Montana Department of
ENVIRONMENTAL QUALITY
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November 18, 2013

ASI Constructors
6066 S. Hwy 24
Glasgow, MT 59230

Dear Mr. Robbins:

Montana Air Quality Permit #4965-00 is deemed final as of November 16, 2013, by the Department of Environmental Quality (Department). This permit is for a portable concrete batch plant. 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
Air Permitting Supervisor
Air Resources Management Bureau
(406) 444-3626

Craig Henrikson P.E.
Environmental Engineer
Air Resources Management Bureau
(406) 444-6711

JAM:CH
Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

Montana Air Quality Permit #4965-00

ASI Constructors
6066 S. Hwy 24
Glasgow, MT 59230

November 16, 2013

MONTANA AIR QUALITY PERMIT

Issued To: ASI Constructors
6066 S. Hwy 24
Glasgow, MT 59230

MAQP: #4965-00
Application Complete: 9/9/2013
Preliminary Determination Issued: 10/15/2013
Department's Decision Issued: 10/31/2013
Permit Final: 11/16/2013
AFS #: 777-4965

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

SECTION I: Permitted Facilities

A. Permitted Equipment

ASI proposes to operate two portable concrete batch plants which will be used on the Fort Peck Plunge Pool repair project. Plant #1 is rated to produce 300 cubic yards an hour (cy/hr) and plant #2 is rated for 230 cy/hr. The combined plants and associated equipment are powered by diesel-fired generators up to a total of 2,436 horsepower (hp).

- Concrete Batch Plant #1 300 cy/hr
- Concrete Batch Plant #2 230 cy/hr
- Generator Engine #1
- Generator Engine #2
- Generator Engine #3
  Combined generator engines up to 2,436 hp
- And associated equipment including two feed hoppers and concrete conveyor.

B. Plant Location

The two batch plants would be located in Section 6, Township 26 North, Range 42 East, in McCone County. However, MAQP #4965-00 applies while operating at any location in Montana, except those areas having a Department of Environmental Quality-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana*. An addendum will be required for locations in or within 10 km of certain PM_{10} nonattainment areas.

SECTION II: Conditions and Limitations

A. Emission Limitations

1. ASI shall not cause or authorize to be discharged into the atmosphere from the concrete batch plant operations, including all associated equipment, any visible emissions that exhibit opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.752, ARM 17.8.304).

2. ASI 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).

3. ASI 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.2 (ARM 17.8.752).

4. ASI shall operate a dust collection system on each batch plant as described in the original permit application (17.8.752).

5. ASI shall not operate or have on-site more than three diesel-fired generator engines. The combined maximum rated capacity of the engines that drive the generators shall not exceed 2,436 hp (ARM 17.8.749).

6. The maximum rated capacity of concrete plant #1 shall not exceed 300 cy/hr and the maximum rated capacity of concrete plant #2 shall not exceed 230 cy/hr (ARM 17.8.749).

7. Operation of each diesel generator engine shall not exceed 2,800 hours of operation during any rolling 12 month period (ARM 17.8.749).

8. Operation of each concrete batch plant and associated equipment shall not exceed 2,800 hours during any rolling 12-month period (ARM 17.8.749).

9. Concrete production shall not exceed 1,484,000 cubic yards during any rolling 12-month period (ARM 17.8.749).

10. If the permitted equipment is used in conjunction with any other equipment owned or operated by ASI, 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).

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

B. Testing Requirements

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

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

C. Operational Reporting Requirements

1. If the concrete batch plants are moved to another location, an Intent to Transfer form must be sent to the Department and a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the

transfer is to be made, at least 15 days prior to the move. The proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.749 and ARM 17.8.765).

2. ASI 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 not be 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 for calculating operating fees, and/or to verify compliance with permit limitations (ARM 17.8.505).

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

4. ASI shall maintain on-site records showing daily hours of operation and daily production rates for the last 12 months. The records compiled in accordance with this permit shall be maintained by ASI as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).

5. ASI shall document, by month, the hours of operation of each diesel generator engine. By the 25th day of each month, ASI shall determine the total the hours of operation for each diesel generator engine for the previous month, and calculate and record the rolling 12-month sum of those hours. The monthly information will be used to demonstrate compliance with the rolling 12-month limitation in Section II.A.7. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

6. ASI shall document, by month, the hours of operation of each concrete plant. By the 25th day of each month, ASI shall determine the total the hours of operation for each concrete plant for the previous month, and calculate and record the rolling 12-month sum of those hours. The monthly information will be used to demonstrate compliance with the rolling 12-month limitation in Section II.A.8. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

7. ASI shall document, by month, the total concrete production in cubic yards. By the 25th day of each month, ASI shall determine the total the total concrete production for the previous month, and calculate and record the rolling 12 month sum of those cubic yards. The monthly information will be used to demonstrate compliance with the

rolling 12-month limitation in Section II.A.9. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

8. ASI 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

ASI shall provide the Department with written notification of the actual start-up date postmarked within 15 days after the actual start-up date (ARM 17.8.749).

SECTION III: General Conditions

A. Inspection – ASI 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 (continuous emissions monitoring system (CEMS) or continuous emissions rate monitoring system (CERMS)) or 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 ASI fails to appeal as indicated below.

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving ASI of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided for 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. Air Quality Operation Fees – Pursuant to Section 75-2-220, MCA, failure to pay the annual operation fee by ASI 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).

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. ASI shall comply with the conditions contained in this permit while operating in any location in Montana, except within those areas that have a Department-approved permitting program or areas considered tribal lands.

