**TECHNICAL REVIEW AND EVALUATION**
**OF APPLICATION FOR**
**AIR QUALITY PERMIT No. 98446**

## I. INTRODUCTION

This Class II synthetic minor renewal permit is for the continued operation of MI Metal, Inc.'s Prescott Valley Plant. Permit No. 98446 renews and supersedes Permit No. 73219.

The facility's potential to emit (PTE) for volatile organic compounds (VOCs), without controls or operating limitations, is greater than the significant threshold level. The facility has accepted voluntarily emission limitation of 90 tons per year (tpy) for VOCs, 22.5 tpy for combined hazardous air pollutants (HAPs) and 9 tpy for single HAPs to stay below major source thresholds. Therefore, a Class II synthetic minor permit is required under Arizona Administrative Code (A.A.C.) R18-2-306.01

Company Information

| | |
|---|---|
| Facility Name: | MI Metals – Prescott Valley Plant |
| Mailing Address: | 7555 E. State Route 69, Suite B, Prescott Valley, AZ 86314 |
| Facility Location: | 301 Commerce Blvd., Oldsmar, FL 34677 |

### A. Attainment Classification

The facility is located in Coconino County. An area that is classified as an attainment for all criteria pollutants.

## II. PROCESS DESCRIPTION

### A. Process Equipment

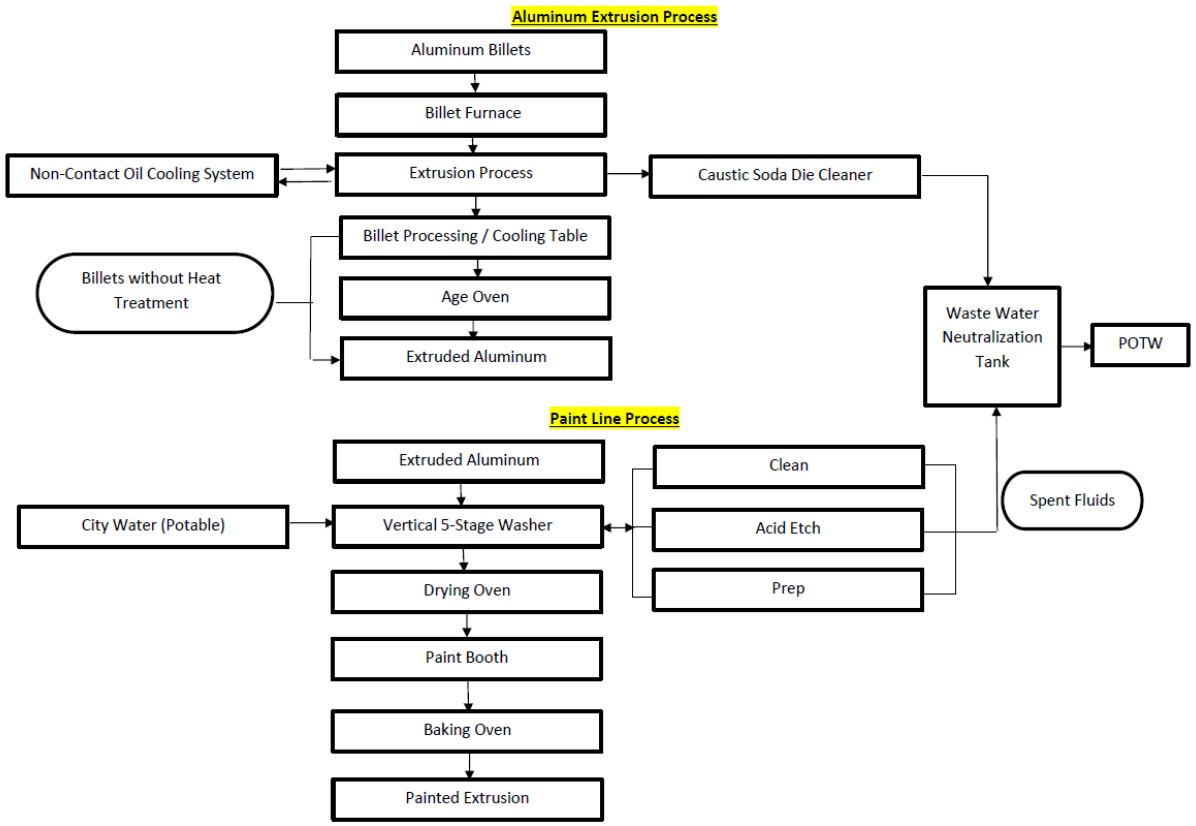
Aluminum billets are heated then extruded through a horizontal hydraulic extrusion press to form extrusions. These are transferred to an oven for homogenization. Extrusions are then either shipped to customers or transferred to the paint line for coating. At the paint line, extrusions are washed in aqueous solution, oven dried, electrostatic coated in two spray paint booths, and paint cured in an oven. Solvents are used to clean up spray paint equipment and overspray in the paint booths. Die forms used in the process are cleaned in heated caustic baths to remove residual product.

