Scrubber for Gaseous Control). Typically, the applications that utilize a wet scrubber have an inlet temperature of 700 ºF or less. With this cremation unit, the inlet temperature would be approximately 1,600 ºF. Therefore, the use of a wet scrubber is deemed technically infeasible and will not be evaluated for consideration further.

Dry Scrubber: A dry scrubber injects either dry, powdered sorbent or an aqueous slurry hat contains a high concentration of the sorbent. The water then evaporates in the high temperature of the flue gas, leaving solid sorbent particles that react with the sorbet. Dry scrubbers have lower removal efficiencies than wet scrubbers with efficiencies between 85 and 95% but tend to be lower in costs. Two types of dry scrubbers in the Dry Flue Gas Desulfurization Systems, the Dry Lime FGD/SDA system and the post combustion circulating dry scrubber (CDS), will be compared in this analysis (Section 5 SO_2 and Acid Gas Controls). After research done by DEQ, crematoriums do not operate in practice with the addition of a dry scrubber. Montana DEQ has also not required this additional control in similar BACT determinations. Therefore, dry scrubbers, both the SDA and CDS method, are no longer be considered and are deemed technically infeasible.

Table 2. Technically Feasible Technologies

Technology	Technically Feasible
Afterburner with Wet Scrubber	No
Afterburner with Dry Scrubber (SDA method)	No
Afterburner with Dry Scrubber (CDS method)	No
Afterburner with Baghouse	Yes
Afterburner	Yes

Step 3: Rank Remaining Control Technologies by Control Effectiveness

Because the proposed cremation unit inherently incorporates a secondary chamber or afterburner, a Baghouse constitutes an add-on control resulting in greater SO_X control effectiveness than a secondary chamber alone. After extensive research, it was determined

that no addition add-on control of a baghouse for a crematorium has been achieved in practice. While it would have a higher control efficiency than the afterburner alone, it will no longer be considered and is deemed technically infeasible.

Table 3. Ranked Control Technologies

Technology	Ranking
Afterburner	1

Step 4: Evaluate Most Effective Controls and Document Results

BACT for products of combustion/incineration SO_X resulting from crematorium operations is typically proper crematorium design and operation. Proper design includes relying on good turbulence, high temperature and the residence time within the secondary chamber.

Proper design includes relying on good turbulence, high temperature and the residence time within the secondary chamber. Turbulence is achieved with proper introduction of air into the combustion chambers. Temperature is achieved by preheating the primary chamber to 1,400 degrees Fahrenheit and the secondary chamber to a minimum of 1,600 degrees Fahrenheit prior to placing the remains and associated container. The secondary chamber is required to maintain at a minimum operating temperature of 1,600 ºF. Residence time is achieved by sizing the secondary chamber large enough to support final combustion within the secondary combustion chamber. This design incorporates no heat recovery from the secondary combustion chamber and therefore, the stack volume operates effectively as an extension of the secondary combustion chamber volume. When the volume of the secondary combustion chamber and stack are combined the average residence time is over one second.

Step 5: Identify BACT

RTR proposes to install and operate a crematorium equipped with a secondary chamber designed specifically to reduce the amount of pollutants emitted by the cremation unit. Previous research done by DEQ, including similar BACT analyses for crematoriums, have not required additional air pollution control equipment beyond the control of the secondary chamber, which maintains a stable temperature and retention of combustion gases within.

Based on these conclusions, DEQ determined that proper unit design that includes preheating the primary chamber and the secondary chamber to 1,400- and 1,600-degrees Fahrenheit before inserting the remains and maintaining the secondary chamber at or above 1,600 degrees Fahrenheit, and proper operation and maintenance of the crematorium with no additional control constitutes BACT for SO_X.

RTR shall develop procedures (operating procedures manual) for the cremation unit and keep a physical copy of the operating procedures manual onsite at all times. All personnel who operate the cremation unit shall be trained in the use of the operating procedures. RTR shall keep training records and supply those training records and a copy of the operating procedures manual to DEQ upon request.

The control options selected have controls and control costs comparable to other recently permitted similar sources and are capable of achieving the appropriate emission standards. The

BACT conclusions prescribed under MAQP #5330-00 provide comparable controls and control cost to other recently permitted similar sources and are capable of achieving the appropriate emission standards.

VOC and CO BACT Analysis:

Step 1: Identify All Control Technologies

The new incinerator will have a second afterburner chamber. In addition to the standard afterburner, the following control technologies for VOC and CO reduction are possible:

Table 1. Technologies Available

Technology
Afterburner with Carbon Adsorber
Afterburner with Condenser
Afterburner

Due to emissions of CO and VOC both resulting from incomplete combustion processes, this BACT analysis and determination applies to both pollutants, as controlling VOC emissions will inherently control the CO emissions simultaneously. The EPA Air Pollution Control Cost Manual does not currently contain a section that is specifically related to CO emission control devices, along with research of other state BACT analysis have no specifications concerning CO emissions as a singular entity. Therefore, based on previous DEQ determinations, along with the combustion process, allows for the CO and VOC BACT to be conducted together.

Carbon Adsorber: Carbon adsorbers control VOC emissions through adsorption. Adsorption is a non-destruction control technology utilized to remove VOCs from low to medium concentration gas streams. There are four main types of adsorption equipment and for this analysis a Fixed-Bed Unit will be analyzed due to its capability to handle low VOC concentration streams and that it can be operated intermittently (Chapter 1 -Carbon Adsorbers).

Condenser: Two types of condensers categories exist: refrigerated or non-refrigerated. For this, a non-refrigerated system will be analyzed as a non-refrigerated condenser are used prior to control devices. Condenser control technology reduces emissions to the atmosphere and captures or recovers VOCs and therefore CO. Condensation is a separation technique in which one or more volatile components of a vapor mixture are separated from the remaining vapors through saturation followed by a phase change, from a gas to a liquid. Control efficiencies range from 50-90% depending on the type of coolants used (Refrigerated Condensers).

Step 2: Eliminate Technically Infeasible Control Options

Carbon Adsorber: After research, it was determined that the addition of a carbon adsorber as additional control has not been achieved in practice for a crematorium. The operational temperature for a carbon adsorber is typically less than 100 ºF. The exhaust stream from the cremation unit will be approximately 1600 ºF. Montana DEQ has also historically not required this additional control in similar BACT determinations. Therefore, the addition of a carbon adsorber will not be considered further and is deemed technically infeasible.

Condenser: Condensers are typically utilized for equipment that have a gas outlet stream with high levels of VOCs. They are also not typically utilized for cremation units (Monitoring by Control Technique – Condensers). Based on the low level of VOC emissions, and that Montana DEQ has not achieved this in practice or required it historically, adding a condenser is deemed technically infeasible and will not be considered further.

Table 2. Technically Feasible Technologies

Technology	Technically Feasible
Afterburner with Carbon Adsorber	No
Afterburner with Condenser	No
Afterburner	Yes

Step 3: Rank Remaining Control Technologies by Control Effectiveness

Table 3. Ranked Control Technologies

Technology	Ranking
Afterburner	1

Step 4: Evaluate Most Effective Controls and Document Results

BACT for products of combustion/incineration, including VOCs and CO, resulting from crematorium operations is typically proper crematorium design and operation. Proper design includes relying on good turbulence, high temperature and the residence time within the secondary chamber.

Proper design includes relying on good turbulence, high temperature and the residence time within the secondary chamber. Turbulence is achieved with proper introduction of air into the combustion chambers. Temperature is achieved by preheating the primary chamber to 1,400 degrees Fahrenheit and the secondary chamber to a minimum of 1,600 degrees Fahrenheit prior to placing the remains and associated container. The secondary chamber is required to maintain at a minimum operating temperature of 1,600 ºF. Residence time is achieved by sizing the secondary chamber large enough to support final combustion within the secondary combustion chamber. This design incorporates no heat recovery from the secondary combustion chamber and therefore, the stack volume operates effectively as an extension of the secondary combustion chamber volume. When the volume of the secondary combustion chamber and stack are combined the average residence time is over one second.

Step 5: Identify BACT

RTR proposes to install and operate a crematorium equipped with a secondary chamber designed specifically to reduce the amount of pollutants emitted by the incinerator. Previous research done by DEQ, including similar BACT analyses for crematoriums, have not required additional air pollution control equipment beyond the control of the secondary chamber, which maintains a stable temperature and retention of combustion gases within.

Based on these conclusions, DEQ determined that proper unit design that includes preheating the primary chamber and the secondary chamber to 1,400- and 1,600-degrees Fahrenheit before inserting the remains and maintaining the secondary chamber at or above 1,600 degrees Fahrenheit, and proper operation and maintenance of the crematorium with no additional control constitutes BACT for VOCs and CO.

RTR shall develop procedures (operating procedures manual) for the cremation unit and keep a physical copy of the operating procedures manual onsite at all times. All personnel who operate the cremation unit shall be trained in the use of the operating procedures. RTR shall keep training records and supply those training records and a copy of the operating procedures manual to DEQ upon request.

The control options selected have controls and control costs comparable to other recently permitted similar sources and are capable of achieving the appropriate emission standards. The BACT conclusions prescribed under MAQP #5330-00 provide comparable controls and control cost to other recently permitted similar sources and are capable of achieving the appropriate emission standards.

IV. Emission Inventory

Table 1. Criteria Pollutant Emissions from the Cremation of Animal Remains

Pollutant	Emissions Factor (lb/ton)	lb/hr	TPY
SO_X	2.17	0.081375	0.3564225
NO_X	3.56	0.1335	0.58473
VOC	0.299	0.011213	0.04911075
$PM_{2.5}$	4.67	0.175125	0.7670475
PM_{10}	4.67	0.175125	0.7670475
CO	2.95	0.110625	0.4845375

Table 2. Criteria Pollutant Emissions from Natural Gas Combustion

Pollutant	Emission Factor ($lb/MMft^3$)	lb/yr	TPY
SO_X	0.6	1.91	0.000955
NO_X	100	317.76	0.15888
VOC	5.5	17.48	0.00874
$PM_{2.5}$	7.6	24.15	0.012075
PM_{10}	7.6	24.15	0.012075
CO	84	266.92	0.13346

Example Calculations for determining SO_X emissions:

$$\frac{lbs}{hr} = Emissions\ Factor\ X\ Incinerator\ Maximum\ Feed\ Rate\ X\ \frac{1\ ton}{2000\ lbs}$$

$$\frac{lb}{hr} = 2.17\left(\frac{lb}{ton}\right) X\ 75\left(\frac{lb}{hr}\right) X\ \frac{1\ ton}{2000\ lbs}$$

$$lb/hr = 0.081375$$

$$Tons\ Per\ Year = \frac{\frac{lb}{hr}\ SO_x rate}{2000\ lbs} X8760\ hours$$

$$Tons\ Per\ Year = \frac{0.081375}{2000} X8760$$

$$Tons\ Per\ Year = 0.3564225$$

Table 3. Hazardous Air Pollutant Emissions (Includes Combustion of Animal Remains and Natural Gas)