Montana Air Quality Permit (MAQP) Analysis
ASI Constructors
MAQP #4965-00

I. Introduction/Process Description

ASI Constructors (ASI) proposes to operate two portable concrete batch plants capable of a combined 530 cubic yards per hour (cy/hr) of production, and powered by up to three generators with the total engine ratings not to exceed 2,436 horsepower (hp). Each batch plant is controlled by a dust collector.

A. Permitted Equipment

ASI proposes to operate two portable concrete batch plants including, but not limited to, the following equipment:

- Concrete Batch Plant #1 300 cy/hr
- Concrete Batch Plant #2 230 cy/hr
- Generator Engine #1
- Generator Engine #2
- Generator Engine #3
  Combined generator engines up to 2,436 hp
- And associated equipment including a feed hopper and conveyor for each batch plant.

B. Source Description

The portable concrete batch plants are used to mix concrete to be used near the site on the Fort Peck Plunge Pool project. Aggregate material is fed into each feed hopper via front end-loader. Sand and gravel is mixed with cement from the silo and water in the plant process. Fly ash may be added when needed. The material is loaded into trucks or onto a conveyor for transport.

The initial location of this portable facility is Section 6, Township 26 North, Range 42 East, in McCone County, Montana. ASI does not maintain a home pit within the State of Montana.

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 – Air Resources Management Bureau (Department). Upon request, the Department will provide references for locations of complete copies of all applicable rules and regulations 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).

   ASI 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:

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 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
7. ARM 17.8.221 Ambient Air Quality Standard for Visibility
8. ARM 17.8.222 Ambient Air Quality Standard for Lead
9. ARM 17.8.223 Ambient Air Quality Standard for PM_{10}

ASI 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, ASI 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 section.

4. ARM 17.8.310 Particulate Matter, Industrial Processes. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.

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 section.

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 Code of Federal Regulations (CFR) Part 60, Standards of Performance for New Stationary Sources (NSPS). ASI is considered a potentially affected NSPS facility under 40 CFR Part 60 and may be 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 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.

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 (NESHAP) for Source Categories. ASI is considered a potentially affected NESHAP facility under 40 CFR Part 63 and may be subject to the requirements of the following subparts.

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

    b. 40 CFR 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants (HAP) 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. Therefore, ASI is potentially 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. ASI 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.

   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 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. ASI has a PTE greater than 25 tons per year of particulate matter (PM), PM_{10}, and oxides of nitrogen (NO_x); 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. ASI 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. ASI submitted an affidavit of publication of public notice for the September 11, 2013, issue of the *Glasgow Courier*, a newspaper of general circulation in the Town of Glasgow in Valley County, as proof of compliance with the public notice requirements.

6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of

this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.

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

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

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

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

11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or modified source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.

12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).

13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.

14. ARM 17.8.765 Transfer of Permit. (1) This rule states that an MAQP may be transferred from one location to another if the Department receives a complete notice of intent to transfer location, the facility will operate in the new location for less than 1 year, the facility will comply with the FCAA and the Clean Air Act of Montana, and the facility complies with other applicable rules. (2) This rule states that an air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.

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 the facility's PTE is less than 250 tons per year of any pollutant (excluding fugitive emissions).

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

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

   c. PTE > 70 tons/year of PM_{10} in a serious PM_{10} 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 #4965-00 for ASI , 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 of all HAPs.

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

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

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

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

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

h. As allowed by 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 which limit that source's potential to emit.

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

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

ASI has taken federally enforceable permit limits to keep potential emissions below major source permitting thresholds. Therefore, the facility is not a major source and, thus a Title V operating permit is not required.

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.

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

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

III. BACT Determination

A BACT determination is required for each new or modified source. ASI shall install on the new or modified source the maximum air pollution control capability which is technologically practicable and economically feasible, except that BACT shall be utilized.

A. Concrete Batch Operation

1. Particulate Emissions

ASI proposed the utilization of a dust collection system fitted on each of the concrete batch plants. Vendor removal efficiencies of over 99.9% is expected.

The Department determined that a dust collection system constitutes BACT for particulate emissions for this source. The control option selected contains control equipment and costs comparable to other recently permitted similar sources and are capable of achieving the appropriate emission standards.

2. Fugitive Visible Emissions

Two types of emission controls are readily available and used for dust suppression of fugitive emissions that result from the operation of equipment and associated activities. These two control methods are water and chemical dust suppressant. Both suppressants

could be used from dust control for the area surrounding the concrete plant and for emissions from the handling of aggregate materials. However, in view of the fact that water is more readily available, more cost effective, is equally effective as chemical dust suppressant, while presenting less potential environmental quality degradation, 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, ASI has the option to use chemical dust suppressant to assist in controlling particulate emissions.

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 for the operation for the additional equipment.

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.

B. Diesel Engines

Any new diesel engine would likely be required to comply with the federal engine emission limitations including, for example, EPA Tier emission standards for non-road engines (40 CFR Part 1039), New Source Performance Standard emission limitations for stationary compression ignition engines (40 CFR 60, Subpart IIII), 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 engines constitutes BACT for these engines.

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.

