

Facility Name: **MI Metals, Inc. - Millen**
 City: Millen
 County: Jenkins
 AIRS #: 04-13-165-00011

Application #: TV-16083
 Date Application Received: March 8, 2005
 Permit No: 3354-165-0011-V-02-0

Program	Review Engineers	Review Managers
SSPP	Laura Warner	Eric Cornwell
ISMP	Sid Stephens	Richard Taylor
SSCP	Pierre Sanon	James Eason
Toxics	N/A	N/A

Introduction

This narrative is being provided to assist the reader in understanding the content of the attached draft Part 70 operating permit. Complex issues and unusual items are explained herein simpler terms and/or greater detail than is sometimes possible in the actual permit. This permit is being issued pursuant to: (1) Georgia Air Quality Act, O.C.G.A § 12-9-1, et seq. and (2) Georgia Rules for Air Quality Control, Chapter 391-3-1, and (3) Title V of the Clean Air Act. Section 391-3-1-.03(10) of the Georgia Rules for Air Quality Control incorporates requirements of Part 70 of Title 40 of the Code of Federal Regulations promulgated pursuant to the Federal Clean Air Act. The primary purpose of this permit is to consolidate and identify existing state and federal air requirements applicable to **MI Metals, Inc. - Millen** and to provide practical methods for determining compliance with these requirements. The following narrative is designed to accompany the draft permit and is presented in the same general order as the permit. It initially describes the facility receiving the permit, the applicable requirements and their significance, and the methods for determining compliance with those applicable requirements. This narrative is intended as an adjunct for the reviewer and to provide information only. It has no legal standing. Any revisions made to the permit in response to comments received during the public participation and EPA review process will be described in an addendum to this narrative.

I. Facility Description**A. Facility Identification**

1. Facility Name:

MI Metals, Inc. - Millen

2. Parent/Holding Company Name

J.T. Walker Industries, Inc.

3. Previous and/or Other Name(s)

Previously known as Metal Industries, Inc., of California.

4. Facility Location

3015 Industrial Park Road
Millen, GA 30442

5. Attainment, Non-attainment Area Location, or Contributing Area

The facility is located in an attainment area (Jenkins County) for ground level ozone and all other criteria pollutants.

6. Class I Area Impacts

The facility is located within 200 km of the Wolf Island Wilderness Area in Georgia.

B. Site Determination

There are no other facilities which could possibly be contiguous or adjacent and under common control.

C. Existing Permits

Table 1 below lists all current Title V permits, all amendments, 502(b)(10) changes, and off-permit changes, issued to the facility, based on a comparative review of form A.6, Current Permits, of the Title V application and the "Permit" file(s) on the facility found in the Air Branch office.

Table 1: List of Current Permits, Amendments, and Off-Permit Changes

Permit Number and/or Off-Permit Change	Date of Issuance/Effectiveness	Purpose of Issuance
3354-165-0011-V-01-0	September 29, 2000	Initial Title V permit for the operation of an aluminum door and window manufacturing and coating facility

D. Process Description

1. SIC Codes(s)

3354 – Aluminum Extruded Products

3479 – Coating, Engraving, and Allied Services, Not Elsewhere Classified

The SIC Code(s) identified above were assigned by EPD's Air Protection Branch for purposes pursuant to the Georgia Air Quality Act and related administrative purposes only and are not intended to be used for any other purpose. Assignment of SIC Codes by EPD's Air Protection Branch for these purposes does not prohibit the facility from using these or different SIC Codes for other regulatory and non-regulatory purposes.

Should the reference(s) to SIC Code(s) in any narratives or narrative addendum previously issued for the Title V permit for this facility conflict with the revised language herein, the language herein shall control; provided, however, language in previously issued narratives that does not expressly reference SIC Code(s) shall not be affected.

2. Description of Product(s)

The facility manufactures and coats aluminum door and window frames.

3. Overall Facility Process Description

The facility manufactures and coats aluminum door and window frames. Aluminum billets are preheated in the billet furnaces to soften them before being extruded in the extrusion presses. Extruded aluminum is heat treated in an aging oven to harden the aluminum. Next, the extruded aluminum is cleaned in heated wash line cleaner to prepare the surface for painting and then dried in an oven. The aluminum extrusion is then painted in the electrostatic paint booths with extreme performance and high performance architectural coatings. Each paint booth has a filter to control particulate emissions. The painted aluminum extrusion is cured in a bake oven and then packaged and shipped. The extrusion press dies are cleaned in a heated caustic bath, and the hooks used to hang the aluminum extrusion during painting are cleaned in a burn-off oven. Solvents are used in the paint booths for paint clean up and line flushing.

