October 10, 2017

Dr. Jerry Ren
Envent Corporation
3220 East 29th Street
Long Beach, CA 90806-2321

Dear Dr. Ren:

Montana Air Quality Permit #5148-01 is deemed final as of October 7, 2017, by the Department of Environmental Quality (Department). This permit is for Portable Thermal Oxidizers. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

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

John P. Proulx
Air Quality Specialist
Air Quality Bureau
(406) 444-5391

JM:JPP
Enclosure

Montana Department of Environmental Quality
Air, Energy and Mining Division

Montana Air Quality Permit #5148-01

Envent Corporation
3220 East 29th Street
Long Beach, CA 90806-2321

October 7, 2017

MONTANA AIR QUALITY PERMIT

Issued To: Envent Corporation
3220 East 29th Street
Long Beach, CA 90806-2321

Montana Air Quality Permit: #5148-01
Application Complete: 7/20/2017
Preliminary Determination Issued: 8/21/2017
Department's Decision Issued: 9/21/2017
Permit Final: 10/7/2017
AFS #: 777-5148

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Envent Corporation (Envent), pursuant to Sections 75-2-204, 211, and 215 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

Envent operates portable Thermal Oxidizers (TO's) at various locations throughout Montana. The TO's would be used to destroy hydrocarbon vapors from tanks, vessels, pipelines, enclosures, process units, bulk terminals, marine terminals, and oil field facilities during degassing, venting, and vapor control operations. MAQP #5148-01 applies while operating at any location in Montana, except those areas having a Department of Environmental Quality (Department) approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.* An addendum will be required for locations in or within 10 km of certain PM_{10} nonattainment areas.

B. Current Permit Action

On July 20, 2017, the Department received a complete application from Envent Corp. for the addition of six (6) TO's.

SECTION II: Conditions and Limitations

A. Emission Limitations

1. Envent shall install, operate, and maintain each portable TO to provide the maximum air pollution control for which it was designed (ARM 17.8.752).

2. Envent shall not cause or authorize to be discharged into the atmosphere from the TO's:

a. Any visible emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.752); and

b. Any particulate matter emissions in excess of 0.10 grains per dry standard cubic feet (gr/dscf) (ARM 17.8.752).

3. Envent shall install and continuously operate a thermocouple and an associated recorder or any other equivalent device on all of the TO's to detect the presence of a flame (ARM 17.8.749).

4. Envent shall operate diesel engines with United States Environmental Protection Agency (EPA) nonroad engine emissions ratings of Tier 3 or better for powering the generators associated with the portable TO's. The maximum combined capacity of these diesel engines shall not exceed 1429 horsepower (hp) (ARM 17.8.1204).

5. Envent shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any sources installed after November 23, 1968 other than the portable TO's that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).

6. Envent shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).

7. If the permitted equipment is used in conjunction with any other equipment owned or operated by Envent, at the same site, shall be limited to correspond with an emission level that does not exceed 250 tons during any rolling 12-month period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).

8. Envent shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines and 40 CFR 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, for any applicable diesel engine (ARM 17.8.340; 40 CFR 60, Subpart IIII; ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ).

B. Testing Requirements

1. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

2. The Department of Environmental Quality (Department) may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. If these portable TO's are moved to another location, an Intent to Transfer form must be sent to the Department and a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days prior to the move.

The proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move.

If the proposed location is in response to an immediate threat to human health or the environment, Envent may commence operation prior to the issuance of the public notice. In such emergency situations, Envent shall provide the Intent to Transfer and post the Public Notice of the change in location as soon as reasonably practical. These forms are available from the Department (ARM 17.8.749 and ARM 17.8.765).

2. Envent shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but is not limited to, all sources of emissions identified in the emission inventory contained in the permit analysis.

   Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used to calculate operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

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

4. All records compiled in accordance with this permit must be maintained by Envent as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).

5. Envent shall annually certify that its emissions are less than those that would require the source to obtain an air quality operating permit as required by ARM 17.8.1204(3)(b). The annual certification shall comply with the certification requirements of ARM 17.8.1207. The annual certification shall be submitted along with the annual emissions inventory information (ARM 17.8.749 and ARM 17.8.1204).

D. Notification

1. Envent shall provide the Department with written notification of the actual start-up date(s) of the TO's within 15 days after the actual start-up date(s) (ARM 17.8.749).

2. Within 15 days of the actual start-up of any NSPS-affected equipment, Envent shall submit written notification to the Department of the initial start-up date of the affected equipment (ARM 17.8.340 and 40 CFR 60, Subpart A and 40 CFR 60, Subpart IIII).

3. Envent shall provide the Department with notification of an emergency response as soon as reasonably practical. The notification may be written, oral, or another form as approved by the Department (ARM 17.8.744).

SECTION III: General Conditions

A. Inspection – Envent shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment such as continuous emissions 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 Envent fails to appeal as indicated below.

