

March 23, 2026

Dokken-Nelson Funeral Services
113 South Wilson Ave
Bozeman, MT 59715

Sent via email: Chris@dokeennelson.com

RE: Administrative Amendment of MAQP #3041-01

The Montana Department of Environmental Quality (DEQ) has issued a Decision on the request for Administrative Amendment of Montana Air Quality Permit (MAQP) #3041-00 for the above-named permittee. The application has been assigned MAQP #3041-01.

The permittee may appeal the Decision to the Board of Environmental Review (Board). A request for hearing must be filed by April 7, 2026. This permit shall become final on April 8, 2026, unless the Board orders a stay of the final permit. For more information, contact DEQ at (406) 444-3490 or DEQAIR@mt.gov.

Procedures for Appeal: The permittee may request a hearing before the Board. The appeal must be filed before the final date stated above. 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 request for a hearing to: Chairman, Board of Environmental Review, P.O. Box 200901, Helena, Montana 59620, or the Board Secretary: DEQBERSecretary@mt.gov.

Conditions: See attached Decision on MAQP #3041-01.

For DEQ,



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MONTANA AIR QUALITY PERMIT

Issued To: Dokken-Nelson Funeral Services
113 South Wilson Ave
Bozeman, MT 59715

MAQP: #3041-01
Administrative Amendment (AA) Request
Received: 02/26/2026
DEQ's Decision on AA: 03/23/2026
Permit Final:

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

Section I: Permitted Facilities

A. Plant Location

A human crematorium located at 113 South Wilson Avenue in Bozeman, Montana. The legal description is E ½ of Section 7, Township 2 South, Range 6 East, Gallatin County. A complete listing of the permitted equipment can be found in the analysis associated with this permit.

B. Current Permit Action

On February 26, 2026, the Department of Environmental Quality, Air Quality Bureau (DEQ) received a request to update permit language, including the references to the Administrative Rules of Montana (ARM) that have been repealed since issuance of MAQP #3041-00.

Section II: Conditions and Limitations

A. Operational Requirements

1. DNFS shall operate the 1999 I.E. & E incinerator as specified in their application for their Montana Air Quality Permit #3041-01 and all supporting documentation (ARM 17.8.749).
2. DNFS shall not incinerate/cremate any material other than human remains and the corresponding container (ARM 17.8.749).
3. The secondary chamber operating temperature of the 1999 I.E.&E. incinerator shall be maintained above 1400 °F. The operating temperature shall be maintained during the operation and for one-half hour after the feed has stopped (ARM 17.8.749).

B. Emission Limitations

1. DNFS shall not cause or authorize to be discharged into the atmosphere from the 1999 I.E.&E. incinerator:

- a. Visible emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.752).
- b. Any particulate emissions in excess of 0.10 gr/dscf corrected to 12% CO₂ (ARM 17.8.752).

C. Testing Requirements

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

D. Operational Reporting Requirements

1. DNFS 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. DNFS shall notify DEQ of any construction or improvement project conducted, pursuant to ARM 17.8.743, 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. The records compiled in accordance with this permit must be maintained by DNFS 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 DEQ upon request. These records may be stored at a location other than the plant site upon approval by DEQ (ARM 17.8.749).

E. Monitoring Requirements

1. DNFS shall install, calibrate, maintain, and operate continuous monitoring and recording equipment on the 1999 I.E. &E. incinerator to measure secondary chamber exit gas temperature. DNFS shall also record the daily quantity of

material incinerated/cremated and daily hours of operation of the 1999 I.E.&E. incinerator (ARM 17.8.749).

Section III: General Conditions

- A. Inspection – DNFS 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 DNFS fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving DNFS 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 DNFS may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board of Environmental Review.
- 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
Dokken-Nelson Funeral Services
MAQP #3041-01

I. Introduction/Process Description

Dokken-Nelson Funeral Services (DNFS) owns and operates a human crematory (crematorium) with a maximum incineration capacity of 100 pounds per hour (lbs/hr). The DNFS crematorium operates at their existing funeral home located at 113 South Wilson Avenue in Bozeman, Montana. The legal description is E ½ of Section 7, Township 2 South, Range 6 East, Gallatin County.

