July 27, 2021

Bonnie Epp
Scout Energy Management, LLC.
13800 Montford Dr., Suite 100
Dallas, TX 75244

Dear Ms. Epp:

Montana Air Quality Permit #5247-01 is deemed final as of July 15, 2021, by the Department of Environmental Quality (Department). This permit is for a natural gas compressor station. 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,

For
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 & Mining Division

Montana Air Quality Permit #5247-01

Scout Energy Management, LLC
13800 Montford Dr, Suite 100
Dallas, TX 75244

July 15, 2021

MONTANA AIR QUALITY PERMIT

Issued To: Scout Energy Management, LLC
13800 Montford Dr, Suite 100
Dallas, TX 75244

MAQP: #5247-01
Application Complete: 5/10/2021
Preliminary Determination
Issued: 6/4/2021
Department's Decision
Issued: 6/29/2021
Permit Final: 7/15/2021

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Scout Energy Management, LLC (Scout), 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

The Baker Station is located in the northeast ¼ of Section 2, Township 7 North, Range 59 East in Fallon County.

B. Current Permit Action

On May 10, 2021, the Department received an application from Scout for the addition of one (1) Waukesha 7044GSI 1,680 brake horsepower (bhp) compressor engine.

Section II: Conditions and Limitations

A. Emission Limitations

1. Emissions from each of the five (5) 1,680 brake horsepower (bhp) Waukesha compressor engines (rich burn) at the Baker Station shall be controlled by a non-selective catalytic reduction (NSCR) unit and an air to fuel ratio (AFR) controller. Emissions from each of the engines shall not exceed the following limits:

Oxides of Nitrogen (NO_X)	3.70 lb/hr (ARM 17.8.752)
Carbon Monoxide (CO)	4.44 lb/hr (ARM 17.8.752)
Volatile Organic Compounds (VOC)	1.85 lb/hr (ARM 17.8.752)

2. Scout shall not cause of authorize emissions to be discharged into the outdoor atmosphere from any sources installed after November 23, 1968, the exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).

3. Scout 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).

4. Scout shall treat all unpaved portions of the haul roads, access roads, parking lots, or general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.3 (ARM 17.8.749).

5. Scout shall comply with all applicable requirement of 40 CFR 63 Subpart HH – National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities. The triethylene glycol dehydration unit is an affected source under these rules. (ARM 17.8.342, ARM 17.8.302, and 40 CFR 63 Subpart HH).

6. Scout shall comply with all applicable requirements of 40 Code of Federal Regulations (CFR) 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (ARM 17.8.342, ARM 17.8.302, 40 CFR 63 Subpart ZZZZ).

7. Scout shall comply with any applicable requirements of 40 CFR 60 Subpart OOOO – Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for any affected facilities which are constructed, modified, or reconstructed after August 23, 2011 and on or before September 18, 2015. (ARM 17.8.340, ARM 17.8.302, and 40 CFR 60 Subpart OOOO).

B. Testing Requirements

1. Each of the 1,680 bhp Waukesha compressor engines shall be tested for NO_X and CO, concurrently, to demonstrate compliance with the emissions limits in Section II.A.1. Testing shall occur on an every-4-year basis, or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105 and ARM 17.8.749).

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

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

C. Operational Reporting Requirements

1. Scout 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).

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

3. All records compiled in accordance with this permit must be maintained by Scout as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request. These records may be stored at a location other than the plant site upon approval by the Department (ARM 17.8.749).

SECTION III: General Conditions

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

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

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Scout 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 Scout may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.

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

Montana Air Quality Permit Analysis
Scout Energy Management, LLC
Baker Station
MAQP #5247-01

I. Introduction/Process Description

A. Permitted Equipment

Scout Energy Management, LLC (Scout) – Baker Compressor Station natural gas compressor station consisting of the following equipment:

a. Five (5) 1,680 brake horsepower (bhp) Waukesha 7044 GSI compressor engines for the purpose of natural gas gathering.
b. Triethylene glycol (TEG) Reboiler and TEG dehydration process vent with a heat input capacity of 0.75 million British thermal units per hour (MMBtu/hr).
c. Miscellaneous support equipment and materials equipment.