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Envent of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*. (ARM 17.8.756).

D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties, or other enforcement action as specified in Section 75-2-401, *et seq*., MCA.

E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefor, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA.

The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.

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

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

H. Duration of Permit – Construction or installation must begin or contractual obligations entered into that would constitute substantial loss within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall expire (ARM 17.8.762).

Montana Air Quality Permit (MAQP) Analysis
Envent Corporation
MAQP #5148-01

I. Introduction/Process Description

Envent Corporation (Envent) operates multiple portable thermal oxidizers (TO's). The vapors will be combusted in the TO at approximately 1400° Fahrenheit (F) to achieve a 99% destruction of VOC and HAPs. These units are portable and may be located at various locations throughout Montana; however, Envent intends to initially locate within the Billings, Montana area.

A. Permitted Equipment

- One (1) EMTOS – 1000 Thermal Oxidizer (TO)
- Two (2) EMECS – 70 TO's
- Two (2) EMECS – 42 TO's
- One (1) EMECS – 20 TO, and one EMTOS – 2500 TO.
- Associated Tier 3/Tier 4 Diesel Engine/Generators

B. Source Description

The portable TO's are capable of treating various waste gas streams to destroy volatile organic compounds (VOC) and some hazardous air pollutants (HAP) from tanks, vessels, pipelines, enclosures, process units, bulk terminals, marine terminals, and oil field facilities during degassing, venting, and vapor control operations. Vapors will be siphoned off and routed through the TO's. Once inside the TO, the process gas will be mixed with either Nitrogen (N_2) or natural gas (CH_4) order to maintain a low oxygen atmosphere. After the process gas is mixed with either N_2 or CH_4, the mixture will be combusted at approximately 1400 to 1600 ° Fahrenheit (F) with a minimum residence time of 1.5 seconds to achieve a 99% destruction of VOCs and HAPs. After the gas mixture is combusted, the exhaust gas will be vented to the atmosphere.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department of Environmental Quality (Department). Upon request, the Department will provide references for location of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1 – General Provisions, including but not limited to:

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.

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

   Envent shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

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

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

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

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

Envent 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 (PM).

   (2) Under this rule, Envent 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 PM 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.

   While Envent is required to comply with the Emission Limitations specified in Section II.B of MAQP #5148-01 for the TO's, this particular rule does not apply to the TO's because Envent has applied for and will operate under an MAQP in accordance with ARM 17.8.770 and MCA 75-2-215 for these units.

6. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this rule.

7. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank is equipped with a vapor loss control device as described in (1) of this rule.

8. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 CFR 60, Standards of Performance for New Stationary Sources (NSPS). Envent is potentially an NSPS affected facility under 40 CFR Part 60 and subject to the requirements of the following subparts.

   a. a. 40 CFR 60, Subpart A – General Provisions apply to all equipment or facilities subject to an NSPS Subpart as listed below:

   b. 40 CFR 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE). Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are manufactured after April 1, 2006, and are not fire pump engines, and owners and operators of stationary CI ICE that modify or reconstruct their stationary CI ICE after July 11, 2005. Based on the information submitted by Envent, the CI ICE are not subject to this subpart because the engines will be operated as portable units.

      However, a non-road engine would become regulated as a stationary engine if it remains or will remain at one location for more than 12 consecutive months or a shorter period of time for an engine located at a season source. Therefore, this subpart would become applicable if Envent operated the CI ICE at a single location for more than 12 months or a shorter period of time for an engine located at a seasonal source.

9. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. The source, as defined and applied in 40 CFR Part 63, shall comply with the requirements of 40 CFR Part 63, as listed below:

   a. 40 CFR 63, Subpart A – General Provisions apply to all equipment or facilities subject to an NESHAP Subpart as listed below:

   b. 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants (HAPs) for Stationary Reciprocating Internal Combustion Engines (RICE). An owner or operator of a stationary RICE at a major or area source of HAP emissions is subject to this rule except if the stationary RICE is being tested at a stationary RICE test cell/stand. An area source of HAP emissions is a source that is not a major source. Based on the information submitted by Envent, the RICE are not subject to this subpart because the engines will be operated as portable units.

      However, a non-road engine would become regulated as a stationary engine if it remains or will remain at one location for more than 12 consecutive months or a shorter period of time for an engine located at a season source. Therefore, this subpart would become applicable if Envent operated the RICE at a single location for more than 12 months or a shorter period of time for an engine located at a seasonal source.

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

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. Envent 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 the Department by each source of air contaminants holding an air quality permit (excluding an open burning permit) issued by the Department. The air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

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

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

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

2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit modification to construct, modify, or use any air contaminant sources that have the potential to emit (PTE) greater than 25 tons per year (TPY) of any pollutant. In addition, Envent must obtain an MAQP prior to operation because the emitting units meet the MCA 75-2-103 definition of an incinerator and must obtain an MAQP in accordance with the requirements of MCA 75-2-215.

