Florida Department of Environmental Protection

Memorandum

TO: Rick Bradburn
THROUGH: Armando I. Sarasua, P.E.
FROM: Angelia Jackson
DATE: April 23, 2012
SUBJECT: Evaluation Summary for Kitchen & Bath Center, Okaloosa County

We recommend issuing a Title V Renewal Permit to Kitchen & Bath Center, Inc., in Fort Walton Beach. This follows permit No. 0910063-008-AV, effective date April 2, 2007.

Process Description

The Kitchen & Bath Center facility manufactures cultured marble castings such as bathtubs, shower enclosures, bathroom sinks and countertops. It also manufactures solid surface and granite products such as kitchen countertops.

The cultured marble casting process consists of gelcoat spraying into molds, mixing resin with marble dust and hand laying into molds, curing of castings, and final finishing of molded pieces. Marble fines are pneumatically loaded into a silo from tanker trucks. The marble fines are then conveyed by an enclosed screw conveyor to mixers and mixed with marble resin, which is delivered to the facility in bulk liquid containers. Prior to casting, molds are sprayed with gelcoat in a gelcoat spray booth and cured in a heated tunnel. After the gelcoat has set, the marble mixture is applied to the gelcoat-coated molds and allowed to set up inside the facility. The emissions associated with the gelcoating of molds are captured and vented to the atmosphere by a stack, while emissions associated with resin application and open curing of molds are vented to the atmosphere by general roof exhaust fans. After curing is complete, the molded fixtures are removed from the molds, and then finished by sanding and polishing in a finishing booth.

Pollution Control Equipment

Emissions Unit 004 consists of two baghouses. Baghouse #1 is used to control PM emissions from the cultured marble silo. Baghouse #2 is used to control PM emissions from the finishing process (sanding and polishing).

Environmental Impact

Airborne Contaminant Emitted	FAC Rule	Estimated Emissions		Allowable Emissions	
		lbs/hr	T/yr	lb/hr	T/yr
PM	N/A	N/A	<5.0	N/A	<100
SO2	N/A	N/A	<5.0*	N/A	N/A
VOC	N/A	N/A		N/A	59.4
NOx	N/A	N/A	<5.0*	N/A	N/A
CO	N/A	N/A	<5.0*	N/A	N/A
HAPs (Total)	N/A	N/A	N/A	N/A	59.4
Styrene (Individual HAP)	N/A	N/A	N/A	N/A	57.4
Objectionable Odors	62-296.320(2)	N/A	N/A	None allowed off plant property	
VE	62-297.620 (4)	N/A	N/A	Not more than 5% (EU 004)	

*Facility also operates two natural gas heaters and drying tunnels having a reported maximum heat input of 0.25 MMBtu/hr for both tunnels combined, they have been determined to be insignificant due to their potential (based on operating 8,760 hours/year) emissions being less than 5 tons per year.

Applicable Rules & Regulations
This facility is a major source (Title V). As a reinforced plastic composites production facility, the facility is subject to 40 CFR part 63, subpart WWWW.

Compliance Monitoring
Annual VE testing of baghouses 1 and 2 is required. Record keeping of baghouse operational parameters is required. In addition to the requirements of 40 CFR part 63, subpart WWWW, records of material usage, emission calculations, fuel usage and gel coat booth differentials, and proper training are required to verify compliance.

Compliance History
2012 – Minor Non-compliance (MNC). Monthly summaries and emission calculations are not certified and signed by the RO.
2011 – Facility noted to be "In-Compliance.
2010 – MNC. At the time of this inspection report, the Annual Operating Report (AOR) had not been submitted to the Department. Recordkeeping of baghouse pressures were unclear.
2009 – "In-Compliance"
2008 – MNC, AOR not submitted.

Fee Summary
Title V permit; no fee.

Additional Comments
During this renewal, changes were made to the visible emissions limit and the Particulate Matter (PM) limit for Emission Units 004. The previous 5% visible emissions limit was changed in this permit to 20% per the general facility-wide VE standard because there was no rule-based requirement for PM testing and thus no reason for a 5% VE limit in exchange for a waiver of PM testing as was written in previous permits. The PM limit of less than 100 tons per year was also removed.

AJ/c