Montana Department of
ENVIRONMENTAL QUALITY
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December 3, 2014

Dan Rooney
ADF Industrial Coatings
1900 Great Bear Avenue
Great Falls, MT 59404

Dear Mr. Rooney:

Montana Air Quality Permit #5086-00 is deemed final as of December 3, 2014, by the Department of Environmental Quality (Department). This permit is for a structural steel blasting and painting 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
Air Permitting Supervisor
Air Resources Management Bureau
(406) 444-3626

Rhonda Payne
Environmental Science Specialist
Air Resources Management Bureau
(406) 444-5287

JM:RP
Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

Montana Air Quality Permit #5086-00

ADF Industrial Coatings
1900 Great Bear Avenue
Great Falls, MT
59404

December 3, 2014

MONTANA AIR QUALITY PERMIT

Issued To:	ADF Industrial Coatings 1900 Great Bear Avenue Great Falls, MT 59404	MAQP: #5086-00 Application Complete: 9/3/14 Preliminary Determination Issued: 10/08/14 Department's Decision Issued: 11/17/14 Permit Final: 12/3/14 AFS #:013-0043

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to ADF Industrial Coatings (ADF), 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

ADF's operation includes an Innovative Blast Technologies (IBT) Wheelabrator and an IBT blast booth with a maximum process rate of 7 tons per hour (tph) of structured steel; a paint booth with a maximum process rate of 32.4 gallons per hour (gal/hr) of paint; and three air make up units. A summary of permitted equipment is contained in Section I.A of the Permit Analysis.

B. Plant Location

ADF intends to operate the structural steel blasting and painting facility located at 1900 Great Bear Avenue, Great Falls, MT. The legal description of the site location is Section 30, Township 21N, Range 4E, in Cascade County, MT.

Section II: Conditions and Limitations

A. Emission Limitations

1. Emissions of volatile organic compounds (VOC) shall not exceed 77.4 tons per year (tpy) per 12-month rolling total (ARM 17.8.1204).

2. Emissions of any single hazardous air pollutant (HAP) shall not exceed 4.82 tpy per 12-month rolling total (ARM 17.8.1204).

3. Emissions of combined HAPs shall not exceed 9.02 tpy per 12-month rolling total (ARM 17.8.1204).

4. Emissions of particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) shall not exceed 16.7 tpy from coating and blasting (ARM 17.8.1204).

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

6. ADF shall install and operate the source dust collection systems for the coating and blasting equipment as described in the MAQP application and according to the manufacturer's specifications. If overspray is visibly detected at the exhaust or accumulates on the ground, the source shall inspect the control device and do either of the following no later than four (4) hours after such observation (ARM 17.8.752):

    a. Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

    b. Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground. If overspray is visibly detected, the source shall maintain a record of the action taken as a result of the inspection, any repairs of the control devise, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

7. ADF 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).

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

9. ADF shall comply with all applicable standards and limitations, and the reporting, recordkeeping and notification requirements contained in 40 Code of Federal Regulations (CFR) 63, Subpart XXXXXX National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories (ARM 17.8.342 and 40 CFR 63, Subpart XXXXXX).

B. Testing Requirements

1. ADF shall conduct visual determination of fugitive emissions in accordance with the requirements in 40 CFR 63, Subpart XXXXXX (ARM 17.8.342 and 40 CFR 63 Subpart XXXXXX).

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

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

C. Operational Reporting Requirements

1. ADF shall prepare and submit annual certification and compliance reports for each affected source according to the requirements of 40 CFR 63, Subpart XXXXXX. (ARM 17.8. 342 and 40 CFR 63, Subpart XXXXXX)

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

   Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used to calculate operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505). ADF shall submit the following information annually to the Department by March 1 of each year; the information may be submitted along with the annual emission inventory (ARM 17.8.505).

   a. the company identification of each coating and cleanup material employed;

   b. solids content of each coating as applied;

   c. the VOC content of each coating and cleanup material, in lbs/gallon, as applied;

   d. the number of gallons of each coating and cleanup material employed;

   e. the VOC emission rate, in lbs, for each coating and cleanup material employed;

   f. the total VOC emission rate from all coatings and cleanup materials employed, in lbs;

   g. for the first 12 months of operation following the issuance of this permit, the cumulative monthly VOC emission, in tons; and

   h. after the first 12 month of operation following the issuance of this permit, the rolling, 12-month VOC in tons.

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

4. All records compiled in accordance with this permit must be maintained by ADF 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. ADF shall document, by month, the VOC emissions in tons. By the 25th day of each month, ADF shall total the tons of VOC emissions for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.1. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

6. ADF shall document, by month, the total emissions of each individual HAP, in tons. By the 25th day of each month, ADF shall total the tons of each individual HAP emissions for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.2. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

7. ADF shall document, by month, the total emissions from combined HAPs, in tons. By the 25th day of each month, ADF shall total the tons of HAP emissions for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.3. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

8. ADF shall document, by month, the total emissions PM_{10}, in tons. By the 25th day of each month, ADF shall total the tons of PM_{10} emissions for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.4. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

9. ADF 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 the certification requirements of ARM 17.8.1207. The annual certification shall be submitted along with the annual emission inventory information (ARM 17.8.749 and ARM 17.8.1204).