B. Source Description

Scout owns and operates a natural gas compressor station located in the northeast ¼ of Section 2, Township 7 North, Range 59 East, Fallon County, Montana. The facility is near Baker, Montana and is known as the Baker Station.

C. Permit History

On June 2, 2020, Scout was issued **MAQP #5247-00** for the operation of the Baker Compressor Station and associated equipment.

D. Current Permit Action

On May 10, 2021, the Department received an application from Scout for the addition of one (1) Waukesha 7044GSI 1,680 brake horsepower (bhp) compressor engine. **MAQP #5247-01** replaces MAQP #5247-00.

II. Applicable Rules and Regulations

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

   Scout 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}

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

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

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

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

2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, Scout shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.

3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this rule.

4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.
5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this rule.

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

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

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

    b. 40 CFR 60 Subpart OOOO – Standards of Performance for Crude Oil and Natural Gas Production, Transmissions, and Distribution is applicable for affected units for which Construction, Modification, or Reconstruction Commenced after August 23, 2011, and on or before September 18, 2015.

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 NESHAP Subpart(s) as listed below:

b. 40 CFR 63 Subpart HH – National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities. This rule is applicable to a facility that processes natural gas prior to the point at which natural gas enters the transmission and storage source category, with triethylene glycol dehydration units an affected facility for area sources.

c. 40 CFR 63 Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants 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 subpart, except if the stationary RICE is being tested at a stationary RICE test cell/stand. Therefore, Scout is subject to this subpart.

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. Scout 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 of any pollutant. Scout has a PTE greater than 25 tons per year of NO_X, CO, and VOC; therefore, an air quality permit is required.

3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.

4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.

5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. As the current permit action is an administrative amendment for transfer of an MAQP, Scout 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. Scout submitted an affidavit of publication of public notice for the May 10, 2021 issue of the *Fallon County Times*, a newspaper of general circulation in the Town of Baker, in Fallon County, Montana 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 Scout 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 17.8.762 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.

11. 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).

12. 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.

13. ARM 17.8.765 Transfer of Permit. This rule states that an air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.

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.

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

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

   a. PTE > 100 tons/year of any pollutant;

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

   c. PTE > 70 tons/year of particulate matter with an aerodynamic diameter of 10 microns or less (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 #5247-01 for Scout, the following conclusions were made:

   a. The facility's PTE is less than 100 tons/year for any pollutant.

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

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

d. This facility is subject to current NSPS (40 CFR 60 Subparts A and OOOO).

e. This facility is subject to current NESHAP (40 CFR 63 Subparts A, HH, and ZZZZ).

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

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

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

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

III. BACT Determination

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

The primary criteria pollutants from natural gas-fired reciprocating engines are oxides of nitrogen (NO_X), carbon monoxide (CO), and volatile organic compounds (VOC). CO and VOC species are primarily the result of incomplete combustion. Particulate matter (PM) emissions include trace amounts of metals, non-combustible inorganic material, and condensable, semi-volatile organics which result from volatized lubricating oil, engine wear, or from products of incomplete combustion. Sulfur oxides (SO_X) are very low since sulfur compounds are removed from natural gas at processing plants. However, trace amounts of sulfur containing odorant are added to natural gas for the purpose of leak detection.

Three generic control techniques have been developed for reciprocating engines: parametric controls (timing and operating at a leaner air-to-fuel ratio); combustion modifications such as advanced engine design (clean-burn cylinder head designs and pre-stratified charge combustion for rich-burn engines); and post combustion catalytic controls installed on the engine exhaust system. Post-combustion catalytic technologies include selective catalytic reduction (SCR) for lean-burn engines, non-selective catalytic reduction (NSCR) for rich-burn engines, and CO oxidation catalysts for lean-burn engines.