### B. Control Devices

Two (2) spray booths are used to control emissions from spray painting operations..

### C. Process Flow Diagram

**FIGURE 3 – PROCESS FLOW DIAGRAMS**




## III. COMPLIANCE HISTORY

Four (4) annual compliance certifications have been reviewed since the issuance of Permit No. 73219. There were no excess emissions or permit deviation reports submitted during the previous compliance period. One physical or virtual? inspection was performed on November 3, 2021. No deficiencies were noted during the inspection.

## IV. EMISSIONS

The facility's potential to emit (PTE) was calculated using equipment maximum capacities and emission factors from AP-42 Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3 and 1.4-4 as provided in Table 1:

**Table 1: PTE (tpy)**

| Pollutant | Previous PTE | Change in PTE | Current PTE | Permitting Exemption Thresholds | Minor NSR Triggered? |
|---|---|---|---|---|---|
| $NO_X$ | 12.01 | 0.00 | 12.01 | 40 | No |

| | | | | | |
|---|---|---|---|---|---|
| $PM_{10}$ | 0.91 | 0.00 | 0.91 | 15 | No |
| $PM_{2.5}$ | 0.91 | 0.00 | 0.91 | 10 | No |
| CO | 10.09 | 0.00 | 10.09 | 100 | No |
| $SO_2$ | 0.07 | 0.00 | 0.07 | 40 | No |
| VOCs | ≤ 90 | 0.00 | 90 | 40 | No |
| HAPs | ≤ 9 (single) / ≤ 22.5 (combined) | 0.00 | 9 (single) / 22.5 (combined) | 10 (single)/ 25 (combined) | No |
| GHG ($CO_2e$) | 3,591 | 0.00 | 3,591 | 75,000 | No |

## V. VOLUNTARILY ACCEPTED EMISSION LIMITATION

The permit contains the following voluntary emission limitation:

**Facility-Wide Limitations**

The facility has accepted voluntary emission limitations of 90 tpy for VOCs, 22.5 tpy for combined HAPs and 9 tpy for single HAPs. The limitations were incorporated into Permit No. 32347 issued back in 2004.

## VI. APPLICABLE REGULATIONS

Table 2 identifies applicable regulations and verifies as to why these apply. The table also contains a discussion of any regulations the emission units are exempt from.

