TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION

APPLICANT

Pop's Painting, Inc.
3805 Drane Field Road
Lakeland, FL 33811

Pop's Painting, Inc.

Facility ID No. 1050226

PROJECT

Project No. 1050226-011-AC
Application for Minor Air Construction Permit
Project Name: Construction Permit Modification

COUNTY

Polk County, Florida

PERMITTING AUTHORITY

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

August 13, 2012

Prepared by Nancy E. Knight

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: This facility prepares metal parts and equipment for surface coating using steel shot, steel grit or sand blasting. After blasting the parts/equipment can be lined, painted or powder coated.

II. Project Description:

A. Applicant:
Mark Woods, President
Pop's Painting, Inc.
3805 Drane Field Road
Lakeland, FL 33811

B. Professional Engineer:
Veronica Sgro
Koogler & Associates, Inc.
4014 NW 13th Street
Gainesville, FL 32609

C. Project Location:
3805 Drane Field Road
Lakeland, FL 33811

Figure 1. Facility location (street map view).

Figure 2. Aerial view of the facility.

D. Project Summary:

This project is for the construction modification of a sandblasting and surface coating operation. Specifically, the applicant proposes to install two paint spray booths (one 21′ X 120′ and one 18′ X 80′). One additional Wheelabrator shot blast machine with a Pangborn dust collector and one additional blast room with a Torit dust collector will also be installed. One Dust Hog dust collector for three of the existing shot-blast machines that currently exhaust indoors will be installed. Currently the exhaust from the existing blast room passes through a Farr dust collector which vents back into the room. This will be modified to route the exhaust from the dust collector outside. Visible emissions testing requirements will be removed from EU Nos. 001, 002 and 004 and a sand throughput limitation will be added. An hours of operation limit will be added to EU No. 005. These changes are further described in the permit.

Figure 3. Existing Blast Room.

Figure 4. Pangborn Dust Collector to be used with new shot-blast machine.

Figure 5. Proposed blast room.

Figure 6. Sand Storage Silos.

E. Application Information:

Application Received on: July 20, 2012
Additional Information Requested on: August 3, 2012
Additional Information Received on: August 13, 2012
Application Complete: August 13, 2012

III. Rule Applicability

This project is subject to the preconstruction review requirements of Chapter 403, Florida Statutes and Chapters 62-204 through 62-297, Florida Administrative Code (F.A.C.), as indicated below.

Subject to:	Y/N	Comments
Rule 62-210.300, F.A.C. – Permits Required	Y	Subject to general permitting requirements
Rule 62-212.400, F.A.C. - Prevention of Significant Deterioration	N	facility is not a PSD major source
Rule 62-296.320(4), F.A.C. - General Particulate Emission Limiting Standards	Y	facility is a source of unconfined particulate matter emissions
Rules 62-296.320(1) and (2), F.A.C. - General Pollutant Emission Limiting Standards (VOC and Odor)	Y	painting operations are a source of VOC and odors
Rule 62-296.401-470, 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 not an air quality maintenance area for ozone
Rule 62-296.700, F.A.C. - Reasonably Available Control Technology (PM)	N	not subject to PM RACT rule because the facility was first permitted after May 30, 1988
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	there is no applicable source category
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	N	Routine testing is not required.

Subject to:	Y/N	Comments
Compliance Test Requirements, F.A.C.		Compliance is demonstrated via reasonable precautions, work practice requirements, and recordkeeping.

IV. Summary of Emissions

Pollutant	EU No. and brief description	Dust Collector flow rate (cfm)	Potential Emissions (tons/year)	Allowable Emissions (tons/year, opacity)
PM/ PM10	001, 002, 004 – Sand Storage Silos	250 for each of the three baghouses	0.6[1]	N/A
	005 – Shot/Grit Blasting Operations	Wheelabrator with Torit dust collector 11,000	1.9[2]	N/A
	005 – Shot/Grit Blasting Operations (new)	Three shot blast machines with a shared Dust Hog dust collector 5,500	0.9[2]	N/A
	005 – Shot/Grit Blasting Operations (new)	Small blast room with a Torit dust collector 8,000 cfm	1.4[2]	N/A
	005 – Shot/Grit Blasting Operations (new)	Wheelabrator shot blast machine with Pangborn dust collector 17,600 cfm	3.0[2]	N/A
	005 – Shot/Grit Blasting Operations (modified)	Blast room with a Farr Dust Collector 39,000 cfm	6.7[2]	N/A
	007 – Sandblasting Operation	Outdoors	50.6[3]	N/A
	Total		65.1	
VOC	003 – Surface Coating		90.0	90.0
	Total		90.0	90.0
Total HAP	003 – Surface Coating		23.0	23.0

Pollutant	EU No. and brief description	Dust Collector flow rate (cfm)	Potential Emissions (tons/year)	Allowable Emissions (tons/year, opacity)
	Total		23.0	23.0
Any Individual HAP	003 – Surface Coating		9.0	9.0
	Total		9.0	9.0
VE	001, 002, 004 – Sand Storage Silos			5%[4]
	005 – Shot-Blast Machine (Dust Hog)			5%[4]

[1] Based on an emission factor of 0.02 gr/cf, the indicated flow rate and operating 8760 hours per year.

[2] Based on an emission factor of 0.02 gr/cf, the indicated flow rate and operating 2000 hours per year.

[3] Based on an emission factor of 0.022 tons PM_{10}/ton sand and a throughput of 2,300 tons/year of sand.

[4] As an indicator

The emission factor of 0.02 gr/cf is based on Air & Waste Management Association. Air Pollution Engineering Manual.

The emission factor of 0.022 tons PM10/ton sand is based on the background document for AP-42, Section 13.2.6, Table 4-8 for painted surfaces

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.

VI. 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, Florida Statutes and Section 62-4.070, Florida Administrative Code, 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).