The proposed compressor engine is a 4-stroke rich-burn engine class. These engines may be either naturally aspirated, using the suction from the piston to entrain the air charge, or turbocharged, using an exhaust-driven turbine to pressurize the charge. Rich-burn engines operate near the stoichiometric air-to-fuel ratio with exhaust excess oxygen levels less than 4 percent (typically closer to 1 percent).

NO_X and CO BACT:

The only technically feasible option for control of NO_x and CO for the rich-burn 4-stroke compressor engine is NSCR with an air-fuel ratio (AFR) Control. Selective catalytic reduction and oxidation catalysts require the stoichiometry of a lean-burn engine.

NSCR with AFR:

This technique uses the residual hydrocarbons and CO in the rich-burn engine exhaust as a reducing agent for NO_X. In NSCR, hydrocarbons and CO are oxidized by oxygen (O_2) and NO_X. The excess hydrocarbons, CO, and NO_X pass over a catalyst (usually a noble metal such as platinum, rhodium, or palladium) that oxidizes the excess hydrocarbons and CO to water (H_2O) and carbon dioxide (CO_2), while reducing NO_X to N_2. NO_X reduction efficiencies are usually greater than 90 percent, while CO reduction efficiencies are approximately 90 percent. The NSCR technique is effectively limited to engines with normal exhaust oxygen levels of 4 percent or less. This includes 4-stroke rich-burn naturally aspirated engines and some 4-stroke rich-burn turbocharged engines. Engines operating with NSCR require tight air-to-fuel ratio control to maintain high reduction effectiveness without high hydrocarbon emissions.

To achieve effective NO_X reduction performance, the engine may need to be run with a richer fuel adjustment than normal. Therefore, because NSCR requires tight air-to-fuel ratio control to maintain high reduction effectiveness, AFR control is usually required for optimized NSCR operation.

As proposed, the Department determined that properly operated and maintained NSCR and AFR constitutes BACT for NO_X and CO. The resulting BACT limit will be 1.5 g/bhp-hr (based on 90% control efficiency) and 2.65 g/bhp-hr (based on prior BACT determinations) for NO_X and CO respectively. These limits are comparable to other recently permitted sources.

IV. Emission Inventory

CONTROLLED	**tons/year**						
Emission Source	**PM**	**PM_{10}**	**$PM_{2.5}$**	**NO_X**	**CO**	**VOC**	**SO_2**
1,680 bhp Compressor Engine (combined)	2.90	2.90	2.90	16.21	19.45	8.10	0.17
Porpak TEG Reboiler	0.01	0.01	0.01	0.32	0.27	0.02	--
TEG Reboiler Still Vent	--	--	--	--	--	Negligible	--
Total Emissions	**2.91**	**2.91**	**2.91**	**16.53**	**19.72**	**8.12**	**0.17**

Notes:
1. Values in table reflect "uncontrolled" cells from subsequent worksheets

Waukesha Engine

Note: Emissions are based on the power output of the engine (8400 hp).

