

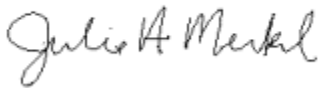
August 3, 2018

Ben Kaluza  
A.M. Welles, Inc.  
P.O. Box 2808  
Norris, MT 59745

Dear Mr. Kaluza:

Montana Air Quality Permit #3219-02 is deemed final as of August 3, 2018, by the Department of Environmental Quality (Department). This permit is for a Portable Crushing/Screening Facility. 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 & Mining Division

Montana Air Quality Permit #3219-02

A.M. Welles, Inc.  
P.O. Box 2808  
Norris, MT 59745

August 3, 2018



## MONTANA AIR QUALITY PERMIT

Issued To: A.M. Welles, Inc.  
P.O. Box 2808  
Norris, MT 59745

MAQP: #3219-02  
Application Complete: 5/24/2018  
Preliminary Determination Issued: 6/11/2018  
Department Decision Issued: 7/18/2018  
Permit Final: 8/3/2018  
AFS #: 777-3219

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to A.M. Welles, Inc. (A.M. Welles) pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.701, *et seq.*, as amended, for the following:

### SECTION I. Permitted Facilities

#### A. Permitted Equipment

A.M. Welles operates a portable crushing/screening plant at various locations throughout Montana. The permitted equipment covered by MAQP #3219-02 includes four (4) crushers, five (5) screens, one (1) diesel generator, and associated equipment. A complete list of the permitted equipment is contained in Section I.A of the permit analysis.

#### B. Plant Location

A.M. Welles operates the portable crushing/screening plant at various locations throughout Montana. MAQP #3219-02 applies while operating at any location within Montana, except within those areas having a Department of Environmental Quality (Department) approved permitting program. *A Missoula County air quality permit will be required for locations within Missoula County.* The initial location is the NW<sup>1</sup>/<sub>4</sub> of Section 17 and the NE<sup>1</sup>/<sub>4</sub> of Section 18, Township 1 South, Range 5 East, in Gallatin County, Montana. A.M. Welles will be required to obtain an addendum to this air quality permit to operate at locations in or within 10 km of PM<sub>10</sub> nonattainment areas.

#### C. Current Permit Action

On April 20, 2018, the Department received an application from A.M. Welles to change their permit to include an increase in generator horsepower, reduce hours of operation, and change permit language in order to make the permit more de minimis friendly. The permit has also been updated to reflect current Department language, rule references, and federal emission standards for affected equipment.

## SECTION II. Conditions and Limitations

### A. Emission Limitations

1. All visible emissions from any Standards of Performance for New Stationary Source (NSPS) – affected crusher shall not exhibit an opacity in excess of the following averaged over 6 consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart OOO):
  - For crushers that commence construction, modification, or reconstruction on or after April 22, 2008: 12% opacity
  - For crushers that commence construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008: 15% opacity
2. All visible emissions from any other NSPS-affected equipment (such as screens and conveyors) shall not exhibit an opacity in excess of the following averaged over six consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart OOO):
  - For equipment that commence construction, modification, or reconstruction on or after April 22, 2008: 7% opacity
  - For equipment that commence construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008: 10% opacity
3. A.M. Welles shall not cause or authorize to be discharged into the atmosphere from any non-NSPS affected crusher, screen, and any other associated equipment any visible emissions that exhibit an opacity of 20% or greater averaged over 6-consecutive minutes (ARM 17.8.304 and ARM 17.8.752).
4. Water and spray bars shall be available on site at all times and operated as necessary to maintain compliance with the opacity limitations in Sections II.A.1, II.A.2, and II.A.3 (ARM 17.8.710 and ARM 17.8.752).
5. A.M. Welles 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 and ARM 17.8.752).
6. A.M. Welles shall treat all unpaved portions of the haul roads, access roads, parking lots, or the general plant area with water and/or chemical dust suppressant, as necessary, to maintain compliance with the reasonable precautions limitation in Section II.A.5 (ARM 17.8.752).

7. A.M. Welles shall not operate more than 4 crushers with a total combined maximum design capacity of 600 tons/hour at any given time (ARM 17.8.749).
8. Total combined crushing production (throughput of all crushers combined) shall be limited to 2,628,000 tons during any rolling 12-month time period (ARM 17.8.749).
9. A.M. Welles shall not operate more than 5 screens with a total combined maximum design capacity of 600 tons/hour at any given time (ARM 17.8.749).
10. Total combined screening production (throughput of both screens combined) shall be limited to 2,628,000 tons during any rolling 12-month time period (ARM 17.8.749).
11. A.M. Welles shall limit the diesel generator(s) to a maximum design capacity of 2,500 horsepower (hp) (ARM 17.8.749).
12. Operation of the diesel generator(s) shall not exceed 3,300 hours during any rolling 12-month time period (ARM 17.8.1204).
13. If the permitted equipment is used in conjunction with any other equipment owned or operated by A.M. Welles, at the same site, production 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).
14. A.M. Welles shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR 60, Subpart OOO, as appropriate (ARM 17.8.340 and 40 CFR 60, Subpart OOO).
15. A.M. Welles 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. Within 60 days after achieving maximum production, but no later than 180 days after initial start-up, an Environmental Protection Agency (EPA) Method 9 opacity test and/or other methods and procedures as specified in 40 CFR 60.675 must be performed on any NSPS affected crusher, screen, and any other affected equipment to demonstrate compliance with the emission limitations contained in Section II.A.1 and II.A.2 (ARM 17.8.340 and 40 CFR 60, General Provisions and Subpart OOO).