A. Permitted Equipment

DNFS operates industrial equipment & engineering company (I.E. & E.) crematorium on natural or LP gas capable of consuming up to 100 lbs/hr of human remains.

B. Source Description

The crematorium is fired on natural or LP gas and will be capable of consuming up to 100 lbs/hr of human remains. The secondary chamber operating temperature shall be maintained above 1400 °F during operation and for one-half hour after the feed has stopped.

C. Permit History

DNFS received a final permit **MAQP #3041-00** on March 5, 1999. The permit was for installation and operation of a natural gas or LP fired I.E.&E. crematorium with a maximum incineration design capacity of 100 lb/hr.

D. Current Permit Action

On February 26, 2026, the Department of Environmental Quality, Air Quality Bureau (DEQ) received a request to update permit language, including the references to the Administrative Rules of Montana (ARM) that have been repealed since issuance of MAQP #3041-00. **MAQP#3041-01** replaces MAQP #3041-00.

E. Additional Information

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

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department of Environmental Quality (DEQ). Upon request, 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).

DNFS 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 PM₁₀
11. ARM 17.8.230 Fluoride in Forage

DNFS must maintain compliance with the applicable ambient air quality standards. As part of the risk assessment required for this project, the department has completed a screening level ambient air impact analysis using an EPA-approved dispersion model (SCREEN3). This analysis was also used to demonstrate that the proposed project will comply with all 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.
3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this rule.
4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.
5. ARM 17.8.316 Incinerators. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any incinerator, particulate matter in excess of 0.10 grains per standard cubic foot of dry flue gas, adjusted to 12% carbon dioxide and calculated as if no auxiliary fuel had been used. Further, no person shall cause or authorize to be discharged into the outdoor atmosphere from any incinerator emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes.
6. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this rule.
7. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank is equipped with a vapor loss control device as described in (1) of this rule.

8. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 Code of Federal Regulations (CFR) Part 60, Standards of Performance for New Stationary Sources (NSPS). There is no existing NSPS requirement for incinerators of this type.
9. ARM 17.8.341 Emission Standards for Hazardous Air Pollutants. This rule incorporates by reference 40 CFR Part 61, National Emission Standards for Hazardous Air Pollutants (NESHAPs). There are no existing NESHAP requirements for incinerators of this type.
10. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories This rule incorporates by reference 40 CFR 63, National Emission Standards for Hazardous Air Pollutants (NESHAPs). There are no existing NESHAP requirements for incinerators of this type.

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. DNFS 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 DNFS 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. A permit application fee was not required for the current permit action because the permit change is considered an administrative 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. DNFS does not have the potential to emit more than 25 tons per year of any pollutant, an air quality permit must be obtained under the requirements of MCA 75-2-215. Because DNFS must obtain an air quality permit, all normally applicable requirements apply in this case
3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements.
(1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. A permit application was not required for the current permit action because the permit change is considered an administrative permit change. 7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. An affidavit of publication of public notice was not required for the current permit action because the permit change is considered an administrative permit action.
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. A BACT analysis and determination was not required for the current permit action because it is an administrative action.
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 DNFS 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 DEQ for incineration facilities subject to 75-2-215, MCA.

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.

III. BACT Determination

A Best Available Control Technology (BACT) determination is required for each new or altered source. Dokken-Nelson shall install on the new or altered source the maximum air pollution control capability, which is technically practicable and economically feasible, except that best available control technology shall be utilized.

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

IV. Emission Inventory

An emission inventory was completed for Dokken-Nelson's proposal. This emission inventory for criteria pollutants was based on emission factors from the AIRS FACILITY SUBSYSTEM SOURCE CLASSIFICATION CODES (AFSSCC) manual dated March 1990. The application indicated that the fuel used would be natural gas; therefore, the department also used emission factors from AFSSCC 1-02-006-03 for the combustion of natural gas.

The department developed a hazardous air pollutant emission inventory using those emissions contained in FIRE (the EPA emission factor repository) for SCC code 50200505 (Incineration-Pathological). Since the only currently regulated hazardous air pollutants are those pollutants considered in the required health risk assessment, only those hazardous air pollutants with an associated risk factor were considered in the emission inventory.