**Table 2: Applicable Regulations**

| Unit | Control Device | Rule | Discussion |
|---|---|---|---|
| Aging Oven | N/A | A.A.C. R18-2-724.A; A.A.C. R18-2-724.C; A.A.C. R18-2-724.J | These rules are applicable to fossil-fuel fired equipment at industrial and commercial installations which are less than 250 MMBtu/hr capacity, but on aggregate at any premises are rated at greater than 0.5 MMBtu/hr, and in which fuel is burned for the primary purpose of producing steam, hot water, hot air or other liquids, gases, or solids and in the course of doing so the products of combustion do not come into direct contact with process materials. |
| Billet Furnace, Washer Tank Heater, Drying Oven, Baking Oven, Paint Room Heater, Hook Burn-Off Oven and Caustic Die Tank Heater | N/A | A.A.C. R18-2-730.A.1.a; A.A.C. R18-2-730.B; A.A.C. R18-2-730.D; A.A.C. R18-2-730.F; A.A.C. R18-2-730.G | These rules are applicable to unclassified sources not otherwise subject to standards of performance under Articles 7, 9, or 11 of A.A.C. Title 18, Chapter 2. |
| | | A.A.C. R18-2-702.B.3; A.A.C. R18-2-702.C | These rules are general provisions for all existing, stationary, point sources not otherwise subject to opacity standards relating to specific types of sources covered elsewhere in Chapter 2 of A.A.C. Title 18. |
| Spray Paint Line with Two Paint Booths | Enclosures with Controls | A.A.C. R18-2-727 | This rule is applicable to any spray painting operation. |
| | | A.A.C. R18-2-702.B.3; A.A.C. R18-2-702.C | These rules are general provisions for all existing, stationary, point sources not otherwise subject to opacity standards relating to specific types of sources covered elsewhere in Chapter 2 of A.A.C. Title 18. |
| Fugitive Dust | Water Trucks, Dust Suppressants | A.A.C. R18-2 Article 6; A.A.C. R18-2-702 | These standards are applicable to all fugitive dust sources at the facility. |

| Unit | Control Device | Rule | Discussion |
|---|---|---|---|
| Abrasive Blasting | Wet Blasting; Dust Collecting Equipment; Other Approved Methods | A.A.C. R-18-2-702; A.A.C. R-18-2-726 | These standards are applicable to any abrasive blasting operation. |
| Spray Painting | Enclosures | A.A.C. R18-2-702; A.A.C. R-18-2-727 | These standards are applicable to any spray painting operation. |
| Demolition/Renovation | N/A | A.A.C. R18-2-1101.A.12 | This standard is applicable to any asbestos related demolition or renovation operations. |

## VII. PREVIOUS PERMIT REVISIONS AND CONDITIONS

**A.** Previous Permit Revisions

No permit revisions were made to Permit No. 73219.

**B.** Changes to Current Renewal

Table 3 addresses the changes made to conditions and sections from Permit No. 73219.

**Table 3: Previous Permit Conditions**

| Section No. | Determination | | | Comments |
|---|---|---|---|---|
| | Added | Revised | Deleted | |
| Att. "A" | | X | | General Provisions:<br>Revised to represent the most recent permitting language and format. |
| Att. "B" Section I | | X | | Facility-Wide Requirements:<br>Revised to represent the most recent permitting language and format. |

## VIII. MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

Table 4 contains an inclusive but not an exhaustive list of the monitoring, recordkeeping and reporting requirements prescribed by the air quality permit. The table below is intended to provide insight to the public for how the facility is required to demonstrate compliance with the emission limits in the permit. Records are required be kept for a minimum of five (5) years as outlined in Section XII of Attachment "A" of the permit.

**Table 4: Permit No. 98446**

| Emission Unit | Pollutant | Emission Limit | Monitoring Requirements | Recordkeeping Requirements | Reporting Requirements |
|---|---|---|---|---|---|
| Facility-Wide | VOCs | 90 tpy | The Permittee will keep daily logs of total usage of VOC containing compounds in gallons. | The Permittee is required to maintain on-site records of the manufacturer's specifications or the Operation and Maintenance Plan.<br>The Permittee is required to maintain on-site records of all emission related maintenance performed on the emission units. | The Permittee is required to submit rolling 12-month totals of VOC emissions and submit reports for all monitoring activities required. |
| Facility-Wide | HAPs | 9 tpy (single) / 22.5 tpy (combined) | The Permittee will keep daily logs of total usage of all HAPs containing compounds in gallons. | The Permittee is required to maintain on-site records of the manufacturer's specifications or the Operation and Maintenance Plan.<br>The Permittee is required | The Permittee is required to submit rolling 12-month totals of HAPs emissions and submit reports for all monitoring activities required. |

