TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION

APPLICANT

Lindsay Precast, Inc.
13365 Southern PreCast Drive
Alachua, Florida 32615

Lindsay Precast, Inc.
Facility ID No. 0010064

PROJECT

Project No. 0010064-008-AC
Application for Minor Source Air Construction Permit
Polymer Concrete Casting Operations

COUNTY

Alachua, Florida

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Air Resource Section
Northeast District Office
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256-7590

June 17, 2013

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); 62-213 (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.

Facility Description and Location

Lindsay Precast, Inc. is an existing Concrete Batching Plant, which is categorized under Standard Industrial Classification Code No. 3272. The facility is located in Alachua County at 13365 Southern PreCast Drive in Alachua, Florida. The UTM coordinates of the existing facility are Zone 17, 359.0 km East, and 3295.7 km North. 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**

This project is for an air construction permit which authorizes the construction after-the-fact for a Polymer Concrete Casting Operations. Polymer Concrete Casting Operations take place inside a building. Molds are prepared by waxing and placing fiberglass mats on cores and jackets. Resin, sand, rock, calcium carbonate, and pigment are stored in bags or totes prior to being mixed in a tank. The mixture is removed from the tank in batches. Catalyst is added to each batch and then mixed with a disperser. The catalyzed batch is then poured into the prepared fiberglass mold set. Once the batch is set, the product is removed from the mold. The polymer concrete product's edges are ground smooth by hand or by an occasional electric grinder and the minor particulate matter is sweep up daily. The product is then palletized and placed in the yard.

Process Flow Diagram

PROCESSING SCHEDULE

6/4/13 Received the application for a minor source air pollution construction permit.

6/10/13 Requested additional information.

6/12/13 Received additional information; application complete.

2. APPLICATION REVIEW

Discussion of Emissions

Styrene is the only HAP emitted by EU005. The total HAP potential to emit is 3.5 TPY (< 5 TPY).

State Requirements

The unit is subject to Florida Administrative Code (F.A.C) Rule 62-296.320(4)(b) F.A.C- General Visible emissions. No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity).

Other Draft Permit Requirements

- **Permitted Capacity**. The resin maximum annual process rate shall not exceed 1,500 tons per year of mix.
- **Monthly Recordkeeping (resin usage)**. In order to demonstrate compliance with **Specific Condition No. 2**, the owner or operator shall maintain a log of resin usage based on a consecutive twelve month total. These records shall be retained for five years and made available to Departmental inspectors upon request. Logs must document the method, calculations, and formulas used in determining the usage rate and the emission rate. This includes, but is not limited to, the product name, density, individual and total HAP contents, and individual and total VOC content. All calculations, including those used to derive emission credits for mass balance must be based off emission factors presented in the permitting application or supporting documents, must be clearly documented, and may be presented **in the form of a template of sample calculations**, which is filed with the logs required in this condition and available for review on site by regulatory inspectors. At a minimum the log shall contain:

Monthly

- Facility Name, Facility ID No. (i.e., Lindsay Precast, Inc., 0010064);
- Designation of month and year of operation for which records are being tabulated;
- Consecutive 12 month total of individual and combined HAP/VOC emissions in tons;
- Consecutive 12 month total of resin usage in tons;
- The VOC/HAP content of each gel-coats, resins, and other VOC/HAP containing materials;
- Consecutive 12 month total of wax usage in tons.

The monthly logs shall be completed by the end of the following month.

Note: A consecutive twelve month total for the month in question plus the totals for the eleven months previous to the month in question. A consecutive twelve month total treats each month of the year as the end of a 12-month period. A twelve month total is not a year-to-date total. Facilities that have not been operating for 12 months should retain 12 month totals using whatever number of months of data are available until such a time as a consecutive 12 month total can be maintained each month.

[Rule 62-4.070(3), F.A.C.]

3. 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. Leslie Maybin 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 the Northeast District Office, 8800 Baymeadows Way West, Suite 100, Jacksonville, Florida 32256-7590.