Emission Inventory Table-Permit 3041-00

	TSP	PM-10	SO _x	NO _x	VOC	CO
I.E.&E. Incinerator (ton/yr)	1.75	1.3	1.75	0.66	0.66	0
Natural Gas Fuel (ton/yr)	0.22	0.22	0.04	7.29	0.39	1.46
Total (ton/yr)	1.97	1.52	1.79	7.95	1.05	1.46

- o TSP emissions are 1.97 TPY, determined by total suspended particulate matter including PM₁₀ and PM_{2.5}
- o Total PM₁₀ emissions are 1.52 TPY, determined by the sum of PM₁₀ and smaller

****CO = carbon monoxide**

(fil) = filterable

HAPs = hazardous air pollutants

hp = horsepower

lb = pound

N/A = not applicable

ND = no data available

NO_x = oxides of nitrogen

PM = particulate matter

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

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

SO₂ = sulfur dioxide

TPH = tons per hour

TPY = tons per year

VOC = volatile organic compounds

yr = year

Emission Inventory Calculations:

I.E.&E. Incinerator

TSP Emissions

Emission Factor:	8	lbs/ton	AFSSCC 5-02-005-05, pg 227
Control Efficiency:	0%		
Fuel Consumption:	438	tons/year	(maximum rated design) 438 tons/year x 8 lb/ton x 0.0005 ton/lb
Calculations:	1.75	ton/year	

PM-10 Emissions:

Emission Factor:	5.92	lbs/ton	AFSSCC 5-02-005-05, pg 227
Control Efficiency:	0%		
Fuel Consumption:	438	tons/year	(maximum rated design)
Calculations:	1.3	ton/year	438 tons/year x 5.92 lb/ton x 0.0005 ton/lb

NOx Emissions

Emission Factor:	3	lbs/ton	AFSSCC 5-02-005-05, pg 227
Control Efficiency:	0%		
Fuel Consumption:	438	tons/year	(maximum rated design)
Calculations:	0.66	ton/year	438 tons/year x 5.92 lb/ton x 0.0005 ton/lb

VOC Emissions

Emission Factor:	3	lbs/ton	AFSSCC 5-02-005-05, pg 227
Control Efficiency:	0%		
Fuel Consumption:	438	tons/year	(maximum rated design)
Calculations:	0.66	ton/year	438 tons/year x 5.92 lb/ton x 0.0005 ton/lb

CO Emissions

Emission Factor:	0	lbs/ton	AFSSCC 5-02-005-05, pg 227
Control Efficiency:	0%		
Fuel Consumption:	438	tons/year	(maximum rated design)
Calculations:	0.66	ton/year	438 tons/year x 0 lb/ton x 0.0005 ton/lb

SOx

Emission Factor:	8	lbs/ton	AFSSCC 5-02-005-05, pg 227
Control Efficiency:	0%		
Fuel Consumption:	438	tons/year	(maximum rated design)
Calculations:	0.66	ton/year	438 tons/year x 8 lb/ton x 0.0005 ton/lb

Natural Gas Fuel

TSP Emissions

Emission Factor:	3	lbs/MMscf	AFSSCC 1-02-006-03, pg 23
Control Efficiency:	0%		
Fuel Consumption:	16.64	MMscf/yr	(maximum rated design)
Calculations:	0.22	ton/year	16.64 MMscf/yr x 3 lbs/MMscf * 0.0005 ton/lb

PM-10 Emissions:

Emission Factor:	3	lbs/MMscf	AFSSCC 1-02-006-03, pg 23
Control Efficiency:	0%		
Fuel Consumption:	16.64	MMscf/yr	(maximum rated design)
Calculations:	0.22	ton/year	16.64 MMscf/yr x 3 lbs/MMscf * 0.0005 ton/lb

NOx Emissions

Emission Factor:	100	lbs/MMscf	AFSSCC 1-02-006-03, pg 23
Control Efficiency:	0%		
Fuel Consumption:	16.64	MMscf/yr	(maximum rated design)
Calculations:	7.29	ton/year	16.64 MMscf/yr x 100 lbs/MMscf * 0.0005 ton/lb

VOC Emissions

Emission Factor:	5.3	lbs/MMscf	AFSSCC 1-02-006-03, pg 23
Control Efficiency:	0%		
Fuel Consumption:	16.64	MMscf/yr	(maximum rated design)
Calculations:	0.39	ton/year	16.64 MMscf/yr x 5.3 lbs/MMscf * 0.0005 ton/lb