Operational Capacity of Engine = 8,400 hp 8400 **hp**

Hours of Operation = 8,760.00 hours 8760 **hours**

BTU per mmSCF = 0 btu/mmscf	0.00102	**btu/mmscf**
BTU per SCF = 65,612 scf/hr	65612.0	**scf/hr**
pounds per ton = 0.0005 lb/ton	0.0005	**lb/ton**
PM Emissions:		
PM Emissions = 2.905 ton/yr (Assume all PM < 1.0 um)	2.90	**ton/yr**
PM-10 Emissions:		
Emission Factor = 0.00991 lbs/mmBtu (AP-42, Sec. 3.2, Table 3.2-2, 10/96)	9.91E-03	**lbs/mmBtu**
Calculation: ((65,612.0 scf/hr) * (0.001020 btu/mmscf) * (0.0099100 lbs/mmBtu) * (8,760 hours) * (ton/2000 lb) = 2.905 ton/yr	2.90	**ton/yr**
PM2.5 Emissions		
Emission Factor = 0.00991 lbs/mmBtu (AP-42, Sec. 3.2, Table 3.2-2, 10/96)	9.91E-03	**lbs/mmBtu**
Calculation: ((65,612.0 scf/hr) * (0.001020 btu/mmscf) * (0.0099100 lbs/mmBtu) * (8,760 hours) * (ton/2000 lb) = 2.905 ton/yr	2.90	**ton/yr**
NOx Emissions:		
Emission Factor = 3.7 lb/hr (BACT)	3.7	**lb/hr**
Calculation: (3.7 lb/hr) * (8,760 hours) * (0.0005 lb/ton) = 16.21 ton/yr	16.21	**ton/yr**
CO Emissions:		
Emission Factor = 4.44 lb/hr (BACT)	4.44	**lb/hr**
Calculation: (4.4 lb/hr)* (8,760 hours) * (0.0005 lb/ton) = 19.45 ton/yr	19.45	**ton/yr**
VOC Emissions:		
Emission Factor = 1.85 lb/hr (BACT)	1.85000	**lb/hr**
Calculation: (1.85 lb/hr) * (8,760 hours) * (0.0005 lb/ton) = 8.10 ton/yr	8.10	**ton/yr**
SOx Emissions:		
Emission Factor = 0.000588 lbs/mmBtu (AP-42, Sec. 3.2, Table 3.2-2, 10/96)	5.88E-04	**lbs/mmBtu**
Calculation: ((65,612.0 scf/hr) * (0.001020 btu/mmscf) * (0.0005880 lbs/mmBtu) * (8,760 hours) * (ton/2000 lb) = 0.172 ton/yr	0.17	**ton/yr**

V. Existing Air Quality

The air quality in Fallon County is currently designated as attainment/unclassified for all pollutants.

VI. Ambient Air Impact Analysis

The Department determined, based on amount of allowable emission, that the impacts from this permitting action will be minor. The Department believes it will not cause or contribute to a violation of any ambient air quality standard.

VII. Taking or Damaging Implication Analysis

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

YES	NO	
X		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private property?

YES	NO	
	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: S*cout Energy Management, LLC. – Baker Station
13800 Montford Dr.
Suite 100
Dallas, TX 75420

Montana Air Quality Permit number (MAQP): 5247-01

EA Draft: June 4, 2021
EA Final: July 15, 2021
Permit Final: July 15, 2021

1. *Legal Description of Site:* Northeast ¼ of Section 2, Township 7 North, Range 59 East in Fallon County, MT.

2. *Description of Project:* Scout Energy Management, LLC. (Scout) proposed to install and operate one (1) 1680 brake horsepower (bhp) natural gas fired compressor engine.

3. *Objectives of Project:* Increase operational capacity at the Baker compressor station.

4. *Alternatives Considered:* In addition to the proposed action, the Department also considered the "no-action" alternative. Scout submitted all of the appropriate application documentation, fees, and public notices. 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 #5247-01.

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. *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*

The proposed project would not have any additional effect on terrestrial or aquatic life and habitats because the project would be located in an already existing facility.

B. *Water Quality, Quantity and Distribution*

The proposed project would not have any additional effect on water quality, quantity, and distribution because the project would be located in an already existing facility.

C. *Geology and Soil Quality, Stability and Moisture*

The proposed project would have only minor effects on geology, soil quality, stability, and moisture. The minor effects include ground preparation and some minor heavy equipment travel while installing the engines.

D. *Vegetation Cover, Quantity, and Quality*

The proposed project would not have any additional impacts on vegetative cover, quantity, and quality because the project would be located in an already existing facility.

E. *Aesthetics*

The proposed project would have only minor effects on the aesthetics because the engine would be placed in an already existing facility.

F. *Air Quality*

No significant impacts are expected to air quality.

G. *Unique Endangered, Fragile, or Limited Environmental Resources*

In an effort to identify any unique endangered, fragile, or limited environmental resources in the area, the Department contacted the Montana Natural Heritage Program, Natural Resource Information System (NRIS) on the original permit application. The area was defined by the section, township, and range of the proposed location with an additional 1-mile buffer zone. The Species of Concern Data Report include 12 species of concern and 3 potential species of concern.