HAP Category / Pollutant Name	Emission Factor (lb/ 150lb body)	CAS #	lb/yr	lb/hr	TPY
Antimony (less than)	0.0000151	7440360	0.066138	7.55E-06	3.31E-05
Arsenic (less than)	0.000015	7440382	0.0657	7.50E-06	3.29E-05
Beryllium	0.00000137	7440417	0.006001	6.85E-07	3E-06
Cadmium	0.000011	7440439	0.04818	5.50E-06	2.41E-05
Chromium	0.0000299	7440473	0.130962	1.50E-05	6.55E-05
Chromium, hx	0.0000135	18540299	0.05913	6.75E-06	2.96E-05
Cobalt (less than)	0.000000875	7440484	0.003833	4.38E-07	1.92E-06
Lead	0.0000662	7439921	0.289956	3.31E-05	0.000145
Nickel	0.0000382	7440020	0.167316	1.91E-05	8.37E-05
Selenium	0.0000436	7782492	0.190968	2.18E-05	9.55E-05
Zinc	0.000353	7440666	1.54614	1.77E-04	0.000773
2-methylnaphthalene	0.000024	91576	7.63E-05	8.71E-09	3.81E-08
3-methylchloranthrene (less than)	0.0000009	56495	2.86E-06	3.26E-10	1.43E-09
7,12 Dibenz(a)anthracene (less than)	0.000008		2.54E-05	2.90E-09	1.27E-08
Anthracene (less than)	0.0000012	120127	3.81E-06	4.35E-10	1.91E-09
Benzene	0.0021	71432	0.006673	7.62E-07	3.34E-06
Dichlorobenzene	0.0012	25321226	0.003813	4.35E-07	1.91E-06
Hexane	1.8	110543	5.719765	6.53E-04	0.00286

Napthalene	0.00061	91203	0.001938	2.21E-07	9.69E-07
Phenanathrene	0.000017	85018	5.4E-05	6.17E-09	2.7E-08
Toluene	0.0034	108883	0.010804	1.23E-06	5.4E-06
Acenaphthene	0.000000111	83329	0.000486	5.55E-08	2.43E-07
Acenaphthylene	0.000000122	208968	0.000534	6.10E-08	2.67E-07
Benzo(a)anthracene (less than)	4.88E-09	56553	2.14E-05	2.44E-09	1.07E-08
Benzo(a)pyrene (less than)	1.455E-08	50328	6.37E-05	7.28E-09	3.19E-08
Benzo(b)fluoranthene (less than)	7.95E-09	205992	3.48E-05	3.98E-09	1.74E-08
Benzo(g,h,i)perylene (less than)	1.455E-08	191242	6.37E-05	7.28E-09	3.19E-08
Benzo(k)fluoranthene (less than)	7.1E-09	207089	3.11E-05	3.55E-09	1.55E-08
Chrysene (less than)	0.000000027	218019	0.000118	1.35E-08	5.91E-08
Dibenzo(a,h)anthracene (less than)	6.35E-09	53703	2.78E-05	3.18E-09	1.39E-08
Fluorene	0.000000417	86737	0.001826	2.09E-07	9.13E-07
Fluoranthene	0.000000205	206440	0.000898	1.03E-07	4.49E-07
Indeno(1,2,3-cd)pyrene (less than)	7.7E-09	193395	3.37E-05	3.85E-09	1.69E-08
Phenanthrene	0.00000229	85018	0.01003	1.15E-06	5.02E-06
Pyrene	0.000000162	129000	0.00071	8.10E-08	3.55E-07
1,2,3,4,6,7,8-Heptachlorodebenzofuran (less than)	2.285E-09	67562394	1E-05	1.14E-09	5E-09
1,2,3,4,7,8,9-Heptachlofodibenzofuran (less than)	1.39E-10	55673897	6.09E-07	6.95E-11	3.04E-10
1,2,3,4,7,8-Hexachlorodibenzofuran	9.53E-10	70648269	4.17E-06	4.77E-10	2.09E-09
1,2,3,6,7,8-Hexachlorodibenzofuran	8.52E-10	57117449	3.73E-06	4.26E-10	1.87E-09
1,2,3,7,8,9-Hexachlorodibenzofuran	1.67E-09	72918219	7.31E-06	8.35E-10	3.66E-09
2,3,4,6,7,8-Hexachlorodibenzofuran	3.44E-10	60851345	1.51E-06	1.72E-10	7.53E-10
1,2,3,7,8-Pentachlorodibenzofuran (less than)	1.47E-10	57117416	6.44E-07	7.35E-11	3.22E-10
2,3,4,7,8-Pentachlorodibenzofuran (less than)	4.425E-10	57117314	1.94E-06	2.21E-10	9.69E-10
2,3,7,8-Tetrachlorodibenzofuran	5.19E-10	51207319	2.27E-06	2.60E-10	1.14E-09

Acetaldehyde	0.00013	75070	0.5694	6.50E-05	0.000285
Formaldehyde	0.000034	50000	0.14892	1.70E-05	7.45E-05
Hydrogen chloride	0.072	7647010	315.36	3.60E-02	0.15768
Hydrogen fluoride	0.00066	7664393	2.8908	3.30E-04	0.001445
2,3,7,8-tetrachlorodibenzo-p-dioxin	7.94E-11	1746016	3.48E-07	3.97E-11	1.74E-10
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	3.79E-09	35822469	1.66E-05	1.90E-09	8.3E-09
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	2.75E-10	39227286	1.2E-06	1.38E-10	6.02E-10
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	3.97E-10	57653857	1.74E-06	1.99E-10	8.69E-10
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	4.92E-10	19408743	2.15E-06	2.46E-10	1.08E-09
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	2.33E-10	40321764	1.02E-06	1.17E-10	5.1E-10
Total				**0.037363**	**0.163651**

V. Existing Air Quality

The RTR facility is located in Section 34, Township 9 North, Range 20 West, in Ravalli, Montana. Ravalli County is classified as Unclassifiable/Attainment, of the National Ambient Air Quality Standards (NAAQS) for all criteria pollutants, as of February 13, 2025.

VI. Air Quality Impacts

DEQ conducted SCREEN View air dispersion modeling, an EPA-approved screening model, for each of the five units. DEQ used the indicated combustion ratings for the cremation unit, along with the stack diameter, stack height, and required discharge temperature to model for HAPs from both the combustion of animal remains as well as from the combustion of natural gas/propane. Since different approaches and different emission factors have been used over time, each of the five units were modeled with the same emission factors. The contribution from each unit was then combined for the HAPs from the combustion of natural gas/propane and combined for the HAPs from combustion of the animal remains and then used in the Health Risk Assessment described below.

DEQ determined that there will be minor impacts from this permitting action. Therefore, DEQ believes this action will not cause or contribute to a violation of any ambient air quality standard.

VII. Ambient Air Impact Analysis

Based on the information provided and the conditions established in MAQP #5330-00 DEQ determined that the impact from this permitting action will be minor.

DEQ believes it will not cause or contribute to a violation of any ambient air quality standard.

VIII. Human Health Risk Assessment

A health risk assessment was conducted to determine if the proposed crematorium complies 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, welfare, and the environment.

Pursuant to ARM 17.8.770(1)(c), pollutants may be excluded from the human health risk assessment if DEQ 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) are less than the levels specified in Table 1 or Table 2 of ARM 17.8.770. Even though most of the estimated HAP species calculated in the emission inventory fell below the de minimis levels in Table 1 or Table 2 of ARM 17.8.770, DEQ elected to conduct the human health risk assessment by contemplating all the estimated HAP species. The results of the human health risk assessment pursuant to ARM 17.8.770 are shown in the following table and the results are discussed following the table and ScreenView inputs below.

HAP Category / Pollutant Name	CAS #	Fraction of all HAPS	Calculated HAP Concentration	ARM 17.8.770 De Minimis Levels						
				Table 1 Cancer Annual	Table 2 Noncancer Chronic Annual	Table 2 Noncancer Acute Annual	Cancer URF (2)	Cancer Risk (3)	CNCREL (4) ug/m3	CNCREL Quotient (5)
Heavy Metals										
Antimony (less than)	7440360	2.02E-04	4.93E-08	N/A	2.00E-03	N/A	N/A	N/A	N/A	N/A
Arsenic (less than)	7440382	2.01E-04	4.90E-08	2.33E-05	5.00E-03	N/A	4.30E-03	2.11E-10	1.50E-02	3.27E-06
Beryllium	7440417	1.83E-05	4.47E-09	4.17E-05	N/A	N/A	2.40E-03	1.07E-11	2.00E-02	2.24E-07
Cadmium	7440439	1.47E-04	3.59E-08	5.56E-05	N/A	N/A	1.80E-03	6.47E-11	1.00E-02	3.59E-06
Chromium	7440473	4.00E-04	9.77E-08	8.33E-06	N/A	N/A	N/A	N/A	N/A	N/A
Chromium, hx	18540299	1.81E-04	4.41E-08	N/A	N/A	N/A	1.20E-02	5.29E-10	1.00E-01	4.41E-07
Cobalt (less than)	7440484	1.17E-05	2.86E-09	N/A	N/A	N/A	N/A	N/A	1.00E-01	2.86E-08
Lead	7439921	8.86E-04	2.16E-07	N/A	1.50E-02	N/A	N/A	N/A	0.15	1.442E-06
Nickel	7440020	5.11E-04	1.25E-07	3.85E-04	2.40E-03	1.00E-02	N/A	N/A	9.00E-02	1.39E-06
Selenium	77824	5.83E-	1.42E-	N/A	5.00E-	2.00E-	N/A	N/A	2.00E	7.12E-

	92	04	07		03	02			+01	09
Zinc	7440666	4.72E-03	1.15E-06	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Polycyclic Organic Matter (POM)										
2-methylnaphthalene	91576	2.33E-07	5.69E-11	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3-methylchloranthrene (less than)	56495	8.74E-09	2.13E-12	N/A	N/A	N/A	0.0063	1.344E-14	N/A	N/A
7,12 Dibenz(a)anthracene (less than)		7.77E-08	1.90E-11	N/A	N/A	N/A	0.071	1.346E-12	N/A	N/A
Anthracene (less than)	120127	1.17E-08	2.84E-12	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzene	71432	2.04E-05	4.98E-09	1.20E-02	7.10E-01	N/A	0.0000078	3.882E-14	30	1.659E-10
Dichlorobenzene	25321226	1.17E-05	2.84E-09	9.09E-03	8.00E+00	N/A	0.000011	3.128E-14	800	3.555E-12
Hexane	110543	1.75E-02	4.27E-06	N/A	2.00E+00	N/A	N/A	N/A	700	6.093E-09
Napthalene	91203	5.92E-06	1.45E-09	N/A	1.40E-01	N/A	0.000034	N/A	3	4.818E-10
Phenanathrene	85018	1.65E-07	4.03E-11	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Toluene	108883	3.30E-05	8.06E-09	N/A	4.00E+00	N/A	N/A	N/A	5000	1.611E-12
Acenaphthene	83329	1.49E-06	3.63E-10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Acenaphthylene	208968	1.63E-06	3.98E-10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzo(a)anthracene (less than)	56553	6.53E-08	1.59E-11	5.88E-05	N/A	N/A	N/A	N/A	N/A	N/A
Benzo(a)pyrene (less than)	50328	1.95E-07	4.75E-11	5.88E-05	N/A	N/A	0.0011	5.228E-14	N/A	N/A
Benzo(b)fluoranthene (less than)	205992	1.06E-07	2.60E-11	5.88E-05	N/A	N/A	0.00011	2.856E-15	N/A	N/A
Benzo(g,h,i)perylene (less than)	191242	1.95E-07	4.75E-11	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzo(k)fluoranthene (less than)	207089	9.50E-08	2.32E-11	5.88E-05	N/A	N/A	0.00011	2.551E-15	N/A	N/A
Chrysene (less than)	218019	3.61E-07	8.82E-11	N/A	N/A	N/A	0.000011	9.701E-16	N/A	N/A
Dibenzo(a,h)anthracene (less than)	53703	8.50E-08	2.07E-11	5.88E-05	N/A	N/A	0.00011	2.282E-15	N/A	N/A
Fluorene	86737	5.58E-06	1.36E-09	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fluoranthene	20644	2.74E-	6.70E-	N/A	N/A	N/A	N/A	N/A	N/A	N/A