CO Emissions

Emission Factor:	20	lbs/MMscf	AFSSCC 1-02-006-03, pg 23
Control Efficiency:	0%		
Fuel Consumption:	16.64	MMscf/yr	(maximum rated design)
Calculations:	1.46	ton/year	16.64 MMscf/yr x 20 lbs/MMscf * 0.0005 ton/lb

SOx

Emission Factor:	0.6	lbs/MMscf	AFSSCC 1-02-006-03, pg 23
Control Efficiency:	0%		
Fuel Consumption:	16.64	MMscf/yr	(maximum rated design)
Calculations:	0.04	ton/year	16.64 MMscf/yr x 0.6 lbs/MMscf * 0.0005 ton/lb

Hazardous Air Pollutants

Bromoform

Emission Factor:	2.90E-05	lbs/ton	
Control Efficiency:	0%		
Fuel Consumption:	438	tons/year	(maximum rated design)

Carbon Tetrachloride	Calculations:	6.35E-05	tons/year	438 ton/year x 0.00003 lbs/ton x 0.0005 ton/lb
	Emission Factor:	5.74E-05	lbs/ton	
	Control Efficiency:	0%		
	Fuel Consumption:	438	tons/year	(maximum rated design)
Chloroform	Calculations:	1.26E-05	tons/year	438 ton/year x 0.00006 lbs/ton x 0.0005 ton/lb
	Emission Factor:	5.45E-05	lbs/ton	
	Control Efficiency:	0%		
	Fuel Consumption:	438	tons/year	(maximum rated design)
1,2-Dichloropropane	Calculations:	1.19E-05	tons/year	438 ton/year x 0.0000545 lbs/ton x 0.0005 ton/lb
	Emission Factor:	1.32E-03	lbs/ton	
	Control Efficiency:	0%		
	Fuel Consumption:	438	tons/year	(maximum rated design)
Ethyl benzene	Calculations:	2.89E-04	tons/year	438 ton/year x 0.00132 lbs/ton x 0.0005 ton/lb
	Emission Factor:	1.61E-03	lbs/ton	
	Control Efficiency:	0%		
	Fuel Consumption:	438	tons/year	(maximum rated design)
Naphthalene	Calculations:	3.53E-04	tons/year	438 ton/year x 0.00161 lbs/ton x 0.0005 ton/lb
	Emission Factor:	1.16E-02	lbs/ton	
	Control Efficiency:	0%		
	Fuel Consumption:	438	tons/year	(maximum rated design)
Tetrachloroethylene	Calculations:	2.53E-03	tons/year	438 ton/year x 0.016 lbs/ton x 0.0005 ton/lb
	Emission Factor:	4.03E-05	lbs/ton	
	Control Efficiency:	0%		
	Fuel Consumption:	438	tons/year	(maximum rated design)
1,1,2,2-Tetrachloroethane	Calculations:	8.83E-06	tons/year	438 ton/year x 0.0004 lbs/ton x 0.0005 ton/lb
	Emission Factor:	1.10E-04	lbs/ton	
	Control Efficiency:	0%		
	Fuel Consumption:	438	tons/year	(maximum rated design)
Toluene	Calculations:	2.41E-05	tons/year	438 ton/year x 0.0001 lbs/ton x 0.0005 ton/lb
	Emission Factor:	4.62E-03	lbs/ton	
	Control Efficiency:	0%		
	Fuel Consumption:	438	tons/year	(maximum rated design)
Vinylidene Chloride	Calculations:	1.01E-03	tons/year	438 ton/year x 0.00462 lbs/ton x 0.0005 ton/lb
	Emission Factor:	7.10E-05	lbs/ton	
	Control Efficiency:	0%		
	Fuel Consumption:	438	tons/year	(maximum rated design)
Xylene	Calculations:	1.55E-05	tons/year	438 ton/year x 0.000071 lbs/ton x 0.0005 ton/lb
	Emission Factor:	2.20E-03	lbs/ton	
	Control Efficiency:	0%		
	Fuel Consumption:	438	tons/year	(maximum rated design)
	Calculations:	4.82E-04	tons/year	438 ton/year x 0.0022 lbs/ton x 0.0005 ton/lb

V. Existing Air Quality

The DNFS facility is located within an area that is classified as attainment for all pollutants for EPA-established National Ambient Air Quality Standards (NAAQS).