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. Envent 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. Envent submitted an affidavit of publication of public notice for the August 4, 2017 issue of the *Billings Gazette*, a newspaper of general circulation in the City of Billings in Yellowstone 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 the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.

7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.

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

9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving Montana-Dakota of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*.

10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.

11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or 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. (1) This rule states that an MAQP may be transferred from one location to another if the Department receives a complete notice of intent to transfer location, the facility will operate in the new location for less than 1 year, the facility will comply with the FCAA and the Clean Air Act of Montana, and the facility complies with other applicable rules. (2) This rule states that an air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.

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

F. ARM 17.8, Subchapter 8 – Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.

2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification, with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source because this facility is not a listed source and the facility's PTE is below 250 tons per year of any pollutant (excluding fugitive emissions).

G. ARM 17.8, Subchapter 12 – Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any source having:

   a. PTE > 100 TPY of any pollutant;

   b. PTE > 10 TPY of any one hazardous air pollutant (HAP), PTE > 25 TPY of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or

   c. PTE > 70 TPY of particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) in a serious PM_{10} nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program. (1) Title V of the FCAA amendments of 1990 requires that all sources, as defined in ARM 17.8.1204(1), obtain a Title V Operating Permit. In reviewing and issuing MAQP #5148-01 for Envent, the following conclusions were made:

   a. The facility's PTE is less than 100 TPY for any pollutant.

   b. The facility's PTE is less than 10 TPY for any one HAP and less than 25 TPY for all HAPs.

   c. This source is not located in a serious PM_{10} nonattainment area.

   d. This facility is potentially subject to a current NSPS (A and IIII).

   e. This facility is potentially subject to a current NESHAP (A and ZZZZ).

   f. This source is not a Title IV affected source.

   g. This source is not a solid waste combustion unit.

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

   i. As allowed by ARM 17.8.12301(3), the Department may exempt a source form the requirement to obtain an air quality operating permit by establishing federally enforceable limitations which limit that sources' potential to emit.

      i. In applying for an exemption under this section, the owner or operator of the source shall certify to the Department that the source's potential to emit does not require the source to obtain an air quality operating permit.

ii. Any source that obtains a federally enforceable limit on potential to emit shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit.

Based on these facts, the Department determined that the Envent facility 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, Envent may be required to obtain a Title V Operating Permit.

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

1. "Incinerator" means any single or multiple-chambered combustion device that burns combustible material, alone or with a supplemental fuel or catalytic combustion assistance, primarily for the purpose of removal, destruction, disposal, or volume reduction of all or any portion of the input material.

2. "Solid waste" means all putrescible and nonputrescible solid, semisolid, liquid, or gaseous wastes, including, but not limited to...air pollution control facilities...

I. MCA 75-2-215, Solid or hazardous waste incineration - additional permit requirements:

1. MCA 75-2-215 requires air quality permits for all new commercial solid waste incinerators; therefore, Envent must obtain an air quality permit.

2. MCA 75-2-215 requires the applicant to provide, to the Department's satisfaction, a characterization and estimate of emissions and ambient concentrations of air pollutants, including hazardous air pollutants from the incineration of solid waste. The Department determined that the information submitted in the initial MAQP application was sufficient to fulfill this requirement.

3. MCA 75-2-215 requires that the Department reach a determination that the projected emissions and ambient concentrations constitute a negligible risk to public health, safety, and welfare. The Department completed a health risk assessment based on an emissions inventory and ambient air quality modeling for this MAQP application. Based on the results of the emission inventory, modeling, and the health risk assessment, the Department determined that Envent complies with this requirement.

III. BACT Determination

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

Enclosed TO's are used to combust waste gas streams at ground level within an enclosed stack. The enclosure isolates the combustion zone from atmospheric disturbances, increases the residence time of the waste gas in the combustion zone, and promotes turbulent mixing of the waste gas stream with the assist fuel to facilitate a complete oxidation reaction. Envent has proposed TO's with auxiliary propane or natural gas as assist fuel as BACT for the emission control of the production gases. The waste gas stream is combusted at approximately 1400 to 1600 °F with a minimum residence time of 1.5 seconds to achieve a 99% destruction of VOC and HAPs. Other incinerators permitted by the Department pursuant to ARM 17.8.770 and MCA 75-2-215 are generally limited to 0.10 grains per dry standard cubic feet (gr/dscf) of flue gas adjusted to 12% CO_2 and calculated as if no auxiliary fuel had been used for PM and to 10% opacity averaged over six consecutive minutes. The Department concurs that the proposed TO flares offer adequate VOC destruction efficiency and operating the unit to provide the maximum air pollution control for which it was designed constitutes BACT.