| Emission Unit | Pollutant | Emission Limit | Monitoring Requirements | Recordkeeping Requirements | Reporting Requirements |
|---|---|---|---|---|---|
| | | | | to maintain on-site records of all emission related maintenance performed on the emission units. | |
| Fugitive Dust | PM | 40% Opacity | A Method 9 observer is required to conduct a quarterly survey of visible emissions. | The Permittee is required to record of the dates and types of dust control measures employed, and if applicable, the results of any Method 9 observations, and any corrective action taken to lower the opacity of any excess emissions. | |
| Abrasive Blasting | PM | 20% Opacity | | The Permittee is required to record the date, duration and pollution control measures of any abrasive blasting project. | |
| Spray Painting | VOCs | 20% Opacity<br>Control 96% of the Overspray | | The Permittee is required to maintain records of the date, duration, quantity of paint used, any applicable MSDS, and pollution control measures of any spray painting project. | |

| Emission Unit | Pollutant | Emission Limit | Monitoring Requirements | Recordkeeping Requirements | Reporting Requirements |
|---|---|---|---|---|---|
| Demolition/ Renovation | Asbestos | | | The Permittee is required to maintain records of all asbestos related demolition or renovation projects including the "NESHAP Notification for Renovation and Demolition Activities" form and all supporting documents. | |

## IX. LEARNING SITE EVALUATION

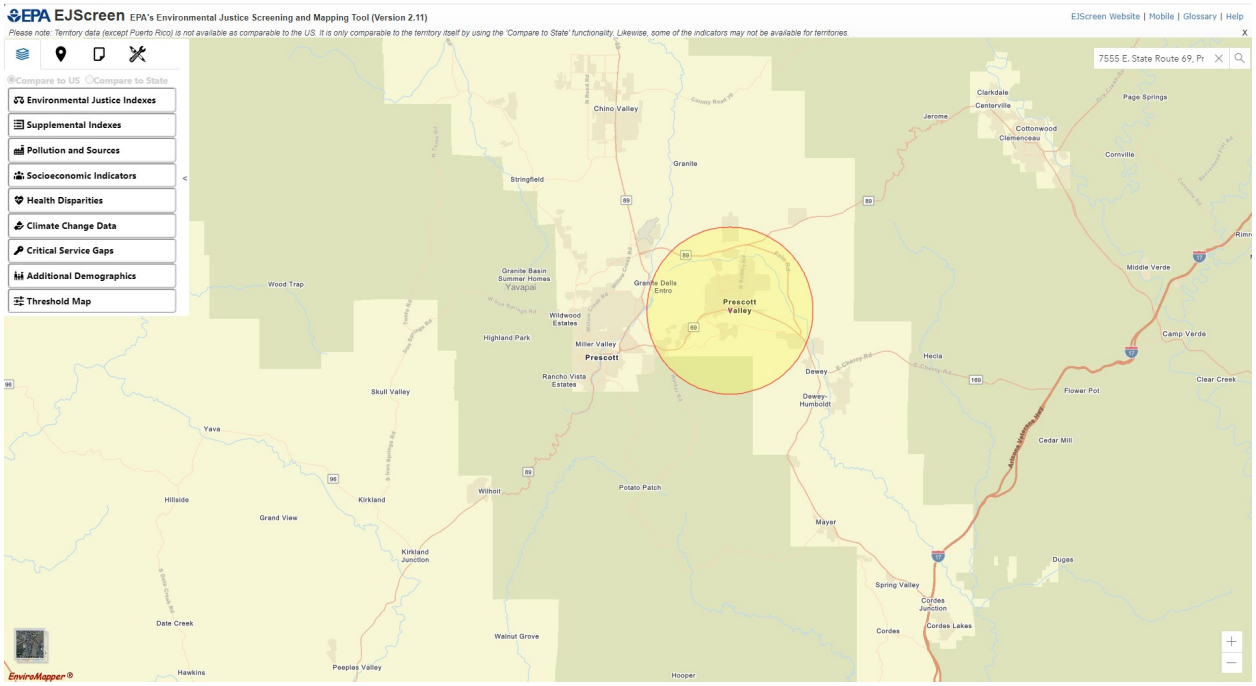
In accordance with ADEQ's Environmental Permits and Approvals near Learning Sites Policy, the Department is required to conduct an evaluation to determine if any nearby learning sites would be adversely impacted by the facility. Learning sites consist of all existing public schools, charter schools and private schools the K-12 level, and all planned sites for schools approved by the Arizona School Facilities Board. The learning sites policy was established to ensure that the protection of children at learning sites is considered before a permit is issued by ADEQ.