The limitations and conditions in MAQP#3041-01 ensure the facility would not cause or contribute to a violation of the NAAQS.

VI. Air Quality Impacts

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

Air Quality Impacts from MAQP#3041-00 permit

The department ran SCREEN3, an EPA-approved screening model, using the indicated

inputs obtained from the permit application and an emission rate of 0.0001369 grams per second, which is the sum of all the hazardous air pollutant emissions: The individual 1-hour results for each pollutant were then calculated by prorating the actual emission rate in grams per second against the 0.0001369 gram per second ambient impact of 0.02974 $\mu\text{g}/\text{m}^3$. The maximum 1-hr concentration were then converted to an annual average and used in the risk assessment.

SCREEN3 Model Run from MAQP#3041-00 permit

Simple Terrain Inputs:

Source Type	Point
Emission Rate (G/S)	0.1369E-03
Stack Height (M)	5.49
Stack Inside Diameter (M)	0.52
Stack Exit Velocity (M/S)	4.9
Stack Gas Exit Temp (K)	811
Ambient Air Temp (K)	293
Receptor Height (M)	1.0
Urban/Rural Option	RURAL
Building Height (M)	0.0
Minimum Horizontal Building Dimension	0.0
Maximum Horizontal Building Dimension	0.0

Stack exit velocity was calculated using a volumetric flow rate of 2200 ACFM

Summary of Screen Model Results from MAPQ#3041-00 permit

Calculation Procedure	Maximum 1 Hour Concentration ($\mu\text{g}/\text{m}^3$)	Distance of Maximum (M)	Terrain Height (M)
Simple Terrain	0.02974	72	0

Health Risk Assessment from MAPQ#3041-00

A health risk assessment was conducted to determine if the proposed DNSF - incinerator/crematorium complied with the negligible risk requirements of MCA 75-2-215. The emission inventory did not contain sufficient quantities of any pollutant on the department's list of pollutants which non-inhalation impacts must be considered; therefore, the department has determined that inhalation risk was the only pathway to consider. Only those hazardous air pollutants for which there were established emission factors were considered in the emission inventory.

Chemical Compound	Annual Conc. $\mu\text{g}/\text{m}^3$	Chronic Cancer ELCR ^k	Chronic Non-Cancer Hazard Quotient	Acute Non-Cancer Hazard Quotient
Bromoform	0.387E-05	0.43E-11	0.000	0.000
Carbon tetrachloride	0.773E-05	0.12E-09	0.000	0.000
Chloroform	0.744E-05	0.17E-09	0.000	0.000
1,2-dichloropropane	0.181E-03	0.0	0.000	0.000
Ethyl benzene	0.222E-03	0.0	0.000	0.000
Naphthalene	0.160E-02	0.0	0.000	0.000
Tetrachloroethylene	0.535E-05	0.32E-10	0.000	0.000
1,1,2,2-tetrachloroethane	0.150E-03	0.79E-09	0.000	0.000
Toluene	0.632E-03	0.0	0.000	0.000
Vinylidene chloride	0.981E-05	0.49E-09	0.000	0.000
Xylene	0.302E-03	0.0	0.000	0.000
Total Risk	-	0.16E-08	0.0001	0.0

^kELCR = Excess lifetime cancer risks

DEQ considered the risks estimated in the risk assessment to be in compliance with the requirement to demonstrate negligible risk to human health and welfare and the environment.

VII. Ambient Air Impact Analysis

Based on the information provided and the conditions established in MAQP #3041-01, DEQ determined that there will be no impacts from this permitting action. DEQ believes it will not cause or contribute to a violation of any ambient air quality standard.

VIII. Taking or Damaging Implication Analysis

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

YES	NO	
X		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	X	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	X	4. Does the action deprive the owner of all economically viable uses of the property?
	X	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)].
	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)

IX. Environmental Assessment

This permit is considered an administrative action; therefore, an environmental assessment is not required.

Analysis Prepared By: Barry Pemberton

Date: March 13, 2026