IV. Emission Inventory

Emissions:

CONTROLLED	ton per year (ton/yr)								
Emission Source	**PM**	**PM_{10}**	**$PM_{2.5}$**	**NO_X**	**CO**	**SO_2**	**TOC**	**VOC**	**HAPs**
Thermal Oxidizing Unit	0.60	0.60	0.60	7.88	6.62	0.05	0.87	0.43	--
Propane Emissions	0.67	0.67	0.67	43.39	25.03	0.33	3.34	2.67	0.001
Diesel Generators	0.09	0.09	0.09	1.50	1.52	12.83	15.74	0.26	0.007
Total Emissions	1.36	1.36	1.36	52.77	33.17	13.21	19.94	3.36	0.008

CONTROLLED	ton per year (ton/yr)								
Emission Source	**PM**	**PM_{10}**	**$PM_{2.5}$**	**NO_X**	**CO**	**SO_2**	**TOC**	**VOC**	**HAPs**
Thermal Oxidizing Unit	0.60	0.60	0.60	7.88	6.62	0.05	0.87	0.43	--
Natural Gas Emissions	2.21	2.21	2.21	29.10	24.44	0.17	3.20	1.60	0.003
Diesel Generators	0.09	0.09	0.09	1.50	1.52	12.83	15.74	0.26	0.007
Total Emissions	2.90	2.90	2.90	38.48	32.58	13.05	19.80	2.29	0.009

NOTE: The emissions inventory reflects emissions generated by the TOs and associated equipment but does not include emissions from the production gases passed through the TOs. This is because the production gases are generated and/or stored by the facilities that utilize Envent's services and those gases are the responsibility of that facility.

Calculations:

Thermal Oxidizer Emissions Calculations based on AP 42, 1.4-1, Small boiler

$$1.0 \times 10^{-4} \frac{\text{lb}}{\text{scf NOx}} \times 18000 \frac{\text{scf}}{\text{hour}} \times 8760 \frac{\text{hours}}{\text{year}} \times \frac{\text{ton}}{2000 \text{ lbs}} = 7.884 \frac{\text{ton}}{\text{year}} \text{ of NOx}$$

$$8.4 \times 10^{-5} \frac{\text{lb}}{\text{scf CO}} \times 18000 \frac{\text{scf}}{\text{hour}} \times 8760 \frac{\text{hours}}{\text{year}} \times \frac{\text{ton}}{2000 \text{ lbs}} = 6.623 \frac{\text{ton}}{\text{year}} \text{ of CO}$$

$$7.6 \times 10^{-6} \frac{\text{lb}}{\text{scf PM T}} \times 18000 \frac{\text{scf}}{\text{hour}} \times 8760 \frac{\text{hours}}{\text{year}} \times \frac{\text{ton}}{2000 \text{ lbs}} = 0.599 \frac{\text{ton}}{\text{year}} \text{ of PM T}$$

5.7 x 10^-6	lb / scf PM C	X	18000	scf / hour	X	8760	hours / year	X	ton / 2000 lbs	=	0.449	ton / year	of PT C
1.9 x 10^-6	lb / scf PM F	X	18000	scf / hour	X	8760	hours / year	X	ton / 2000 lbs	=	0.150	ton / year	of PM F
.6 x 10^-6	lb / scf SO2	X	18000	scf / hour	X	8760	hours / year	X	ton / 2000 lbs	=	0.047	ton / year	of SO2
1.1 x 10^-5	lb / scf TOC	X	18000	scf / hour	X	8760	hours / year	X	ton / 2000 lbs	=	0.867	ton / year	of TOC
5.5 x 10^-6	lb / scf VOC	X	18000	scf / hour	X	8760	hours / year	X	ton / 2000 lbs	=	4.34E-01	ton / year	of VOC

Propane Gas Emissions Calculations based on AP 42, 1.5-1

1.30E-02	lb / gal NOx	X	762	gal / hour	X	8760	hours / year	X	ton / 2000 lbs	=	43.39	ton / year	NOx
7.50E-03	lb / gal CO	X	762	gal / hour	X	8760	hours / year	X	ton / 2000 lbs	=	25.03	ton / year	CO
2.00E-04	lb / gal PM T	X	762	gal / hour	X	8760	hours / year	X	ton / 2000 lbs	=	0.67	ton / year	of PM T
1.00E-04	lb / gal SO2	X	762	gal / hour	X	8760	hours / year	X	ton / 2000 lbs	=	0.33	ton / year	of SO2
1.00E-03	lb / gal TOC	X	762	gal / hour	X	8760	hours / year	X	ton / 2000 lbs	=	3.34	ton / year	of TOC
8.00E-04	lb / gal VOC	X	762	gal / hour	X	8760	hours / year	X	ton / 2000 lbs	=	2.67	ton / year	of VOC
1.25E+01	lb / gal VOC	X	762	gal / hour	X	8760	hours / year	X	ton / 2000 lbs	=	41719.50	ton / year	of CO2
4.02E-04	lb / gal VOC	X	762	gal / hour	X	8760	hours / year	X	ton / 2000 lbs	=	0.00134	ton / year	of HAPs

