TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION

APPLICANT

Pall Corporation
8780 Ely Road
Pensacola, Florida 32514

Pall Membrane Technology Center
Facility ID No. 0330127

PROJECT

Project No. 0330127-013-AC
Application for Minor Source Air Construction Permit
R & D Process Line

COUNTY

Escambia, Florida

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Air Resource Section
Northwest District Office
160 W. Government Street, Room 308
Pensacola, Florida 32502-5740

February 10, 2011

1. 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); 62-296 (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.

Facility Description and Location

Pall Corporation manufactures micro porous membranes and fabric filters for scientific and pharmaceutical uses. The facility contains five different process lines: Fabric coating, Membrane casting, Mixing, Membrane finishing and Polymer extrusion. The facility is categorized under Standard Industrial Classification Code No. 3081, Unsupported Plastics Film and Sheet. The facility is located in Escambia County at 8780 Ely Road in Pensacola, Florida. The UTM coordinates of the existing facility are Zone 16, 480.7 km East and 3376.7 km North; Latitude: 30° 31’ 20” North and Longitude: 87° 19’ 19” West. This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to state and federal Ambient Air Quality Standards (AAQS).

Facility Regulatory Categories

- The facility is not a major source of hazardous air pollutants (HAP).
- The facility has no units subject to the acid rain provisions of the Clean Air Act.
- The facility is not a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is not a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Project Description

Pall Corporation proposes to construct a research and development (R & D) process line used to develop filtration devices for pharmaceutical and industrial uses. Equipment includes two reactors, two batch tanks, a casting belt, a quench bath, a wash tray and a small dryer. Emissions from the R & D Process Line are vented uncontrolled through the R & D roof vent fan to the atmosphere.

Processing Schedule

October 14, 2010	received the application for a minor source air pollution construction permit.
November 3, 2010	requested additional information.
November 16, 2010	received additional information; application complete.

2. PSD APPLICABILITY

General PSD Applicability

For areas currently in attainment with the state and federal AAQS or areas otherwise designated as unclassifiable, the Department regulates major stationary sources of air pollution in accordance with Florida's PSD preconstruction review program as defined in Rule 62-212.400, F.A.C. Under preconstruction review, the Department first must determine if a project is subject to the PSD requirements ("PSD applicability review") and, if so, must conduct a PSD preconstruction review. A PSD applicability review is required for projects at new and existing major stationary sources. In addition, proposed projects at existing minor sources are subject to a PSD applicability review to determine whether potential emissions *from the proposed project itself* will exceed the PSD major stationary source thresholds. A facility is considered a major stationary source with respect to PSD if it emits or has the potential to emit:

- 250 tons per year or more of any regulated air pollutant; or
- 100 tons per year or more of any regulated air pollutant and the facility belongs to one of the following 28 PSD-major facility categories: fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input, coal cleaning plants (with thermal dryers), Kraft pulp mills, portland cement plants, primary zinc smelters, iron and steel mill plants, primary aluminum ore reduction plants, primary copper smelters, municipal incinerators capable of charging more than 250 tons of refuse per day, hydrofluoric, sulfuric, and nitric acid plants, petroleum refineries, lime plants, phosphate rock processing plants, coke oven batteries, sulfur recovery plants, carbon black plants (furnace process), primary lead smelters, fuel conversion plants, sintering plants, secondary metal production plants, chemical process plants, fossil fuel boilers (or combinations thereof) totaling more than 250 million British thermal units per hour heat input, petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels, taconite ore processing plants, glass fiber processing plants and charcoal production plants.

Once it is determined that a project is subject to PSD preconstruction review, the project emissions are compared to the "significant emission rates" defined in Rule 62-210.200, F.A.C. for the following pollutants: carbon monoxide (CO); nitrogen oxides (NO_X); sulfur dioxide (SO_2); particulate matter (PM); particulate matter with a mean particle diameter of 10 microns or less (PM_{10}); volatile organic compounds (VOC); lead (Pb); fluorides (Fl); sulfuric acid mist (SAM); hydrogen sulfide (H_2S); total reduced sulfur (TRS), including H_2S; reduced sulfur compounds, including H_2S; municipal waste combustor organics measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans; municipal waste combustor metals measured as particulate matter; municipal waste combustor acid gases measured as SO_2 and hydrogen chloride (HCl); municipal solid waste landfills emissions measured as non-methane organic compounds (NMOC); and mercury (Hg). In addition, significant emissions rate also means any emissions rate or any net emissions increase associated with a major stationary source or major modification which would construct within 10 kilometers of a Class I area and have an impact on such area equal to or greater than 1 $\mu g/m^3$, 24-hour average.

If the potential emission exceeds the defined significant emissions rate of a PSD pollutant, the project is considered "significant" for the pollutant and the applicant must employ the Best Available Control Technology (BACT) to minimize the emissions and evaluate the air quality impacts. Although a facility or project may be *major* with respect to PSD for only one regulated pollutant, it may be required to install BACT controls for several "significant" regulated pollutants.

PSD Applicability for Project

Pollutant	Pre-Project Potential Emissions (TPY)	Contempo-raneous Emissions (TPY)	Post Project Potential Emissions (TPY)	Total Emissions Increase (TPY)	PSD Significant Emissions Rate (TPY)	Subject to PSD
CO	0.70	0	0.75	0.05	100	**NO**
NO_X	0.90	0	0.96	0.06	40	**NO**
PM/PM_{10}	0.68	0	0.68	0.00	25/15	**NO**
SO_2	0.05	0	0.05	0.00	40	**NO**
VOC	71.15	0	79.69	8.54	40	**NO**
Dimethyl Formamide	1.94	0	2.03	0.09	10	**NO**
Ethylene Glycol	3.83	0	3.84	0.01	10	**NO**
Glycol Ethers	3.57	0	3.82	0.25	10	**NO**
Methanol	3.60	0	3.65	0.05	10	**NO**

The facility does not belong to one of the 28 PSD-major facility categories. This facility is not a major stationary source for PSD because it emits less than 250 TPY of a regulated pollutant. The proposed projects' emissions increase does not put the facility in the major stationary source category. Additionally, project emissions will not reach or exceed the PSD significant emissions rates. Based on these facts it is determined that the project is not subject to PSD preconstruction review.

3. APPLICATION REVIEW

Application Fee

AC-1E; source emitting 5 tons but less than 25 tons; $1,000.

Discussion of Emissions

Potential emissions of VOC, NO_X, CO and Total HAP, estimated at 8.54, 0.06, 0.05, and 0.40 respectively. These emissions are to be vented uncontrolled through a roof vent fan to the atmosphere. The addition of these emissions will not change the categorical status of the facility from a Federally Enforceable State Operating Permit (FESOP).

State Requirements

Rule 62-296.320, F.A.C.

Federal NSPS Provisions

N.A.

Federal NESHAP Provisions

N.A.

Other Draft Permit Requirements

At the Permittee's request, the R & D process line is restricted to process a maximum of 900 pounds per week (Six 8-hour batches per week with each batch limited to 150 pounds). At the Permittee's request, the hours of operation are restricted to 2,400 hours per year to limit VOC emissions. Records of the annual number of batches and annual operating hours shall be kept and available for Department inspection.

4. 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. R. J. "Rick" Prusa is the project engineer responsible for reviewing the application and drafting the permit. Additional details of this analysis may be obtained by contacting the project engineer at 850/595-0634 or rick.prusa@dep.state.fl.us.