TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION

APPLICANT

Specialty Maintenance and Construction, Inc.
Division of MetalTek International
4015 Drane Field Road
Lakeland, Florida 33811

Specialty Maintenance and Construction, Inc. – Plant 1

Facility ID No. 1050445

PROJECT

Project No. 1050445-002-AC
Application for Minor Air Construction Permit
Permitting of an Existing Facility and Expansion

COUNTY

Polk County, Florida

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Air Resource Management
Southwest District Office
Temple Terrace, Florida 33637-7600

March 7, 2013

Prepared by Tammy McWade

GENERAL PROJECT INFORMATION

Air Pollution Regulations

Projects at stationary sources with the potential to emit air pollution are subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The statutes authorize the Department of Environmental Protection (Department) to establish regulations regarding air quality as part of the Florida Administrative Code (F.A.C.), which includes the following applicable Chapters: 62-4 (Permits); 62-204 (Air Pollution Control – General Provisions); 62-210 (Stationary Sources – General Requirements); 62-212 (Stationary Sources – Preconstruction Review); 62-213 (Operation Permits for Major Sources of Air Pollution); 62-296 (Stationary Sources - Emission Standards); and 62-297 (Stationary Sources – Emissions Monitoring). Specifically, air construction permits are required pursuant to Rules 62-4, 62-210 and 62-212, F.A.C.

In addition, the U. S. Environmental Protection Agency (EPA) establishes air quality regulations in Title 40 of the Code of Federal Regulations (CFR). Part 60 specifies New Source Performance Standards (NSPS) for numerous industrial categories. Part 61 specifies National Emission Standards for Hazardous Air Pollutants (NESHAP) based on specific pollutants. Part 63 specifies NESHAP based on the Maximum Achievable Control Technology (MACT) for numerous industrial categories. The Department adopts these federal regulations on a quarterly basis in Rule 62-204.800, F.A.C.

Glossary of Common Terms

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of this permit.

I. Facility Description:

MetalTek International acquired Specialty Maintenance and Construction, Inc. (SMCI) on December 1, 2012. SMCI is an existing metal fabrication facility, which is located in Polk County at 1405 Drane Field Road in Lakeland, Florida. The existing facility has been in operation since 1977 and consists of the following operations: welding and support for fabrication; abrasive blasting; paint facilities; and machining and metal cutting equipment. Emission units identified at this facility include: a Surface Coating Operation (EU 001), which consist of two spray booths (Nos. 1 and 2) and a Nuclear Embed Area; and an Abrasive Blasting Operation (EU 002).

{Permitting Note: This facility is regulated under NESHAP Subpart XXXXXX, National Emission Standards for Hazardous Air Pollutants for Area Source Standards for Nine Metal Fabrication and Finishing Source Categories, of 40 CFR 63, which has not yet been adopted by the state of Florida Department of Environmental Protection (FDEP) rules. The welding operation is exempt from permitting in accordance with Rule 62-210.300(3)(a), F.A.C.}

II. Project Description:

A. Applicant:

Kevin Hissem, Vice President
Specialty Maintenance and Construction, Inc.
Division of MetalTek International
4015 Drane Field Road
Lakeland, Florida 33811

B. Professional Engineer:

Frank J. Burbach, P.E.
ENVIRON International Corporation
One Page Avenue, Suite 240
Asheville, South Carolina 28801

C. Project Location:

SMCI – Plant 1
4015 Drane Field Road
Lakeland, Florida 33811

D. Project Summary:

This is an after-the-fact permit for the existing operation and future expansion of a metal fabrication facility. The applicant proposes to expand the production capacity of the existing facility by installing a new spray booth, and expanding the size of the existing spray booth and abrasive blasting enclosure.

Surface Coating Operation (EU 001)

As part of the project, the applicant is requesting to expand the existing spray booth (No. 1) and install a new spray booth (No. 2). The existing emission sources and planned changes for this emission unit consist of the following:

Spray Booth No. 1:

The existing drive-in spray booth is a non-pressurized, cross draft booth with double bi-fold filtered doors and is approximately 20-feet wide, 16-feet high and 44-feet in length. The applicant is proposing to increase the length to approximately 64-feet. The booth will continue to be exhausted through double array of dry filter media using a 7.5 horsepower (hp) fan at approximately 30,000 actual cubic feet per minute (acfm).

Spray Booth No. 2:

The new drive-in spray booth will be a Global Finishing Solutions system, Model No. CDG-2016N-44 (or equivalent) galvanized spray booth. The booth is a non-pressurized, cross draft booth with double bi-fold filtered doors and will be approximately 20-feet wide, 16-feet high and 44-feet in length. The booth will be exhausted through double array of dry filter media using a 7.5 hp fan at approximately 32,000 acfm.

Coating application equipment for both spray booths will include high volume low pressure (HVLP), conventional pressure pot air spray, airless spray, and manual roller coating.

Nuclear Embed Area:

The existing Nuclear Embed Area prefabricates structural and stainless steel mounting plates that are embedded in poured concrete structures at construction sites. These embed plates are fabricated by a stud welding process and painted, if required, on a dedicated assembly line. Embed plates are painted on the side (top) and edges by roller application.