	0	06	10							
Indeno(1,2,3-cd)pyrene (less than)	193395	1.03E-07	2.52E-11	5.88 E-05	N/A	N/A	0.00011	2.767 E-15	N/A	N/A
Phenanthrene	85018	3.06E-05	7.48E-09	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pyrene	129000	2.17E-06	5.29E-10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dibenzofurans			2.40E-11	2.63 E-09	3.50E-08	N/A				
1,2,3,4,6,7,8-Heptachlorodebenzofuran (less than)	67562394	3.06E-08	7.46E-12	N/A	N/A	N/A				
1,2,3,4,7,8,9-Heptachlofodibenzofuran (less than)	55673897	1.86E-09	4.54E-13	N/A	N/A	N/A				
1,2,3,4,7,8-Hexachlorodibenzofuran	70648269	1.28E-08	3.11E-12	N/A	N/A	N/A				
1,2,3,6,7,8-Hexachlorodibenzofuran	57117449	1.14E-08	2.78E-12	N/A	N/A	N/A				
1,2,3,7,8,9-Hexachlorodibenzofuran	72918219	2.23E-08	5.45E-12	N/A	N/A	N/A				
2,3,4,6,7,8-Hexachlorodibenzofuran	60851345	4.60E-09	1.12E-12	N/A	N/A	N/A				
1,2,3,7,8-Pentachlorodibenzofuran (less than)	57117416	1.97E-09	4.80E-13	N/A	N/A	N/A				
2,3,4,7,8-Pentachlorodibenzofuran (less than)	57117314	5.92E-09	1.45E-12	N/A	N/A	N/A				
2,3,7,8-Tetrachlorodibenzofuran	51207319	6.95E-09	1.70E-12	N/A	N/A	N/A				
Listed Non-POM Organic HAPs										
Acetaldehyde	75070	1.74E-03	4.25E-07	4.55 E-02	9.00E-02	N/A	N/A	N/A	9	4.718 E-08
Formaldehyde	50000	4.55E-04	1.11E-07	7.69 E-03	3.60E-02	3.70E +00	1.30E -05	1.44E -12	9.80E +00	1.13E-08

Listed Acids										
Hydrogen chloride (hydrochloric acid)	7647010	9.64E-01	2.35E-04	N/A	2.00E-01	3.00E+01	N/A	N/A	2.00E+01	1.18E-05
Hydrogen fluoride	7664393	8.83E-03	2.16E-06	N/A	5.90E-02	5.80E+00	N/A	N/A	1.40E+01	1.54E-07
Dioxins										
2,3,7,8-tetrachlorodibenzo-p-dioxin	1746016	1.06E-09	2.59E-13	N/A	N/A	N/A	33	8.558E-12	0.00004	6.484E-09
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822469	5.07E-08	1.24E-11	N/A	N/A	N/A				
SUM of Hexachlorodibenzo-p-dioxin			3.80E-12	N/A	N/A	N/A	1.3	4.943E-12	N/A	N/A
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227286	3.68E-09	8.98E-13	N/A	N/A	N/A				
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653857	5.31E-09	1.30E-12	N/A	N/A	N/A				
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408743	6.58E-09	1.61E-12	N/A	N/A	N/A				
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321764	3.12E-09	7.61E-13	N/A	N/A	N/A				
Sum								**8.317E-10**		**2.237E-05**

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 13043 ***

SIMPLE TERRAIN INPUTS:
SOURCE TYPE = POINT
EMISSION RATE (G/S) = 0.235616E-05
STACK HEIGHT (M) = 0.9144
STK INSIDE DIAM (M) = 0.1524
STK EXIT VELOCITY (M/S)= 14.8506
STK GAS EXIT TEMP (K) = 1033.1500
AMBIENT AIR TEMP (K) = 293.0000

RECEPTOR HEIGHT (M) = 0.0000
URBAN/RURAL OPTION = RURAL
BUILDING HEIGHT (M) = 0.0000
MIN HORIZ BLDG DIM (M) = 0.0000
MAX HORIZ BLDG DIM (M) = 0.0000

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

STACK EXIT VELOCITY WAS CALCULATED FROM
VOLUME FLOW RATE = 0.27089757 (M**3/S)

BUOY. FLUX = 0.606 M**4/S**3; MOM. FLUX = 0.363 M**4/S**2.

*** FULL METEOROLOGY ***

****
*** SCREEN AUTOMATED DISTANCES ***
****

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	U10M STAB	USTK (M/S)	MIX HT (M/S)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
100.	0.3051E-02	4	3.5	3.5 1120.0	5.12	8.29	4.80	NO
200.	0.1746E-02	4	2.0	2.0 640.0	8.27	15.70	8.76	NO
300.	0.1217E-02	4	1.5	1.5 480.0	10.72	22.78	12.41	NO
400.	0.9783E-03	4	1.0	1.0 320.0	15.63	29.75	15.84	NO
500.	0.7764E-03	4	1.0	1.0 320.0	15.63	36.39	18.77	NO
600.	0.6224E-03	4	1.0	1.0 320.0	15.63	42.92	21.62	NO
700.	0.5178E-03	6	1.0	1.0 10000.0	21.78	25.17	12.45	NO
800.	0.5267E-03	6	1.0	1.0 10000.0	21.78	28.27	13.38	NO
900.	0.5236E-03	6	1.0	1.0 10000.0	21.78	31.35	14.29	NO
1000.	0.5126E-03	6	1.0	1.0 10000.0	21.78	34.40	15.17	NO
1100.	0.4949E-03	6	1.0	1.0 10000.0	21.78	37.44	15.97	NO
1200.	0.4752E-03	6	1.0	1.0 10000.0	21.78	40.46	16.75	NO
1300.	0.4547E-03	6	1.0	1.0 10000.0	21.78	43.45	17.52	NO
1400.	0.4342E-03	6	1.0	1.0 10000.0	21.78	46.43	18.26	NO
1500.	0.4141E-03	6	1.0	1.0 10000.0	21.78	49.39	18.99	NO
1600.	0.3947E-03	6	1.0	1.0 10000.0	21.78	52.33	19.71	NO
1700.	0.3762E-03	6	1.0	1.0 10000.0	21.78	55.26	20.41	NO
1800.	0.3586E-03	6	1.0	1.0 10000.0	21.78	58.17	21.09	NO
1900.	0.3419E-03	6	1.0	1.0 10000.0	21.78	61.07	21.77	NO
2000.	0.3262E-03	6	1.0	1.0 10000.0	21.78	63.95	22.43	NO
2100.	0.3116E-03	6	1.0	1.0 10000.0	21.78	66.82	23.00	NO

2200.	0.2980E-03	6	1.0	1.0	10000.0	21.78	69.68	23.55	NO
2300.	0.2852E-03	6	1.0	1.0	10000.0	21.78	72.52	24.09	NO
2400.	0.2733E-03	6	1.0	1.0	10000.0	21.78	75.36	24.62	NO
2500.	0.2622E-03	6	1.0	1.0	10000.0	21.78	78.18	25.14	NO
2600.	0.2517E-03	6	1.0	1.0	10000.0	21.78	80.98	25.65	NO
2700.	0.2419E-03	6	1.0	1.0	10000.0	21.78	83.78	26.16	NO
2800.	0.2327E-03	6	1.0	1.0	10000.0	21.78	86.57	26.66	NO
2900.	0.2241E-03	6	1.0	1.0	10000.0	21.78	89.35	27.15	NO
3000.	0.2160E-03	6	1.0	1.0	10000.0	21.78	92.12	27.63	NO
3500.	0.1827E-03	6	1.0	1.0	10000.0	21.78	105.82	29.59	NO
4000.	0.1573E-03	6	1.0	1.0	10000.0	21.78	119.32	31.41	NO
4500.	0.1375E-03	6	1.0	1.0	10000.0	21.78	132.64	33.11	NO
5000.	0.1217E-03	6	1.0	1.0	10000.0	21.78	145.79	34.72	NO
5500.	0.1088E-03	6	1.0	1.0	10000.0	21.78	158.80	36.25	NO
6000.	0.9805E-04	6	1.0	1.0	10000.0	21.78	171.68	37.71	NO
6500.	0.8905E-04	6	1.0	1.0	10000.0	21.78	184.44	39.10	NO
7000.	0.8139E-04	6	1.0	1.0	10000.0	21.78	197.08	40.44	NO
7500.	0.7500E-04	6	1.0	1.0	10000.0	21.78	209.62	41.59	NO
8000.	0.6944E-04	6	1.0	1.0	10000.0	21.78	222.06	42.70	NO
8500.	0.6459E-04	6	1.0	1.0	10000.0	21.78	234.42	43.77	NO
9000.	0.6030E-04	6	1.0	1.0	10000.0	21.78	246.68	44.80	NO
9500.	0.5650E-04	6	1.0	1.0	10000.0	21.78	258.86	45.80	NO
10000.	0.5310E-04	6	1.0	1.0	10000.0	21.78	270.97	46.77	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 100. M:

100.	0.3051E-02	4	3.5	3.5	1120.0	5.12	8.29	4.80	NO

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

****
*** SUMMARY OF SCREEN MODEL RESULTS ***
****

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	0.3051E-02	100.	0.

No individual pollutant concentration exceeds the Cancer Risk threshold of 1.00E-06 and the sum of all Cancer Risks concentrations does not exceed 1.00E-05, and further, the sum of the Chronic Non-cancer Reference Exposure Level hazard quotients is less than 1.0. Therefore, compliance with the negligible risk requirement as outlined in ARM 17.8.770 is demonstrated. Further, such determination is made assuming 8,760 hours of operation per year of the

crematory and conservative emissions estimations. The presence or absence of this facility in this area would not be expected to cause a discernable change in human health risks in this area.

Based on the information provided and the conditions established in MAQP #5330-00, DEQ determined that the impact from this permitting action will be minor. DEQ 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 2-10-105, MCA, DEQ conducted a private property taking and damaging assessment which is located in the attached environmental assessment and is located in the attached environmental assessment.

X. Environmental Assessment

An environmental assessment, required by the Montana Environmental Policy Act, was completed for this project. A copy is attached.