D. Notification

In accordance with 40 CFR 63, Subpart XXXXXX, ADF shall provide written initial notification and notification of compliance to the Department required for a new affected source no later than 120 days after initial startup (ARM 17.8.342 and ARM 17.8.749 and 40 CFR 63, Subpart XXXXXX)

SECTION III: General Conditions

A. Inspection – ADF 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 the terms, conditions, and matters stated herein shall be deemed accepted if ADF fails to appeal as indicated below.

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

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

E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefor, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.

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

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

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

Montana Air Quality Permit Analysis
ADF Industrial Coatings
MAQP #5086-00

I. Introduction/Process Description

ADF Industrial Coatings (ADF) owns and operates a structural steel blasting and painting facility in Great Falls, MT

A. Permitted Equipment

ADF plans to install and operate:

- Innovative Blast Technologies (IBT) Wheelabrator with a facility maximum process rate of 7 tons per hour (tph) of structured steel
- Blast booth containing two Axxiom Pressure Blast Pots with a facility maximum process rate of 7 tph of structured steel
- Paint booth with a maximum process rate of 32.4 gallons per hour (gal/hr) of paint.
- Two 45,000 cubic feet per minute (ft^3/min) air make up units (4,821,000 British Thermal Units (btu)).
- One 27,000 ft^3/min air make up unit (2,893,000 btu).

B. Source Description

The ADF Great Falls Structural Steel Blasting and Painting facility is an industrial blast prep and coatings facility. The preparation of steel components, prior to assembly, involves partial fabrication, surface preparation by steel shot metallic abrasive blasting, followed by paint application(s). These operations occur in separate buildings and at different times. ADF utilizes blast pots and one 14 Wheelabrator (both equipped with a 99.8% efficient cartridge dust control system) in the Blast Booth area and airless paint guns in the Paint Booth area (equipped with air make up units and exhaust units with 99.8% control efficiency). The coating projects often process a mix of standard steel structures/components, complex and heavy steel components and miscellaneous architectural metals; their proportion varying for each project.

II. Applicable Rules and Regulations

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

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

1. <u>ARM 17.8.101 Definitions</u>. 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).

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

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

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

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

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
9. ARM 17.8.222 Ambient Air Quality Standard for Lead
10. ARM 17.8.223 Ambient Air Quality Standard for PM_{10}
11. ARM 17.8.230 Fluoride in Forage

ADF 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, ADF shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.

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

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

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

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 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). This facility is not an NSPS affected source because it does not meet the definition of any NSPS subpart defined in 40 CFR Part 60.

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

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

   b. 40 CFR 63, Subpart XXXXXX - National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories. Owners or operators of an area source that is primarily engaged in the operations in one of the nine source categories listed in paragraphs (a)(1) through (9) of this section, including (a)(4) Fabricated Structural Metal Manufacturing, are subject to this subpart. The provisions of this subpart apply to each new and existing affected source listed and defined in paragraphs (b)(1) through (5) of this section if you use materials that contain or have the potential to emit metal fabrication or finishing metal HAP (MFHAP), defined to be the compounds of cadmium, chromium, lead, manganese, and nickel, or any of these metals in the elemental form with the exception of lead. ADF is subject to this

subpart because they own and operate a new structural metal coating facility. The affected source is defined as the collection of all equipment and activities necessary to perform abrasive blasting and coating operations which use materials that contain MFHAP or have the potential to emit MFHAP, and constructed after April 3, 2008.

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. ADF submitted the appropriate permit application fee for the current permit action.

2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit (excluding an open burning permit) issued by the Department. The air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

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

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

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

2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit modification to construct, modify, or use any air contaminant sources that have the potential to emit (PTE) greater than 25 tons per year of any pollutant. ADF has an uncontrolled PTE greater than 25 tons per year (tpy) of particulate matter (PM), PM with an aerodynamic diameter of 10 microns or less (PM_{10}), PM with an aerodynamic diameter of 2.5 microns or less ($PM_{2.5}$), and volatile organic compounds (VOC). Therefore, an air quality permit is required.

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

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

5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. ADF 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. ADF submitted an affidavit of publication of public notice for the September 22, 2014, issue of the *Great Falls Tribune*, a newspaper of general circulation in the Town of Great Falls in Cascade 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 ADF 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. 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 this facility is not a listed source and the facility's PTE is below 250 tons per year of any pollutant (excluding fugitive emissions).

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

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

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

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

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

2. ARM 17.8.1204 Air Quality Operating Permit Program. (1) Title V of the FCAA amendments of 1990 requires that all sources, as defined in ARM 17.8.1204(1), obtain a Title V Operating Permit. In reviewing and issuing MAQP #5086-00 for ADF, the following conclusions were made:

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

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

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

d. This facility is not subject to any current NSPS.

e. This facility is potentially subject to any current NESHAP standards (40 CFR 63, Subpart 63, Subpart XXXXXX – National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Nine Metal Fabrication and Finishing Source Categories).

f. This source is not a Title IV affected source, or a solid waste combustion unit.

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

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.

ADF 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. <u>ARM 17.8.1207 Certification of Truth, Accuracy, and Completeness</u>.

ADF 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 determined that ADF will be a minor source of emissions as defined under Title V based on requested federally enforceable permit limits.

III. BACT Determination

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

A BACT analysis was submitted by ADF in permit application #5086-00, addressing some available methods of controlling PM_{10} and VOC emissions from the structural steel blasting and painting facility. The Department reviewed these methods, as well as previous BACT determinations. The following control options have been reviewed by the Department in order to make the following BACT determination.