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 may require further testing (ARM 17.8.105).
- C. Operational Reporting Requirements
1. If this portable crushing/screening plant is moved to another location, an Intent to Transfer Form must be sent to the Department. In addition, 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 Intent to Transfer Form and the proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.765).
  2. A.M. Welles shall maintain on-site records showing daily hours of operation and daily production rates for the last 12 months. All records compiled in accordance with this permit shall be maintained by A.M. Welles as a permanent business record for at least 5 years following the date of the measurement, must be submitted to the Department upon request, and must be available at the plant site for inspection by the Department (ARM 17.8.749).
  3. A.M. Welles 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 most recent emission inventory report and sources identified in Section I.A of the permit analysis.  
  
Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in units as required by the Department. This information may be used for calculating operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).
  4. A.M. Welles shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include a 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 or the addition of a new emission unit. The notice must be submitted to the Department, in writing, 10 days prior to start-up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).
  5. A.M. Welles shall document, by month, the total combined crushing production. By the 25<sup>th</sup> day of each month, A.M. Welles shall total the combined crushing production of the facility during the previous 12 months

to verify compliance with the limitation in Section II.A.8. A written report of the compliance verification shall be submitted along with the annual emissions inventory (ARM 17.8.7149).

6. A.M. Welles shall document, by month, the total combined screening production. By the 25<sup>th</sup> day of each month, A.M. Welles shall total the combined screening production of the facility during the previous 12 months to verify compliance with the limitation in Section II.A.10. A written report of the compliance verification shall be submitted along with the annual emissions inventory (ARM 17.8.749).
7. A.M. Welles shall document, by month, the hours of operation of the diesel generator. By the 25<sup>th</sup> day of each month, A.M. Welles shall total the hours of operation of the diesel generator during the previous 12 months to verify compliance with the limitation in Section II.A.12. A written report of the compliance verification shall be submitted along with the annual emissions inventory (ARM 17.8.749).
8. A.M. Welles shall annually certify that its emissions are less than those that would require the facility 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

A.M. Welles shall provide the Department with written notification of the actual startup date of any new NSPS-affected equipment within 15 days of the actual startup date of the facility (ARM 17.8.749, ARM 17.8.340 and 40 CFR 60, Subpart OOO).

SECTION III. General Conditions

- A. Inspection - A.M. Welles 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), observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver - The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if A.M. Welles fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations - Nothing in this permit shall be construed as relieving A.M. Welles 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 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 therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department’s decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA.

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

- F. Permit Inspection - As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.
- G. Permit Fees - Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by A.M. Welles may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
- H. Construction Commencement - Construction must begin within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked (ARM 17.8.762).
- I. The Department may modify the conditions of this permit based on local conditions of any future site. These factors may include, but are not limited to, local terrain, meteorological conditions, proximity to residences, etc.
- J. A.M. Welles shall comply with the conditions contained in this permit while operating at any location in Montana, except within those areas having a Department-approved permitting program.



Montana Air Quality Permit (MAQP) Analysis  
A.M. Welles, Inc.  
MAQP #3219-02

I. Introduction/Process Description

A. Permitted Equipment

A.M. Welles, Inc. (A.M. Welles) owns and operates a portable crushing/screening facility. Equipment used at the facility includes, but is not limited to, the following:

- Up to 4 crushers with a combined maximum throughput capacity not to exceed 600 tons/hour
- Up to 5 screens with a combined maximum throughput capacity not to exceed 600 tons/hour
- (1) diesel generator (up to 2,500 horsepower (hp) maximum capacity)
- Associated equipment (conveyors and transfer points)

B. Source Description

For a typical operational set-up, quarried stone is passed through the facility's primary and secondary crushing and screening equipment for proper size classification. Associated equipment and activities include material conveying, storage, sized product loadout, and diesel fired electrical generation.

C. Permit History

On February 19, 2002, A.M. Welles was issued **MAQP #3219-00** for a portable crushing/screening facility consisting of the following equipment:

- (1) primary crusher
- (1) secondary crusher (up to 600 tons/hour combined crushing maximum capacity)
- (1) primary screen
- (1) secondary screen (up to 600 tons/hour combined screening maximum capacity)
- (1) diesel generator (up to 800 Kilowatt (kW) maximum capacity)
- Associated equipment (conveyors and transfer points)

On November 1, 2016, the Department received a request from A.M. Welles to update their permit to include 2 additional crushers and 3 additional screens. The facility is limited to 600 tons per hour maximum crushing and screening capacity. The addition of the 2 additional crushers and 3 additional screens did not cause the facility to exceed the 600 tons per hour limit as the source was initially permitted for extra capacity. The update was considered an administrative action because the update only clarified the equipment list and did not result in an increase in production capacity with associated increases in air emissions.