Natural Gas Emissions Calculations based on AP 42, 1.4-1, Small boiler

1.0 x 10^-4	lb / scf NOx	X	66430	scf / hour	X	8760	hours / year	X	ton / 2000 lbs	=	29.10	ton / year	of NOx
8.4 x 10^-5	lb / scf CO	X	66430	scf / hour	X	8760	hours / year	X	ton / 2000 lbs	=	24.44	ton / year	of CO
7.6 x 10^-6	lb / scf PM T	X	66430	scf / hour	X	8760	hours / year	X	ton / 2000 lbs	=	2.21	ton / year	of PM T
5.7 x 10^-6	lb / scf PM C	X	66430	scf / hour	X	8760	hours / year	X	ton / 2000 lbs	=	1.66	ton / year	of PT C
1.9 x 10^-6	lb / scf PM F	X	66430	scf / hour	X	8760	hours / year	X	ton / 2000 lbs	=	0.55	ton / year	of PM F
.6 x 10^-6	lb / scf SO2	X	66430	scf / hour	X	8760	hours / year	X	ton / 2000 lbs	=	0.17	ton / year	of SO2
1.1 x 10^-5	lb / scf TOC	X	66430	scf / hour	X	8760	hours / year	X	ton / 2000 lbs	=	3.20	ton / year	of TOC
5.5 x 10^-6	lb / scf VOC	X	66430	scf / hour	X	8760	hours / year	X	ton / 2000 lbs	=	1.60	ton / year	of VOC
1.2 x 10^-1	lb / scf CO2	X	66430	scf / hour	X	8760	hours / year	X	ton / 2000 lbs	=	34915.44	ton / year	of CO2
9.68E-06	lb / scf CO2	X	66430	scf / hour	X	8760	hours / year	X	ton / 2000 lbs	=	0.00282	ton / year	of HAPs

Tier 3 Emissions, Ton per year					Tier 4 Emissions, Ton per year				
Horsepower	CO	NO_X	HC	PM	Horsepower	CO	NO_X	NMHC	PM
98	0.23	0.23	0.01	0.01	98	0.23	0.01	0.02	0.00
170	0.39	0.30	0.02	0.02	170	0.39	0.01	0.03	0.00
237	0.39	0.42	0.03	0.02	237	0.77	0.04	0.09	0.00
315	0.51	0.55	0.04	0.03	315	1.02	0.06	0.12	0.01
TOTAL	1.52	1.50	0.10	0.09	TOTAL	2.42	0.12	0.26	0.01

$$\left(\frac{gr}{hp * hr}\right) * hp * \left(\frac{hr}{yr}\right) * \left(\frac{lb}{gr}\right) * \left(\frac{ton}{lb}\right) = \frac{ton}{yr}$$

Ton per year		
AP-42, TBL 3.3-1	lb/(hp*hr)	ton/yr
SO_X	2.05E-03	12.83
TOC	0.0025141	15.74
PM_{10}	2.20E-03	13.77

$$\left(\frac{lb}{hp * hr}\right) * hp * \left(\frac{hr}{yr}\right) * \left(\frac{ton}{lb}\right) = \frac{ton}{yr}$$

Note – all calculations are based on 8,760 hours per year

V. Existing Air Quality

MAQP 5148-01 authorizes Envent to operate the portable TO in various locations throughout Montana, except areas having a Department-approved permitting program, areas considered tribal lands, or areas in or within 10 km of certain PM_{10} nonattainment areas. Envent's anticipated operating location would be in the Billings area in Yellowstone County. The Billings area is designated as an attainment area with a Limited Maintenance Plan for CO and an area of concern for SO_2 nonattainment. The Billings/Laurel area is currently under State Implementation Plan (SIP) provisions for SO_2 control because of the Laurel SO_2 nonattainment area and modeled violations of the SO_2 standard in Billings. In addition, some facilities are subject to Federal Implementation Plan (FIP) provisions for SO_2. The FIP is intended to complement the SIP to maintain compliance with national and state ambient air quality standards for SO_2. In the view of the Department the amount of controlled emissions from this facility, including CO and SO_2, will not violate any ambient air quality standard or contribute to any violation in any of the areas contemplated for operation.

VI. Ambient Air Impact Analysis

The Department conducted an ambient air impact analysis for HAP with SCREENVIEW, an EPA-approved screening model, using the indicated inputs obtained from the permit application and the emission rates located in Summary of Screen View Model Results, from the proposed TOs. The individual one-hour results for each pollutant were then calculated by multiplying the modeled impact of the different $\mu g/m^3$ concentrations by the percentage of each individual HAP, making up the total of the HAP emissions. The maximum 1-hour concentrations were then converted to an annual average and used in the risk assessment. The results are contained in Section VI, Health Risk Assessment, of the permit analysis

TO Flare: SCREENVIEW Model Run

Simple Terrain Inputs:

Source Type	=	POINT
Emission Rate (G/S)	=	variable
Stack Height (M)	=	4.1148
Stack Inside Diameter (M)	=	1.9568
Stack Exit Velocity (M/S)	=	1.9773
Stack Gas Exit Temp (K)	=	1033.15
Ambient Air Temp (K)	=	293
Receptor Height (M)	=	0.0000
Urban/Rural Option	=	RURAL

Stack exit velocity was calculated using a volumetric flow rate of 12,600 ACFM which was provided in the application. Because SCREENVIEW is for single sources, the Department assumed that the total combined HAP emissions from all permitted sources were being emitted from the TO with the shortest stack and lowest flowrate as a conservative representation of all TO's operating simultaneously at a single location.

