August 8, 2016

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

Dear Mr. Rooney:

Montana Air Quality Permit #5086-01 is deemed final as of August 4, 2016, 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
Permitting Services Section Supervisor
Air Quality Bureau
(406) 444-3626

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

JM:RP
Enclosure

Montana Department of Environmental Quality
Air, Energy, and Mining Division

Montana Air Quality Permit #5086-01

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

August 4, 2016

MONTANA AIR QUALITY PERMIT

Issued To:	ADF Industrial Coatings 1900 Great Bear Avenue Great Falls, MT 59404	MAQP: #5086-01 Application Received: 3/14/2016 Additional Information Received: 5/10/2016 Preliminary Determination Issued: 06/17/2016 Department's Decision Issued: 07/19/2016 Permit Final: 08/04/2016 State ID #: 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. Plant Location

ADF operates a 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.

B. Current Permit Action

On March 16, 2016, the Department received a request from ADF to modify MAQP #5086 to increase the emissions limits up to 95 tons per year (tpy) of particulate matter (PM) and volatile organic compounds (VOC), up to 9 tpy of a single hazardous air pollutant (HAP) and up to 23 tpy of combined HAPs. This increase would allow ADF the flexibility to react to their customer's needs while maintaining their status as a minor source of emissions. The Department determined that the increase in the PM limit was neither necessary nor appropriate, as explained in the Current Permit Action section I.D of the Permit Analysis. The current permit action updates the annual VOC, individual HAP, and combined HAPs emissions limits.

Section II: Conditions and Limitations

A. Emission Limitations

1. Emissions of volatile organic compounds (VOC) shall not exceed 95 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 9 tpy per 12-month rolling total (ARM 17.8.1204).

3. Emissions of combined HAPs shall not exceed 23 tpy per 12-month rolling total (ARM 17.8.1204).

4. 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).

5. ADF shall install and operate the dust collection systems for the IBT Wheelobrator and IBT Blast Booth and the air make-up units for the Paint Booth 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.

6. 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).

7. 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).

8. 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 recorded monthly and 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. 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 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).

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 #5086-01

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 operates the following equipment:

- 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.

C. Permit History

On August 14, 2014, the Department of Environmental Quality (Department) received an application from ADF to construct a 46,000 sq. ft. structural steel blast prep and coatings facility in Great Falls, MT. ADF had calculated particulate matter (PM), volatile organic compounds (VOC), and hazardous air pollutant (HAPs) potential to emit (PTE) and determined PTE was above the Title V thresholds. In the application for the Montana Air Quality Permit (MAQP) 5086-00, ADF had requested self-imposed limits of 95 tons per year (tpy) PM and VOC, 9 tpy individual HAP and 23 tpy combined HAPs. The emissions calculations provided by ADF showed "estimated maximum actual" emissions that were lower than the requested limits. The Department approved ADF for the limits of 77 tpy VOC, 16.7 tpy PM, 4.82 tpy individual HAP and 9.02 tpy combined HAPs.

The Department requested additional emissions calculation information on the make up air units on September 12, 2014 and received the information from ADF on September 15, 2014. The Department issued **MAQP #5086-00** on December 3, 2014.

D. Current Permit Action

ADF submitted an application to the Department on March 14, 2016, to modify MAQP 5086-00. The application was ruled incomplete for lack of payment and proof of public notice. These items were due to the Department April 29, 2016 and were received by the Department on May 10, 2016.

ADF requested an increase in emission limits because the 2015 actual emissions exceeded the MAQP 5086-00 permit limits for individual HAP and combined HAPs. ADF experienced the elevated annual HAP emissions due to the use of a particular solvent for a customer's needs that was not contemplated during initial permitting. This solvent had higher potential HAP emissions and resulted in more annual HAP emissions than what was envisioned during initial permitting. In order to maintain the flexibility to meet their various customers' requirements while maintaining their status as a minor source of emissions, ADF requested an increase in allowable annual emissions that still maintains their status as a minor source. The requested new emission limits are: 95 tpy PM and VOC, 9 tpy individual HAP and 23 combined HAPs. ADF does not intend to make any changes to their operations or add new emissions units as part of this request.

A baghouse is required for control of PM emissions from blasting and coating operations. Based on 99.8% control efficiency of the baghouse and no limit on hours of operation or throughput, the source has the potential to emit a maximum of 37.9 tpy of PM. Therefore, it is neither necessary nor appropriate to permit this source beyond the maximum potential to emit levels. The current permit action updates the annual emissions limits to the requested levels for VOC, single HAP and combined HAPs, and removes the PM tpy emission limitation condition. **MAQP #5086-01** replaces MAQP #5086-00.