An assessment was made of the materials, process operations and practices for potential source identification. Potential sources of air emissions include (1) IBT Steel Shot 14-Wheel Wheelobrator Blast Machine, (1) IBT Steel Shot Blast Booth and (1) Paint Booth equipped with three Graco Airless Operated Paint units. The PTE is based on the theoretical maximum emissions of the blasting and painting operations, uncontrolled hourly emission rate times the maximum operation hours per year (8760 hrs).

The BACT evaluation process can be summarized as follows:

- Identify potential technologies for each pollutant for each emission unit;
- Eliminate the technically infeasible control technologies;
- Determine emission reduction potential for the remaining controls and rank them;
- Evaluate the costs, energy consumption, and any environmental impacts of the remaining control technologies, starting with the most effective control technology
- Evaluate the ranked controls based on energy, environmental, and/or economic considerations; and
- Select the most effective option that is not rejected because of costs, energy consumption, or environmental impacts.

ADF reviewed all available control technologies and control options that were not technically feasible for the specific project were removed from the list. The technologies that are considered technically feasible are then ranked in order of their effectiveness. Unless it is demonstrated that the energy, environmental, and/or economic impacts eliminate the most effective control technology, that technology is considered BACT. Upon careful and considered elimination of the most effective control option, (based upon energy, environmental, and/or economic considerations), the next most effective alternative is evaluated in the same manner. This process continues until a final control technology is selected and hence, considered BACT.

Structural Steel Cleaning System and IBT Steel Shot Air Blast Booth

The enclosed blasting room is designed for a 'flow thru' workflow, with work doors at each end. The entire system operates under negative pressure. The air flow is end-to-end with baffled air inlets allowing air into the blast room and exhaust plenums metering air into the dust collectors. The building is equipped with a roll conveyer and structural supports to allow for material handling. The facility is equipped with two longitudinal screw type assemblies for blasting media recovery, two elevator assemblies, and two 80-inch gravity-type air wash

separators for steel shot recycling. The elevator and abrasive separator both feed into one dust collector. The blast IBT Steel Shot 14 Wheel Wheelobrator is equipped with a dust collector. The two Axxiom Pressure Blast pots have a combined throughput capacity of 5000 lbs/hr (2.5 tph). Blasting shot is supplied via one 80-cubic foot abrasive storage hopper, which is continuously fed by the H recovery system. The H recovery system has two 100' X 36" metered auger and hopper assemblies. The air blasting facility is equipped with a 48,000 ft^3/min IBT 6052/12 cartridge pulse jet dust collection system.

Paint Booth

The painting operation utilizes three airless operated spray guns. The paint is applied at a maximum rate of approximately 10.8 gallons per hour per gun.

ADF, dependent on customer specifications, utilize various paint products. Emission estimates for a specific chemical would need to be based upon the paint product that contained the greater amount of the particular chemical.

The painting facility is equipped with two 45,000 ft^3/min Bousquest SDM 450 air make up units and one 27,000 ft^3/min Bousquest SDM 300 air make up unit. Air make up units are equipped with secondary filters multipleat design.

The sloped exhaust system is equipped with two 32,000 ft^3/min vaneaxial exhaust fans for paint mode and two 14,000 ft^3/min vaneaxial fans for both paint and drying mode. Two exhaust plenums house the filter control unit.

$PM/PM_{10}/PM_{2.5}$

Particulate matter (PM) (including total particulate, PM_{10} and $PM_{2.5}$) emissions from steel shot blasting either from the Wheelobrator or pot blasting originates from the breakdown of the steel shot as it comes in contact with the structural steel in addition to the impurities removed from the structural steel. There is a lack of available $PM_{2.5}$ emission rates. As such, the following conservative assumption was made: All PM emissions are PM_{10}, and all PM_{10} emissions are $PM_{2.5}$.

- Step 1 – Identify All Control Technologies

PM, PM_{10} and $PM_{2.5}$ emissions could theoretically be reduced in steel shot blasting operations by using several methods:

- Air Make Up units with Exhaust Fans
- Ambient Dust Collectors
- Source Capture Dust Collectors

A discussion of each type of control technology is contained below.

Make-Up Air Units with Exhaust Fans

Installation of two 40,000 ft^3/min air make up units with Exhaust Fans located in the building and necessary duct work. The air make up system was designed by a mechanical engineer to satisfy all State/Federal/building code fresh air requirements.

Source Capture Dust Collectors

Since the IBT Wheelobrator and the IBT Blast Room are self-enclosed, each can be equipped with an independent dust collection and control system.

The IBT Wheelobrator filter is comprised of twenty five 12 ¾" diameter x 52" long cartridge filters made of polyester reinforced media filter with an efficiency of 99.8%. The secondary filters are nine 24" x 24" multipleat box type filters with 95% efficiency at 1 micron and 99.7% at 3 micron.

The IBT Blast Room can be equipped with a 48,000 ft^3/min IBT 6052/12 cartridge pulse jet dust collection system. The unit is comprised of sixty five 12 ¾" diameter by 52" long cartridge filters made of polyester reinforced media filter. The secondary filters are nine 24" by 24" multipleat box type filters with 95% efficiency at 1 micron and 99.7% at 3 micron.

The source capture dust collectors in conjunction with the totally enclosed design of the IBT Wheelobrator and IBT Blast Booth provide the greatest benefit for dust control.

Ambient Dust Collectors

The main building can be equipped with multiple 48,000 ft^3/min IBT 6052/12 cartridge pulse jet dust collection systems. The units are comprised of sixty five 12 ¾" diameter by 52" long cartridge filters made of polyester reinforced media filter. The filter efficiency is 99.8%. The secondary filters are nine 24" by 24" multipleat box type filters with 95% efficiency at 1 micron and 99.7% at 3 micron.