Species of Concern – American White Pelican, Black Tern, Brewer's Sparrow, Caspian Tern, Clark's Grebe, Common Loon, Fosrter's Tern, Great Blue Heron, Greater Sage-Grouse (addressed in section 7.H), Piping Plover, and Sharp-tailed Grouse.

Potential Species of Concern – Black and white Warbler, Chimney Swift, and Tennessee Warbler.

The amount of allowable emissions which would be permitted by MAQP #5247-01 would be small on an industrial scale. The site location is an existing developed site with other natural gas compressor engines already installed. No significant impacts to unique endangered, fragile, or limited environmental resources would be expected from the normal operations emissions from the facility.

H. *Sage Grouse Executive Order*

The current permit action is located within the general area of the Sage Grouse Habitat. There will only be minor impacts associated with the current permit action due to minor increases in construction equipment used for installation of the compressor engine with no new disturbances outside of the existing facility.

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

As discussed in Sections 7.B and 7.F above, no significant impacts to water or air quality is expected. Demand for energy in the form of electricity would be reduced by the generation of electricity from the proposed engines. Demands on water, air, and energy is not expected to be significant.

J. *Historical and Archaeological Sites*

The proposed project would not have any additional effect on historical and archaeological sites because the project would be located in an already existing facility.

K. *Cumulative and Secondary Impacts*

MAQP #5247-01 would require control of the air emissions, with the resulting amount of allowable emissions being minor on an industrial scale. Any impacts as a result of air emissions which would be authorized in MAQP #5247-01 would be expected to be minor, if any discernable amount at all.

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

A. *Social Structures and Mores*

The project location is rural. No increase in employees is expected to be required as a result of this project. Impacts to social structures and mores, if any, would be expected to be minor.

B. *Cultural Uniqueness and Diversity*

The project location is rural. No increase in employees is expected to be required as a result of this project. Impacts to cultural uniqueness and diversity, if any, would be expected to be minor.

C. *Local and State Tax Base and Tax Revenue*

This project would provide additional gas transmission and is not likely to have an impact on any local or state tax base or revenue.

D. *Agricultural or Industrial Production*

Impacts to agricultural or industrial production at the project location would be expected to be minor, if any at all.

E. *Human Health*

MAQP #5247-01 would be written in accordance with rules designed to protect human health. The amount of allowable emissions contained in MAQP #5247-01 would be small on an industrial scale. No significant impact to human health would be expected.

F. *Access to and Quality of Recreational and Wilderness Activities*

The project is not located at or nearby wilderness or recreational access route. Normal operation emissions would not be visible and would be in amounts that are minor on an industrial scale. Noise at the site would exist only at close range. Impacts to access of or quality of recreational and wilderness activities would be expected to be minor, if any.

G. *Quantity and Distribution of Employment*

No increase in the permanent number of people employed by Scout would be expected as the result of this project. Temporary construction would be required. Impacts to quantity and distribution of employment, if any, would be expected to be minor.

H. *Distribution of Population*

No increase in the number of people employed by Scout would be expected as the result of this project. Temporary construction would be required. Impacts to distribution of population, if any, would be expected to be minor.

I. *Demands for Government Services*

The project would require a Montana Air Quality Permit and the associated administration of that permit. The project would consist of a minor source of emissions. Minor impacts would be expected.

J. *Industrial and Commercial Activity*

Short term construction activities would occur. Once construction would be complete, any impacts to industrial or commercial activity would be expected to be minor, if any at all.

K. *Locally Adopted Environmental Plans and Goals*

The Department is not aware of any other locally adopted environmental plans and goals which this project would affect. MAQP #5247-01 would be issued in accordance with applicable state rules which are designed to protect public health.

L. *Cumulative and Secondary Impacts*

The proposed project is expected to have only minor Economic and Social impacts caused to the installation and operation of the natural gas compressor engine.

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 a natural gas fired compressor engine. MAQP #5247-01 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 – Montana Sage Grouse Conservation 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: May 21, 2021