The permit was also updated to reflect current Department language, rule references, and federal emission standards for affected equipment. **MAQP #3219-01** replaced MAQP #3219-00.

D. Current Permit Action

On April 20, 2018, the Department received an application from A.M. Welles. The Department determined the application to be incomplete and issued an application incompleteness letter to A.M. Welles on May 7, 2018. A.M. Welles responded on May 25, 2018 with the missing information. A.M. Welles requested to change their permit to include an increase in generator horsepower, reduce hours of operation, and change permit language in order to make the permit more de minimis friendly. The permit has also been updated to reflect current Department language, rule references, and federal emission standards for affected equipment. **MAQP #3219-02** replaces MAQP #3219-01.

E. Additional Information

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

II. Applicable Rules and Regulations

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

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

1. ARM 17.8.101 Definitions. This rule is a list of applicable definitions used in this subchapter, 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).

A.M. Welles shall comply with all 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 which, without resulting in reduction in 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 that a public nuisance is created.

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

1. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
2. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
3. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
4. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
5. ARM 17.8.223 Ambient Air Quality Standard for PM<sub>10</sub>

A.M. Welles must comply 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, A.M. Welles 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 or authorize 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 Processes. This rule requires that no person shall cause or allow to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.

5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this rule.
6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank truck or trailer is equipped with a vapor loss control device as described in (1) of this rule.
7. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). Welles 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 OOO – Standards of Performance for Nonmetallic Mineral Processing Plants. In order for a crushing plant to be subject to this subpart, the facility must meet the definition of an affected facility and the affected equipment must have been constructed, reconstructed, or modified after August 31, 1983. A.M. Welles may be a Subpart OOO-affected facility depending on the date of manufacture of the equipment and maximum capacity of the crusher(s) used for the operation.
  - c. 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, are subject to this subpart. Since the CI ICE to be used under MAQP #3219-02 is intended to be portable, A.M. Welles may not be required to comply with the applicable requirements of 40 CFR 60, Subpart IIII. A.M. Welles may substitute compression ignition internal combustion engine(s), therefore applicability to this subpart may apply to engines in the future and shall be dependent upon the date of construction and/or manufacture of the diesel-fired engine and if it operates in a location for more than 12 consecutive months.
8. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. This rule incorporates, by reference, 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Source Categories. Welles is considered a NESHAP-affected facility under 40 CFR Part 63 and is subject to the requirements of the following subparts:
  - 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 reciprocating internal combustion engine (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 A.M. Welles, the RICE equipment to be used under MAQP #3804-02 may be subject to this subpart because A.M. Welles is considered an area source of HAP emissions and operates RICE equipment. The engine is potentially subject to this subpart depending upon the location, nature, and duration of operation. Since the RICE to be used under MAQP #3219-02 is intended to be portable, A.M. Welles may not be required to comply with the applicable requirements of 40 CFR 63, Subpart ZZZZ. However, this subpart would become applicable if A.M. Welles operated a RICE that remains in a location for more than 12 consecutive months.

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 A.M. Welles submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. A.M. Welles 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. This 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 pro-rate 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 facility to obtain an air quality permit or permit modification to construct, modify, or use any asphalt plant, crusher, or screen that has the Potential to Emit (PTE) greater than 15 tons per year of any pollutant. A.M. Welles has a PTE greater than 15 tons per year of total particulate matter (PM), PM<sub>10</sub>, oxides of nitrogen (NO<sub>x</sub>), carbon monoxide (CO), and sulfur dioxide (SO<sub>2</sub>); 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. A.M. Welles submitted the required 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. A.M. Welles submitted an affidavit of publication of public notice for the April 20, 2018, issue of the *Bozeman Daily Chronicle*, a newspaper of general circulation in the Town of Bozeman in Gallatin 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 Best Available Control Technology (BACT) shall be utilized. The required BACT analysis is included in Section IV 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 A.M. Welles 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 A.M. Welles, 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 air quality permit 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.

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 it is not a listed source and does not have a PTE greater than 250 tons per year (excluding fugitive emissions) of any air pollutant.

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

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:
  - a. PTE > 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.
  - c. PTE > 70 tons/year of PM<sub>10</sub> in a serious PM<sub>10</sub> nonattainment area.
2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (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 #3219-02 for the A.M. Welles facility, the following conclusions were made:
  - a. The facility's PTE is less than 100 tons/year for any pollutant, after control.
  - b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year of all HAPs.
  - c. This source is not located in a serious PM<sub>10</sub> nonattainment area.
  - d. The facility is potentially subject to a current NSPS (40 CFR 60, Subparts A, OOO, and possibly 40 CFR 63, Subpart IIII).
  - e. This facility is potentially subject to a current NESHAP (40 CFR 63, Subparts A and possibly 40 CFR 63, Subpart ZZZZ).
  - f. This source is not a Title IV affected source nor a solid waste combustion unit.
  - g. This source is not an EPA designated Title V source.