- Step 2 – Eliminate Technically Infeasible Control Options

All of the control strategies under review are deemed technically feasible control options. Due to the IBT Wheelobrator and the IBT Blast Booth being totally enclosed units, the effectiveness of either the air make up units or the ambient dust collectors would be minimal compared to the source capture dust collectors available from the manufacturer as part of the design.

- Step 3 – Rank Remaining Control Technologies by Control Effectiveness

The following particulate control efficiency ranges were obtained from the appropriate EPA Air Pollution Control Fact Sheets. Note that where no size-specific efficiencies were provided, it was assumed that the stated efficiency range applied to all three particulate size categories even though there are likely significant differences in some cases, especially between control of filterable and condensable particulate emissions.

EPA Reported Particulate Control Efficiency Ranges
Control Technology PM, PM_{10}, $PM_{2.5}$

Because all of the proposed control equipment use similar filtration (except the air make up unit), all control efficiencies will be similar. The differences would be in the ultimate design flow rates.

Fabric filters 99-99.9%

- Step 4 - Evaluate Most Effective Controls and Document Results

Environmental Evaluation

No environmental impacts severe enough to eliminate any of these control technologies were identified.

Economic Evaluation

No additional economic evaluation was considered as the systems proposed meet and/or exceed the requirements of 40 CFR Part 63 Subpart XXXXXX. Since the use of source capture dust collectors would provide a maximum level of control efficiency, application of additional fabric filter controls would be redundant and result in an excessive economic burden with very limited improvement to the overall reduction of PM emissions. Therefore, installation of ambient dust collectors can be removed from consideration based on economic infeasibility.

- Step 5 - Identify BACT

Based on the feasibility of all the control options, ADF will be using IBT dust collection systems proposed with the IBT Wheelobrator and the IBT Blast Booth.

VOC

ADF has requested a 77.4 tpy facility wide VOC emission limit to maintain potential emissions at a minor source level. As such, the installation and operation of additional VOC pollution control devices would result in in an excessive economic burden for a relatively small reduction to the overall VOC emissions. This approach has been used in other permitting actions as a means to reduce potential emissions. Furthermore, 40 CFR 63, Subpart 63, Subpart XXXXXX requires specific good work practices to limit VOC emissions.

While an economic analysis was not performed, ADF has requested a VOC limit to maintain emissions below a major source threshold. If the facility was to operate at above the major source threshold, it would likely result in an excessive cost per ton control ratio which would make it an economically infeasible operation. The Department has determined that proper operation and maintenance of the equipment, along with compliance with applicable federal regulations, is BACT for VOC.

IV. Emission Inventory[1]

	Max PTE[2] (tpy)	Estimated Actual[3] (tpy)
PM_{10}	11,440	8.41
VOC	549	77.4
HAP (largest single)	34.24	4.82
Total HAPs	64.3	9.02
NOx	---	3.76

Note: 1. Emission inventory provided by applicant
2. Based on 8,760 hrs/y for blasting and painting
3. VOC actual emissions from painting based on 40,000 gal/hr and 25% overspray for Airless Operated Guns. PM actual emissions from blasting based on 3,000 hrs/y actual operating time and operation of source dust collection systems with 99.5% control efficiency.

Coating operations – Pounds/Gallon of Individual HAPs per Type of Coating:

HAP	TYPICAL COATINGS							
	LBS/GAL							
	Acrolon 218	MacroPoxy	Zinc Clad III	Zinc Clad II	Zinc Clad XI	Macropoxy 646	Hi Solids Polyurethane	ShopCoat
Ethylbenzene	0.0350*	0.0324	0.0184			0.0302		0.0262
Xylene	0.1750	0.2166*	0.1227			0.1815		0.0874
Napthalene	0.0175			0.0318*				
Hexamethylene Diisocyanate	0.0121*	0					0.0107	
Dibutyl Phthalate	0	0.1679*						
Methyl Isobutyl Ketone				0.0189		0.2412*		

*These are the coatings with the largest amount of the listed HAP. These HAPs are used to calculate the potential HAP in the table below.

Coating operations – Individual HAP Potential to Emit*:

HAP	LBS/HR					PTE		
	*Appl Rate (gph)	Applicators (# Guns)	Est Emissions (Lbs/Hr)	Transfer efficiency (TE)	Lbs/Hr Emitted	Hours	Lbs/Yr	Tons/Yr
Ethylbenzene	10.8	3	1.1345	1	1.1345	8760	9938.926	4.969
Xylene	10.8	3	7.0188	1	7.0188	8760	61484.79	30.742
Napthalene	10.8	3	1.0309	1	1.0309	8760	9031.36	4.515
Hexamethylene Diisocyanate	10.8	3	0.3923	1	0.3923	8760	3437.298	1.718
Dibutyl Phthalate	10.8	3	5.4412	1	5.4412	8760	47665.40	23.832
Methyl Isobutyl Ketone	10.8	3	7.8164	1	7.8164	8760	68472.14	34.236

*Appl Rate - 0.013 nozzle size = 0.18 gpm * 60 min = 10.8 gph

Coating operations – Proposed Controlled Individual HAP Emissions:

HAP	ACTUAL EMISSIONS			
	Gallons*	Lbs/Yr	Tons/Yr	Controlled (tpy)
Ethylbenzene	40000	1400.71	0.7003	0.700
Xylene	40000	8665.2	4.3326	4.332
Napthalene	40000	1272.81	0.6364	0.636
Hexamethylene Diisocyanate	40000	484.42	0.2422	0.242
Dibutyl Phthalate	40000	6717.6	3.3588	3.358
Methyl Isobutyl Ketone	40000	9649.94	4.8249	4.824

*Control is provided by way of annual limit on gallons used.