II. Applicable Rules and Regulations

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

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

1. <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. <u>ARM 17.8.105 Testing Requirements</u>. 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 May 5, 2016, 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 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. (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 #5086-01 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 on annual VOC, individual HAP, and combined HAP emissions.

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 not submitted by ADF in permit application #5086-01 because the modification is not adding a new source or altering an existing source or method of operation; the proposed action is only requesting an increase in emission limits while utilizing the same equipment and pollution control requirements established during initial permitting.

III. Emission Inventory

	Max PTE[a] (tpy)	Max Allowable PTE[b] (tpy)
PM	38	38[c]
VOC	549	95
HAP (largest single)	34	9
Total HAPs	64	23
NOx	4	4

Note: a. Based on 8,760 hrs/y for blasting and painting with no operational limitations
b. Where appropriate, ADF requested voluntary limits on maximum allowable emissions to avoid triggering major source classification.
c. The source requested allowable PM emissions of 95 tpy, however the Department determined that maximum potential PM emissions would be much lower than the requested allowable emission level with the requirement to operate the source dust collection systems with 99.8 control efficiency. Therefore, the Department did not grant the requested allowable PM tpy level.

<u>HAP and VOC Emissions:</u>

Most coatings used at ADF contain multiple components such as a gloss, a hardener and a thinner. These components are used in varying ratios based on the desired product. Examples of some of the coatings ADF generally uses are below:

Acrolon 218
Macropoxy HS
Macropoxy 646-100
ZincCladII
ZincClad III
ZincClad XI
Hi Solids Polyurethane
Shopcoat Primer

The maximum potential to emit is based on 8,760 hours per year and no limit on throughput. In the case of ADF, this would represent a maximum application rate of 10.8 gallons per hour per gun, up to three guns. ADF has requested limits to maintain HAP and VOC emissions below the Title V threshold.

To calculate the potential to emit of combined HAPs, the various paint products are analyzed and emission estimates for specific chemicals are calculated. The coating with the highest combined HAP is used to calculate the combined HAP emission rate.

$$\frac{lbs}{gal}_{Combined\ HAPS} = \sum\left[\left(\frac{lb}{gal}\right) \times (\%\ weight)\right]_{part\ a} + \left[\left(\frac{lb}{gal}\right) \times (\%\ weight)\right]_{part\ b} + [(\cdots)]_{part\ n} + \left[\left(\frac{lb}{gal}\right) \times (\%\ weight)\right]_{thinner}$$

$$\frac{lb}{hr} combined\ HAPS = \left(\frac{lbs\ combined\ HAP}{gal\ paint}\right) \times \left(\frac{gal}{hr}\right) \times (\#guns)$$

NOTE: the (lbs combined HAP/gal paint) value represents the coating with the highest amount of combined HAPs.

$$\frac{tons}{yr} combined\ HAPS = \left(\frac{lb}{hr} combined\ HAPS\right) \times \left(\frac{8760\ hr}{yr}\right) \times \left(\frac{1ton}{2000lbs}\right)$$

Calculating the single HAP emission rate can be done as follows:

$$\frac{lb}{hr} HAP = \left(\frac{lb\ HAP}{gal\ paint}\right) \times \left(\frac{gal}{hr}\right) \times (\#guns)$$

$$\frac{tons}{yr} HAP = \left(\frac{lb}{hr} HAP\right) \times \left(\frac{8760\ hr}{yr}\right) \times \left(\frac{1ton}{2000lbs}\right)$$

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. Calculating VOC potential to emit from coating can be described by the following general equation:

$$\frac{lb}{hr} VOC = \left(\frac{lb\ VOC}{gal\ paint}\right) \times \left(\frac{gal}{hr}\right) \times (\#guns)$$

$$\frac{tons}{yr} VOC = \left(\frac{lb}{hr} VOC\right) \times \left(\frac{8760\ hr}{yr}\right) \times \left(\frac{1ton}{2000lbs}\right)$$

The (lb VOC/gal paint) is taken from Material Safety Data Sheets

Calculating PM emissions from painting:

$$\frac{lbs}{gal}_{PM} = \sum\left[\left(\frac{lb}{gal}\right) \times (\%\ weight)\right]_{part\ a} + \left[\left(\frac{lb}{gal}\right) \times (\%\ weight)\right]_{part\ b} + [(\cdots)]_{part\ n} + \left[\left(\frac{lb}{gal}\right) \times (\%\ weight)\right]_{thinner}$$

$$\frac{lb}{hr} PM = \left(\frac{lbs\ PM}{gal\ paint}\right) \times \left(\frac{gal}{hr}\right) \times (\#guns) \times (\%overspray^{**})$$

NOTE: the (lb PM/gal paint) value represents the coating with the highest amount of PM.