4. Overall Process Flow Diagram

The facility provided a process flow diagram in their Title V permit application.

E. Regulatory Status

1. PSD/NSR

The facility is a minor source under PSD. Potential VOC emissions exceed the annual PSD threshold of 250 tons per year but the facility is subject to a VOC emission limit of 249 tons per year in order to avoid PSD review.

2. Title V Major Source Status by Pollutant

Table 2: Title V Major Source Status

Pollutant	Is the Pollutant Emitted?	If emitted, what is the facility's Title V status for the pollutant?		
		Major Source Status	Major Source Requesting SMStatus	Non-Major Source Status
PM	yes			✓
PM ₁₀	yes			✓
SO ₂	yes			✓
VOC	yes	✓		
NO _x	yes			✓
CO	yes			✓
TRS	n/a			
H ₂ S	n/a			
Individual HAP	yes	✓		
Total HAPs	yes	✓		

3. MACT Standards

The facility is considered a major source for hazardous air pollutants and is subject to 40 CFR 63, Subpart M, "NESHAP for the Surface Coating of Miscellaneous Metal Parts and Products". The facility must comply with 40 CFR 63, Subpart M no later than January 2, 2007.

4. Program Applicability (AIRS Program Codes)

Program Code	Applicable (y/n)
Program Code 6 - PSD	No
Program Code 8 – Part 61 NESHAP	No
Program Code 9 - NSPS	No
Program Code M – Part 63 NESHAP	Yes
Program Code V – Title V	Yes

Regulatory Analysis

II. Facility Wide Requirements

A. Emission and Operating Caps:

The facility has an emission cap of 249 tons per year. Potential VOC emissions exceed the annual PSD threshold of 250 tons per year, so the facility is subject to a VOC emission limit of 249 tons per year in order to avoid PSD review.

A toxic impact assessment (TIA) was performed for this facility in 1997 as part of the technical review for Permit Application No. 9545. The two paint booths were modeled based on the 249 tpy VOC emission limit and 1996 paint usage for another facility owned by the same company. None of the VOCs modeled exceeded the acceptable ambient concentrations.

B. Applicable Rules and Regulations

The facility is subject to 40 CFR 63, Subpart M, “NESHAP for the Surface Coating of Miscellaneous Metal Parts and Products”.

C. Compliance Status

The facility is currently operating in compliance with all of the rules or regulations mandated in the current operating permit.

D. Operational Flexibility

None applicable.

E. Permit Conditions

Condition No. 2.1.1 is an existing condition that prohibits the entire facility from emitting volatile organic compounds (VOC) in excess of 249 tons during any twelve consecutive months.

Condition No. 2.2.1 is a new condition that requires the facility to comply with all applicable parts of the General Provisions of 40 CFR Part 63, Subpart A.

Condition No. 2.2.2 is a new condition that requires the facility to comply with all applicable provisions of 40 CFR 63, Subpart M, “NESHAP for the Surface Coating of Miscellaneous Metal Parts and Products”.

III. Regulated Equipment Requirements

A. Brief Process Description

The facility manufactures and coats aluminum door and window frames.

Aluminum billets are preheated in the 5.4 MMBtu/hr natural-gas-fired billet furnaces (Emission Unit ID Nos. H01 and H10) to soften them before being extruded in the extrusion presses. The natural gas combustion products are emitted via stacks SH01 and SH10 respectively.

Extruded aluminum is heat treated in a 5 MMBtu/hr natural-gas-fired aging oven (Emission Unit ID No. H02) to harden the aluminum. The natural gas combustion products are emitted via stack SH02.

The extruded aluminum is then cleaned in heated wash line cleaner, heated by the 5 MMBtu/hr natural-gas-fired wash line cleaning tank heater (Emission Unit ID No. H03), to prepare the surface for painting. The natural gas combustion products are emitted via stack SH03. Three wash line cleaners are used, which include hazardous components such as potassium hydroxide, ethylenediaminetetraacetic acid (EDTA) tetrasodium salt, hydrofluoric acid, and hexafluorotitanic acid.

The cleaned and extruded aluminum is then dried in a 5 MMBtu/hr natural-gas-fired drying oven (Emission Unit ID No. H04). The natural gas combustion products are emitted via stack SH04.

The aluminum extrusion is then painted in the electrostatic paint booths (Emission Unit ID Nos. PB5 and PB6) with extreme performance (maximum 3.5 lbs VOC/gal) and high performance (maximum 6.2 lbs VOC/gal) architectural coatings. Each paint booth has a filter (Air Pollution Control Device ID Nos. F1 and F2 respectively) to control particulate emissions, which are emitted via stacks SPB5 and SPB6 respectively.