Coating operations – Combined HAP Emissions for each Coating:

	TYPICAL COATINGS							
	LBS/GAL							
	Acrolon 218	MacroPoxy	Zinc Clad III	Zinc Clad II	Zinc Clad XI	Macropoxy 646	Hi Solids Polyurethane	ShopCoat
HAPS COMBINED	0.2397	0.4171	0.1412	0.0508	0	0.4531*	0.0107	0.1137

*This value indicates the coating with the highest amount of combined HAPs. This value is used to calculate the max HAP PTE in the table below.

Coating operations – Maximum Combined HAP Potential to Emit:

	*Appl Rate (gph)	Applicators (# Guns)	Est Emissions (Lbs/Hr)	% Emitted*	Lbs/Hr Emitted	PTE (Hours)	PTE (Lbs/Yr)	**PTE (Tons/Yr)**
Macropoxy 646 0.4531 lb/gal	10.8	3	14.6805	1	14.6805	8760	128601.9	**64.3009**

Coating operations – Maximum Combined Controlled HAP Emission Rate:

	ACTUAL EMISSIONS			
Maximum Combined HAP Coating	Gallons	Lbs/Yr	Tons/Yr	**Controlled (tpy)**
Macropoxy 646: 0.4531 lb/gal	40000	18124.1874	9.0620937	**9.0620937**

Coating operations – PM and VOC Potential to Emit
Acrolon 218 HS Acrylic Polyurethane

Particulate Matter		lbs/gal				
Part A & B Mixed With Thinner	78.00%	10.626867	8.28895		10.858 lbs/gal mixed - 2.8 lbs/gal VOC	
Net Weight/gallon =			8.28895			
Lbs / Hour =	8.2889562	*10.8 gal/hr	89.5207	* 3 guns	268.5622	lbs/hr
					0.25	% Overspray
					67.14055	lbs/hr
VOC		lbs/gal				
Part A & Part B as Mixed With Thinner	100.00%	2.8	2.8		*From Product Data Sheet	
Net Weight/gallon =			2.8			
Lbs / Hour =	2.8	*10.8 gal/hr	30.24	* 3 guns	90.72	lbs/hr

Coating operations – PM and VOC Potential to Emit
Macropoxy HS

Particulate Matter		lbs/gal				
Part A & B Mixed With Thinner	82.00%	11.4995	9.42959		*From Product data Sheet	
Net Weight/gallon =			9.42959			
Lbs / Hour =	9.42959	*10.8 gal/hr	101.839572	* 3 guns	305.5187	lbs/hr
					0.25	% Overspray
					76.37968	lbs/hr
VOC		lbs/gal				
Part A & Part B as Mixed With Thinner	100.00%	2.5	2.5		*From Product Data Sheet	
Net Weight/gallon =			2.5			
Lbs / Hour =	2.5	*10.8 gal/hr	27	* 3 guns	81	lbs/hr

Coating operations – PM and VOC Potential to Emit
Zinc Clad III

Particulate Matter		lbs/gal				
Part A & B Mixed With Thinner	88.00%	26.7056	23.5009		*From Product Data Sheet	
Net Weight/gallon =			23.5009			
Lbs / Hour =	23.50093	*10.8 gal/hr	253.81	* 3 guns	761.430	lbs/hr
					0.25	% Overspray
					190.357	lbs/hr
VOC		lbs/gal				
Part A, B, & F as Mixed With Thinner	100.00%	1.31	1.31		*From Product Data Sheet 0.71 lbs/gal VOC + Thinner (0.6012) = 1.31	
Net Weight/gallon =			1.31			
Lbs / Hour =	1.31	*10.8 gal/hr	14.148	* 3 guns	42.444	lbs/hr

Coating operations – PM and VOC Potential to Emit
Zinc Clad II

Particulate Matter		lbs/gal				
Part A & B Mixed With Thinner	90.00%	26.34	23.706		* From Product Data Sheet	
Net Weight/gallon =			23.706			
Lbs / Hour =	23.706	*10.8 gal/hr	256.0248	* 3 guns	768.0744	lbs/hr
					0.25	% Overspray
					192.0186	lbs/hr
VOC		lbs/gal				
Part A, B, & F as Mixed With Thinner	100.00%	2.8	2.8		*From Product Data Sheet	
Net Weight/gallon =			2.8			
Lbs / Hour =	2.8	*10.8 gal/hr	30.24	* 3 guns	90.72	lbs/hr

Coating operations – PM and VOC Potential to Emit
Zinc Clad XI

Particulate Matter		lbs/gal				
Part A & B Mixed With Thinner	79.00%	25.194375	19.9035		*From Product Data Sheet	
Net Weight/gallon =			19.9035			
Lbs / Hour =	19.90356	*10.8 gal/hr	214.9584	* 3 guns	644.8752	lbs/hr
					0.25	% Overspray
					161.2188	lbs/hr
VOC		lbs/gal				
Part E	0.70%	6.881875	0.04817		*From MSDS - 0.07 lbs/gal	
Net Weight/gallon =			0.04817			
Lbs / Hour =	0.048173	*10.8 gal/hr	0.52026	* 3 guns	1.560809	lbs/hr