To control emissions of particulate matter (PM) the spray booths exhaust stacks are equipped with filters. To control emission of volatile organic compounds (VOC) in the Nuclear Embed Area, VOC emissions are emitted into a paint enclosure located in an open-sided lean-to-shed attached to the east side of the south shop building. Hazardous air pollutants (HAPs), VOC and/or organic solvent emissions are controlled by material usage limitations, work practice requirements and dispersion of emissions. Recordkeeping and reporting are used to document compliance with emission limitations.

Abrasive Blasting Operations (EU 002)

The applicant is proposing to expand the existing abrasive blasting enclosure from approximately 35-feet in width, 19 feet in height and 28-feet in length and to approximately 42-feet in length and install a new ParaFlo Pro (or equivalent) horizontal cartridge dust collector to control the ventilation exhaust from the abrasive blasting enclosure. The enclosure is used to prepare metal components (primarily ferrous metals) for painting and assembly. Blast media includes, but not limited to, silica and non-silica sand, glass beads and other materials that contain or have the potential to emit metal fabrication HAPs particulate matter.

The dust collection system will control emissions of PM. The general design specifications for the dust collector are:

- Flow rate of approximately 35,000 acfm;
- 75 hp blower;
- Automatic cartridge pulse-clean control system;
- Designed to operate in the range of 2 to 8 inches water column;
- 99.8% control for particles > 0.5 microns;
- 97.5% or greater for a pressure differential of two-inches of water column; and
- Achieve an outlet concentration of 0.001 to 0.004 grains/dry standard cubic feet.

E. Application Information:

Application Received on: 2/7/2013
Application Complete: 3/7/2013

III. Applicable State and Federal Regulations

This project is subject to the preconstruction review requirements of Chapter 403, F.S. and Chapters 62-204 through 62-297, F.A.C., as indicated below.

Subject to:	Y/N	Comments
Rule 62-210.300, F.A.C. – Permits Required	Y	not exempt from general permitting requirements
Rule 62-212.400, F.A.C. - Prevention of Significant Deterioration (PSD)	N	facility is not a PSD major source
Rule 62-296.320(4), F.A.C. - General Particulate Emission Limiting Standards	N	the abrasive blasting operation is confined
Rules 62-296.320(1) and (2), F.A.C. - General Pollutant Emission Limiting Standards (VOCs and Odor)	Y	facility-wide conditions are applicable to this rule.
Rule 62-296.401-418, F.A.C. - Stationary Source Emission Standards	N	there is no applicable source category
Rule 62-296.500, F.A.C. - Reasonably Available Control Technology (VOC)	N	Polk County is an attainment area for ozone
Rule 62-296.700, F.A.C. - Reasonably Available Control Technology (PM)	N	this is a new source, therefore not subject to PM RACT rule
Rule 62-204.800, F.A.C. - Standards of Performance for New Stationary Sources (NSPS)	N	there is no applicable source category
Rule 62-204.800, F.A.C. National Emission Standard for Hazardous Air Pollutants (NESHAPS – 40 CFR 61)	N	there is no applicable source category
Rule 62-204.800, F.A.C. National Emission Standard for Hazardous Air Pollutants for Source Categories a.k.a. MACT (NESHAPS –40 CFR 63)	N	this emissions unit is regulated under NESHAP - 40 CFR 63, Subpart XXXXXX, , which has not been adopted by the state of FDEP rules

Subject to:	Y/N	Comments
Chapter 62-213, F.A.C. - Operation Permits for Major Sources of Air Pollution	N	facility is a synthetic non-Title V source
Rule 62-297.310, F.A.C. - General Compliance Test Requirements, F.A.C.	N	no emissions testing is required

IV. Summary of Emissions

Pollutant	EU No. and brief description	Potential Emissions (TPY)	Allowable Emissions (TPY)
$PM/PM_{10}/PM_{2.5}$	001 – Surface Coating Operation	0.2[b]	---
	002 – Abrasive Blasting Operation	1.2/1.1/0.9	---
	Total	**1.4/1.1/0.9**	---
VOC	001 – Surface Coating Operation	23.04	24.0
	Total	**23.04**	**24.0**
Individual HAP	001 – Surface Coating Operation	9.9	9.9
	Total	**9.9**	**9.9**
Total HAP	001 – Surface Coating Operation	24.9	24.9
	Total	**24.9**	**24.9**
VE	002 – Abrasive Blasting Operation	---	5% Opacity

Notes:

a. Tons per year (TPY); PM with a mean particle diameter of 10 microns or less (PM_{10}); PM with a mean particle diameter of 2.5 microns or less ($PM_{2.5}$); visible emissions (VE)

b. PM total only

V. Conclusions

The emission limits proposed by the applicant will meet all of the requirements of Chapters 62-204 through 297, F.A.C.

The General and Specific Conditions listed in the proposed permit (attached) will assure compliance with all the applicable requirements of Chapters 62-204 through 297, F.A.C.

Preliminary Determination

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified in the draft permit. Additional details of this analysis may be obtained by contacting the project engineer at the Florida Department of Environmental Protection Air Resource Management, Southwest District 13051 North Telecom Parkway, Temple Terrace, Florida 33637-7600.

Pursuant to Section 403.087, F.S. and Section 62-4.070, F.A.C., the Department hereby gives notice of its intent to issue a permit to construct the aforementioned air pollution source in accordance with the draft permit and its conditions as stipulated (see attached).