The painted aluminum extrusion is cured in a 5.5 MMBtu/hr natural-gas-fired bake oven (Emission Unit ID No. H08) and then packaged and shipped. The natural gas combustion products are emitted via stack SH08.

The extrusion press dies are cleaned in a heated caustic bath, heated by the 0.066 MMBtu/hr natural-gas-fired die cleaner tank heater (Emission Unit ID No. H07), and the natural gas combustion products are emitted via stack SH07.

The hooks used to hang the aluminum extrusion during painting are cleaned in a 0.35 MMBtu/hr natural-gas-fired burn-off oven (Emission Unit ID No. H09), and the natural gas combustion products are emitted via stack SH09.

Solvents are used for the cleanup of paint and for line flushing in the paint booths, and VOCs and HAPs in the solvents are emitted fugitively.

B. Equipment List for the Process

Emission Units		Specific Limitations/Requirements	Air Pollution Control Devices	
ID No.	Description	Applicable Requirements/Standards	ID No.	Description
PB5	Paint Booth No. 1	391-3-1-.02-(2)(b) 391-3-1-.02-(2)(e) 391-3-1-.02-(2)(ii) 40 CFR 63, Subpart M MMM	F1	Paint Booth No. 1 Filter
PB6	Paint Booth No. 2	391-3-1-.02-(2)(b) 391-3-1-.02-(2)(e) 391-3-1-.02-(2)(ii) 40 CFR 63, Subpart M MMM	F2	Paint Booth No. 2 Filter
PCO1	Parts Cleaning Operations	391-3-1-.02-(2)(ii)	None	None

C. Equipment & Rule Applicability

Equipment and Rule Applicability specified in Permit No. 3354-165-0011-V-01-0 is discussed in the initial Title V permit narrative for this permit. Please refer to this narrative.

In addition to the rules specified in Permit No. 3354-165-0011-V-01-0, MI Metals, Inc. is subject to 40 CFR 63, Subpart M MMM, "NESHAP for the Surface Coating of Miscellaneous Metal Parts and Products", effective January 2, 2007.

40 CFR 63, Subpart M MMM, "NESHAP for the Surface Coating of Miscellaneous Metal Parts and Products", applies to any facility that is a major source for hazardous air pollutants, engages in the application of surface coatings to miscellaneous metal parts and products, and are not specifically regulated by another coating NESHAP. This rule specifically places limits on the emission of hazardous air pollutants from equipment that is used to prepare the metal substrate for coating, equipment used to apply coating, equipment used to dry or cure the coating after application and equipment used to clean coating equipment. The facility may choose from one of three options (compliant material, emission rate without add-on control equipment, or emission rate with add-on control equipment) in order to comply with Subpart M MMM. If the emission rate with add-on controls option is used (which is not applicable to MI Metals), the facility must also follow work practices and prepare a startup, shutdown and malfunction plan. If the facility uses coating subject to different Subpart M MMM subcategory emission limits, the facility may: (1) comply with each subcategory emission limit separately, (2) comply with the emission limits for the predominant activity, or (3) comply with a facility-specific emission limit (with option 3 also not applicable to MI Metals). The predominant activity cannot be high performance coating, rubber-to-metal coating, or extreme performance fluoropolymer coating. The dominant activity must account for 90% or more of surface coating activity (in gallons of coating solids as determined by usage and volume solids content). Predominant activity must be demonstrated initially and annually thereafter. The initial predominant activity calculations must be submitted with the initial notification (construction permit application). The predominant activity demonstration must include at least 1 year of data.

D. Compliance Status

See Section II(C).

E. Operational Flexibility

None applicable.

F. Permit Conditions

Condition 3.3.1 requires the Permittee to comply with emission limits in the Surface Coating of Miscellaneous Metal Parts and Products MACT (40 CFR 63, Subpart M MMM) using the Compliant Material Option in Condition 3.3.2(a) or the Emission Rate Without Add-On Controls Option in Condition 3.3.2(b) as per 40 CFR 63.3891. The Add-On Control Option is not applicable to MI Metals, Inc. since there are currently no VOC/HAP control devices being used.

Condition 3.3.2 details the two options that the facility may use to comply with 40 CFR 63, Subpart M MMM: the Compliant Material Option, which is described in Condition 3.3.2(a), or the Emission Rate Without Add-on Controls Option, which is described in Condition 3.3.2(b).