Coating operations – PM and VOC Potential to Emit
Macropoxy 646-100

Particulate Matter		lbs/gal				
Part A & B Mixed With Thinner	83.00%	12.91266	10.7175078		*From Product data Sheet	
Net Weight/gallon =			10.7175078			
Lbs / Hour =	10.71751	*10.8 gal/hr	115.7490842	* 3 guns	347.2473	lbs/hr
					0.25	% Overspray
					86.81181	lbs/hr
VOC		lbs/gal				
Part A & Part B as Mixed With Thinner	100.00%	0.83	0.83		*From Product Data Sheet	
Net Weight/gallon =			0.83			
Lbs / Hour =	0.83	*10.8 gal/hr	8.964	* 3 guns	26.892	lbs/hr

Coating operations – PM and VOC Potential to Emit
Hi Solids Polyurethane

Particulate Matter		lbs/gal				
Part S & T Mixed With Thinner	77.00%	10.569167	8.13825859		*From Product Data Sheet	
Net Weight/gallon =			8.13825859			
Lbs / Hour =	8.138259	*10.8 gal/hr	87.8931928	* 3 guns	263.6796	lbs/hr
					0.25	% Overspray
					65.91989	lbs/hr
VOC		lbs/gal				
Part S & Part T as Mixed With Thinner	100.00%	3.08	3.08		*From Product Data Sheet	
Net Weight/gallon =			3.08			
Lbs / Hour =	3.08	*10.8 gal/hr	33.264	* 3 guns	99.792	lbs/hr

Coating operations – PM and VOC Potential to Emit
ShopCoat Primer

Particulate Matter		lbs/gal				
Shopcoat	57.00%	9.416	5.36712		*From Product Data Sheet as Thinned	
Net Weight/gallon =			5.36712			
Lbs / Hour =	5.36712	*10.8 gal/hr	57.9649	* 3 guns	173.8947	lbs/hr
					0.25	% Overspray
					43.47367	lbs/hr
VOC		lbs/gal				
Shopcoat as Thinned	100.00%	3.87	3.87		*From Product Data Sheet as Thinned	
Net Weight/gallon =			3.87			
Lbs / Hour =	3.87	*10.8 gal/hr	41.796	* 3 guns	125.388	lbs/hr

Coating operations – Maximum PM and VOC Potential to Emit:

	*Appl Rate (gph)	Applicators (# Guns)	Est Emissions (Lbs/Hr)	% Emitted*	Lbs/Hr Emitted	PTE (Hours)	PTE (Lbs/Yr)	**PTE (Tons/Yr)**
Zinc Clad II - 23.706 lbs/gal	10.8	3	768.0744	0.25	192.0186	8760	1682082.9	**841.04**
Shop Coat - 3.87 lbs/gal	10.8	3	125.388	1	125.388	8760	128601.98	**64.30**

Coating operations – Maximum PM and VOC Emission Rate:

Maximum Combined HAP Coating	ACTUAL EMISSIONS				
	Gallons	Lbs/Yr	Tons/Yr	**Controls	**Controlled (tpy)**
PM	40000	948240	474.12	(.998)	**0.948**
VOC	40000	154800	77.4	0	**77.4**

** Controls = (E*(1-99.8% capture eff.))

VOC and PM emissions from surface coating operations are estimated based on the amount of coating applied, coating VOC and solids content, and paint solids transfer efficiency.

Blasting PM Emissions (No Limit on Hours of Operation):

	POTENTIAL TO EMIT (based on 8760 Hours Per Year)						
	Hrs	Tons Grit Used/hr	Tons Grit Used/yr	Emission Factor	Uncontrolled (lbs/yr)	Primary Filter	**Emissions (tpy)**
Pots	8760	2.5	21900	0.004	87.6	0.002	**0.1752**
Wheelabrator	8760	300	2628000	0.004	10512	0.002	**21.0240**
Total					10599.60		**21.1992**

Grit Used = per hour throughput based on manufacturer data

Emission Factor = .004 lb/lb shot per AP 42 Section 13.2.6 Pg 4-5 Table 4-2

Primary Filter Efficiency 99.8% per mfg specs

Blasting PM Emissions (Proposed Hours of Operation):

	ACTUAL EMISSIONS Based on Actual						
	Proposed Actual Hrs	Tons Grit Used/hr	Tons Grit Used/yr	Emission Factor	Uncontrolled (lbs/hr)	Primary Filter	**Emissions (tpy)**
Pots	3000	2.5	7500	0.004	**30**	0.002	**0.0600**
Wheelabrator	3000	300	900000	0.004	**3600**	0.002	**7.2000**
Total					**3630.00**		**7.2600**

Pots have a maximum throughput capacity @ 1/2" nozzles of 2500 lbs/hr

2 pots used concurrently would be 5000 lbs/hr = 2.5 tons/hr

14 Wheel machine has a throughput capacity of 300 tons/hr

Air Make Up Units:

	APPL RATE Ft3/Yr	PROD HRS Hr/Yr	USAGE RATE Ft3/Yr	Emission Factors lbs/ft3					PTE Emissions TPY				
				PM	SO2	NOx	CO	VOC	PM	SO2	NOx	CO	VOC
SDM 450													
Natural Gas (ft^3/hr)	5286	8760	4.6E+07	5.7E-06	6.0E-07	1.0E-04	2.0E-05	5.3E-06	1.3E-01	1.4E-02	2.3E+00	4.6E-01	1.2E-01
SDM 300													
Natural Gas (ft^3/hr)	3290	8760	2.9E+07	5.7E-06	6.0E-07	1.0E-04	2.0E-05	5.3E-06	8.2E-02	8.6E-03	1.4E+00	2.9E-01	7.6E-02
							Totals		2.1E-01	2.3E-02	3.8E+00	7.5E-01	2.0E-01

V. Existing Air Quality

The permit is for a structural steel blasting and painting facility to be located at 1900 Great Bear Avenue, Great Falls, MT. The legal description of the site location is Section 30, Township 21N, Range 4E, in Cascade County, MT. As of July 8, 2002, Cascade County is designated unclassified/attainment with all ambient air quality standards.