DRAFT ENVIRONMENTAL ASSESSMENT

March 11, 2025

Air Quality Bureau
Montana Department of Environmental Quality

PROJECT/SITE NAME: Rainbow to Rest Facility	
APPLICANT/COMPANY NAME: Rainbow to Rest, PLLC	
PROPOSED PERMIT/LICENSE NUMBER: 5330-00	
LOCATION: Section 34, Township 9 North, Range 20 West	**COUNTY:** Ravalli
PROPERTY OWNERSHIP: FEDERAL ____ STATE ____ PRIVATE _X___	

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PROJECT OVERVIEW

COMPANY NAME:	Rainbow to Rest, PLLC
EA DATE:	March 11, 2025
SITE NAME:	Rainbow to Rest Facility
MAQP#:	5330
Version #:	00
Application Received Date:	December 27, 2024

Location

Township 9 North, Range 20 West, Section 34
County: Ravalli
PROPERTY OWNERSHIP: FEDERAL STATE PRIVATE X

Compliance with the Montana Environmental Policy Act

Under the Montana Environmental Policy Act (MEPA), Montana agencies are required to prepare an environmental review for state actions that may have an impact on the human environment. The proposed action is considered a state action that may have an impact on the human environment and, therefore, the Department of Environmental Quality (DEQ) must prepare an environmental review. This Draft Environmental Assessment (EA) will examine the proposed action and alternatives to the proposed action and disclose potential impacts that may result from the proposed and alternative actions. DEQ will determine the need for additional environmental review based on consideration of the criteria set forth in Administrative Rules of Montana (ARM) 17.4.608. DEQ may not withhold, deny, or impose conditions on the Permit based on the information contained in this EA (§ 75-1- 201(4), MCA).

Proposed Action

Rainbow to Rest, PLLC (RTR) has applied for a Montana Air Quality Permit (MAQP) under the Clean Air Act of Montana. The MAQP regulates a new facility with an incinerator to cremate animal remains. The state law that regulates air quality permitting in Montana is the Clean Air Act of Montana, §§ 75-2-101, et seq., (CAA) Montana Code Annotated (MCA). DEQ may not approve a proposed project contained in an application for an air quality permit unless the project complies with the requirements set forth in the CAA of Montana and the administrative rules adopted thereunder, ARMs 17.8.101 et. seq. The proposed action would be located on privately owned land, in Ravalli County, Montana. All information included in this EA is derived from the permit application, discussions with the applicant, analysis of aerial photography, topographic maps, and other research tools.

Purpose and Need

Under MEPA, Montana agencies are required to prepare an environmental review for state actions that may have an impact on the human environment. The Proposed Action is considered to be a state action that may have an impact on the human environment; therefore, DEQ must prepare an environmental review. This EA will examine the proposed action and alternatives to the proposed action and disclose potential impacts that may result from the proposed and alternative actions. DEQ will determine the need for additional environmental review based on consideration of the criteria set forth in ARM 17.4.608.

Table 1: Summary of Proposed Action

Proposed Action	
General Overview	This permitting action regulates a new facility with the addition of an incinerator to cremate animal remains
Duration & Hours of Operation	**Construction:** Approximately one day **Operation:** Continuous operation
Estimated Disturbance	Minor land disturbance would occur from this permitting action with the addition of the concrete slab for the location of the incinerator.
Construction Equipment	The following equipment will be utilized, but is not limited to: One excavator, one skid steer, one forklift, and one concrete truck.
Personnel Onsite	**Construction:** One construction personnel will be onsite for the duration of the construction. **Operation:** Approximately one day.
Location and Analysis Area	**Location**: Section 34, Township 9 North, Range 20 West, in Ravalli County, Montana **Analysis Area:** The area being analyzed as part of this environmental review includes the immediate project area (Figure 1), as well as neighboring lands surrounding the analysis area, as reasonably appropriate for the impacts being considered.
The applicant is required to comply with all applicable local, county, state, and federal requirements pertaining to the following resource areas.	
Air Quality	The applicant proposes to acquire a new air quality permit for the addition of an incinerator to this existing facility.
Water Quality	This permitting action would not affect water quality. RTR is required to comply with the applicable local, county, state and federal requirements pertaining to water quality.
Erosion Control and Sediment Transport	This permitting action would not affect erosion control and sediment transport. RTR is required to comply with the applicable local, county, state and federal requirements pertaining to erosion control and sediment transport.
Solid Waste	This permitting action would not affect solid waste in the area. RTR is required to comply with the applicable local, county, state and federal requirements pertaining to solid waste.
Cultural Resources	This permitting action would not affect cultural resources. RTR is required to comply with the applicable local, county, state and federal requirements pertaining to cultural resources.
Hazardous Substances	This permitting action would not contribute to any hazardous substances. RTR is required to comply with the applicable local, county, state and federal requirements pertaining to hazardous substances.
Reclamation	This permitting action would not require any reclamation.

Cumulative Impact Considerations	
Past Actions	There are no past actions as this permitting action is to permit a new facility.
Present Actions	This permitting action regulates a new facility with an incinerator to cremate animal remains
Related Future Actions	DEQ is not currently aware of any future projects from RTR for this facility. Any future projects would be subject to a new permit application.

See Figure 1 and 2 below for the project location of the RTR site.

Figure 1: Site Location Map

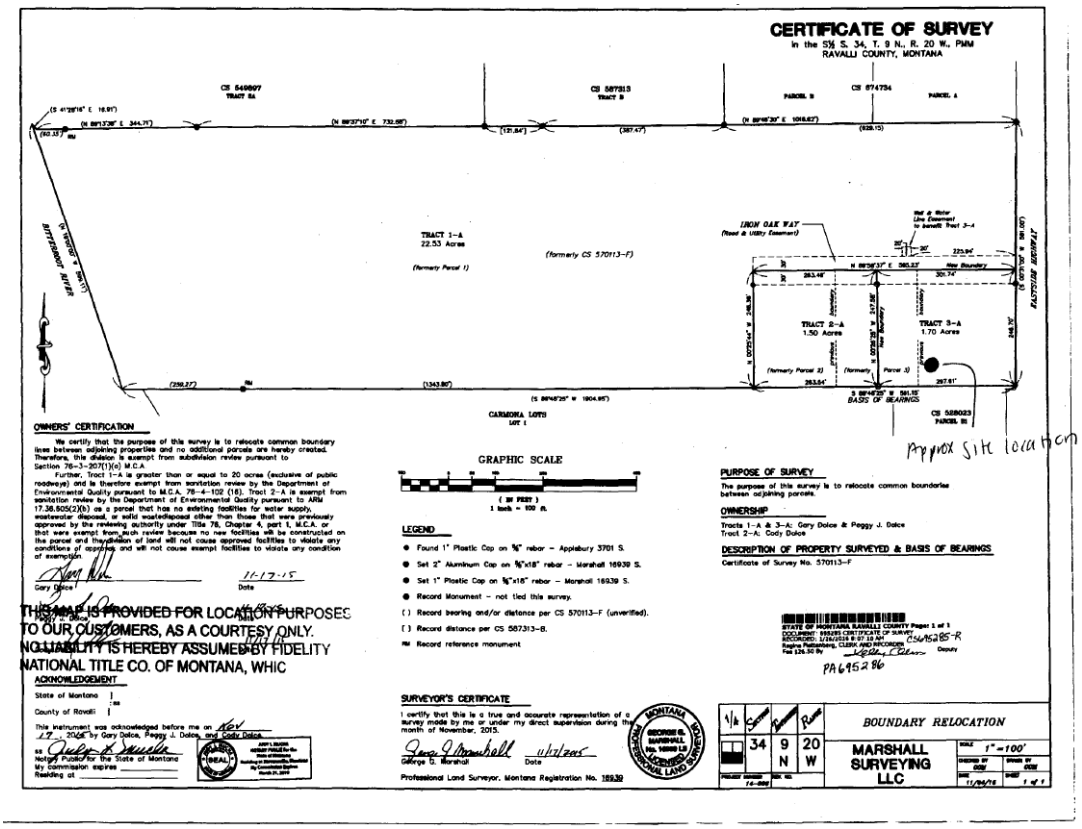
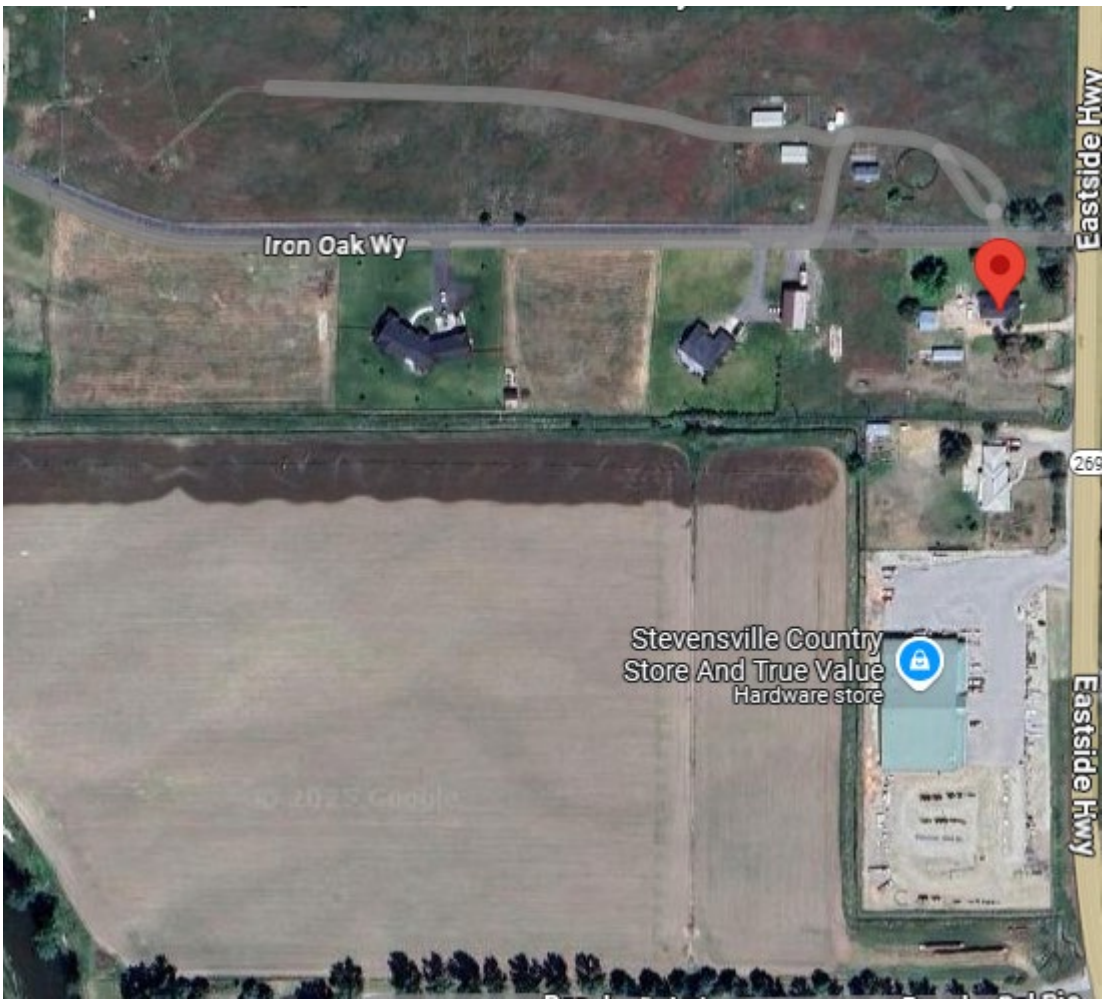


Figure 2. Aerial View


Iron Oak Wy
Eastside Hwy
269
Stevensville Country
Store And True Value
Hardware store
Eastside Hwy

EVALUATION OF AFFECTED ENVIRONMENT AND IMPACT BY RESOURCE:

The impact analysis will identify and evaluate whether the impacts are direct or secondary impacts to the physical environment and human population in the area affected by the proposed project. Direct impacts occur at the same time and place as the action that causes the impact. Secondary impacts are a further impact to the human environment that may be stimulated, or induced by, or otherwise result from a direct impact of the action (ARM 17.4.603(18)). Where impacts would occur, the impacts will be described.