The requested maximum allowable emission level of 95 tpy VOC corresponds to a maximum throughput of approximately 49,000 gallons of paint, as indicated in the following table:

Coating operations – Maximum Allowable PM and VOC Emission Rate:

	ACTUAL EMISSIONS				
Maximum Coating	Gallons	Lbs/Yr	Tons/Yr	Pollution Control Efficiency	**Controlled (tpy)**
PM	49000	1161594	580.80	99.8%[a]	**1.16**
VOC	49000	22202.13	94.82	0	**94.82**

[a] A baghouse is required for control of PM emissions from blasting and coating operations. (E*(1-99.8% capture eff.))

An example of PM potential to emit from blasting equipment is represented in the following table:

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)	Pollution Control Efficienty	**Emissions (tpy)**
Pots	8760	2.5	21900	0.004	87.6	99.8%	**0.18**
Wheelabrator	8760	300	2628000	0.004	10512	99.8%	**21.02**
Total					10599.60		**21.20**

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

Based on 99.8% control efficiency of the baghouse and no limit on hours of operation or throughput, the source has the potential to emit a maximum of 37.9 tpy of PM. Therefore, it is neither necessary nor appropriate to permit this source beyond the maximum potential to emit levels.

Air Make Up Units:

				Emission Factors					PTE Emissions TPY				
				lbs/ft3									
	APPL RATE Ft3/Yr	PROD HRS Hr/Yr	USAGE RATE Ft3/Yr	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 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 #5086-01, 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: 06/7/2016

DEPARTMENT OF ENVIRONMENTAL QUALITY
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Air Quality Bureau
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FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued To: ADF Industrial Coatings

Montana Air Quality Permit Number (MAQP): MAQP #5086-01

Preliminary Determination Issued: 06/17/2016
Department Decision Issued: 07/19/2016
Permit Final: 08/04/2016

1. *Legal Description of Site*: The ADF Industrial Coatings (ADF) facility is 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*: On March 14, 2016, the Department of Environmental Quality (Department) received an application to modify Montana Air Quality Permit (MAQP) #5086-00 to increase the annual allowable levels of volatile organic compound (VOC), individual hazardous air pollutant (HAP), and combined HAPs. There were proposed changes facility operations or emitting units. The annual allowable emission limits are voluntary limits to maintain ADF's designation as a minor source of emissions.

4. *Alternatives Considered*: In addition to the proposed action, the Department also considered the "no-action" alternative. The "no-action" alternative would prevent ADF from exceeding the annual emission levels established in MAQP #5086-00 which were shown to negatively impact their ability to provide their services to customers, despite not triggering any additional major source permitting requirements. The no-action alternative could prevent ADF from adequately addressing their customers' needs. Another alternative considered was to provide the requested increases in emission levels in conjunction with limits on the types of solvents that could be processed by ADF. The Department did not pursue this alternative because restricting the types of solvents that could be used would also negatively impact ADF's ability to respond to unanticipated customer requirements and it would not provide additional environmental benefit beyond the limit of maximum allowable emissions.

5. *A Listing of Mitigation, Stipulations, and Other Controls*: A list of enforceable conditions, including a BACT analysis, would be included in MAQP #5086-01.

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

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

A. Terrestrial and Aquatic Life and Habitats

The facility would continue to potentially emit air pollutants and corresponding deposition of pollutants would occur. However, as described in Section 7.F. of this EA, the Department determined that any impacts from deposition would be minor. The proposed permit action would have no impacts on terrestrial and aquatic life and habitats.

B. Water Quality, Quantity and Distribution

Minor amounts of water may continue be required to control fugitive dust emissions from the access roads and the general facility property. The facility would emit air pollutants and corresponding deposition of pollutants would occur, however, as described in Section 7.F. of this EA, the Department determined that any impacts from deposition would be minor. The proposed permit action would have no impacts on water quality, quantity, and distribution.