IV. Emission Inventory

Emission Source	Emissions Tons/Year [PTE] PM	PM_{10}	$PM_{2.5}$	CO	NOx	SO_2	VOC
Aggregate Delivery at Batch Site (Step A- 1) (ground storage)	4.75	2.30	0.71				
Aggregate Transfer to Conveyor (Step A-2)	4.75	2.30	0.71				
Aggregate Transfer to Elevated Feed Hopper (Step A-3) (to elevated storage)	4.75	2.30	0.71				
Sand Delivery to Ground Storage (Step S-1) (to ground storage)	1.11	0.52	0.17				
Sand Transfer for Batching	1.11	0.17	0.17				
Cement Delivery to Silo (Step C-1)	0.15	0.07	0.02				
Cement Supplement (Fly Ash) Delivery to Silo (Step C-2)	0.22	0.15	0.15				
Weigh Hopper Loading (Step W-1)	5.86	2.82	0.88				
Mix Loading (Step TM-1) Run as Weighted Average Central vs Truck	13.28	5.50	1.99				
Diesel-Fired Generator Caterpillar 580	3.30	3.30	3.30	10.02	47.38	3.07	3.76
Diesel-Fired Generator Caterpillar 545	2.74	2.74	2.74	0.44	13.56	2.55	3.13
Diesel-Fired Generator Caterpillar 320	0.96	0.96	0.96	3.44	10.90	1.36	1.67
Unpaved Roadways (Haul Roads)	5.39	1.49	0.15				
TOTAL EMISSIONS >	48.37	24.62	12.66	13.90	71.84	6.99	8.56
Applied to Permit Determination (less haul roads)	42.98	23.13	12.51	13.90	71.84	6.99	8.56

a. Emission Inventory reflects enforceable limits on hours of operation

CO, carbon monoxide

NO_X, oxides of nitrogen

PM, particulate matter

PM_{10}, particulate matter with an aerodynamic diameter of 10 microns or less

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

SO_2, oxides of sulfur

VOC, volatile organic compounds

ASI Constructors (Batch Concrete - Two Plants)

Batch Plant Rate:	530	cubic yards/hour (Maximum)	RCC Plant =300 cubic yards/hr (Central)
	1066.4	tons/hour (Maximum)	Apache = 230 cubic yards/hr (Truck Mixed)
	1484000	Max Annual	

This spreadsheet is based on AP 42 Table 11.12-5. Dated 6/06

All values are based on finished product throughput (cubic yards per hour) not individual raw materials.

Material Handling - Aggregate

Process Rate:	530.0	cu. yards/hour
Operating Hours	2800	hours/year

Aggregate Delivery at Batch Site (Step A- 1) (ground storage) SCC 3-05-011-21

PM Emissions:

Emission Factor	0.0064	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]		
Calculations	(0.0064 lbs/cu. yard) * (530.00 cu. yard/hour) =			3.39	lbs/hr
	(3.39 lbs/hr) * (2800 hrs/yr) *(0.0005 tons/lb) =			4.75	TPY

PM_{10} Emissions (Filterable):

Emission Factor	0.0031	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]		
Calculations	(0.0031 lbs/cu. yard) * (530.00 cu. yard/hour) =			1.64	lbs/hr
	(1.64 lbs/hr) * (2800 hrs/yr) *(0.0005 tons/lb) =			2.30	TPY

$PM_{2.5}$ Emissions (Filterable):

Emission Factor	0.0010	lbs/cu. yard produced	Department Guidance		
Calculations	(0.00096 lbs/cu. yard) * (530.00 cu. yard/hour) =			0.51	lbs/hr
	(0.51 lbs/hr) * (2800 hrs/yr) *(0.0005 tons/lb) =			0.71	TPY

Aggregate Transfer to Conveyor (Step A-2) SCC 3-05-011-23

PM Emissions:

Emission Factor	0.0064	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]		
Calculations	(0.0064 lbs/cu. yard) * (530.00 cu. yard/hour) =			3.392	lbs/hr
	(3.39 lbs/hr) * (2800 hrs/yr) *(0.0005 tons/lb) =			4.75	TPY

PM_{10} Emissions (Filterable):

Emission Factor	0.0031	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]		
Calculations	(0.0031 lbs/cu. yard) * (530.00 cu. yard/hour) =			1.64	lbs/hr
	(1.64 lbs/hr) * (2800 hrs/yr) *(0.0005 tons/lb) =			2.30	TPY

$PM_{2.5}$ Emissions (Filterable):

Emission Factor	0.00096	lbs/cu. yard produced	[Department Guidance]		
Calculations	(0.00096 lbs/cu. yard) * (530.00 cu. yard/hour) =			0.51	lbs/hr
	(0.51 lbs/hr) * (2800 hrs/yr) *(0.0005 tons/lb) =			0.71	TPY

Aggregate Transfer to Elevated Feed Hopper (Step A-3) (to elevated storage) SCC 3-05-011-04

PM Emissions:

Emission Factor	0.0064	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]		
Calculations	(0.0064 lbs/cu. yard) * (530.00 cu. yard/hour) =			3.39	lbs/hr
	(3.39 lbs/hr) * (2800 hrs/yr) *(0.0005 tons/lb) =			4.75	TPY

PM_{10} Emissions (Filterable):

Emission Factor	0.0031	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]		
Calculations	(0.0031 lbs/cu. yard) * (530.00 cu. yard/hour) =			1.64	lbs/hr
	(1.64 lbs/hr) * (2800 hrs/yr) *(0.0005 tons/lb) =			2.30	TPY

$PM_{2.5}$ Emissions (Filterable):

Emission Factor	0.0010	lbs/cu. yard produced	[Department Guidance]		
Calculations	(0.00096 lbs/cu. yard) * (530.00 cu. yard/hour) =			0.51	lbs/hr
	(0.51 lbs/hr) * (2800 hrs/yr) *(0.0005 tons/lb) =			0.71	TPY

Material Handling – Sand

Process Rate:	530.0	cu. yards/hour
Operating Hours	2800	hours/year

Sand Delivery to Ground Storage (Step S-1) (to ground storage) SCC 3-05-011-22

PM Emissions:

Emission Factor	0.0015	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]		
Calculations	(0.0015 lbs/cu. yard) * (530.00 cu. yard/hour) =			0.80	lbs/hr
	(0.80 lbs/hr) * (2800 hrs/yr) *(0.0005 tons/lb) =			1.11	TPY