A.M. Welles's crushing/screening facility is not subject to Title V Operating Permit requirements because the source's PTE is restricted to below the major source threshold. Based on these facts, the Department determined that this facility would be a minor source of emissions, as defined under the Title V Operating Permit Program. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit, A.M. Welles may be required to obtain an operating permit.

- h. ARM 17.8.1204(3). The Department may exempt a source from the requirement to obtain an air quality operating permit by establishing federally enforceable limitations that limit that source's potential to emit.
  - i. In applying for an exemption under this rule, 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.

The Department determined that the annual reporting requirements contained in the permit are sufficient to satisfy this requirement.

- 3. ARM 17.8.1207 Certification of Truth, Accuracy, and Completeness. The compliance certification submittal required by ARM 17.8.1204(3) shall contain a certification of truth, accuracy, and completeness by a responsible official. This certification and information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

### III. BACT Analysis

A BACT determination is required for any new or modified source. A.M. Welles shall install on the new or modified source the maximum air pollution control capability that is technologically practicable and economically feasible, except that BACT shall be used.

#### A. Process and Fugitive Particulate Emissions

Two types of emission controls are readily available and used for dust suppression of fugitive emissions at the site. These two control methods are water and/or chemical dust suppressant. Chemical dust suppressant could be used on the area surrounding the crushing/screening operation, and for emissions from the crushing/screening operation itself. However, because water is more readily available, is more cost effective, is often equally effective as chemical dust suppressant, and is more environmentally friendly, water has been identified as the most appropriate method of pollution control of particulate emissions.

In addition, water suppression has been required of recently permitted similar sources. However, depending on individual site circumstances A.M. Welles may use chemical dust suppressants to assist in controlling particulate emissions.

The control options selected contain control equipment and control costs comparable to other recently permitted similar sources and are capable of achieving the appropriate emission standards. The Department determined that using water spray bars, water, and/or chemical dust suppressant to maintain compliance with the opacity requirements and reasonable precaution limitations constitutes BACT.

B. Diesel Engines

Due to the limited amount of emissions produced by the diesel-fired engine and the lack of readily available cost effective post-manufacturer add-on controls, add-on controls would be cost prohibitive.

Generally, any new diesel-fired engine would likely be required to comply with the federal engine emission limitations including, for example, EPA Tier engine exhaust emission standards for non-road engines (40 CFR Part 1039) or National Emissions Standards for Hazardous Air Pollutant Sources for Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ). Therefore, the Department has determined that compliance with applicable federal standards and proper operation and maintenance of the engine constitutes BACT for the engine.

II. Emission Inventory

Emissions:

<b>CONTROLLED</b> Emission Source	<b>tons/year</b>						
	<b>PM</b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>VOC</b>	<b>SO<sub>2</sub></b>
Cold Aggregate Storage Piles	10.20	4.83	0.73	--	--	--	--
Cold Aggregate Handling/Conveyors	3.31	1.09	0.31	--	--	--	--
Cold Aggregate Screens	5.78	1.94	0.13	--	--	--	--
600 TPH Crushing Circuit	3.15	1.42	0.26	--	--	--	--
Plant Load-Out	2.06	1.05	0.16	--	--	--	--
Haul Roads / Vehicle Traffic	11.37	3.13	0.31	--	--	--	--
Diesel Generator (Large)	9.08	9.08	9.08	99.00	22.69	10.37	8.46
<b>Total Emissions</b>	<b>44.96</b>	<b>22.54</b>	<b>10.98</b>	<b>99.00</b>	<b>22.69</b>	<b>10.37</b>	<b>8.46</b>

## Calculations:

### Cold Aggregate Storage Piles

Maximum Process Rate = 600 ton/hr (Maximum plant process rate)	600	ton/hr
Maximum Hours of Operation = 8,760 hrs/yr	8760	hrs/yr
Number of Piles = 1 piles	1	piles

#### PM Emissions:

Predictive equation for emission factor provided per AP 42, Sec. 13.2.4.3, 11/06.

$$\text{Emission Factor} = k (0.0032) * (U/5)^{1.3} * (M / 2)^{-1.4} = 0.00388 \text{ lb/ton} \quad 0.0039 \quad \text{lb/ton}$$

Where:  $k$  = particle size multiplier = 0.74 (Value for PM < 30 microns per AP 42, Sec. 13.2.4.3, 11/06) 0.74

$U$  = mean wind speed = 9.3 mph (Average from values provided in AP 42, Sec. 13.2.4.3, 11/06) 9.3 mph

$M$  = material moisture content = 2.5% (Average from values provided in AP 42, Sec. 13.2.4.3, 11/06) 2.5 %

$$\text{Calculation: } (600 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (1 \text{ piles}) * (\text{ton}/2000 \text{ lb}) * (0.00388216962566822 \text{ lb/ton}) = 10.20 \text{ ton/yr} \quad 10.20 \quad \text{ton/yr}$$

#### PM10 Emissions:

Predictive equation for emission factor provided per AP 42, Sec. 13.2.4.3, 11/06.

