Florida Department of Environmental Protection

Southwest District Office
13051 North Telecom Parkway
Temple Terrace, FL 33637-0926

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Jonathan P. Steverson
Secretary

PERMITTEE

Carpenter Co.
5100 Frontage Road S
Lakeland, FL 33815

Authorized Representative:
Tracy Lane, Operations Manager

Air Permit No. 1050192-016-AC
Permit Expires: 12/31/2017
Minor Air Construction Permit

Carpenter Co., Insulation Division
Modify Construction Permit Nos. 1050192-012-AC & 1050192-013-AC

PROJECT

This is the final air construction permit, which revises Permit Nos. 1050192-012-AC and 1050192-013-AC for the following items: Modify silo loading rate for EU No. 003, changing VE test frequency for EU No. 003 from FFY (October 1 – September 30) to annually, once in every calendar year (January 1 – December 31) and removing VOC individual emissions limit from EU No. 002. Carpenter Co., Insulation Division is a Polystyrene Foam Product Manufacturing Facility categorized under Standard Industrial Classification No. 3086. The existing facility is located in Polk County at 5100 Frontage Road South in Lakeland, Florida. The UTM coordinates are Zone 17, 396.64 km East and 3101.46 km North.

This final permit is organized into the following sections: Section 1 (General Information) and Section 2 (Permit Revisions).

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality. A copy of this permit modification shall be filed with the referenced permit and shall become part of the permit.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Hillsborough County, Florida

for

Pamala Vazquez
Program Administrator
Permitting & Waste Cleanup Program
Southwest District

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Determination and Final Permit Revision) was sent by electronic mail, or a link to these documents made available electronically on a publicly accessible server, with received receipt requested before the close of business on the date indicated below to the following persons.

Tracy Lane, Carpenter Co., tracy.lane@carpenter.com
AJ Hansborough, Trinity Consultants, ahansborough@trinityconsultants.com
Michael Ballenger, P.E., Trinity Consultants, mballenger@trinityconsultants.com
Brandy Flavors, Carpenter Co., brandy.flavors@carpenter.com
Max Grondahl, Florida DEP Southwest District max.grondahl@dep.state.fl.us
Danielle Henry, Florida DEP Southwest District danielle.d.henry@dep.state.fl.us

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

Cathy Rodriguez December 5, 2016
(Clerk) (Date)

FACILITY DESCRIPTION

The existing facility is a Polystyrene Foam Product Manufacturing Facility, which consists of the following emissions units and activities:

EU No. 001 - Expandable Polystyrene Products Manufacturing Facility

EU No. 002 - Flexible Foam Manufacturing and Fabrication Facility

EU No. 003 - Calcium Carbonate Storage Silo

EU No. 005 - Existing Emergency Stationary CI RICE Engine ≤ 500 HP

FACILITY REGULATORY CLASSIFICATION

- The facility is not a major source of hazardous air pollutants (HAP).
- The facility does not operate units subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.

PROPOSED PROJECT

This project will modify construction permit Nos. 1050192-012-AC and 1050192-013-AC. The effected emissions units will be EU Nos. 002 and 003. The proposed permit revisions will be to modify the calcium carbonate silo loading rate, change the VE test frequency and remove the individual VOC emission limits.

The following permit conditions are revised as indicated. ~~Strikethrough~~ is used to denote the deletion of text. Double-underlines are used to denote the addition of text. All changes are emphasized with yellow highlight.

Permit Being Modified: Permit No. 1050192-012-AC

Affected Emissions Unit: EU-003

Specific Condition B.2.: This condition is revised as follows.

B.2. Operational Limitation – The ~~maximum~~ minimum transfer (filling) rate of calcium carbonate from trucks to the storage silo shall ~~not exceed 33,400 pounds/hour.~~ be 25 tons/hr.
[Rule 62-210.200 (Definition of Potential to Emit), F.A.C.; Construction Permit Application dated 7/21/2016]

Specific Condition B.5. This condition is revised as follows:

B.5. Test Frequency – The silo's dust collector (baghouse) shall be tested for visible emissions during each ~~federal fiscal~~ calendar year ~~(October 1 – September 30).~~(January 1 – December 31).
[Rule 62-397.310(7)(a), F.A.C.]