PM_{10} Emissions (Filterable):

Emission Factor	0.0007	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]		
Calculations	(0.0007 lbs/cu. yard) * (530.00 cu. yard/hour) =			0.37	lbs/hr
	(0.37 lbs/hr) * (2800 hrs/yr) *(0.0005 tons/lb) =			0.52	TPY

$PM_{2.5}$ Emissions (Filterable):

Emission Factor	0.0002	lbs/cu. yard produced	[Department Guidance]		
Calculations	(0.000225 lbs/cu. yard) * (530.00 cu. yard/hour) =			0.12	lbs/hr
	(0.12 lbs/hr) * (2800 hrs/yr) *(0.0005 tons/lb) =			0.17	TPY

Sand Transfer to Elevated Feed Hopper (Step S-3) (to elevated storage) SCC 3-05-011-05

PM Emissions:

Emission Factor	0.0015	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]		
Calculations	(0.0015 lbs/cu. yard) * (530.00 cu. yard/hour) =			0.80	lbs/hr
	(0.80 lbs/hr) * (2800 hrs/yr) *(0.0005 tons/lb) =			1.11	TPY

PM_{10} Emissions (Filterable):

Emission Factor	0.0007	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]		
Calculations	(0.0007 lbs/cu. yard) * (530.00 cu. yard/hour) =			0.37	lbs/hr
	(0.37 lbs/hr) * (2800 hrs/yr) *(0.0005 tons/lb) =			0.52	TPY

$PM_{2.5}$ Emissions (Filterable):

Emission Factor	0.0002	lbs/cu. yard produced	[Department Guidance]		
Calculations	(0.000225 lbs/cu. yard) * (530.00 cu. yard/hour) =			0.12	lbs/hr
	(0.12 lbs/hr) * (2800 hrs/yr) *(0.0005 tons/lb) =			0.17	TPY

Material Handling - Cement & Cement Supplement (Step C-1) SCC 3-05-011-05

Process Rate:	530.0	cu. yards/hour
Operating Hours	2800	hours/year

Cement Delivery to Silo (Step C-1)

PM Emissions(controlled):

Emission Factor	0.0002	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]		
Calculations	(0.0002 lbs/cu. yard) * (530.00 cu. yard/hour) =			0.11	lbs/hr
	(0.11 lbs/hr) * (2800 hrs/yr) *(0.0005 tons/lb) =			0.15	TPY

PM_{10} Emissions (Filterable):

Emission Factor	0.0001	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]		
Calculations	(0.0001 lbs/cu. yard) * (530.00 cu. yard/hour) =			0.05	lbs/hr
	(0.05 lbs/hr) * (2800 hrs/yr) *(0.0005 tons/lb) =			0.07	TPY

$PM_{2.5}$ Emissions (Filterable):

Emission Factor	0.0000	lbs/cu. yard produced	[Department Guidance]		
Calculations	(0.00003 lbs/cu. yard) * (530.00 cu. yard/hour) =			0.02	lbs/hr
	(0.02 lbs/hr) * (2800 hrs/yr) *(0.0005 tons/lb) =			0.02	TPY

Cement Supplement (Fly Ash) Delivery to Silo (Step C-2) SCC 3-05-011-07

PM Emissions(controlled):

Emission Factor	0.0003	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]		
Calculations	(0.0003 lbs/cu. yard) * (530.00 cu. yard/hour) =			0.16	lbs/hr
	(0.16 lbs/hr) * (2800 hrs/yr) *(0.0005 tons/lb) =			0.22	TPY

$PM_{2.5}$ Emissions (Filterable):

Emission Factor	0.0002	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]		
Calculations	(0.0002 lbs/cu. yard) * (530.00 cu. yard/hour) =			0.11	lbs/hr
	(0.11 lbs/hr) * (2800 hrs/yr) *(0.0005 tons/lb) =			0.15	TPY

Weigh Hopper Loading (Step W-1) SCC 3-05-011-08

Process Rate:	530.0	cu. yards/hour
Operating Hours	2800	hours/year

PM_{10} Emissions (Filterable):

Emission Factor	0.0079	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]		
Calculations	(0.0079 lbs/cu. yard) * (530.00 cu. yard/hour) =			4.19	lbs/hr
	(4.19 lbs/hr) * (2800 hrs/yr) *(0.0005 tons/lb) =			5.86	TPY

PM_{10} Emissions(controlled):

Emission Factor	0.0038	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]		
Calculations	(0.0038 lbs/cu. yard) * (530.00 cu. yard/hour) =			2.01	lbs/hr
	(2.01 lbs/hr) * (2800 hrs/yr) *(0.0005 tons/lb) =			2.82	TPY

$PM_{2.5}$ Emissions (Filterable):

Emission Factor	0.0012	lbs/cu. yard produced	[Department Guidance]		
Calculations	(0.001185 lbs/cu. yard) * (530.00 cu. yard/hour) =			0.63	lbs/hr
	(0.63 lbs/hr) * (2800 hrs/yr) *(0.0005 tons/lb) =			0.88	TPY

Mix Loading (Step TM-1) Run as Weighted Average Central vs Truck SCC 3-05-011-09

Process	530.0	cu. yards/hour

Rate:					
	1066.36	tons/hour			
Operating Hours	2800	hours/year			
PM Emissions:	(controlled)				
Emission Factor	0.0634566	lb/ton cement plus supplement material Taken from Table 11.2-2 6/06 for controlled (must be multiplied below by 0.282)			
	0.0179	lbs/yd^3 material loaded	[AP-42 Table 11.2-2, 6/06]		
Calculations	(0.0179 lbs/yd3) * (530 cubic yards/hour) =			9.48	lbs/hr
	(9.48 lbs/hr) * (2800 hrs/yr) *(0.0005 tons/lb) =			13.28	TPY