$$\text{Emission Factor} = k (0.0032) * (U/5)^{1.3} * (M / 2)^{-1.4} = 0.00184 \text{ lb/ton} \quad 0.00184 \quad \text{lb/ton}$$

Where:  $k$  = particle size multiplier = 0.35 (Value for PM < 10 microns per AP 42, Sec. 13.2.4.3, 11/06) 0.35

$U$  = mean wind speed = 9.3 mph (Average from values provided in AP 42, Sec. 13.2.4.3, 11/06) 9.3 mph

$M$  = material moisture content = 2.5% (Average from values provided in AP 42, Sec. 13.2.4.3, 11/06) 2.5 %

$$\text{Calculation: } (600 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (1 \text{ piles}) * (\text{ton}/2000 \text{ lb}) * (0.00183616130943767 \text{ lb/ton}) = 4.83 \text{ ton/yr} \quad 4.83 \quad \text{ton/yr}$$

#### PM2.5 Emissions:

Predictive equation for emission factor provided per AP 42, Sec. 13.2.4.3, 11/06.

$$\text{Emission Factor} = k (0.0032) * (U/5)^{1.3} * (M / 2)^{-1.4} = 0.00028 \text{ lb/ton} \quad 0.000278 \quad \text{lb/ton}$$

Where:  $k$  = particle size multiplier = 0.053 (Value for PM < 2.5 microns per AP 42, Sec. 13.2.4.3, 11/06) 0.053

$U$  = mean wind speed = 9.3 mph (Average from values provided in AP 42, Sec. 13.2.4.3, 11/06) 9.3 mph

$M$  = material moisture content = 2.5% (Average from values provided in AP 42, Sec. 13.2.4.3, 11/06) 2.5 %

$$\text{Calculation: } (600 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (1 \text{ piles}) * (\text{ton}/2000 \text{ lb}) * (0.000278047284000562 \text{ lb/ton}) = 0.73 \text{ ton/yr} \quad 0.73 \quad \text{ton/yr}$$

### Conveyor Transfer Point (SCC 3-05-020-06)

Maximum Process Rate = 600 ton/hr (Maximum plant process rate)	600	ton/hr
Maximum Hours of Operation = 8,760 hrs/yr	8760	hrs/yr
Number of Transfers = 9 transfer (Company Information)	9	transfer

#### Total PM Emissions:

$$\text{Emission Factor} = 0.00014 \text{ lb/ton (0.00014 controlled, AP 42, Table 11.19.2-2, 8/04)} \quad 0.00014 \quad \text{lb/ton}$$

$$\text{Calculation: } (600 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (9 \text{ transfer}) * (\text{ton}/2000 \text{ lb}) * (0.00014 \text{ lb/ton}) = 3.31 \text{ ton/yr} \quad 3.31 \quad \text{ton/yr}$$

#### Total PM10 Emissions:

$$\text{Emission Factor} = 0.000046 \text{ lb/ton (0.000046 controlled, AP 42, Table 11.19.2-2, 8/04)} \quad 0.000046 \quad \text{lb/ton}$$

$$\text{Calculation: } (600 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (9 \text{ transfer}) * (\text{ton}/2000 \text{ lb}) * (0.00014 \text{ lb/ton}) = 1.09 \text{ ton/yr} \quad 1.09 \quad \text{ton/yr}$$

#### Total PM2.5 Emissions:

$$\text{Emission Factor} = 0.000013 \text{ lb/ton (0.000013 controlled, AP 42, Table 11.19.2-2, 8/04)} \quad 0.000013 \quad \text{lb/ton}$$

$$\text{Calculation: } (600 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (9 \text{ transfer}) * (\text{ton}/2000 \text{ lb}) * (0.00014 \text{ lb/ton}) = 0.31 \text{ ton/yr} \quad 0.31 \quad \text{ton/yr}$$

**Screening (SCC 3-05-020-02, 03)**

Maximum Process Rate = 600 ton/hr (Maximum plant process rate)	600	ton/hr
Maximum Hours of Operation = 8,760 hrs/yr 5256000 tons/year	8760	hrs/yr screen(s)
Number of Screens = 1 screen(s) (Company Information)	1	)
Total PM Emissions:		
Emission Factor = 0.0022 lb/ton (0.0022 controlled, AP 42, Table 11.19.2-2, 8/04)	0.0022	lb/ton
Calculation: (600 ton/hr) * (8760 hrs/yr) * (1 screen(s)) * (ton/2000 lb) * (0.0022 lb/ton) = 5.78 ton/yr	5.78	ton/yr
Total PM10 Emissions:		
Emission Factor = 0.00074 lb/ton (0.00074 controlled, AP 42, Table 11.19.2-2, 8/04)	0.00074	lb/ton
Calculation: (600 ton/hr) * (8760 hrs/yr) * (1 screen(s)) * (ton/2000 lb) * (0.0022 lb/ton) = 1.94 ton/yr	1.94	ton/yr
Total PM2.5 Emissions		
Emission Factor = 0.00005 lb/ton (0.000050 controlled, AP 42, Table 11.19.2-2, 8/04)	0.00005	lb/ton
Calculation: (600 ton/hr) * (8760 hrs/yr) * (1 screen(s)) * (ton/2000 lb) * (0.0022 lb/ton) = 0.13 ton/yr	0.13	ton/yr