Permit Being Modified: Permit No. 1050192-013-AC

Affected Emissions Unit: EU-002

The emissions unit description is revised as follows:

~~The flexible foam manufacturing and fabrication facility fabricates polyurethane foam, polyester fiber battings, and occasional textile materials into semi-finished comfort cushioning products for furniture, bedding, home furnishings, and recreational product manufacturers. Additionally, polyurethane foam is fabricated into protective cushioning for the packaging industry. The primary means of fabrication is cutting the foam to customer specified sizes and shapes and when necessary assembling the pieces of foam by gluing them together. The gluing/adhesive application is typically accomplished by using 3 gluing/adhesive stations consisting of no more than 3 in-drum, pneumatically powered drum pumps feeding no more than a total of 15 compressed-air atomized, hand-held spray guns. Emissions from the glue/adhesive spray guns are discharged fugitively to the ambient air through natural building ventilation and dock door openings. This emissions unit, which does not produce "molded foam", is subject to the requirements of Title 40, Code of Federal Regulations (CFR), Part 63, Subpart OOOOOO – National Emission Standards for Hazardous Air Pollutants for Flexible Polyurethane Foam Production and Fabrication Area Sources.~~

~~Carpenter Co. can utilize a blowing agent to produce different grades of foam. With this project, pentane will be added as an auxiliary blowing agent. The use of pentane will improve the production of certain grades of foam that are difficult to produce with consistent quality with the current use of CO_2 as the only blowing agent. No physical modifications to the foam production line are necessary to accommodate the use of an auxiliary blowing agent other than the addition of storage and handling equipment. The maximum expected short term pentane usage will be approximately 600 pounds per hour, not to exceed 39 tons per year. Pentane usage will be accurately metered, controlled, and monitored. All used pentane will be assumed to be released into the atmosphere as fugitive VOC emissions.~~

The flexible foam manufacturing facility manufactures polyurethane foam. In the foam production line, Carpenter can utilize blowing agents, pentane and/or carbon dioxide, to produce different grades of foam. Not all foam grades require that a blowing agent to be utilized. The foam production process is fully automated such that the rate of blowing agents are accurately metered, controlled, and monitored. The pentane flow rate can be adjusted continuously during foam production allowing for the uninterrupted transition from one foam grade to

another. Carpenter tracks pentane usage on a 12-month rolling total basis due to variation in short-term usage. Pentane is delivered to the facility via tanker truck. The received pentane is stored in a 2,000-gallon horizontal pressurized tank. VOC emissions result from the use of pentane as a blowing agent.

Carpenter fabricates the polyurethane foam and occasional textile materials into semi-finished comfort cushioning products for furniture, bedding, and home furnishings. Additionally, polyurethane foam is fabricated into protective cushioning for the packaging industry. The primary means of fabrication is cutting the foam to the customer's specified sizes and shapes. Foam mattresses are assembled by laminating pieces of foam together. Excess polyurethane foam from fabrication is used to produce bonded foam.

This emissions unit is subject to the requirements of Title 40, Code of Federal Regulations (CFR), Part 63, Subpart OOOOOO – National Emissions Standards for Hazardous Air Pollutants for Flexible Polyurethane Foam Production and Fabrication Area Sources.

Specific Condition A.5.: This condition is revised as follows:

A.5. VOC Emissions Limit: Emissions from this unit shall comply with the following:

Pollutant	**Emission Limit** (tons per any consecutive 12-month period)
~~VOC Emissions Excluding Emissions from Usage of Pentane as an Auxiliary Blowing Agent~~	~~25~~
~~VOC Emissions Exclusively from Usage of Pentane as an Auxiliary Blowing Agent~~	~~39~~
Total VOC Emissions	64

[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.; Construction Permit Application dated 7/21/2016]

~~{*Permitting Note: The limits were requested in air construction permit application received on 12/20/10*}~~