Condition 3.3.3 enables the facility to verify compliance with the Surface Coating of Miscellaneous Metal Parts and Products NESHAP by determining the predominant activity conducted at the facility. This allows the facility to assume that all operations are the same as long as the predominant activity equals at least 90 percent of the coating activity conducted at the entire facility and is considered to be in the general use or magnet wire subcategories stipulated in Subpart M MMM.

Condition 3.4.1 is an existing condition (formerly Condition 3.4.2) that establishes Georgia Rule (e), which limits the particulate matter emissions from all specified sources to an amount that does not exceed the value calculated by the following equation: $E = 4.1P^{0.67}$ where "E" is the emission rate in pounds per hour and "P" is the process input rate in tons per hour. The condition was modified to make the condition more flexible.

Condition 3.4.2 is an existing condition (formerly Condition 3.4.3) that establishes Georgia Rule (b), which limits the visible emissions from specified sources to opacity less than 40 percent. The condition was modified to make the condition more flexible.

Condition 3.4.3 is an existing condition (formerly Condition 3.4.1) that establishes Georgia Rule (ii) to the surface coating operations at the facility. The condition was modified to incorporate the entire rule.

Condition 3.4.4 details the methods by which the facility shall comply with the limits specified in Condition 3.4.3.

Condition 3.5.1 is an existing condition that requires the facility to change the filters controlling the particulate matter emissions from the paint booths at least once every 3 days of operation.

IV. Testing Requirements (with Associated Record Keeping and Reporting)**A. General Testing Requirements**

The permit includes a requirement that the Permittee conduct performance testing on any specified emission unit when directed by the Division. Additionally, a written notification of any performance test(s) is required 30 days prior to the date of the test(s) and a test plan is required to be submitted with the test notification. Test methods and procedures for determining compliance with applicable emission limitations are listed and test results are required to be submitted to the Division within 60 days of completion of the testing.

B. Specific Testing Requirements**1. Individual Equipment**

None applicable.

2. Equipment Groups (all subject to the same test requirements):

None applicable.

V. Monitoring Requirements**A. General Monitoring Requirements**

Condition 5.1.1 requires that all continuous monitoring systems required by the Division be operated continuously except during monitoring system breakdowns and repairs. Monitoring system response during quality assurance activities is required to be measured and recorded. Maintenance or repair is required to be conducted in an expeditious manner.

B. Specific Monitoring Requirements**1. Individual Equipment:**

None applicable.

2. Equipment Groups (all subject to the same monitoring requirements):

None applicable.

C. Compliance Assurance Monitoring (CAM)

Not Applicable. Control devices are not used to achieve compliance with the emission limits.

VI. Record Keeping and Reporting Requirements

A. General Record Keeping and Reporting Requirements

The Permit contains general requirements for the maintenance of all records for a period of five years following the date of entry and requires the prompt reporting of all information related to deviations from the applicable requirements. Records, including identification of any excess emissions, exceedances, or excursions from the applicable monitoring triggers, the cause of such occurrence, and the corrective action taken, are required to be kept by the Permittee and reporting is required on a semiannual basis.

B. Specific Record Keeping and Reporting Requirements

Condition 6.2.1 requires the facility to submit a notification of compliance status with 40 CFR 63 Subpart MMMM to the EPD and EPA by March 1, 2008.

Condition 6.2.2 requires the reporting of all deviations from the requirements of the coating MACT in the form of a semiannual compliance report.

Condition 6.2.3 addresses a recordkeeping requirement under the coating MACT.

Condition 6.2.4 requires the facility to maintain records specifying the compliance option used and the time period for use of the specific compliance option under the coating MACT.

Condition 6.2.5 specifies the recordkeeping required should the facility comply with the coating MACT by choosing the *Compliant Material Option*.

Conditions 6.2.6, 6.2.11, and 6.2.12 specify the recordkeeping required should the facility comply with the coating MACT by choosing the *Emission Rate without Add-on Controls Option*.

Conditions 6.2.7, 6.2.8, 6.2.9, and 6.2.10 are recordkeeping requirements under the coating MACT.

Condition 6.2.13 requires the facility to maintain monthly and/or daily records of all materials used in the entire facility that contain volatile organic compounds.

Conditions 6.2.14 through 6.2.16 require the facility to calculate the monthly VOC emissions and a twelve-month rolling total of VOCs emitted from specific production areas of the plant.

Condition 6.2.17 outlines the methods by which the facility may demonstrate compliance with Georgia Rule (ii).