PM_{10} Emissions(controlled):

Emission Factor	0.0263	lb/ton cement plus supplement material Taken from Table 11.2-2 6/06 for controlled (must be multiplied below by 0.282)			
	0.0074	lbs/yd3 material loaded	[AP-42 Table 11.2-2, 6/06]		
Calculations	(0.0074 lbs/yd3) * (530.00 cubic yards/hour) =			3.93	lbs/hr
	(3.93 lbs/hr) * (2800 hrs/yr) *(0.0005 tons/lb) =			5.50	TPY

$PM_{2.5}$ Emissions (Filterable):

Emission Factor	0.0095185	lb/ton cement plus supplement material Taken from Table 11.2-2 6/06 for controlled (must be multiplied below by 0.282)			
	0.0027	lbs/yd3 material loaded	[AP-42 Table 11.2-2, 6/06]		
Calculations	(0.0027 lbs/yd3) * (530.00 cubic yards/hour) =			1.42	lbs/hr
	(1.42 lbs/hr) * (2800 hrs/yr) *(0.0005 tons/lb) =			1.99	TPY

Diesel-Fired Generator Caterpillar 580

Engine Rating:	1071	hp			
Operating Hours:	2800	hours/year			

Particulate Emissions:

PM Emissions:

Emission Factor	0.0022	lb/hp-hr	[AP-42 3.3-1, 6/06]		
Calculations	(0.0022 lb/hp-hr) * (1071 hp) =			2.36	lbs/hr
	(2.36 lbs/hr) * (2800 hrs/yr) * (0.0005 tons/lb) =			3.30	TPY

PM_{10} Emissions:

Emission Factor	0.0022	lb/hp-hr	[AP-42 3.3-1, 6/06]		
Calculations	(0.0022 lb/hp-hr) * (1071 hp) =			2.36	lbs/hr
	(2.36 lbs/hr) * (2800 hrs/yr) * (0.0005 tons/lb) =			3.30	TPY

$PM_{2.5}$ Emissions:

Emission Factor	0.0022	lb/hp-hr	[AP-42 3.3-1, 6/06]		
Calculations	(0.0022 lb/hp-hr) * (1071 hp) =			2.36	lbs/hr
	(2.36 lbs/hr) * (2800 hrs/yr) * (0.0005 tons/lb) =			3.30	TPY

CO Emissions:

Emission Factor	0.00668	lb/hp-hr	[AP-42 3.3-1, 6/06]		
Calculations	(0.00668 lb/hp-hr) * (1071 hp) =			7.15	lbs/hr
	(7.15 lbs/hr) * (2800 hrs/yr) * (0.0005 tons/lb) =			10.02	TPY

NOx Emissions:

Emission Factor	0.0316	lb/hp-hr	[AP-42 3.3-1, 6/06]		
Calculations	(0.0316 lb/hp-hr) * (1071 hp) =			33.84	lbs/hr
	(33.84 lbs/hr) * (2800 hrs/yr) * (0.0005 tons/lb) =			47.38	TPY

SOx Emissions:

Emission Factor	0.0021	lb/hp-hr	[AP-42 3.3-1, 6/06]		
Calculations	(0.0021 lb/hp-hr) * (1071 hp) =			2.20	lbs/hr
	(2.20 lbs/hr) * (2800 hrs/yr) * (0.0005 tons/lb) =			3.07	TPY

VOC Emissions:

Emission Factor	0.0025	lb/hp-hr	[AP-42 3.3-1, 6/06]		
Calculations	(0.0025 lb/hp-hr) * (1071 hp) =			2.69	lbs/hr
	(2.69 lbs/hr) * (2800 hrs/yr) * (0.0005 tons/lb) =			3.76	TPY

Diesel-Fired Generator Caterpillar 545

Engine Rating:	890	hp
Operating Hours:	2800	hours/year

Particulate Emissions:

PM Emissions:

Emission Factor	0.0022	lb/hp-hr	[AP42-Table 3.3-1]		
Calculations	(0.0022 lb/hp-hr) * (890 hp) =			1.96	lbs/hr
	(1.96 lbs/hr) * (2800 hrs/yr) * (0.0005 tons/lb) =			2.74	TPY

PM_{10} Emissions:

Emission Factor	0.0022	lb/hp-hr	[AP42-Table 3.3-1]		
Calculations	(0.0022 lb/hp-hr) * (890 hp) =			1.96	lbs/hr
	(1.96 lbs/hr) * (2800 hrs/yr) * (0.0005 tons/lb) =			2.74	TPY

$PM_{2.5}$ Emissions:

Emission Factor	0.0022	lb/hp-hr	[AP42-Table 3.3-1]		
Calculations	(0.0022 lb/hp-hr) * (890 hp) =			1.96	lbs/hr
	(1.96 lbs/hr) * (2800 hrs/yr) * (0.0005 tons/lb) =			2.74	TPY

CO Emissions:

Emission Factor	0.00035	lb/hp-hr	[Vendor]	0.16	g/hp-hr		
Calculations	(0.0004 lb/hp-hr) * (890 hp) =			0.00035	lb/hp-hr	0.31	lbs/hr
	(0.31 lbs/hr) * (2800 hrs/yr) * (0.0005 tons/lb) =					0.44	TPY

NOx Emissions:

Emission Factor	0.0109	lb/hp-hr	[Vendor]	4.94	g/hp-hr		
Calculations	(0.0109 lb/hp-hr) * (890 hp) =			0.01088	lb/hp-hr	9.68	lbs/hr
	(9.68 lbs/hr) * (2800 hrs/yr) * (0.0005 tons/lb) =					13.56	TPY

SOx Emissions:

Emission Factor	0.0021	lb/hp-hr	[AP-42 3.3-1, 6/06]				
Calculations	(0.0021 lb/hp-hr) * (890 hp) =					1.82	lbs/hr
	(1.82 lbs/hr) * (2800 hrs/yr) * (0.0005 tons/lb) =					2.55	TPY

VOC Emissions:

Emission Factor	0.0025	lb/hp-hr	[AP-42 3.3-1, 6/06]				
Calculations	(0.0025 lb/hp-hr) * (890 hp) =					2.23	lbs/hr
	(2.23 lbs/hr) * (2800 hrs/yr) * (0.0005 tons/lb) =					3.13	TPY

Diesel-Fired Generator Caterpillar 320

Engine Rating:	475	hp
Operating Hours:	2800	hours/year

Particulate Emissions:

PM Emissions:

Emission Factor	0.0014	lb/hp-hr	[Vendor]	0.654	g/hp-hr		
Calculations	(0.0014 lb/hp-hr) * (475 hp) =			0.00144	lb/hp-hr	0.68	lbs/hr
	(0.68 lbs/hr) * (2800 hrs/yr) * (0.0005 tons/lb) =					0.96	TPY

PM_{10} Emissions:

Emission Factor	0.0014	lb/hp-hr	[Vendor]	0.654	g/hp-hr		
Calculations	(0.0014 lb/hp-hr) * (475 hp) =			0.00144	lb/hp-hr	0.68	lbs/hr
	(0.68 lbs/hr) * (2800 hrs/yr) * (0.0005 tons/lb) =					0.96	TPY

$PM_{2.5}$ Emissions:

Emission Factor	0.0014	lb/hp-hr	[Vendor]	0.654	g/hp-hr		
Calculations	(0.0014 lb/hp-hr) * (475 hp) =			0.00144	lb/hp-hr	0.68	lbs/hr
	(0.68 lbs/hr) * (2800 hrs/yr) * (0.0005 tons/lb) =					0.96	TPY

CO Emissions:

Emission Factor	0.00518	lb/hp-hr	[Vendor]	2.35	g/hp-hr		
Calculations	(0.0052 lb/hp-hr) * (475 hp) =			0.00518		2.46	lbs/hr
	(2.46 lbs/hr) * (2800 hrs/yr) * (0.0005 tons/lb) =					3.44	TPY

NOx Emissions:

Emission Factor	0.0164	lb/hp-hr	[Vendor]	7.44	g/hp-hr		
Calculations	(0.0164 lb/hp-hr) * (475 hp) =			0.01639		7.78	lbs/hr
	(7.78 lbs/hr) * (2800 hrs/yr) * (0.0005 tons/lb) =					10.90	TPY

SOx Emissions:

Emission Factor	0.0021	lb/hp-hr	[AP-42 3.3-1, 6/06]				
Calculations	(0.0021 lb/hp-hr) * (475 hp) =					0.97	lbs/hr
	(0.97 lbs/hr) * (2800 hrs/yr) * (0.0005 tons/lb) =					1.36	TPY

VOC Emissions:

Emission Factor	0.0025	lb/hp-hr	[AP-42 3.3-1, 6/06]				
Calculations	(0.0025 lb/hp-hr) * (475 hp) =					1.19	lbs/hr
	(1.19 lbs/hr) * (2800 hrs/yr) * (0.0005 tons/lb) =					1.67	TPY

Unpaved Roadways (Haul Roads)

Emission Factor EF = $k(s/12)^{a} * (W/3)^{b}$ [AP-42 13.2.2.2, 11/06]

where: EF, Emission Factor = lbs Emitted Per Vehicle Mile Traveled (VMT)

[AP-42 Table 13.2.2-2, 11/06]	k, Empirical Constant PM =	4.9
[AP-42 Table 13.2.2-2, 11/06]	k, Empirical Constant PM_{10} =	1.5
[AP-42 Table 13.2.2-2, 11/06]	k, Empirical Constant $PM_{2.5}$ =	0.15
[AP-42 Table 13.2.2-1, 11/06]	s, Surface Material Silt Content (%) =	7.1
[Typical Estimated]	W, Mean Vehicle Weight (tons) =	48
[AP-42 Table 13.2.2-2, 11/06]	a, Empirical Constant PM =	0.7
[AP-42 Table 13.2.2-2, 11/06]	a, Empirical Constant PM_{10} and $PM_{2.5}$ =	0.9
[AP-42 Table 13.2.2-2, 11/06]	b, Empirical Constant PM - $PM_{2.5}$ =	0.45

PM Emissions(uncontrolled): PM30

Emission Factor	EF = 4.9 * (7.1/12)^0.7 * (48/3)^0.45 =	11.82	lbs/VMT		
Calculations	(11.82 lbs/VMT) * (5 miles/day) =			59.08	lbs/day
	(59.08 lbs/day) * (365 days/yr) * (0.0005 tons/lb) =			10.78	TPY
	50% Control Applied			5.39	TPY

PM_{10} Emissions(uncontrolled):

Emission Factor	EF = 1.5 * (7.1/12)^0.9 * (48/3)^0.45 =	3.26	lbs/VMT		

Calculations	(3.26 lbs/VMT) * (5 miles/day) =		16.28	lbs/day
	(16.28 lbs/day) * (365 days/yr) * (0.0005 tons/lb) =		2.97	TPY
	50% Control Applied		1.49	TPY

$PM_{2.5}$ Emissions(uncontrolled):

Emission Factor	EF = 0.15 * (7.1/12)^0.9 * (48/3)^0.45 =	0.33	lbs/VMT	
Calculations	(0.33 lbs/VMT) * (5 miles/day) =		1.63	lbs/day
	(1.63 lbs/day) * (365 days/yr) * (0.0005 tons/lb) =		0.30	TPY
	50% Control Applied		0.15	TPY

V. Existing Air Quality

This permit is for a portable concrete batch facility to originally be located in Section 6, Township 26North, Range 42 East in McCone County, Montana. McCone County and those areas for which this facility is permitted to operate has been designated unclassified/attainment with all ambient air quality standards.

