TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION

APPLICANT

AOC, L.L.C.
4620 North Galloway Road
Lakeland, FL 33810

Lakeland Plant

Facility ID No. 1050099

PROJECT

Project No. 1050099-012-AC
Application for Minor Air Construction Permit
Project Name: Construction Modification

COUNTY

Polk, Florida

PERMITTING AUTHORITY

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

May 2, 2012

Prepared by Jim McDonald

Revision: 01/17/2012

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. Project Description:

A. Applicant:

Mr. Michael Diehl, Plant Manager
AOC, L.L.C.
4620 North Galloway Road
Lakeland, FL 33810

B. Professional Engineer:

Mr. Barry D. Westmark, P.E.
Environmental Consulting & Technology, Inc.
1408 N. Westshore Blvd., Suite 115
Tampa, FL 33607

C. Project Location:

4620 North Galloway Road, Lakeland, Polk County

D. Project Summary: The project is for the following changes at an existing polyester resin manufacturing facility:

- To operate a newly re-constructed glycol storage tank.
- Allow the maximum production rate of the facility to be 250,000,000 lbs of styrene and non-styrene based polyester resin per any consecutive 12-month period of which up to 40,000,000 lbs may be non-styrene based polyester resin.
- Modify the operating conditions and remove the total HAPs & VOC emission limitations for the thermal oxidizer.
- Revise some of the basis of how the facility's emissions are determined.
- Revise and include emission activities that were previously omitted or incorrectly addressed.
- Revise the potential emissions from the facility.
- Delete a mixing tank.
- Delete a raw material storage tank.

Additional details and descriptions of the activities at the facility are further described in the permit.

E. Application Information:

Application Received on: February 27, 2012

Additional Information Requested on: March 15, 2012

Additional Information Received on: April 18, 2012

Application Complete: April 18, 2012

II. 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. - Project Not Subject to Prevention of Significant Deterioration or Nonattainment Requirements, F.A.C.	Y	Not exempt from 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	some operations at the facility are a source of particulate matter emissions
Rules 62-296.320(1) and (2), F.A.C. - General Pollutant Emission Limiting Standards (VOCs and Odor)	Y	some operations at the facility are a source of VOC and odors
Rule 62-296.400, 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	there is no applicable source category
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)	Y	Two exempt generator engines and two exempt fire pumps are subject to 40 CFR 63, Subpart ZZZZ, regarding "existing" engines
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.	Y	VE and VOC destruction efficiency testing is required for EU No. 002

III. Summary of Emissions:

See Table 47 AOC Facility-Wide Calculated Potential Emissions submitted on 4/18/2012 by AOC as part of the response to Department's request for additional information.

Table 47
AOC Facility - Wide
Calculated Potential Emissions

Emission Unit ID	Description	Styrene (TPY)	Glycol (as EG) (TPY)	MMA (TPY)	PM (TPY)	PM 10 (TPY)	SOx (TPY)	NOx (TPY)	CO (TPY)	Non-Styrene HAP (TPY)	Non-HAP VOC (TPY)	Maleic Anhydride (TPY)	Phthalic Anhydride (TPY)	Methanol (TPY)	VOCs (TPY)	HAPs (TPY)
EU-001	20 FPSTs, 8 RMSTs - Non-NSPS Storage Tanks	2.26	0.91	4.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.39	7.39
EU-002	4 TTs, 2 FPSTs, MT 5, PFPA, TO, 4 Reactors	0.93	0.00	1.96	3.60	3.60	0.16	39.45	9.21	5.37	0.74	0.00	0.00	0.00	9.00	8.26
EU-003	INACTIVATED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EU-004	INACTIVATED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EU-005	7 MTs	0.80	0.00	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.60	2.60
EU-006	M.A. & P.A. Storage Tanks	0.00	0.00	0.00	0.77	0.77	0.00	0.00	0.00	0.00	0.00	0.09	0.68	0.00	0.00	0.77
EU-007	INACTIVATED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EU-008	Maint., Raw Mat. Receiving, 4 Facility Piping Systems, Micro-Add Area, Product Loading, Tanker Truck Cleanout, Rinsate Storage	1.49	0.21	1.03	0.79	0.79	0.00	0.00	0.00	0.06	0.82	0.08	0.08	0.27	3.62	3.22
EU-009	3 Miscellaneous Particulate Emisisons Sources	0.00	0.00	0.00	44.09	42.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EU-010	INACTIVATED															
EU-011	INACTIVATED															
Totals (TPY)		5.48	1.12	9.01	49.26	47.23	0.16	39.45	9.21	5.43	1.36	0.17	0.76	0.27	22.61	22.24
Totals Lbs/hr.		1.25	0.26	2.06	11.24	10.78	0.04	9.01	2.10	1.24	0.31	0.04	0.17	0.06	5.16	5.08
Total with Exempt Sources (ton/yr)		5.48	1.12	9.01	51.23	48.49	1.33	60.59	14.21	5.37	2.3	0.2	0.76	0.27	23.63	22.33

Actual values may vary slightly due to software rounding conventions and the number of decimal places displayed.
Calculation details can be found in Exhibit 1 through Exhibit 11

Table 47 Facility-Wide Emissions.xlsx 4-16-12.xls

This project has **changed** the facility's potential emissions in tons/year as follows and values in (xxx) include exempt activities:

POLLUTANT	FROM	TO
PM	36.98 (38.96)	49.25 (51.23)
PM_{10}	34.96 (36.22)	47.23 (48.49)
VOC	19.60 (20.56)	22.61 (23.57)
Total HAPs	17.83	22.24 (22.33)
Glycol	NPQ*	1.12
MMA	NPQ*	9.01
Methanol	NPQ*	0.27
Styrene	9.27	5.48

* NPQ = Not Previously Quantified

IV. 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.

V. 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).