Summary of Screen View Model Results

Calculation Procedure	Maximum 1 Hour Concentration (μg/m3)	Distance to Maximum Concentration	Terrain Height (m)
Simple Terrain (Propane)	4.713E-4	109	0
Simple Terrain (Natural Gas)	9.807E-4	109	0

VII. Health Risk Assessment

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

The Department determined that the risks estimated in the risk assessment for the TOs are in compliance with the requirement to demonstrate negligible risk to human health and the environment. As documented in the above table and in accordance with the negligible risk requirement, no single HAP concentration results in Cancer Risk greater than 1.00E-06 and the sum of all HAPs results in a Cancer Risk of less than 1.00E-05. Further, the sum of Chronic Noncancer Reference Exposure Level (CNCREL) hazard quotient is less than 1.0 as required to demonstrate compliance with the negligible risk requirement.

Negligible Risk Assesment for HAPs [1] HAP Species	Modeled[1] Concentration (mg/m^3)	Modeled[2] Concentration (mg/m^3)	Cancer CIRF[2] $(mg/m^3)^{-1}$	Cancer[1] Risk[3]	Cancer[2] Risk[3]	CNCREL[6] (mg/m^3)	CNCREL[1] Hazard Quotient[7]	CNCREL[2] Hazard Quotient[7]
2-Methylnaphthalene	1.94539E-10	8.02E-11	ND	ND	ND	ND	ND	ND
3-Methylchloranthrene	1.45904E-11	6.02E-12	6.30E-03	9.19E-14	3.79E-14	ND	ND	ND
7,12-Dimethylbenz(a)anthracene	1.29693E-10	5.35E-11	7.10E-02	9.21E-12	3.80E-12	ND	ND	ND
Acenaphthene	1.45904E-11	6.02E-12	ND	ND	ND	ND	ND	ND
Acenaphthylene	1.45904E-11	6.02E-12	ND	ND	ND	ND	ND	ND
Anthracene	1.94539E-11	8.02E-12	ND	ND	ND	ND	ND	ND
Benz(a)anthracene	1.45904E-11	6.02E-12	1.10E-04	1.60E-15	6.62E-16	ND	ND	ND
Benzene	1.70222E-08	7.02E-09	7.80E-06	1.33E-13	5.47E-14	3.00E+01	5.67E-10	2.34E-10
Benzo(a)pyrene	9.72696E-12	4.01E-12	1.10E-03	1.07E-14	4.41E-15	ND	ND	ND
Benzo(b)fluoranthene	1.45904E-11	6.02E-12	1.10E-04	1.60E-15	6.62E-16	ND	ND	ND
Benzo(g,h,i)perylene	9.72696E-12	4.01E-12	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	1.45904E-11	6.02E-12	1.10E-04	1.60E-15	6.62E-16	ND	ND	ND
Chrysene	1.45904E-11	6.02E-12	1.10E-05	1.60E-16	6.62E-17	ND	ND	ND
Dibenzo(a,h)anthracene	9.72696E-12	4.01E-12	1.20E-03	1.17E-14	4.81E-15	ND	ND	ND
Dichlorobenzene	9.72696E-09	4.01E-09	1.10E-05	1.07E-13	4.41E-14	8.00E+02	1.22E-11	5.01E-12
Fluoranthene	2.5128E-05	1.00E-11	ND	ND	ND	ND	ND	ND
Fluorene	2.43174E-11	9.36E-12	ND	ND	ND	ND	ND	ND
Formaldehyde	2.26962E-11	2.51E-07	5.50E-09	1.25E-19	1.38E-15	9.80E+00	2.32E-12	2.56E-08
Hexane	6.07935E-07	6.02E-06	ND	ND	ND	7.00E+02	8.68E-10	8.59E-09
Indeno(1,2,3,c,d)pyrene	1.45904E-05	6.02E-12	1.10E-04	1.60E-09	6.62E-16	ND	ND	ND
Naphthalene	1.45904E-11	2.04E-09	3.40E-05	4.96E-16	6.93E-14	3.00E+00	4.86E-12	6.80E-10
Phenanthrene	1.37799E-10	5.68E-11	ND	ND	ND	ND	ND	ND
Propane	N/A	5.35E-06	ND	N/A	ND	ND	N/A	ND
Pyrene	N/A	1.67E-11	ND	N/A	ND	ND	N/A	ND
Toluene	N/A	1.14E-08	ND	N/A	ND	5.00E+03	N/A	2.27E-12
	Natural Gas[1]	Propane[2]		***1.61E-09***	***4.02E-12***		***1.46E-09***	***3.51E-08***