VI. Ambient Air Impact Analysis

The Department determined, based on the information provided and the conditions established in MAQP #5086-00, that the impacts from this permitting action will be minor. The Department believes it will not cause or contribute to a violation of any ambient air quality standard.

VII. Taking or Damaging Implication Analysis

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

YES	NO	
X		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	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?
		7a. Is the impact of government action direct, peculiar, and significant?
	X	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	X	7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?
	X	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

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

VIII. Environmental Assessment

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

Analysis Prepared By: Rhonda Payne
Date: 09/17/2014

DEPARTMENT OF ENVIRONMENTAL QUALITY
Permitting and Compliance Division
Air Resources Management Bureau
P.O. Box 200901, Helena, Montana 59620
(406) 444-3490

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued To: ADF Industrial Coatings

Montana Air Quality Permit Number (MAQP): MAQP #5086-00

Preliminary Determination Issued: 10/8/2014
Department Decision Issued: 11/17/14
Permit Final: 12/3/14

1. *Legal Description of Site*: The ADF Industrial Coatings (ADF) facility would be located at 1900 Great Bear Avenue, Great Falls, MT. The legal description of the site location is Section 30, Township 21N, Range 4E, in Cascade County, MT.

2. *Description of Project*: Structural steel blast prep and coatings facility.

3. *Objectives of Project*: ADF intends to construct a structural steel blasting and painting facility. The facility would prepare steel components which involve partial fabrication, surface preparation by steel shot metallic abrasive blasting, followed by paint application(s). These operations occur in separate buildings and at different times. ADF would utilize blast pots and one 14 Wheelabrator (both equipped with a 99.8% efficient cartridge dust control system) in the Blast Booth area and airless paint guns in the Paint Booth area (equipped with air make up units and exhaust units with 99.8% control efficiency). The coating projects often process a mix of standard steel structures/components, complex and heavy steel components and miscellaneous architectural metals; their proportion varying for each 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 air quality preconstruction permit to the proposed facility. However, the Department does not consider the "no-action" alternative to be appropriate because ADF 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 #5086-00.

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

This permitting action would have a minor effect on terrestrial and aquatic life and habitats in the project area. The project would be located on private land owned by ADF. The current land is a fallow field with dry land grass coverage, though it is zoned industrial. Further explanation regarding potential impacts on terrestrial and aquatic life and habitats can be found in Section G of this analysis. The Department has determined that any impacts from emissions or deposition of pollutants would be minor due to dispersion characteristics of the pollutants, the atmosphere, and the conditions that would be placed in MAQP #5086-00.

B. Water Quality, Quantity and Distribution

This project would have a minor effect on the water quality, water quantity, and distribution. Increased runoff from the facility will be contained in an engineered onsite storm water detention pond. Further, minor impacts to the surrounding area from the air emissions would be realized due to dispersion of pollutants.

C. Geology and Soil Quality, Stability and Moisture

The project would have a minor effect on the geology and soil quality, stability, and moisture. ADF would be entirely located on approximately 100 acres of private land owned by ADF. The property has been cut and filled, and a cover of 1-inch crushed gravel has been placed. Further, minor impact to the surrounding area from the air emissions (see Section VI of the permit analysis) would be realized due to dispersion of pollutants.

D. Vegetation Cover, Quantity, and Quality

The project would have a minor effect on the local vegetation. Further explanation regarding potential impacts on vegetation cover, quantity and quality can be found in Section G of this analysis. However, the impacts from emissions or deposition of pollutants would be minor due to dispersion characteristics of the pollutants, the atmosphere, and the conditions that would be placed in MAQP #5086-00.

E. Aesthetics

The project would have a minor effect on the local aesthetics. The project would be entirely located on approximately 100 acres of private land owned by ADF and ¼ mile from a nearby malt plant. The property would be bordered by Highway (Hwy) 87 on the west and industrial areas on the other three sides. It is not anticipated that there will be any increased noise levels associated with the planned activities.

F. Air Quality

The area surrounding the proposed project is unclassifiable/attainment for the National Ambient Air Quality Standards (NAAQS) for all criteria air pollutants. Emissions of air pollutants would occur as a result of the operation of the facility. However, MAQP #5086-00 would contain conditions limiting opacity and require, as necessary, the use of water, chemical dust suppressants, or water spray bars to control dust from vehicle traffic. If the facility operates in compliance with all applicable permit requirements, then the effects would be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The Department contacted the Montana Natural Heritage Program (MNHP) in an effort to identify any species of special concern associated with the proposed site location. MNHP identified occurrences of three plant and animal species of concern within the vicinity of the proposed project location. The bald eagle and burrowing owl which are classified as sensitive by the U.S. Forest Service, and the U.S. Bureau of Land Management and the Little Indian Breadroot, a vascular plant classified as sensitive by the U.S. Bureau of Land Management. The ADF facility would impact the unique endangered, fragile, or limited environmental resources because emissions of PM_{10}, $PM_{2.5}$, VOC and HAPs would increase in the area due to operation of the facility. However, the Department believes that any impacts would be minor due to the relatively small amount of the above listed pollutants emitted, dispersion characteristics of the pollutants and the atmosphere, and conditions placed in MAQP #5086-00, including, but not limited to, BACT requirements discussed in Section V of the permit analysis for this permit.