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 be expected to operate on an intermittent and temporary basis, so any effects to air quality would be expected to be minor and of limited duration.

VII. Ambient Air Impact Analysis

Based on the information provided and the conditions established in MAQP #4965-00, 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	
X		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	X	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	X	4. Does the action deprive the owner of all economically viable uses of the property?
	X	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)].
		5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
	X	6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)

YES	NO	
	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
Permitting and Compliance Division
Air Resources Management Bureau
P.O. Box 200901, Helena, MT 59620
(406) 444-3490

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued To: ASI Constructors
6066 S. Hwy 24
Glasgow, MT 59230

Montana Air Quality Permit (MAQP) number: 4965-00

Preliminary Determination Issued: 10/15/2013
Department Decision Issued: 10/31/2013
Permit Final: 11/16/2013

1. *Legal Description of Site*: The location of the portable concrete plants will be Section 6, Township 26 North, Range 42 East, in McCone County, Montana. However, this facility is permitted as a portable source, and therefore may operate at any location in Montana, except those areas having a Department of Environmental Quality (Department)-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) nonattainment areas.

2. *Description of Project:* ASI Constructors (ASI) operates a portable roller compacted concrete batch plant and a traditional portable concrete batch plant. The plant combines aggregate, sand, cement, and cement additives for transfer to mix trucks or directly to conveyor for delivery of concrete.

3. *Objectives of Project*: To generate profit by providing concrete to the Fort Peck Plunge Pool repair project.

4. *Alternatives Considered*: In addition to the proposed action, the Department also considered the "no-action" alternative. The "no-action" alternative would deny issuance of the Montana Air Quality Permit to the proposed facility. However, the Department does not consider the "no-action" alternative to be appropriate because ASI has demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no-action" alternative was eliminated from further consideration.

5. *A Listing of Mitigation, Stipulations, and Other Controls*: A list of enforceable conditions, including a BACT analysis, would be included in MAQP #4965-00.

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

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

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Terrestrial and Aquatic Life and Habitats			X			Yes
B	Water Quality, Quantity, and Distribution			X			Yes
C	Geology and Soil Quality, Stability and Moisture			X			Yes
D	Vegetation Cover, Quantity, and Quality			X			Yes
E	Aesthetics			X			Yes
F	Air Quality			X			Yes
G	Unique Endangered, Fragile, or Limited Environmental Resources			X			Yes
H	Demands on Environmental Resource of Water, Air and Energy			X			Yes
I	Historical and Archaeological Sites			X			Yes
J	Cumulative and Secondary Impacts			X			Yes

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

Terrestrials would use the same area as the concrete batch plant. However, the operation would be considered a minor source of emissions by industrial standards, with intermittent and seasonal operations expected. Therefore, only minor effects on terrestrial life would be expected as a result of equipment operations or from pollutant deposition.

Impacts on aquatic life could result from storm water runoff and pollutant deposition, but such impacts would be minor as the facility would be a minor source of emissions (with seasonal and intermittent operations expected) and only minor amounts of water would be used. Since only a minor amount of air emissions would be generated, only minor deposition would occur.

B. Water Quality, Quantity and Distribution

Water would be used for dust suppression on the surrounding roadways and areas of operation and within the operation. However, water use would only cause a minor impact to the water quality, quantity, and distribution in the area, since only relatively small amounts of water would be required, as the facility is expected to run in an intermittent and seasonal nature. Conditions in MAQP #4965-00 would limit the amount of allowable emissions.

C. Geology and Soil Quality, Stability and Moisture

The facility would have limited allowable operation time and limited emissions. Increased vehicle traffic, deposition of pollutants, and use of water to control fugitive dust emissions would be expected. Based on the size and operating nature of the plant, and conditions in MAQP #4965-00, affects upon geology and soil quality, stability, and moisture would be expected to be minor.

D. Vegetation Cover, Quantity, and Quality

Pollutant deposition can potentially affect vegetation cover, quantity, and quality. MAQP #4965-00 would contain conditions which would limit the allowable emissions from the facility. However, operations are expected to be intermittent and seasonal. Minor impacts to vegetation cover, quantity, and quality would be expected.

E. Aesthetics

The equipment would be visible and would create additional noise in the area of operation. However, MAQP #4965-00 would include conditions to control visible emissions from the plant. The facility is also expected to operate on an intermittent basis. Minor impacts to aesthetics would be expected.

F. Air Quality

MAQP #4965-00 would contain conditions limiting the allowable emissions from the facility. The amount of allowable emissions generated from the plant is below those levels which the Department would require more rigorous air quality impact analyses be conducted. Based on the amount of allowable emissions that would be expected from the plant, only minor impacts would be expected.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The Department contacted the Montana Natural Heritage Program requesting any available information regarding Montana Species of Special Concern in the vicinity of the numerous sections referenced in the application, in an effort to assess any potential impacts to any unique endangered, fragile, or limited environmental resources. The request was returned with 43 species occurrence reports for 16 animal species of concern.