(1) Source of chronic dose-response values is from Table 1: Prioritized Chronic Dose Response Values for Screening Risk Assessments (www.epa.gov/ttn/atw/toxsource/table1.pdf, 6/12/07).
(2) Cancer Chronic Inhalation Risk Factor (1/mg/m3).
(3) Cancer Risk is unitless and is calculated by multiplying the predicted concentration by the CIRF.
(4) AKA Propylene dichloride.
(5) AKA Tetrachloroethene, Perchloroethylene.
(6) Chronic Noncancer Reference Exposure Level.
(7) The CNCREL hazard quotient is determined by calculating the modeled HAP concentration by the CNCREL.
ND Not Determined because no value is provided in Table 1: Prioritized Chronic Dose Response Values for Screening Risk Assessments (www.epa.gov/ttn/atw/toxsource/table1.pdf, 6/12/07).

The Department determined that the risk assessment for the TOs demonstrates a negligible risk to human health and the environment. As documented in the above table and in accordance with the negligible risk requirement, no single HAP concentration results in Cancer Risk greater than 1.00E-06 and the sum of all HAPs results in a Cancer Risk of less than 1.00E-05. Further, the sum of the Chronic Noncancer Reference Exposure Level (CNCREL) hazard quotient is less than 1.0 for all HAP sources, as required to demonstrate compliance with the negligible risk requirement.

VIII. Taking or Damaging Implication Analysis

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

YES	NO	
X		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	X	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	X	4. Does the action deprive the owner of all economically viable uses of the property?
	X	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)].
		5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
	X	6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)
	X	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally?
	X	7a. Is the impact of government action direct, peculiar, and significant?
	X	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	X	7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?
	X	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

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

VIII. Environmental Assessment

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

DEPARTMENT OF ENVIRONMENTAL QUALITY
Air, Energy & Mining Division
Air Quality Bureau
P.O. Box 200901, Helena, Montana 59620
(406) 444-3490

ENVIRONMENTAL ASSESSMENT (EA)

Issued To: Envent Corporation

Montana Air Quality Permit Number: 5148-01

EA Draft Issued: August 21, 2017
EA Final Issued: September 21, 2017
Permit Final: October 7, 2017

1. *Legal Description of Site*: Envent Corporation (Envent) proposes to operate multiple Thermal Oxidizer units at various locations throughout Montana; however, they intend to initially locate in the Billings, Montana area.

2. *Description of Project*: Envent proposes to operate portable thermal oxidizers. The thermal oxidizers would be used to destroy hydrocarbon vapors from tanks, vessels, pipelines, enclosures, process units, bulk terminals, marine terminals, and oil field facilities during degassing, venting, and vapor control operations. The vapors will be siphoned from these units or processes and combusted in the TO at approximately 1400° Fahrenheit (F) to achieve a 99% destruction of VOC and HAPs.

3. *Objectives of Project*: The objective of the project is to capture process gas and destroy it in the thermal oxidizer.

4. *Alternatives Considered*: In addition to the proposed action, the Department also considered the "no-action" alternative. If the project was not approved, Envent would lose revenue from business generated from de-gassing operations. The vapors in process tanks could also be vented to the atmosphere, possibly causing unsafe working conditions and having a greater negative impact to air quality. However, the Department does not consider the "no-action" alternative to be appropriate because Envent demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no-action" alternative was eliminated from further consideration.

5. *A Listing of Mitigation, Stipulations, and Other Controls*: A list of enforceable conditions, including a BACT analysis, would be included in MAQP #5148-01.

6. *Regulatory Effects on Private Property*: The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.

7. The following section summarizes the potential physical and biological effects of the proposed project on the human environment. The "no-action" alternative was discussed previously.

SUMMARY OF COMMENTS ON POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS: The following comments have been prepared by the Department.

A. Terrestrial and Aquatic Life and Habitats

This permitting action would be expected to have no effect on the terrestrial and aquatic life and habitats because the thermal oxidizers would be operated on already existing facilities in industrial locations.

B. Water Quality, Quantity and Distribution

The permitting action would be expected to have no effect on water quality, quantity, and distribution because the thermal oxidizers do not require water for operation.

C. Geology and Soil Quality, Stability and Moisture

The permitting action would be expected to have no effect on geology, soil quality, stability, and moisture because the thermal oxidizers would be operated on already existing facilities in industrial locations.

D. Vegetation Cover, Quantity, and Quality

The permitting action would be expected to have no effect on vegetative cover, quantity, and quality of vegetation because the thermal oxidizers would be operated on already existing industrial locations.