There are no changes in emissions during this renewal as there were no changes to any equipment or processes. Therefore, a learning site evaluation was not conducted.

## X. ENVIRONMENTAL JUSTICE ANALYSIS

The Environmental Protection Agency (EPA) defines Environmental Justice (EJ) to include the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and polices. The goal of completing an EJ assessment in permitting is to provide an opportunity for overburdened populations or communities to allow for meaningful participation in the permitting process. Overburdened is used to describe the minority, low-income, tribal and indigenous populations or communities that potentially experience disproportionate environmental harms and risks due to exposures or cumulative impacts or greater vulnerability to environmental hazards. This renewal permit does not allow or permit any increases in emissions and will not result in any additional impacts.

The EPA developed EJSCREEN, a publicly available tool that uses nationally consistent data, to produce maps and reports detailing environmental and demographic indicators that can be used to evaluate EJ concerns. The EPA selected an 90th percentile threshold for this action to evaluate the potential for EJ concerns in a community, meaning that if the area of interest exceeds the 90th percentile for one or more of the EJ indexes, the EPA considers that area to have a high potential for EJ concerns. The ADEQ mapped the location of MI Metals – Prescott Valley Plant and reviewed a five-mile radius around the facility for potential environmental justice concerns (see Figure 1 below).




**A.** Demographics

The ADEQ relied on data from the EPA EJ Screen tool to assess the demographics of the communities near the initial location for this proposed facility. The EJSCREEN report shows that the Socioeconomic Indicators; People of Color Population, Low Income Population, Unemployment Rate, Limited English Speaking Population, Population with Less Than High School Education, Population Under 5 years of age, Population over 64 years of age, and Population with Low Life Expectancy are all below the 90th percentile threshold. ADEQ posts a notice in two newspapers of general circulation within the surrounding community, as well as publishes the notice electronically to ensure that the community has ample opportunity to provide comments on the draft documents prior to a final permitting decision.

**B.** Summary of Air Quality

All air quality related environmental indicators within a 5-miles radius of the facility were below the 90$^{th}$ percentile for both Arizona and the USA averages with the exception of Ozone. Ozone was in the 90$^{th}$ percentile for the USA averages, and the 25$^{th}$ percentile for the Arizona averages. ADEQ does not believe that the emissions from the facility will result in any significant environmental or public health impacts.

**C.** Conclusion

The ADEQ concludes that the protections afforded by Arizona Revised Statutes (A.R.S.) § 49-426, which is imposed through the permit, ensure that the public health and environment in Arizona are protected and that the public notice and comment

opportunities afforded to the community on this new permit application satisfy the public participation component of the EPA EJ Guidance.

## XI. LIST OF ABBREVIATIONS

A.A.C.....Arizona Administrative Code
ADEQ.....Arizona Department of Environmental Quality
A.R.S.....Arizona Revised Statutes
CO.....Carbon Monoxide
$CO_2$.....Carbon Dioxide
$CO_2e$.....$CO_2$ equivalent basis
EPA .....Environmental Protection Agency
GHG.....Greenhouse Gases
HAP.....Hazardous Air Pollutant
hr.....Hour
MMBtu……..……Million British Thermal Units
$NO_X$ .....Nitrogen Oxides
PM.....Particulate Matter
PM10.....Particulate Matter less than 10 µm nominal aerodynamic diameter
PM2.5.....Particulate Matter less than 2.5 µm nominal aerodynamic diameter
PTE.....Potential to Emit
$SO_2$.....Sulfur Dioxide
tpy.....Tons per Year
VOCs.....Volatile Organic Compounds