Cumulative impacts are the collective impacts on the human environment within the borders of Montana that could result from the Proposed Action when considered in conjunction with other past and present actions related to the Proposed Action by location and generic type. Related future impacts must also be considered when these actions are under concurrent consideration by any state agency through pre-impact statement studies, separate impact statement evaluation, or permit processing procedures. The activities identified in Table 1 were analyzed as part of the cumulative impacts assessment for each resource.

The duration is quantified as follows:

- Construction Impacts (short-term): These are impacts to the environment during the construction period. When analyzing duration, please include a specific range of time.

- Operation Impacts (long-term): These are impacts to the environment during the operational period. When analyzing duration, please include a specific range of time.

The intensity of the impacts is measured using the following:

++No impact: There would be no change from current conditions.

- Negligible: An adverse or beneficial effect would occur but would be at the lowest levels of detection.

- Minor: The effect would be noticeable but would be relatively small and would not affect the function or integrity of the resource.

- Moderate: The effect would be easily identifiable and would change the function or integrity of the resource.

- Major: The effect would alter the resource.

1. Geology and Soil Quality, Stability, and Moisture

The RTR facility area is characterized by the Montana Bureau of Mines and Geology (MBMG) as being located in an area of Sedimentary Rock – specifically Quaternary-Gravel (Montana Geological Maps). The addition of the incinerator is not first-time disturbance for the property as it was previously disturbed by human activities. The area near the RTR facility site consists mainly of residences.

Direct Impacts:

The permit application included additional information like analysis of aerial photography, topographic maps, information provided by RTR and other research tools. This permitting action would not be considered first-time disturbance, as the land was previously disturbed by human activity. An incinerator is being added on a new concrete slab, but this is not considered first time disturbance. Therefore, minor direct impacts would be expected because of the proposed project will convert approximately a 4' x 8' area of land for the new concrete pad and incinerator.

Secondary Impacts:

Minor secondary impacts to geology, stability, and moisture would be expected because this action is occurring within the existing RTR property boundary and approximately a 4' x 8' area will be used for the new concrete pad and incinerator.

Cumulative Impacts:

Minor cumulative impacts to geology, stability, and moisture would be expected because of this permitting action, as it will be taking place within an already existing facility footprint but will be converting a 4' x 8' area to hold the new concrete pad and incinerator. Therefore, a small amount of land will be converted to achieve this action.

2. Water Quality, Quantity, and Distribution

The RTR facility is located approximately one mile from the Bitterroot River and associated smaller creeks in this area. Discharges would not be released to ground or surface water. No fragile or unique water resources or values are present.

Direct Impacts:

RTR has not submitted any other permit applications that DEQ is aware of related to this proposed permitting action.

Even though the Bitterroot River is located nearby, it is not in the affected project area. Further, no water uses or any form of discharge to surface or groundwater would occur because of the proposed project. Therefore, no direct impacts to water quality, quantity or distribution would be expected because of the proposed project.

Secondary Impacts:

During operations, discharges would not be released to ground or surface water because of the proposed project. Further, as permitted, the proposed project would not be expected to cause or contribute to a violation of the applicable primary or secondary NAAQS. See permit analysis for more detailed information regarding air quality impacts. Secondary NAAQS provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings. Therefore, no secondary impacts to water quality would be expected because of the proposed project. No new water resources would be required for normal operations of the affected new equipment. No secondary impacts to water quality, quantity, and distribution would be expected from this permitting action.

Cumulative Impacts:

No major cumulative impacts to water quality, quantity, and distribution are anticipated from this permitting action. RTR has not submitted any other permit applications that DEQ is aware of. Further, DEQ is unaware of any related actions under concurrent consideration by any state agency through preimpact statement studies, separate impact statement evaluation, or permit processing procedures.

3. Air Quality

For details about the existing air quality, see Section V of the Permit Analysis. This facility is located in the Unclassifiable/Attainment category.

Direct Impacts:

Expected emissions from the construction and operation of this permitting action are shown in the Permit Analysis Section within the Emission Inventory. An assessment of greenhouse gases (GHGs) is described in Section 23 of this draft EA.

Air quality standards, set by the federal government and DEQ are enforced by DEQ's Air Quality Bureau (AQB) and allow for air pollution at the levels permitted by the MAQP. The RTR facility has emissions including particulate matter (PM) species, oxides of nitrogen (NO_X), carbon monoxide (CO), sulfur dioxide (SO_2), volatile organic compounds (VOCs), Hazardous Air Pollutants (HAPs), and GHG emissions.

Air pollution control equipment must be operated at the maximum design for which it is intended. ARM 17.8.752(2). Limitations would be placed on the allowable emissions for the new emission sources. DEQ conducted a Best Available Control Technology (BACT) analysis and made a BACT determination for each emitting unit related to this permitting action. DEQ also conducted a Health Risk Assessment for this facility. The proposed emission limits were reviewed by DEQ and incorporated into MAQP #5330-00, if necessary, as federally enforceable conditions. These permit limits cover NO_X, CO, SO_2, VOCs, PM, and HAPs with associated ongoing compliance demonstrations, as determined by DEQ.

Air quality standards are regulated by the federal Clean Air Act, 42 U.S.C. 7401 *et seq.* and the Montana CAA, § 50-40-101 *et seq.,* MCA, and are implemented and enforced by DEQ's AQB. As stated above, RTR is required to comply with all applicable state and federal laws. Minor air quality impacts would be anticipated from the proposed action.

Secondary Impacts:

Impacts to air quality from the operation of the RTR facility are to be restricted by an MAQP and therefore should have minor secondary air quality impacts.

Cumulative Impacts:

Cumulative impacts to air quality from the operation of the RTR facility are to be restricted by an MAQP and therefore should have minor air quality impacts. Minor impacts are anticipated from this permitting action. The area also has other stationary sources, Lubrizol Life Sciences, Inc. MAQP #3237-02, GlaxoSmithKline Vaccines, NA MAQP #4460-04, Bitterroot Humane Associate MAQP #4175-00, Daly-Leach Chapel & Crematory MAQP #5187-00, Rocky Mountain Laboratories MAQP #2991-07 and Bitterroot Pet Crematorium MAQP #3117-03, that contributes to the air quality in the area.

4. Vegetation Cover, Quantity, and Quality

No fragile or unique resources of values, or resources of statewide or societal importance, are present in the affected area. The area around the RTR facility is residential.

DEQ conducted research using the Montana Natural Heritage Program (MTNHP) website and ran a query titled "Environmental Summary Report" dated January 8, 2024, which identified the following plant Species of Concern (SOC) located in or near the affected facility: Shining Flatsedge, Pointed Broom Sedge, Chaffweed, Panic Grass, Beaked Spikerush, Western Pearl-flower, Pale-yellow Jewel-weed, Flatleaf Bladderwort, Columbia Water-meal, Musk-root, Crawe's Sedge, Small Yellow Lady's-slipper, Linear-leaf Fleabane, Hiker's Gentian, Coville's Rush, Fleshy Stitchwort, Meesia Moss, and Letterman's Needlegrass.

The proposed action would be located within the existing footprint of the RTR property.

The polygon area analyzed using the MTNHP website produces an area inherently larger than the specific disturbance area, so some additional species may be reported that are not necessarily present in the affected area, but nearby.

No important plant areas are present in the area.

Direct Impacts:

The information provided above is based on the information that DEQ had available at the time of draft EA preparation and information provided by the applicant. The permit application provided an analysis of aerial photography, topographic maps, geologic maps, soil maps, and other research tools. Because the proposed action would occur within the RTR facility property boundary, minor impacts to vegetation cover are anticipated, with the

addition of the concrete pad for the incinerator, but this permitting action is not considered first time disturbance on the property.

Secondary Impacts:

Minor secondary impacts to vegetation cover, quantity, and quality are expected since some new land disturbance would occur because of this permitting action, with the addition of the concrete pad, but this is not considered first-time disturbance and a small area of vegetation would be affected.

Cumulative Impacts:

Minor cumulative impacts to vegetation cover, quantity, and quality are expected from this permitting action as it did slightly reduce the amount of vegetation cover with the addition of the concrete pad.

5. Terrestrial, Avian, and Aquatic Life and Habitats

As described in Section 4., Vegetation Cover, the affected area is represented by residential and industrial operations and DEQ conducted research using the MTNHP website and ran the query titled “Environmental Summary Report” dated January 8, 2024, which identified the following animal species of concern (SOC): Bull Trout, Westslope Cutthroat Trout, Great Blue Heron, Lewis's Woodpecker, Bald Eagle, Western Toad, Little Brown Myotis, Long-eared Myotis, Evening Grosbeak, Pileated Woodpecker, Bobolink, Grizzly Bear, Townsend's Big-eared Bat, Pacific Wren, Hooked Snowfly, Bat Roost (Cave), Bat Roost (Non-Cave), Hooded Merganser, North American Porcupine, Western Spotted Skunk, Rufous Hummingbird, Yellow-billed Cuckoo, Silver-haired Bat, Cassin's Finch, Clark's Nutcracker, Short-eared Owl, Trumpeter Swan, American White Pelican, Veery, Canada Lynx, Fisher, American Goshawk, Brown Creeper, Golden Eagle, Great Gray Owl, Varied Thrush, Monarch, Idaho Pocket Gopher, Long-legged Myotis, Western Screech-Owl, Western Skink, Suckley's Cuckoo Bumble Bee, Western Pearlshell, Northern Hoary Bat, Broad-tailed Hummingbird, Fringed Myotis, Western Pygmy Shrew, Barrow's Goldeneye, Northern Alligator Lizard, A Caddisfly, Betten's Free-living Caddisfly, American Bittern, Black Tern, Black-crowned Night Heron, Black-necked Stilt, Common Poorwill, Forster's Tern, Harlequin Duck, Long-billed Curlew, and Wolverine.

The polygon area analyzed using the MTNHP website produces an area inherently larger than the specific disturbance area, so some additional species may be reported that are not necessarily present within the RTR property, but nearby. Further, because the proposed action would occur within the footprint of the existing RTR facility, and the affected area is residential/industrial in nature, the identified Species of Concern would not be expected to locate within or use the affected area for any part of their life cycle.

No important bird areas are present on the RTR property. The Bitterroot River area is considered an Important Bird Area (MTNHP), however, the RTR property does not fall in the area designated by MTNHP as an Important Bird Area.

Direct Impacts:
The potential impact to terrestrial, avian and aquatic life and habitats would be negligible, due to the long-term residential nature of the affected area. The Bitterroot River is nearby, and is an Important Bird Area, however the RTR property does not fall in the designated area, therefore direct impacts are negligible.

Secondary Impacts:
Because the proposed action would occur within the existing footprint of the RTR facility, no secondary impacts to terrestrial, avian and aquatic life and habitats would be stimulated or induced by the direct impacts analyzed above as all actions are occurring within property boundaries and this is not considered first time disturbance

Cumulative Impacts:
No cumulative impacts to terrestrial, avian and aquatic life and habitats would be stimulated or induced by the direct impacts analyzed above. The RTR facility is located on land that has already been disturbed by human activities.

6. Unique, Endangered, Fragile, or Limited Environmental Resources

As described in Section(s) 4 and 5 above, DEQ conducted a search using the MTNHP webpage. The search used a polygon that overlapped the site and produced the list of species of concern identified in Section 5. The project would not be in core, general, or connectivity sage grouse habitat, as designated by the Sage Grouse Habitat Conservation Program (Program) at: http://sagegrouse.mt.gov.

