

Engineering Analysis
Lake Wedowee Fiberglass, LLC
Wedowee, AL
308-0031

On March 22, 2024, an application for a Synthetic Minor Operating Permit was received by the Department for a fiberglass bathtub and baptistry manufacturing operation at Lake Wedowee Fiberglass, LLC in Wedowee, AL. After additional information was requested by the Department, the application was deemed complete on June 7, 2024. Lake Wedowee Fiberglass is an existing facility that manufactures fiberglass bathtubs and baptistries. The facility has requested a synthetic minor limit for hazardous air pollutants (HAPs) with respect to Title V.

All operations at the facility are open molding processes consisting of a gelcoat spray gun, a fiberglass chop gun, and smoothing. Clean molds are sprayed with gelcoat before fiberglass and resin are applied by another air powered gun. Handheld steel rollers are then used to smooth any imperfections before curing. The molds are then removed from the finished product.

Emissions:

The fiberglass reinforced plastic operations use resin and gelcoat materials that emit mostly styrene, which is a volatile organic compound (VOC) and HAP. Potential emissions for the operations in the table below were calculated based on 8,760 hours of operation using emission factors provided by resin and gelcoat manufacturers. Actual emissions are based on 2,000 hours of operation.

Pollutant	Potential (tn/yr)	Limits (tn/yr)	Actual (tn/yr)
Styrene	26.28	9	6
HAP	26.37	24	6.04
VOC	26.37	--	6.04

Lake Wedowee Fiberglass has requested limits of 9 tons per 12-month period for single HAP, and 24 tons per 12-month period for total HAPs.

Prevention of Significant Deterioration (PSD):

The operation is not categorized as a “Major Stationary Source” for PSD as defined in ADEM Admin. Code 335-3-14-.04(2)(a). Since the potential emissions of all regulated New Source Review (NSR) pollutants from this operation would remain below the major source threshold of 250 tons per year, the operation is considered a minor source with respect to PSD and a PSD review would not be required.

NSPS/NESHAPs:

There are no New Source Performance Standards (NSPS) as listed in 40 CFR Part 60 that would be applicable to the proposed operation. Lake Wedowee Fiberglass will not be subject to the

National Emissions Standards for Hazardous Air Pollutants (NESHAP): Reinforced Plastic Composites Production as listed under 40 CFR Part 63, Subpart WWWW because potential emissions will be limited to less than 10 tons per year of any single HAP and less than 25 tons per year of total combined HAPs.

Lake Wedowee Fiberglass will keep records sufficient to determine emissions of HAPs, and will be required to complete the emissions calculations within 15 days following the end of each month. A report will be submitted containing the emission data on a quarterly basis.

Coastal Consistency/Class I:

Lake Wedowee Fiberglass is not located in Mobile or Baldwin County. Therefore, the proposed operation would not have to undergo a Coastal Consistency Review. The facility is within 100 km from the nearest Class I Area (Cohutta Wilderness Area). However, since the emissions from this operation will not raise facility emissions above levels considered significant for PSD, there should not be any significant impact on any Class I Area.

Title V:

Lake Wedowee Fiberglass's potential emissions will be limited to less than 10 tons per year of a single HAP, less than 25 tons per year of all combined HAPs, and its potential emissions of VOCs is less than 100 tons per year. Therefore, Lake Wedowee Fiberglass should not be required to maintain a Title V permit.

Air Toxics:

All emissions from the facility are fugitive; therefore, an air toxics review would not be required.

Recommendations:

Based on the applications received, required State and Federal Regulations, and the above information, I recommend that Lake Wedowee Fiberglass, LLC be issued synthetic minor operating permit 308-0031-X001 pending a 15-day public notice period.

John Robert Gill
Chemical Branch
Air Division

June 10, 2024
Date