Georgia Department of Natural Resources
Environmental Protection Division • Air Protection Branch
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Mark Williams, Commissioner
F. Allen Barnes, Director

NARRATIVE

TO: Manny Patel

FROM: Margaret Ndetti

DATE: October 3, 2011

Facility Name:	**VMC Specialty Alloys, LLC**
AIRS No.:	115-00115
Location:	Adairsville, GA (Bartow County)
Application #:	20687
Date of Application:	September 16, 2011

Background Information

VMC Specialty Alloys, LLC (VMC) is located in Adairsville, Georgia (Bartow County) which is an attainment area for all criteria pollutants. VMC recycles scrap aluminum into billets and ignots. The facility is currently permitted under Air Quality Permit No. 3341-015-0115-B-01-0.

Purpose of Application

VMC submitted Application No. 20687 to construct a new homogenizing furnace. A public advisory was not issued since the change in the emissions from the facility is less than threshold values.

Updated Equipment List

Emission Units			Associated Control Devices	
Source Code	**Description**	**Installation Date**	**Source Code**	**Description**
FCE1	Melting Furnace 1 @ 16 MMBtu/hr	2010	--	--
FCE2	Melting Furnace 2 @ 16 MMBtu/hr	2010	--	--
HO1	Homogenizing Furnace 1 @ 12.4 MMBtu/hr	2010	--	--
HO2	Homogenizing Furnace 2 @ 12.4 MMBtu/hr	2010	--	--
HO3	Homogenizing Furnace 3 @ 12.4 MMBtu/hr	2011*	--	--

*proposed within current application

Emissions Summary

All emissions, except NOx emissions, from the combustion of natural gas in each melting furnace and each homogenizing furnace are based on the maximum heat input rating of each furnace and AP-42 emission factors. The emission factor for NOx emissions is based on manufacturer's specifications.

Because the facility will be operating 24 hours per day, seven days per week, the actual emissions will also approximately equal the potential emissions.

Facility-Wide Emissions
(in tons per year)

Pollutant	Potential Emissions		
	Before Mod.	After Mod.	Emissions Change
PM	1.778	2.168	+0.39
NOx	15.987	18.957	+2.97
SO_2	0.140	0.171	+0.031
CO	8.287	10.096	+1.809
VOC	1.664	2.028	+0.364
Max. Individual HAP	0.00340	0.00428	+0.00088
Total HAP	0.169	0.213	+0.044

Regulatory Applicability

The furnace will be subject to Georgia Rule (b) for Visible Emissions and Georgia Rule (e) for Particulate Emissions from Manufacturing Processes.

The furnace will be limited to natural gas; therefore avoiding the requirements of Georgia Rule (g) for Sulfur Dioxide.

The furnace is not subject to Georgia Rule (d) – Fuel Burning Equipment or Georgia Rule (lll) – NOx Emissions from Fuel Burning Equipment because they do not meet the definition of fuel burning equipment.

Permit Conditions

No new conditions. The current permit conditions were written to specify that all equipment at the facility is subject to Georgia Rules (b) and (e) and will burn only natural gas.

Toxic Impact Assessment

A toxic impact assessment was not completed at this time.

Summary & Recommendations

VMC Specialty Alloys, LLC operates an aluminum recycling plant and is a true minor source. The Mountain District – Cartersville Office is responsible for the facility's compliance and the receipt of monitoring and compliance reports. I recommend issuance of Permit No. 3341-015-0115-B-01-1 to VMC Specialty Alloys, LLC for the operation of an aluminum recycling plant.