E. Aesthetics

The permitting action would be expected to have minor effects on the aesthetics because the thermal oxidizers would be visible and audible.

F. Air Quality

The permitting action would be expected to have minor effects on air quality because MAQP #5148-01 would authorize a limited increase in allowable air emissions. However, the facility would be considered a minor source of air pollution by industrial standards and would be located in an area where there are no known air quality issues. Therefore, air quality impacts would be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The permitting action would have no impact on unique endangered or fragile species, or limited environmental resources because the thermal oxidizers would be operated on already existing industrial sites.

H. Sage Grouse Executive Order

The Department recognizes that the initial site selection in not within the Greater Sage Grouse habitat as defined by Executive Order No. 12-2015.

I. Demands on Environmental Resource of Water, Air and Energy

The permitting action would be expected to have a minor effect on the demands for environmental resources for water and energy. Envent may require small amounts of water for dust suppression if the parent facility does not have proper dust suppression readily available on site. Demands for energy will be fulfilled with onsite portable Tier 3 or Tier 4 rated diesel generators. The permitting action is expected to have minor impacts on environmental resources of air due to an increased number of allowable thermal oxidizers.

J. Historical and Archaeological Sites

The permitting action would be expected to have no impacts on historical and archaeological sites. The thermal oxidizers would be used on pre-established facilities where Historical and Archaeological surveys would have already been completed if they were warranted.

K. Cumulative and Secondary Impacts

Cumulative or secondary impacts are expected to be minor as a result of the proposed project. The facility would be considered a minor source of emissions by industrial standards and not expected to have more than a minor cumulative and secondary impacts.

8. The following section summarizes the potential economic and social effects of the proposed project on the human environment. The "no-action" alternative was discussed previously.

SUMMARY OF COMMENTS ON POTENTIAL ECONOMIC AND SOCIAL EFFECTS: The following comments have been prepared by the Department.

A. Social Structures and Mores

The permitting action would be expected to have no impacts on social structures and mores because the thermal oxidizers would be operated on already existing industrial locations.

B. Cultural Uniqueness and Diversity

The permitting action would be expected to have no effect on cultural uniqueness and diversity because the thermal oxidizers would be operated on an already existing industrial site with no expected construction.

C. Local and State Tax Base and Tax Revenue

The permitting action would have a minor effect on the local and state tax base and tax revenue due to the taxes generated from the purchase of supplies and the employee payroll.

D. Agricultural or Industrial Production

The permitting action would not displace or otherwise affect any agricultural land or practices because the anticipated operation of the thermal oxidizers would be at an existing facility.

E. Human Health

MAQP #5148-01 would incorporate conditions to ensure that the facility would be operated in compliance with all applicable rules and standards. These rules and standards are designed to be protective of human health.

F. Access to and Quality of Recreational and Wilderness Activities

The permitting action would be expected to have no effect on access to or aesthetic attribute of recreational and wilderness activities in the area.

G. Quantity and Distribution of Employment

The permitting action would be expected to have no effect on quantity and distribution of employment. Two full time employees would be needed to operate and maintain each thermal oxidizer and would likely be employed by Envent.

H. Distribution of Population

The permitting action would be expected to have no impact on the distribution of population because it would not increase the population in the area.

I. Demands for Government Services

The permitting action would have a minor effect on demand for government services. Government services would be required for acquiring the appropriate permits from government agencies. In addition, the permitted sources of emissions would be subject to periodic inspections by government personnel.

J. Industrial and Commercial Activity

The permitting action would be expected to have a minor impact on industrial and commercial activity due the operation of the thermal oxidizer in an already existing industrial site.

K. Locally Adopted Environmental Plans and Goals

The Billings area is designated as an attainment area with a Limited Maintenance Plan for CO and certain industrial sources are subject to control provisions under the Billings/Laurel SO_2 control plan. The Department believes that Envent would be expected to operate in compliance with all applicable state rules and regulations as outlined in MAQP #5148-01 which are designed to be protective of air quality standards. The proposed facility is a minor source of all regulated air pollutants and would not be expected to interfere with the CO and SO_2 plans in that area. The Department is unaware of any other locally adopted plans or goals in areas that would be impacted by the operation of the thermal oxidizers.

L. Cumulative and Secondary Impacts

Overall, the revenue generated with this project would result in minor cumulative or secondary impacts that affect the economic and social environment in the immediate area. The Department believes that this facility would be expected to operate in compliance with all applicable rules and regulations as outlined in MAQP #5148-01.

Recommendation: No Environmental Impact Statement (EIS) is required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permitting action is for the construction and operation of Thermal Oxidizers. MAQP #5148-01 includes conditions and limitations to ensure the facility will operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

Other groups or agencies contacted or which may have overlapping jurisdiction: Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

Individuals or groups contributing to this EA: Department of Environmental Quality – Air Quality Bureau, Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

EA prepared by: John P. Proulx
Date: August 8, 2017