Species of concern located in the vicinity of the area include the Great Blue Heron, the Bald Eagle, Greater Sage-Grouse, Piping Plover, Least Tern, Red-headed Woodpecker, Pallid Sturgeon, Paddlefish, Shortnose Gar, Northern Redbelly Dace, Sturgeon Chub, Sicklefin Chub, Pearl Dace, Blue Sucker, Iowa Darter, Sauger, and the Hoary Bat.

Given the limited amount of allowable emissions and operating time permissible, any impacts to these species as a result of this permitting action would be expected to be minor.

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

Water would be required for dust suppression of particulate emissions. Impacts to air resources would likely result as operations of the plant would create air emissions. Energy requirements would be present as the diesel generator engine required to create electrical power for the plant would require fuel. Based on the size of the operation, the conditions and limitations which would be placed in the MAQP, and the intermittent nature of the operations expected, impacts to water, air, and energy resources would be expected to be minor.

I. Historical and Archaeological Sites

The Department contacted the Montana Historical Society – State Historical Preservation Office (SHPO) in an effort to identify any historical and/or archaeological sites that may be present in the proposed initial location of the facility.

The file search returned the presence of six sites on the Cultural Resource Information Systems report: Most of these are either unresolved or undetermined, and given that the project is a temporary operation for the repair and extension of the spillway, it is unlikely this project will result in degradation of cultural resources. One site in the same township and range, did have a "consensus determination" that there is a historical railroad/stage route in the vicinity. The Montana Historical Society noted that as long as there will be no disturbance or alteration to structures over fifty years of age, there is a low likelihood cultural properties would be impacted. MAQP #4965-00 would allow the staging of the batch plants for concrete production. Any impact to historical and archaeological sites would be expected to be minor.

J. Cumulative and Secondary Impacts

The batch concrete plant operations would cause minor cumulative and secondary impacts to the physical and biological environment in the immediate area. The plant would generate emissions, and have minor effects to air, water, and land. The Department expects this plant to operate in compliance with all applicable rules and regulations as would be outlined in MAQP #4965-00.

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

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Social Structures and Mores			X			Yes
B	Cultural Uniqueness and Diversity			X			Yes
C	Local and State Tax Base and Tax Revenue			X			Yes
D	Agricultural or Industrial Production			X			Yes
E	Human Health			X			Yes
F	Access to and Quality of Recreational and Wilderness Activities			X			Yes
G	Quantity and Distribution of Employment			X			Yes
H	Distribution of Population			X			Yes
I	Demands for Government Services			X			Yes
J	Industrial and Commercial Activity			X			Yes
K	Locally Adopted Environmental Plans and Goals			X			Yes
L	Cumulative and Secondary Impacts			X			Yes

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

A. Social Structures and Mores
B. Cultural Uniqueness and Diversity

The operation of the batch concrete plant would not alter or disrupt any local lifestyles or communities (social structures or mores) in the area of operation because the plant would be relatively small and would operate intermittently. Employment of approximately 4 people would be expected. Therefore, only minor impacts to any existing social structures and mores or cultural uniqueness and diversity would be expected as a result of this permitting action.

C. Local and State Tax Base and Tax Revenue

The batch concrete plant operations itself would have little impact on the local and state tax base and tax revenue because the plant would likely be a temporary source, and operate intermittently. It would not be expected that this plant would remain at the proposed site beyond the completion of the spillway project.

D. Agricultural or Industrial Production

The batch concrete plant operations would initially be located in an area which is predominately native grasses, sagebrush and cedar brush. As discussed in Section 7.D, affects to vegetation cover, quantity, and quality, would be expected to be minor. With the size, nature of operations, and conditions which would be placed in MAQP #4965-00, installation and operation of the batch concrete plant itself would have minor impacts to agricultural or industrial production in the area.

E. Human Health

MAQP #4965-00 would incorporate conditions to ensure that the concrete batch plant operations would be operated in compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health. Since these conditions would be incorporated, only minor impacts would be expected from this batch concrete plant.

F. Access to and Quality of Recreational and Wilderness Activities

Effects on the quality of recreational activities may be created by noise from the site as some recreational activity may occur on relatively nearby lands. Given the intermittent and likely temporary nature of the plant, and the distance to nearby recreational sites, no more than a minor impact to the quality of recreational and wilderness activities would be expected. Any impacts to access of recreational or wilderness activities would be expected to be minor. The Charles Russell National Wildlife Refuge, Fork Peck Wilderness Area and Fork Peck Indian Reservation are all within close proximity but again due to the temporary nature of the project, only minor impacts are expected.

G. Quantity and Distribution of Employment
H. Distribution of Population

The employment of approximately 4 people would be expected as a result of the issuance of MAQP #4965-00. Operations would be expected to be intermittent, seasonal, and temporary. No more than minor effects to the quantity and distribution of employment or distribution of population would be expected.

I. Demands for Government Services

Demands for government services would be minor as the source is a relatively small source by industrial standards.

J. Industrial and Commercial Activity

A small increase in traffic associated with the materials and equipment needed to support making the cement and shipment of cement would be expected. Impacts would be expected to be minor.

K. Locally Adopted Environmental Plans and Goals

The Department is not aware of any locally adopted environmental plans or goals that would be affected by the proposed project. MAQP #4965-00 would be issued in accordance with rules designed to protect human health and the environment.

L. Cumulative and Secondary Impacts

Consideration of the individual economic and social effects were determined to be minor. Cumulative and secondary impacts would be expected to be minor.

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

The current permitting action is for the construction and operation of two portable concrete batch plants. MAQP #4965-00 would include conditions and limitations to ensure the facility will operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

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

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

EA prepared by: Craig Henrikson
Date: 9/11/2013