**Crushing Circuit (SCC 3-05-020-05)**

Maximum Process Rate = 600 ton/hr (Application information)	600	ton/hr
Maximum Hours of Operation = 8,760 hrs/yr	8760	hrs/yr
PM Emissions:		
Based on AP-42		
Emission Factor = 0.0012 lb/ton (crushing, AP 42, Table 11.19.2-2, 8/04)	0.0012	lb/ton
Calculation: (600 ton/hr) * (8760 ton/hr) * (0.0012 lb/ton) * (ton/2000 lb) = 3.15 ton/yr	3.15	ton/yr
PM10 Emissions:		
Based on AP-42		
Emission Factor = 0.00054 lb/ton (crushing, AP 42, Table 11.19.2-2, 8/04)	0.00054	lb/ton
Calculation: (0) * ( ) * (0.00054 lb/ton) * (ton/2000 lb) = 1.42 ton/yr	1.42	ton/yr
PM2.5 Emissions		
Emission Factor = 0.0001 lb/ton (crushing, AP 42, Table 11.19.2-2, 8/04)	0.0001	lb/ton
Calculation: (600 ton/hr) * (8760 ton/hr) * (0.0001 lb/ton) * (ton/2000 lb) = 0.26 ton/yr	0.26	ton/yr

**Truck Unloading (SCC 3-05-020-31)**

Maximum Process Rate = 600 ton/hr (Maximum plant process rate)	600	ton/hr
Maximum Hours of Operation = 8,760 hrs/yr	8760	hrs/yr
Number of loads = 25 loads (Estimate)	25	loads
Total PM Emissions:		
Emission Factor = 0.0000314 lb/ton (PM=PM10 / 51%, AP-42, Appendix B.2, Table B.2.2, Category 3, 9/90)	0.0000314	lb/ton
Calculation: (600 ton/hr) * (8760 hrs/yr) * (0.0000314 lb/ton) * (ton/2000 lb) * (25 loads) = 2.06 ton/yr	2.06	ton/yr
Total PM10 Emissions:		
Emission Factor = 0.000016 lb/ton (PM10=1.6E-05, AP 42, Table 11.19.2-2, 8/04)	0.000016	lb/ton
Calculation: (600 ton/hr) * (8760 hrs/yr) * (0.000016 lb/ton) * (ton/2000 lb) * (25 loads) = 1.05 ton/yr	1.05	ton/yr

Total PM2.5 Emissions:		
Emission Factor = 0.0000024 lb/ton (PM2.5=1.6E-05 * 15%, AP-42, Appendix B.2, Table B.2.2, Category 3, 9/90)	0.0000024	lb/ton
Calculation: (600 ton/hr) * (8760 hrs/yr) * (0.0000024 lb/ton) * (ton/2000 lb) * (25 loads) = 0.16 ton/yr	0.16	ton/yr

### Haul Roads

Vehicle Miles Traveled (VMT) per Day = 5 VMT/day (Estimate)	5	VMT/day
	0.2083333	
VMT per hour = (5 VMT/day) * (day/24 hrs) = 0.21 VMT/hr	33	VMT/hr
Hours of Operation = 8,760 hrs/yr	8760	hrs/yr

#### PM Emissions:

Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06.

Emission Factor =  $k * (s / 12)^a * (W / 3)^b = 12.46 \text{ lb/VMT}$  12.46 lb/VMT

Where: k = constant = 4.9 lbs/VMT (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06) 4.9 T  
s = surface silt content = 7.1 % (Mean value, sand/gravel processing, material storage area, AP 42, Table 13.2.2-1, 11/06) 7.1 %

W = mean vehicle weight = 54 tons (1994 average loaded/unloaded or a 40 ton truck) 54 tons

a = constant = 0.7 (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06) 0.7

b = constant = 0.45 (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06) 0.45

Calculation: (8760 hrs/yr) \* (0.21 VMT/hr) \* (12.46 lb/VMT) \* (ton/2000 lb) = 11.37 tons/yr (Uncontrolled Emissions) 11.37 tons/yr

#### PM10 Emissions:

Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06.

Emission Factor =  $k * (s / 12)^a * (W / 3)^b = 3.43 \text{ lb/VMT}$  3.43 lb/VMT

Where: k = constant = 1.5 lbs/VMT (Value for PM10, AP 42, Table 13.2.2-2, 11/06) 1.5 T  
s = surface silt content = 7.1 % (Mean value, sand/gravel processing, material storage area, AP 42, Table 13.2.2-1, 11/06) 7.1 %

W = mean vehicle weight = 54 tons (1994 average loaded/unloaded or a 40 ton truck) 54 tons

a = constant = 0.9 (Value for PM10, AP 42, Table 13.2.2-2, 11/06) 0.9

b = constant = 0.45 (Value for PM10, AP 42, Table 13.2.2-2, 11/06) 0.45

Calculation: (8760 hrs/yr) \* (0.21 VMT/hr) \* (3.43 lb/VMT) \* (ton/2000 lb) = 3.13 tons/yr (Uncontrolled Emissions) 3.13 tons/yr

#### PM2.5 Emissions

Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06.