C. Geology and Soil Quality, Stability and Moisture

Deposition of pollutants would continue to occur; however, as described in Section 7.F of this EA, the Department determined that the chance of deposition of pollutants impacting the geology and soil in the areas surrounding the site would be minor. The proposed increase in air emissions that could occur at the facility would have minor impacts on geology and soil quality, stability, and moisture. 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

Minor impacts would continue to occur on vegetation cover, quantity and quality; however, no new construction would take place at the facility so no new disturbance would occur.

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 #5086-01.

E. Aesthetics

No aesthetic impacts would result because the look of the facility would not be changing. It is not anticipated that there will be any increased noise levels associated with the potential increase in emissions.

F. Air Quality

The air quality of the area would experience a minor impact from modification. The current permit action would allow for an increase in the potential to emit the following air pollutants: VOC, individual HAP and combined HAPs. An increase in deposition of these pollutants may occur. However, the Department determined that any impacts from deposition would be minor due to dispersion characteristics of pollutants, the surrounding atmosphere and conditions placed in MAQP #5086-01. The facility is located in an area designated as unclassifiable/attainment for the National Ambient Air Quality Standards (NAAQS) for all criteria air pollutants. MAQP #5086-01 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. Overall, the proposed permit action would have minor impacts on air quality.

G. Unique Endangered, Fragile, or Limited Environmental Resources

No discernible change in impacts to any unique endangered, fragile, or limited environmental resources would be expected as a result of this permit action. Emissions of PM, VOC and HAPs would potentially increase in the area. 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 #5086-01.

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

Deposition of pollutants would continue to occur as a result of operating the facility, however the Department determined that any impacts on air and water resources from the pollutants (including deposition) would be minor.

I. Historical and Archaeological Sites

According to State Historical Preservation Office (SHPO) records, there have been no previously recorded sites within the facility boundaries. However, SHPO stated that the absence of cultural properties in the area does not mean that they do not exist, but may reflect a lack of previous cultural resource inventories in the area. The Department determined that there would be no impacts to any historical and archaeological sites in the area due to the fact that this is an existing facility with no new ground disturbance and no additional equipment is being proposed.

J. Cumulative and Secondary Impacts

The operation of the steel fabrication plant at the ADF facility would result in a minor impact to the physical environment. It is not expected that the increase in potential emissions, in conjunction with current operations, would result in any significant cumulative impact to the physical environment. Further, it is not expected that the emissions increases will result in any secondary impacts on the physical environment.

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

A. Social Structures and Mores

The permitting action would not be expected to cause a disruption to any native or traditional lifestyles or communities (social structures or mores) in the area. The nature of the site would not be changed and additional employment is not expected.

B. Cultural Uniqueness and Diversity

The permitting action would not impact the cultural uniqueness and diversity of the surrounding area because the facility is located on private land in an area surrounded by industrial or agricultural properties. The nature of the site would not be changed and additional employment is not expected.

C. Local and State Tax Base and Tax Revenue

The proposed project would result in no impacts to the local and state tax base and tax revenue because no new employees would be hired as a result of the change to emission limits and no equipment would be added that might generate property taxes.

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.

E. Human Health

As explained in Section 7.F. of this EA, deposition of pollutants would continue to occur; however, MAQP #5086-01 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. 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 existing facility. Therefore, no impacts to the access to and quality of recreational and wilderness activities would be expected.

G. Quantity and Distribution of Employment

The proposed change would have no impact on the quality and distribution of employment because no new permanent employees would be hired as a result of the proposed project. Current ADF employees would continue to be responsible for the day-to-day operation of the facility.

H. Distribution of Population

This permitting action does not involve any physical change that would be expected to affect the location, distribution, density or growth rate of the human population. The distribution of population would not be expected to change as a result of this action.

I. Demands for Government Services

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

J. Industrial and Commercial Activity

No additional industrial or commercial activity would result solely from the operation of the facility. No impacts to industrial and commercial activities in the area would occur.

K. Locally Adopted Environmental Plans and Goals

The Department is not aware of any locally adopted environmental plans and goals that would be affected by issuing MAQP #5086-01, which 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, no cumulative and secondary impacts from the proposed increase in emissions would occur to the economic and social resources of the human environment in the immediate area.

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 #5086-01 includes conditions and limitations to ensure the facility will operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

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

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

EA prepared by: Rhonda Payne
Date: 6/8/2016