Direct Impacts:
Among the SOC identified by the MTNHP, these species would not be expected to be displaced by the proposed action as the land where the permitting action would occur is owned by RTR. Therefore, any potential direct impacts would be short-term and negligible.

Secondary Impacts:
The proposed action would have no secondary impacts to the identified species of concern because the permit conditions are protective of human and animal health and welfare, and the affected area is currently used by RTR and would not change the effect to existing habitats that may be present in the affected area. Secondary NAAQS provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

Cumulative Impacts:
The proposed action would have minor cumulative impacts to environmental resources because the permit conditions are protective of human and animal health and all lands involved in the proposed action are currently used for industrial operations and would not change the effect to the environment outside of the original construction of the facility.

7. Historical and Archaeological Sites

The Montana State Historic Preservation Office (SHPO) was contacted to conduct a file search for historical and archaeological sites within Section 34, Township 9 North, Range 20 West, which includes the area affected by the proposed project. SHPO provided a letter dated February 12, 2025, stating there have been two previously recorded sites within the designated search location. One of the two sites was a Historic Irrigation System, with an Unresolved NR status, and the other site was a Historic Exploration, with an Undetermined NR status. It is SHPO's position that any structure over fifty years of age is considered historic and is potentially eligible for listing on the National Register of Historic Places. If any structures are within the Area of Potential Effect, and are over fifty years old, SHPO recommends that they be recorded, and a determination of their eligibility be made prior to any disturbance taking place.

However, should structures need to be altered, or if cultural materials are inadvertently discovered during this proposed action, SHPO requests their office be contacted for further investigation.

Direct Impacts:

Although the search conducted by SHPO identified recorded cultural sites/resources in the search area, none of the identified sites are located on or near the RTR property. Therefore, no impacts to the identified sites would be expected because of the proposed project. Further, because the proposed project would occur within the footprint of the RTR property, the proposed project would not be expected to impact any new, previously unrecorded cultural resources that may exist in the affected area. Therefore, no direct impacts to historical and archaeological sites would be expected because of the proposed project.

Secondary Impacts:

No secondary impacts to historical and archaeological sites are anticipated since the proposed action is located on privately owned land by RTR.

Cumulative Impacts:

No cumulative impacts to historical and archaeological sites are anticipated since the proposed action is located on privately owned land by RTR.

8. Aesthetics

The proposed action would occur on private land owned by RTR and in an area mostly surrounded by residences. The closest residence is located approximately 25 feet away from the facility. Construction of the proposed project would last for approximately one day.

Direct Impacts:

RTR's visual profile would change with the addition of the cremation unit, as it is going to be

installed outside, on a new 4-foot by 8-foot concrete pad with roof covering the unit. The concrete pad will be on property already owned by RTR, therefore this is not considered first time disturbance, as the main building is already in existence prior to the addition of the cremation unit/incinerator. The incinerator will include the addition of a stack, which will change the overall aesthetics of the facility, which will be a long-term impact. There would be no increase in noise levels from this permitting action, aside from the one-day construction of the addition of the concrete pad/installation of the cremation unit. Once construction was completed, noise levels would return to their normal level of daily operation. Therefore, any direct impacts would be long-term and minor, and consistent with existing impacts.

Secondary Impacts:

There would be minor secondary impacts on the aesthetics due to the addition of the stack and concrete pad with associated cremation unit. Impacts would be long-term and minor.

Cumulative Impacts:

Long-term impacts will occur with the addition of the concrete pad and cremation unit that were previously not on the facility. Minor and long-term cumulative impacts are anticipated with the increase from the addition of the concrete pad and cremation unit with associated stacks. This is not considered first time disturbance as the main building is already in existence prior to the addition of the cremation unit/incinerator.

9. Demands on Environmental Resources of Land, Water, Air, or Energy

The site is located on land owned by RTR. See Sections 2, 3, and 4 of this EA for details regarding land, water, and air impacts.

Direct Impacts:

There would be a minor increase in demand for the environmental resources of land, air, and energy for these actions. Land usage was converted to be used for the addition of the incinerator. There will be minor impacts on air and energy as the emissions increased with the addition of the incinerator, therefore the energy usage also increased with these actions. Any direct impacts would be long-term and minor.

Secondary Impacts:

Minor and long-term secondary impacts to demands on land, water, air, and energy are anticipated as a result of this permitting action due to the addition of the incinerator at this facility.

Cumulative Impacts:

Minor cumulative impacts to demands on land, water, air, and energy are anticipated as a result of this permitting action. Minor cumulative impacts are anticipated with the addition of the incinerator, in terms of land, air, and energy, as this causes an increase demand on all of those areas.

10. Impacts on Other Environmental Resources

The site is currently in a residential area.

Direct Impacts:

No other environmental resources are known to have been identified in the area beyond those discussed above. Therefore, there is no impact to other environmental resources.

Secondary Impacts:

No secondary impacts to other environmental resources are anticipated as a result of the proposed permitting action.

Cumulative Impacts:

No cumulative impacts to other environmental resources are anticipated as a result of the proposed permitting action.

11. Human Health and Safety

The applicant would be required to adhere to all applicable state and federal safety laws. The Occupational Safety and Health Administration (OSHA) has developed rules and guidelines to reduce the risks associated with this type of labor. Members of the public would not be allowed in the immediate proximity to the project during construction or operations and access to the public would continue to be restricted to this property.

Direct Impacts:

Negligible changes in impacts to human health and safety are anticipated as a result of this project action due to the nature of the facility.

Secondary Impacts:

No secondary impacts to human health and safety are anticipated as a result of the proposed permitting action due to the industrial nature of the facility. Secondary NAAQS provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

Cumulative Impacts:

No cumulative impacts to human health and safety are anticipated as a result of the proposed permitting action due to the nature of the facility.

12. Industrial, Commercial, and Agricultural Activities and Production

This site is used by RTR, it is privately owned land by RTR.

Direct Impacts:

This permitting action would change the purpose of the property as it is currently a residence, but with the addition of the cremation unit/incinerator, will also be capable of at home pet cremation services. Any impacts on industrial, commercial, and agricultural activities and production in the area would be long-term and minor due to the addition of the incinerator, which would increase industrial production of the facility and the affected area.

Secondary Impacts:

Minor secondary impacts to industrial, commercial, and agricultural activities and production are anticipated as a result of the proposed permitting action as this property is currently a residence, but with the addition of the cremation unit/incinerator will be capable of providing at home pet cremation services.

Cumulative Impacts:

The cumulative impacts are minor and long-term as the facility currently a residence but will now be used for cremation/incinerator purposes from the addition of the incinerator.

13. Quantity and Distribution of Employment

There currently are 3 permanent jobs at the RTR site. No new full-time jobs would result from this permitting action. Approximately one day of construction will occur with this permitting action. Approximately one construction personnel will be onsite to complete the construction.

Direct Impacts:

The proposed action would be expected to have a minor impact on the overall distribution of employment as the facility will employ 3 new employees from this permitting action.

Secondary Impacts:

Minor secondary impact to the quality and distribution of employment is expected on long-term employment from the proposed action as 3 new employees are being added from this permitting action.

Cumulative Impacts:

There would be minor cumulative impacts on employment for this permitting action because 3 new employees would be added as a result of this permitting action. Once construction was completed, the construction personnel onsite would no longer be onsite.

14. Local and State Tax Base and Tax Revenues

Local, state, and federal governments would be responsible for appraising the property, setting tax rates, collecting taxes, from the companies, employees, or landowners benefiting from this operation.

Direct Impacts:
The proposed action would be expected to have long-term, minor impacts on the local and state tax base and tax revenues due to the addition of the cremation unit/incinerator and associated business conducted.

Secondary Impacts:
RTR would continue to be responsible for accommodation of any increased taxes associated with the operation of the modified facility. Minor secondary impacts to local and state tax base and tax revenues are anticipated as a result of the proposed permitting action.

Cumulative Impacts:
Minor impacts to local and state tax base and tax revenues were anticipated with the construction and operation of a new facility in the area. RTR would continue to be responsible for accommodation of any increased taxes associated with the operation of the modified facility. Local, state, and federal governments would be responsible for appraising the property, setting tax rates, collecting taxes, from the companies, employees, or landowners benefiting from this operation. Therefore, any cumulative impacts would be minor, consistent with existing impacts in the affected area.

15. Demand for Government Services

The area surrounding the RTR site consists of residences.

Direct Impacts:
The air quality permit has been prepared by state government employees as part of their day-to-day, regular responsibilities. Therefore, any direct impacts to demands for government services would be short-term, consistent with existing impacts, and negligible. Compliance review and assistance oversight by DEQ AQB would be conducted in concert with other area activity when in the vicinity of the proposed project. Therefore, any direct impacts would be long-term and negligible to minor, mainly through increased regulatory oversight by DEQ.

Secondary Impacts:
Initial and ongoing compliance inspections of facility operations would be accomplished by state government employees as part of their typical, regular duties and required to ensure the facility is operating within the limits and conditions listed in the air quality permit. Therefore, any secondary impacts to demands for government services would be long-term, consistent with existing impacts, and negligible.

Cumulative Impacts:
The air quality permit has been prepared by state government employees as part of their day-to-day, regular responsibilities. Following construction of the proposed facility, initial and ongoing compliance inspections of facility operations would be accomplished by state government employees as part of their typical, regular duties and required to ensure the

facility is operating within the limits and conditions listed in the air quality permit. Therefore, any cumulative impacts to demands for government services would be short- and long-term, consistent with existing impacts, and negligible. Minor cumulative impacts are anticipated on government services with the proposed action and a minimal increase in impact would occur from the permitting and compliance needs associated with this permitted facility.

16. Locally-Adopted Environmental Plans and Goals

A review was conducted on February 18, 2025, to identify any locally adopted environmental plans or goals. A Stevensville, Montana, 2016 Growth Policy Update, was located on the City of Stevensville Website. This serves as a comprehensive plan for this community that addresses land use, natural resources, the local economy, the public infrastructure, housing, along with various other topics. The policy identifies 13 main goals, as listed below:
Encourage Reuse and Infill in Existing Commercial Areas, Retain Existing Commercial and Industrial Enterprises, Expand Commercial and Industrial Areas in Stevensville, Provide for Long-Term Supply of Municipal Water, Provide for a Mix of Housing Options in Stevensville, Develop a Safe and Accessible Non-Motorized Transportation Network, Provide a Predictable and Consistent Development Environment, Provide for Coordinated Growth Outside of Town Limits, Provide for the Continued Success of Downtown Stevensville, Provide Quality Recreation Opportunities for Stevensville Residents, Ensure Protection of the Natural Environment and Wildlife Habitat as Development Continues, Uphold Public Safety, and Expand and Maintain Public Infrastructure Commensurate with the Needs of the Community. A Strategic Plan for 2021-2023 was also located, that outlined the need for updating the growth policy, and an RFP for Growth Policy Planning document from 2023, was located that specified how consultants could provide a bid to update the 2016 policy. No updated policy from the 2016 document was located on the website.

Direct Impacts:

RTR's facility is on property owned by RTR. This permitting action would not affect any current locally adopted environmental plans or goals in the affected area; therefore, no direct impacts would be expected because of the proposed project. The addition of a new business with the RTR facility would aid in the goal to, Expand Commercial and Industrial Areas in Stevensville.