Emission Factor =  $k * (s / 12)^a * (W / 3)^b = 0.34 \text{ lb/VMT}$  0.34 lb/VMT

Where: k = constant = 0.15 lbs/VMT (Value for PM2.5, AP 42, Table 13.2.2-2, 11/06) 0.15 T  
s = surface silt content = 7.1 % (Mean value, sand/gravel processing, material storage area, AP 42, Table 13.2.2-1, 11/06) 7.1 %

W = mean vehicle weight = 54 tons (1994 average loaded/unloaded or a 40 ton truck) 54 tons

a = constant = 0.9 (Value for PM2.5, AP 42, Table 13.2.2-2, 11/06) 0.9

b = constant = 0.45 (Value for PM2.5, AP 42, Table 13.2.2-2, 11/06) 0.45

Calculation: (8760 hrs/yr) \* (0.21 VMT/hr) \* (0.34 lb/VMT) \* (ton/2000 lb) = 0.31 tons/yr (Uncontrolled Emissions) 0.31 tons/yr

### Diesel Generator (Large)

Note: Emissions are based on the power output of the engine (2500 hp).

Operational Capacity of Engine = 2,500 hp 2500 hp

Hours of Operation = 3,300.00 hours 3300 hours

#### PM Emissions:

PM Emissions = 9.08 ton/yr (Assume all PM < 1.0 um) 9.08 ton/yr

PM-10 Emissions:		
Emission Factor = 0.0022 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)	0.0022	<b>lbs/hp-hr</b>
Calculation: (2,500 hp) * (3,300 hours) * (0.0022 lbs/hp-hr) * (ton/2000 lb) = 9.08 ton/yr	9.08	<b>ton/yr</b>
PM2.5 Emissions		
Emission Factor = 0.0022 lbs/hp-hr (Assume all PM < 1.0 um)	0.0022	<b>lbs/hp-hr</b>
Calculation: (2,500 hp) * (3,300 hours) * (0.0022 lbs/hp-hr) * (ton/2000 lb) = 9.08 ton/yr (Assume all PM < 1.0 um)	9.08	<b>ton/yr</b>
NOx Emissions:		
Emission Factor = 0.024 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)	0.024	<b>lbs/hp-hr</b>
Calculation: (2,500 hp) * (3,300 hours) * (0.024 lbs/hp-hr) * (ton/2000 lb) = 99.00 ton/yr	99.00	<b>ton/yr</b>
CO Emissions:		
Emission Factor = 0.0055 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)	5.50E-03	<b>lbs/hp-hr</b>
Calculation: (2,500 hp) * (3,300 hours) * (0.0055 lbs/hp-hr) * (ton/2000 lb) = 22.69 ton/yr	22.69	<b>ton/yr</b>
VOC Emissions:		
Emission Factor = 0.0025141 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, TOC, Exhaust & Crankcase, 10/96)	2.51E-03	<b>lbs/hp-hr</b>
Calculation: (2,500 hp) * (3,300 hours) * (0.0025141 lbs/hp-hr) * (ton/2000 lb) = 10.37 ton/yr	10.37	<b>ton/yr</b>
SOx Emissions:		
Emission Factor = 0.00205 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)	2.05E-03	<b>lbs/hp-hr</b>
Calculation: (2,500 hp) * (3,300 hours) * (0.00205 lbs/hp-hr) * (ton/2000 lb) = 8.46 ton/yr	8.46	<b>ton/yr</b>

## V. Existing Air Quality

This permit is for a portable facility to be located in the NW<sup>1</sup>/<sub>4</sub> of Section 17 and the NE<sup>1</sup>/<sub>4</sub> of Section 18, Township 1 South, Range 5 East, in Gallatin County and in those areas for which this facility is permitted to operate, have been designated unclassified/attainment with all ambient air quality standards, and where there are no major air pollution sources in the surrounding area.

## VI. Air Quality Impacts

This permit contains conditions and limitations that would protect air quality for the site and surrounding area. Furthermore, this facility is a portable source that would operate on an intermittent and temporary basis, so any effects to air quality will be minor and of limited duration.

## VII. Ambient Air Impact Analysis

Based on the information provided and the conditions established in MAQP #3219-02, the Department determined that the impact from this permitting action will be minor.

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	
		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.

IX. 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, MT 59620**  
**(406) 444-3490**

**ENVIRONMENTAL ASSESSMENT (EA)**

*Issued To:* A.M. Welles, Inc.