Condition 6.2.18 requires the facility to notify the Division in the event emissions from the miscellaneous metal parts coating operations exceed the limits mandated by Georgia Rule (ii) and specified in Condition 3.4.3.

Condition 6.2.19 requires the facility to keep a record of the date and time of the replacement of each paint booth filter.

VII. Specific Requirements

A. Operational Flexibility

Not applicable.

B. Alternative Requirements

Not applicable.

C. Insignificant Activities

Refer to <http://airpermit.dnr.state.ga.us/GATV/default.asp> for the Online Title V Application.

Refer to the following forms in the Title V permit application:

- Form D.1 (Insignificant Activities Checklist)
- Form D.2 (Generic Emissions Groups)
- Form D.3 (Generic Fuel Burning Equipment)
- Form D.6 (Insignificant Activities Based on Emission Levels of the Title V permit application)

See Attachment B for the list of Insignificant Activities in existence at the facility at the time of permit issuance.

The facility listed the two billets furnaces, the aging oven, the wash line cleaning tank heater, the drying oven, the bake oven, the die cleaner tank heater, and the hook burn-off oven as significant emission units in the application, but these emission units only burn natural gas and have low capacities, with the largest capacity being 5.5 MMBtu/hr. Based on their capacities, these emission units are exempt from permitting as insignificant activities based on emission levels (Section D6 of the application) since each one potentially emits less than 10,000 pounds per year of any regulated air pollutant.

D. Temporary Sources

Not applicable.

E. Short-Term Activities

Not applicable.

F. Compliance Schedule/Progress Reports

The effective date for conditions containing requirements of 40 CFR Part 63, Subpart M MMM, "Surface Coating of Miscellaneous Metal Parts and Products," is indicated in Condition No. 2.2.2.

Requirements and schedules for 40 CFR Part 63, Subpart M MMM compliance status notifications and semiannual compliance reports are described in Condition Nos. 6.2.1 and 6.2.2.

G. Emissions Trading

Not applicable.

H. Acid Rain Requirements

Not applicable.

I. Stratospheric Ozone Protection Requirements

The facility has indicated that they are subject to Title VI. The facility has indicated that they have one air conditioner for the main office that uses CFC's, HFC's or other stratospheric ozone-depleting substances, and that the equipment contains a refrigerant charge of greater than 50 pounds. The air conditioner is serviced by a licensed contractor.

J. Pollution Prevention

Not applicable.

K. Specific Conditions

Not applicable.

VIII. General Provisions

Generic provisions have been included in this permit to address the requirements in 40 CFR Part 70 that apply to all Title V sources, and the requirements in Chapter 391-3-1 of the Georgia Rules for Air Quality Control that apply to all stationary sources of air pollution.

Addendum to Narrative

The 30-day public review started on April 12, 2006, and ended on May 12, 2006. Comments were received by the Division on May 1, 2006, from Mr. Howard Loy, Director of Chemical & Environmental Engineering for J.T. Walker Industries, Inc., which is the parent company of MI Metals, Inc.

Comments:

1. Mr. Loy, of J.T. Walker Industries, Inc., requested that the furnaces, ovens, and heaters listed in the "Insignificant Activities Based on Emission Levels" table in "Attachment B" of the permit include the equipment ID numbers to prevent future confusion. The requested changes were made to the permit.

Changes to Permit:

1. J.T. Walker Industries, Inc. submitted an off-permit change request letter for the addition of a second aging oven (ID no. H11) with a heat input capacity of 4.5 MMBtu/hr, and a 40 foot stack (ID no. SH11). The letter was dated February 21, 2006 and was received by the Division on February 28, 2006. The date of the change was April 14, 2006. The new aging oven was added to the "Insignificant Activities Based on Emission Levels" table in "Attachment B" of the permit to incorporate this change into the permit. A description of the new equipment is as follows:

Extruded aluminum is heat treated in a 4.5 MMBtu/hr natural-gas-fired aging oven (Emission Unit ID No. H11) to harden the aluminum. The natural gas combustion products are emitted via stack SH11.

2. In "Attachment B" of the permit, in the "Description of Fuel Burning Equipment" table, the number of fuel burning equipment units was changed to zero (0) for each heat input capacity range because it was determined that the number of units in this table referred to the furnaces, ovens, and heaters in the "Insignificant Activities Based on Emission Levels" table in "Attachment B" of the permit, which are not considered fuel burning equipment.
3. As requested by the parent company, the equipment ID numbers were included with the furnaces, ovens, and heaters listed in the "Insignificant Activities Based on Emission Levels" table in "Attachment B" of the permit.