Secondary Impacts:

No locally adopted environmental plans and goals in the area will be affected by the proposed action. Therefore, no secondary impacts would be expected because of the proposed project.

Cumulative Impacts:

DEQ conducted a search of the City of Stevensville website on February 18, 2025. A Growth Policy from 2016, a Strategic Plan for 2021-2023, and a document outlining how to submit bids in 2023 to update the 2016 Growth Policy, were located on the Stevensville website.

After analyzing these documents, there would be no affects to any environmental plans or goals from this permitting action. The addition of the new facility would align with the goal of expanding commercial activities within Stevensville, Montana. Therefore, minor cumulative impacts to locally adopted environmental plans and goals are anticipated as a result of the proposed permitting action.

17. Access to and Quality of Recreational and Wilderness Activities

The RTR facility is located approximately 20 miles from the Threemile Wildlife Management Area. The closest wilderness areas are the Welcome Creek Wilderness Area approximately 50 miles away, and the Selway Bitterroot Wilderness Area approximately 45 miles away. RTR is located approximately one mile from the Bitterroot River and various associated smaller offshoots of this main river in the nearby area.

Direct Impacts:

There would be no impacts to the access to wilderness activities as none are in the vicinity of the proposed action. Therefore, no direct impacts to access to and quality of wilderness activities would be expected because of the proposed project. The affected area has little to no recreational opportunities in the area. Therefore, no direct impacts would be expected. Access to the wilderness areas would not change with this permitting action. Recreation along the Bitterroot River would not be impacted by this permitting action either. The river is not located in a close enough proximity for recreationalists to see any change in aesthetics with the addition of the cremation unit and associated pad, with a stack. Therefore, no direct impacts would be expected.

Secondary Impacts:

No wilderness areas are located nearby or accessed through this land owned by RTR. The nearest designated wilderness areas are the Threemile Wildlife Management Area, the Selway Bitterroot Wilderness Area, and the Welcome Creek Wilderness Area, all located approximately 20-50 miles from the affected site. Therefore, no secondary impacts to access to and quality of wilderness activities would be expected because of the proposed project. No secondary impacts to access and quality of recreational and wilderness activities are anticipated as a result of the proposed permitting action which is wholly contained within the boundary of the RTR property.

Cumulative Impacts:

No wilderness areas are located nearby or accessed through this land owned by RTR. The nearest designated wilderness areas are the Threemile Wildlife Management Area, the Selway Bitterroot Wilderness Area, and the Welcome Creek Wilderness Area, all located approximately 20-50 miles from the affected site. Therefore, no cumulative impacts to access to and quality of wilderness activities would be expected because of the proposed project. No cumulative impacts to access and quality of recreational and wilderness activities are anticipated as a result of the proposed permitting action which is wholly contained within the boundary of the RTR property.

18. Density and Distribution of Population and Housing

The City of Stevensville, Montana has approximately 2,210 residents (U.S. Census Bureau).

Direct Impacts:

RTR will employe 3 full-time employees at this facility. This permitting action would increase employment at the RTR facility, as it is a newly permitted facility, but it is not anticipated to add to the existing population of nearby town of Stevensville, and/or the surrounding area, or require additional housing. Therefore, no direct impacts to density and distribution of population and housing are anticipated because of the proposed action.

Secondary Impacts:

RTR would employ new staff to operate the facility, but the proposed project would not be expected to otherwise result in an increase or decrease in the local population. No secondary impacts to density and distribution of population and housing are anticipated as a result of the proposed permitting action.

Cumulative Impacts:

RTR would employ three new full-time staff members for the proposed project. Therefore, the proposed project would not be expected to result in an increase or decrease in the local population. No cumulative impacts to density and distribution of population and housing are anticipated as a result of the proposed permitting action.

19. Social Structures and Mores

Based on the required information provided by RTR, DEQ is not aware of any native cultural concerns that would be affected by the proposed action on this existing facility.

Direct Impacts:

The proposed action is located on a privately owned land and no changes to or disruption of native or traditional lifestyles would be expected because of the proposed project. Therefore, no impacts to social structure and mores are anticipated.

Secondary Impacts:

No secondary impacts to social structures and mores are anticipated as a result of the proposed actions due as it is located on privately owned land by RTR.

Cumulative Impacts:

No cumulative impacts to social structures and mores are anticipated as a result of the proposed actions. Cumulative impacts are anticipated to be negligible as this permitting action is occurring on privately owned land with only a 4’ x 8’ of land being affected by this action.

20. Cultural Uniqueness and Diversity

Based on the required information provided by RTR, DEQ is not aware of any unique qualities of the area that would be affected by the proposed action at this location.

Direct Impacts:

RTR would employ three new full-time employees to accommodate the proposed action and thus the proposed project would not be expected to result in an increase or decrease in the local population. Therefore, no direct impacts to the existing cultural uniqueness and diversity of the affected population would be expected because of the proposed project.

Secondary Impacts:

RTR would employ three full-time employees to accommodate changes under the proposed action and thus the proposed project would not be expected to result in an increase or decrease in the local population. Therefore, no secondary impacts to the existing cultural uniqueness and diversity of the affected population are anticipated as a result of the proposed action.

Cumulative Impacts:

RTR would employ three full-time employees to accommodate changes under the proposed action and thus the proposed project would not be expected to result in an increase or decrease in the local population. Therefore, no cumulative impacts to the existing cultural uniqueness and diversity of the affected population are anticipated as a result of the proposed action.

21. Private Property Impacts

The proposed action would take place on privately-owned land. The analysis below in response to the Private Property Assessment Act indicates no impact. DEQ does not plan to deny the application or impose conditions that would restrict the regulated person's use of private property so as to constitute a taking. Further, if the application is complete, DEQ must take action on the permit pursuant to § 75-2-218(2), MCA. Therefore, DEQ does not have discretion to take the action in another way that would have less impact on private property—its action is bound by a statute.

There are private residences in the nearby area of the proposed action. The closest residence, including homes or structures, is located approximately 25-feet from the project site.

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

YES	NO	
		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, DEQ determined there are no taking or damaging implications associated with this permit action.

22. Other Appropriate Social and Economic Circumstances

Direct Impacts:

DEQ is unaware of any other appropriate short-term social and economic circumstances in the affected area that may be directly affected by the proposed project. Therefore, no further direct impacts would be anticipated.

Secondary Impacts:

The proposed project would allow for the operation of an animal remains incinerator onsite. Any impacts to air quality would be long-term and minor.

DEQ is unaware of any other appropriate short-term social and economic circumstances in the affected area that may be directly affected by the proposed project. Therefore, no further secondary impacts would be anticipated.

Cumulative Impacts:

DEQ is unaware of any other appropriate short-term social and economic circumstances in the affected area that may be directly affected by the proposed project. Therefore, no further cumulative impacts would be anticipated.

23. Greenhouse Gas Assessment

Issuance of this permit would authorize RTR to operate an incinerator using natural gas for fuel, which would emit a limited amount of greenhouse gases.

The analysis area for this resource is limited to the activities regulated by the issuance of MAQP #5330-00, which is to permit the facility with the addition of an incinerator. The amount of natural gas fuel utilized at this site may be impacted by a number of factors including seasonal weather impediments and equipment malfunctions. To account for these factors DEQ has calculated the maximum amount of emissions using 8760 hours per year of operation.

For the purpose of this analysis, DEQ has defined greenhouse gas emissions as the following gas species: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and many species of fluorinated compounds. The range of fluorinated compounds includes numerous chemicals which are used in many household and industrial products. Other pollutants can have some properties that also are similar to those mentioned above, but the EPA has clearly identified the species above as the primary GHGs. Water vapor is also technically a greenhouse gas, but its properties are controlled by the temperature and pressure within the atmosphere, and it is not considered an anthropogenic species.

The combustion of diesel fuel at the site would release GHGs primarily being carbon dioxide (CO_2), nitrous oxide (N_2O) and much smaller concentrations of uncombusted fuel components including methane (CH_4) and other volatile organic compounds (VOCs).

DEQ has calculated GHG emissions using the EPA Simplified GHG Calculator version May 2023, for the purpose of totaling GHG emissions. This tool totals carbon dioxide (CO_2), nitrous oxide (N_2O), and methane (CH_4) and reports the total as CO_2 equivalent (CO_2e) in metric tons CO_2e. The calculations in this tool are widely accepted to represent reliable calculation approaches for developing a GHG inventory.

Direct Impacts:

Operation of the natural gas fueled incinerator at the RTR facility would produce exhaust fumes containing GHGs.

DEQ estimates that approximately 172 metric tons of CO_2e would be produced per year from this facility, including CO_2e from the one day of construction. To account for variability due to the factors described above, DEQ has calculated the maximum amount of emissions using a factor of 8760 hours per year for operation. Using the Environmental Protection Agency's (EPA) simplified GHG Emissions Calculator for mobile sources, approximately 172 metric tons of CO_2e would be produced per year, including the one day of construction.

Secondary Impacts:

GHG emissions contribute to changes in atmospheric radiative forcing, resulting in climate change impacts. GHGs act to contain solar energy loss by trapping longer wave radiation emitted from the Earth's surface and act as a positive radiative forcing component (BLM 2021).

Per EPA's website "Climate Change Indicators", the lifetime of carbon dioxide cannot be represented with a single value because the gas is not destroyed over time. The gas instead moves between air, ocean, and land mediums with atmospheric carbon dioxide remaining in the atmosphere for thousands of years, due in part to the very slow process by which carbon is transferred to ocean sediments. Methane remains in the atmosphere for approximately 12 years. Nitrous oxide has the potential to remain in the atmosphere for about 109 years (EPA, Climate Change Indictors). The impacts of climate change throughout the southeastern area of Montana include changes in flooding and drought, rising temperatures, and the spread of invasive species (BLM 2021).

Cumulative Impacts:

Montana recently used the EPA State Inventory Tool (SIT) to develop a greenhouse gas inventory in conjunction with preparation of a possible grant application for the Community Planning Reduction Grant (CPRG) program. This tool was developed by EPA to help states develop their own greenhouse gas inventories, and this relies upon data already collected by the federal government through various agencies. The inventory specifically deals with carbon dioxide, methane, and nitrous oxide and reports the total as CO_2e. The SIT consists of eleven Excel based modules with pre-populated data that can be used with default settings or in some cases, allows states to input their own data when the state believes their own data provides a higher level of quality and accuracy. Once each of the eleven modules is filled out, the data from each module is exported into a final "synthesis" module which summarizes all of the data into a single file. Within the synthesis file, several worksheets display the output data in a number of formats such as GHG emissions by sector and GHG emissions by type of greenhouse gas.

DEQ has determined the use of the default data provides a reasonable representation of the greenhouse gas inventory for the various sectors of the state, and the estimated total annual greenhouse gas inventory by year. The SIT data from EPA is currently only updated through the year 2021, as it takes several years to validate and make new data available within revised modules. DEQ maintains a copy of the output results of the SIT.

DEQ has determined that the use of the default data provides a reasonable representation of the GHG inventory for all of the state sectors, and an estimated total annual GHG inventory by year. At present, Montana accounts for 47.77 million metric tons of CO_2e based on the EPA SIT for the year 2021. This project may contribute up to 172 metric tons per year of CO_2e. The construction phase of this project would contribute less than one metric ton of CO_2e per year. The estimated emission of 172 metric tons of CO_2e from this project would contribute 0.00036% of Montana's annual CO_2e emissions.