*Montana Air Quality Permit number (MAQP):* 3219-02

*EA Draft:* June 11, 2018

*EA Final:* July 18, 2018

*Permit Final:* August 3, 2018

1. *Legal Description of Site:* The initial location is the NW<sup>1</sup>/<sub>4</sub> of Section 17 and the NE<sup>1</sup>/<sub>4</sub> of Section 18, Township 1 South, Range 5 East, in Gallatin County, Montana.
2. *Description of Project:* The current permit action would increase the generator horsepower and decrease operating hours.
3. *Objectives of Project:* To increase the generator horsepower and decrease operating hours.
4. *Alternatives Considered:* In addition to the proposed action, the Department also considered the “no-action” alternative. The no-action alternative describes the effect of not permitting the source. For the current permitting action, the no action alternative would not incorporate the larger diesel engine and could potentially cause A.M. Welles to scale back operations due to underpowered equipment which could result in a loss of revenue. 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 #3219-02
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 permitting action would have no effects on terrestrial and aquatic life or habitats. While the current permit action includes an increase in allowable generator engine size, the corresponding allowable hours of operation were also adjusted such that there is no increase in allowable annual emissions from the facility.



B. Water Quality, Quantity and Distribution

The permitting action would have no effects on water quality, quantity, or distribution because the current permit action increases the size of the diesel generator while decreasing the allowable hours of operation.

C. Geology and Soil Quality, Stability and Moisture

The permitting action would have no effects on geology, soil quality, or stability and moisture because there would be no new construction associated with the permitting action.

D. Vegetation Cover, Quantity, and Quality

The permitting action would have no effects on vegetative cover, quantity, or quality because there would be no new construction associated with the permitting action.

E. Aesthetics

The permitting action would have no effects on aesthetics because there would be no new construction associated with the current permit action.

F. Air Quality

Air quality impacts from the proposed project would likely be minor because the facility would be relatively small and operate on an intermittent and temporary basis. MAQP #3219-02 includes conditions limiting the facility's opacity; requiring that water and water spray bars are available on site and used to ensure compliance with opacity standards; and limiting the facility's crushing and screening production.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The permitting action would have no effects on unique, endangered, or fragile species nor would it effect limited environmental resources because the current permit action would take place in an already existing site with no new construction taking place.

H. Sage Grouse Executive Order

The Department recognizes that the initial site selection is 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

Due to the relatively small size of the project, only small demands on environmental resources would likely be required for proper operation. Only small quantities of water are required for dust suppression of particulate emissions being generated at the site. In addition, impacts to air resources would be expected to be minor because the source would be considered a minor industrial source of emissions, with intermittent and seasonal operations, and because air pollutants generated by the facility would be widely dispersed as described in Section 7.F of this EA.

Energy requirements would also be small, as the diesel engine would use small amounts of fuel. Overall, any impacts to water, air, and energy resources would likely be minor.

J. Historical and Archaeological Sites

The permitting action would have no effects on historical and archaeological sites because there is no new construction associated with the current permit action. However, if cultural materials are discovered during this project the Montana Historical Society should be contacted.

K. Cumulative and Secondary Impacts

The operation of the larger generator would likely cause minor cumulative and secondary impacts to the physical and biological aspects of the human environment because the facility would be limited in the amount of emissions allowed to be released to the atmosphere. Emissions and noise generated from the equipment would likely result in only minor impacts to the area, as the facility would be seasonal and temporary. The proposed project would be short-term in nature, and likely have minor cumulative effects upon resources within the area. These resources include water, terrestrial and aquatic life, soils, and vegetation. Overall, cumulative and secondary impacts to the physical and biological aspects of the human environment would likely be minor.

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 permitting action would have no effects on social structure or mores because the current permitting action does not have any new construction and is located on an already existing site.

B. Cultural Uniqueness and Diversity

The permitting action would have no effects on cultural uniqueness and diversity because the current permitting action located on an already existing site.

C. Local and State Tax Base and Tax Revenue

The permitting action would have no effects on local and state tax base and tax revenue.

D. Agricultural or Industrial Production

The permitting action would have no effects on agricultural or industrial production because there is no new construction associated with the current permitting action.

E. Human Health

Since there is no increase in emissions, there would be no effect on human health. MAQP #3219-02 would incorporate conditions to ensure that the facility would operate in compliance with all applicable air quality rules and standards.

F. Access to and Quality of Recreational and Wilderness Activities

The permitting action would have no effects on the access to and quality of recreational and wilderness activities because the current permitting action is located on an already existing site.

G. Quantity and Distribution of Employment

The permitting action would have no effects on the quantity and distribution of employment because the installation of the new generator would not require additional employees or require current employees to relocate.

H. Distribution of Population

The permitting action would have no effects on the distribution of population because there would be no need to hire any new employees.

I. Demands for Government Services

Government services would be required for acquiring the appropriate permits for the proposed project and to verify compliance with the permits that would be issued. However, demands for government services would be expected to be minor.

J. Industrial and Commercial Activity

The current permitting action would not increase any production. Therefore, the permitting action would have no effect on industrial and commercial activity.

K. Locally Adopted Environmental Plans and Goals

The Department is not aware of any locally adopted environmental plans and goals this project may impact. The State standards would be protective of the proposed project area.

L. Cumulative and Secondary Impacts

Overall, cumulative and secondary impacts from this project would result in minor impacts to the economic and social environment in the immediate area due to the relatively small size of the operation. The Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as would be outlined in MAQP #3219-02.

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 portable crushing and screening facility. MAQP #3219-02 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

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