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

Demands on environmental resources of water, air, and energy would be minor. The project would require minimal use of water and energy. The project would result in minor increases in PM_{10}, $PM_{2.5}$, VOC and HAPs, however, the Department believes that any impacts would be minor due to dispersion characteristics of pollutants and the atmosphere, and conditions placed in MAQP #5086-00, including, but not limited to, BACT requirements discussed in Section III of the permit analysis for this permit.

I. Historical and Archaeological Sites

In an effort to identify any historical and archaeological sites near the proposed project area, the Department contacted the Montana Historical Society, State Historic Preservation Office (SHPO). It is SHPO's position that any structure over fifty years of age would be considered historic and would be potentially eligible for listing on the National Register of Historic Places. If any structures are to be altered and are over fifty years old, the recommendation is that they be recorded and a determination of their eligibility be made. According to the SHPO search, there have been no previously recorded sites within the designated search locale. Because ADF would not disturb or alter any structure over fifty years of age, SHPO determined that there would be a low likelihood that cultural properties would be impacted. SHPO believes that a recommendation for a cultural resource inventory is unwarranted at this time. Therefore, it is unlikely the current permit action will have an adverse effect on any known historic or archaeological site. However, should structures need to be altered or if cultural materials be inadvertently discovered during this project SHPO should be contacted and the site investigated.

J. Cumulative and Secondary Impacts

The proposed construction and operation of the steel fabrication plant at the ADF facility would result in a minor impact to the physical environment. Therefore, it is not expected that the proposed project, in conjunction with current operations, would result in any significant cumulative impact to the physical environment. Further, it is not expected that the current permit action will result in any secondary impacts on the physical environment.

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

The proposed facility would not cause a disruption to any native or traditional lifestyles or communities (social structures or mores) in the area because the source would be a minor industrial source, the property on which the project would occur is private land owned by ADF, and the proposed project would not change the predominant use of the surrounding area.

B. Cultural Uniqueness and Diversity

The Department believes that the proposed project would not impact the cultural uniqueness and diversity of the surrounding area because the project would be located on private land in an area surrounded by industrial or agricultural properties.

C. Local and State Tax Base and Tax Revenue

The project would have a moderate effect on the local and state tax base and revenue due to the taxes generated from the purchase of supplies and the plant payroll (see Section G – Quantity and Distribution of Employment).

D. Agricultural or Industrial Production

The operation of this steel fabricating facility may have impacts on local industrial production due to its close proximity to neighboring facilities, but would have only a minor impact since the facility would be a minor source of air emissions. The project would result in a minor impact to the agricultural production because potential agricultural land would be cleared for the project. Agricultural impacts would be limited to the land owners.

E. Human Health

MAQP #5086-00 would incorporate conditions to ensure that the facility 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. As described in Section 8.F of this EA, any additional emissions that would result would be minimized by conditions in MAQP #5086-00. Therefore, only minor impacts would be expected on human health from the proposed project.

F. Access to and Quality of Recreational and Wilderness Activities

Based on the information received from ADF, there is no hunting access, recreational activities or wilderness areas near the proposed project site. Therefore, no impacts to the access to and quality of recreational and wilderness activities would be expected.

G. Quantity and Distribution of Employment

ADF stated 80 employees would be employed as a result of the proposed project. The project may be expected to have long-term affects upon the quantity and distribution of employment. It is expected that some individuals would be expected to permanently relocate to this area as a result of this facility. Therefore, moderate effects upon the quantity and distribution of employment and population in this area would be expected.

H. Distribution of Population

The project may be expected to have long-term affects upon the distribution of population. It is expected that some individuals would be expected to permanently relocate to this area as a result of this facility. Therefore, moderate effects upon the distribution of population in this area would be expected.

I. Demands for Government Services

Only a limited increase in traffic on existing roadways is expected from the construction and operation of this plant. Traffic would likely be from employee travel to and from the site. 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. In

addition, the permitted source of emissions would be subject to periodic inspections by government personnel. Increased demands on employee water and sewage disposal facilities would occur. However, demands for government services would be expected to be minor.

J. Industrial and Commercial Activity

The operation of the new equipment would represent a moderate increase in the industrial activity in the proposed area of operation because the source would be a relatively medium sized industrial source and located on private property.

K. Locally Adopted Environmental Plans and Goals

The Department is not aware of any locally adopted environmental plans and goals within this area. The MAQP would contain limits for protecting air quality and keeping facility emissions in compliance with state and federal air quality standards.

L. Cumulative and Secondary Impacts

Overall, cumulative and secondary impacts from the proposed permit on the economic and social resources of the human environment in the immediate area would be minor due to the fact that the predominant use of the surrounding area would not change as a result of the proposed project. 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 #5086-00.

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 the structural steel blasting and painting facility. MAQP #5086-00 includes conditions and limitations to ensure the facility will operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

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

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

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