GHG emissions that would be emitted as a result of the proposed activities would add to GHG emissions from other sources. The No Action Alternative would not contribute approximately any GHG emissions, as the proposed No Action Alternative would be to deny the permit and not allow the operation of the cremation unit on site. The current land use of the area is residential.

Reference

Bureau of Land Management (BLM) 2021. Specialist Report on Annual Greenhouse Gas Emissions and Climate Trends from Coal, Oil, and Gas Exploration and Development on the Federal Mineral Estate. Available at: https://www.blm.gov/content/ghg/2021/. Accessed February 28, 2024.

PROPOSED ACTION ALTERNATIVES:

No Action Alternative:

In addition to the analysis above for the proposed action, DEQ is considering a "no action" alternative. The "no action" alternative would deny the approval of the proposed permitting action. The applicant would lack the authority to conduct the proposed activity. Any potential impacts that would result from the proposed action would not occur. The no action alternative forms the baseline from which the impacts of the proposed action can be measured.

Other Ways to Accomplish the Action:

In order to meet the project objective to permit this facility with the addition of the incinerator has no other way to accomplish this action outside of not having an incinerator on-site, which would then result in the facility not needing an MAQP.

If the applicant demonstrates compliance with all applicable rules and regulations as required for approval, the "no action" alternative would not be appropriate. Pursuant to, § 75-1-201(4)(a), (MCA) DEQ "may not withhold, deny, or impose conditions on any permit or other authority to act based on" an environmental assessment.

CONSULTATION

DEQ engaged in internal and external efforts to identify substantive issues and/or concerns related to the proposed project. Internal scoping consisted of internal review of the environmental assessment document by DEQ staff. External scoping efforts also included queries to the following websites/databases/personnel:

Application for MAQP #5330-00, the response to the Incompleteness Letter, the EPA State Inventory Tool, the EPA GHG Calculator Tool, the Montana Natural Heritage Program Website, the Montana Cadastral Mapping Program, the State of Montana GIS Mapping Program, the City of Stevensville website, and the State Historical Preservation Office.

PUBLIC INVOLVEMENT:

The public comment period for this permit action will occur from March 11, 2025, through April 10, 2025.

OTHER GOVERNMENTAL AGENCIES WITH JURSIDICTION:

The proposed project would be located on private land. All applicable state and federal rules must be adhered to, which, at some level, may also include other state, or federal agency jurisdiction.

This environmental review analyzes the proposed project submitted by the Applicant. The project would be minor would contribute to the long-term cumulative effects of air quality in the area.

NEED FOR FURTHER ANALYSIS AND SIGNIFICANCE OF POTENTIAL IMPACTS

When determining whether the preparation of an environmental impact statement is needed, DEQ is required to consider the seven significance criteria set forth in ARM 17.4.608, which are as follows:

- The severity, duration, geographic extent, and frequency of the occurrence of the impact;
- The probability that the impact will occur if the proposed action occurs; or conversely, reasonable assurance in keeping with the potential severity of an impact that the impact will not occur;
- Growth-inducing or growth-inhibiting aspects of the impact, including the relationship or contribution of the impact to cumulative impacts – identify the parameters of the proposed action;
- The quantity and quality of each environmental resource or value that would be affected, including the uniqueness and fragility of those resources and values;
- The importance to the state and to society of each environmental resource or value that would be affected.
- Any precedent that would be set as a result of an impact of the proposed action that would commit the department to future actions with significant impacts or a decision in principle about such future actions; and
- Potential conflict with local, state, or federal laws, requirements, or formal plans.

CONCLUSIONS AND FINDINGS

DEQ finds that this action results in minor impacts to air quality and GHG emissions in Ravalli County, Montana.

The severity, duration, geographic extent and frequency of the occurrence of the impacts associated with the proposed air quality project would be limited. The proposed action would not result in first time disturbance at the RTR facility.

As discussed in this EA, DEQ has not identified any significant impacts associated with the proposed actions for any environmental resource. DEQ does not believe that the proposed activities by the Applicant would have any growth-inducing or growth-inhibiting aspects, or contribution to cumulative impacts. The proposed site does not appear to contain known unique or fragile resources.

There are no unique or known endangered fragile resources in the project area. No underground disturbance would be required for this project.

There would be major impacts to view-shed aesthetics as the incinerator and associated stack, would be constructed where there previously was not one. However, because the cremation unit would be installed within the footprint of the RTR facility property, any impacts would be consistent with existing impacts.

Demands on the environmental resources of land, water, air, or energy would not be significant, due to the low level of emissions from this facility.

Impacts to human health and safety would not be significant as access roads would be closed to the public and because the site is on Privately Owned Land. The public is not allowed on the RTR site outside of regular operations.

As discussed in this EA, DEQ has not identified any significant adverse impacts on any environmental resource associated with the proposed activities.

Issuance of a Montana Air Quality Permit to the Applicant does not set any precedent that commits DEQ to future actions with significant impacts or a decision in principle about such future actions If the Applicant submits another modification or amendment, DEQ is not committed to issuing those revisions. DEQ would conduct an environmental review for any subsequent permit modifications sought by the Applicant that require environmental review. DEQ would make permitting decisions based on the criteria set forth in the Clean Air Act of Montana.

Issuance of the Permit to the Applicant does not set a precedent for DEQ's review of other applications for Permits, including the level of environmental review. The level of environmental review decision is made based on case-specific consideration of the criteria set forth in ARM 17.4.608.

Finally, DEQ does not believe that the proposed air quality permitting action would have any growth-inducing or growth inhibiting impacts that would conflict with any local, state, or federal laws, requirements, or formal plans.

Based on a consideration of the criteria set forth in ARM 17.4.608, the proposed project is not predicted to significantly impact the quality of the human environment. Therefore, preparation of an EA is the appropriate level of environmental review pursuant to MEPA.

Environmental Assessment and Significance Determination Prepared By:

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Environmental Assessment Reviewed By:

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Approved By:

Craig Henrikson Acting Air Permitting Section Supervisor March 10, 2025
Department of Environmental Quality

REFERENCES

1. Rainbow to Rest, PLLC application for the new permit of MAQP#5330-00 received December 27, 2024
2. Rainbow to Rest, PLLC response to DEQ's Incompleteness Letter, received February 10, 2025
3. (n.d.). *Montana Geological Maps* [Review of *Montana Geological Maps*]. Montana Bureau of Mines and Geology. Retrieved February 18, 2025, from https://gis-data-hub-mbmg.hub.arcgis.com/apps/53bf38cf17fd45dbbcf93b6cafaa3365/explore
4. US Census Bureau. (2021). *City and Town Population Totals: 2020-2021*. Census.gov. https://www.census.gov/data/tables/time-series/demo/popest/2020s-total-cities-and-towns.html
5. Bureau of Land Management (BLM) 2021. Specialist Report on Annual Greenhouse Gas Emissions and Climate Trends from Coal, Oil, and Gas Exploration and Development on the Federal Mineral Estate. Available at: https://www.blm.gov/content/ghg/2021/. Accessed February 28, 2024.
6. Sorrels, J., Randall, D., Schaffner, K., & Richardson Fry, C. (2019). *Chapter 2 Selective Catalytic Reduction*. https://www.epa.gov/sites/default/files/2017-12/documents/scrcostmanualchapter7thedition_2016revisions2017.pdf
7. US EPA, O. (2016, May 25). *Monitoring by Control Technique - Wet Scrubber For Gaseous Control*. US EPA. https://www.epa.gov/air-emissions-monitoring-knowledge-base/monitoring-control-technique-wet-scrubber-gaseous-control
8. *Regulations.gov*. (2025). Regulations.gov. https://www.regulations.gov/document/EPA-HQ-OAR-2015-0341-0092
9. *Section 6 Particulate Matter Controls (Wet Scrubbers)*. (n.d.). https://www.epa.gov/sites/default/files/2020-07/documents/cs6ch2.pdf
10. EPA. (2009). *Air Pollution Control Technology Fact Sheet*. https://www3.epa.gov/ttnchie1/mkb/documents/fpack.pdf
11. *Section 6 Particulate Matter Controls (ESP)*. (n.d.). https://www.epa.gov/sites/default/files/2020-07/documents/cs6ch3.pdf
12. Sorrels, J. L. (2021). *Section 5 SO 2 and Acid Gas Controls*. https://www.epa.gov/sites/default/files/2021-05/documents/wet_and_dry_scrubbers_section_5_chapter_1_control_cost_manual_7th_edition.pdf
13. Schaffner, K., Bradley, K., Randall, D., & Sorrels, J. (2017). *Chapter 2 Refrigerated Condensers*. https://www.epa.gov/sites/default/files/2017-12/documents/refrigeratedcondenserschapter_7thedition_final.pdf
14. Sorrels, J., Baynham, A., Randall, D., & Schaffner, K. (2018). *Chapter 1 Carbon Adsorbers*. https://www.epa.gov/sites/default/files/2018-10/documents/final_carbonadsorberschapter_7thedition.pdf
15. *Section 4 NO Controls x*. (n.d.). Retrieved February 19, 2025, from https://www.epa.gov/sites/default/files/2020-07/documents/cs4-2ch1.pdf
16. *Air Pollution Control Technology Fact Sheet*. https://www3.epa.gov/ttncatc1/dir1/fsncr.pdf.
17. *Monitoring by Control Technique - Electrostatic Precipitators | US EPA*. (2016, May 24). US EPA. https://www.epa.gov/air-emissions-monitoring-knowledge-base/monitoring-control-technique-electrostatic-precipitators#precipitators
18. *Monitoring by Control Technique - Condensers | US EPA*. (2016, May 20). US EPA. https://www.epa.gov/air-emissions-monitoring-knowledge-base/monitoring-control-technique-condensers#box2

19. (n.d.). *San Joaquin Valley Unified Air Pollution Control District Best Available Control Technology (BACT) Guideline 1.9.3** [Review of *San Joaquin Valley Unified Air Pollution Control District Best Available Control Technology (BACT) Guideline 1.9.3**]. Valley Air. Retrieved March 7, 2025, from https://www.valleyair.org/busind/pto/bact/BACT-Guideline-1.9.3.pdf

ABBREVIATIONS and ACRONYMS

AQB – Air Quality Bureau
ARM - Administrative Rules of Montana
BACT – Best Available Control Technology
BMP - Best Management Practices
CAA – Clean Air Act of Montana
CFR - Code of Federal Regulations
CO - carbon monoxide
DEQ – Department of Environmental Quality
DNRC – Department of Natural Recourses and Conservation
EA – Environmental Assessment
EIS – Environmental Impact Statement
EPA - U.S. Environmental Protection Agency
FCAA- Federal Clean Air Act
MAQP – Montana Air Quality Permit
MCA – Montana Code Annotated
MEPA – Montana Environmental Policy Act
MTNHP - Montana Natural Heritage Program
NO_X - oxides of nitrogen
PM - particulate matter
PM_{10} - particulate matter with an aerodynamic diameter of 10 microns and less
$PM_{2.5}$ - particulate matter with an aerodynamic diameter of 2.5 microns and less
PPAA - Private Property Assessment Act
Program - Sage Grouse Habitat Conservation Program
PSD - Prevention of Significant Deterioration
RTR- Rainbow to Rest, PLLC
SHPO - Montana State Historic Preservation Office
SOC - Species of Concern
SO_2 - sulfur dioxide
tpy – tons per year
U.S.C. - United States Code
VOC - volatile organic compound