Textured Coatings of America, Inc.

Emissions Calculations:

1. Operating hours: are not limited: 8,760 hours/year.

2. Production is 32,000 to 60,000 gallons/month;
    Average production is 46,000 gallons/month or 552,000 gallons/year.
    Lb/yr = 552,000 gallons/year X 10.5 lb/gallon = 5,796,000 lb/year.

3. Solids (pigments and fillers) are approximately 20%, and liquids (solvents and resins) are about 80%.
    Solids = (0.20 X 5,796,000 lb/year / 2000 lb/ton = 579.6 ton/year.
    Liquids = (0.80 X 5,796,000 lb/year) / 2000 lb/ton = 2,318.4 ton/year.

    Emissions factors from AP-42, Table 6.4-1:
        PM: 20 lb of pigment per ton of pigment used.
        VOC: 30 lb of VOC per ton of product produced.

4. Particulate emissions (Uncontrolled) = (20 lb/ton X 579.6 ton/yr) / 2000 lb/ton = 5.8 tons/year.
    Dust-Hog, model FJH32-4-H efficiency = 99.93 %
    PM (Controlled) = (1.0 - .9993) * 5.8 tons/yr = 0.004 ton/year.

5. VOC emissions (Uncontrolled) = (30 lb/ton X 2,318.4 ton/yr) / 2000 lb/ton = 34.8 tons/yr.

History of VE Testing Requirements

Permit AC03-213241, issued June 4, 1992, and all subsequent permits up to the current permit, limited visible emissions (VE) to 5% and required annual VE testing to show compliance. Past VE tests have been consistently below 5% and PM emissions are controlled at less than one ton/year. Based on these results and rule and guidance changes, the facility will no longer be required to perform VE testing to show compliance. However, the General Visible Emissions Standards and Special Compliance Tests still apply to this facility.

History of Emissions Limitations

Permit AO03-224460, issued May 28, 1993, and Permit 0050052-001-AO, issued March 11, 1998, limited the facility throughput to 524,000 gallons per year and required VOC emissions tracking based on product group formulations. VOC emissions were estimated to be approximately 32.5 tons/year. A Department letter to Michael G. Long, P.E., Cornerstone Engineering, Inc., dated August 19, 2002, suggested limiting VOC emissions by limiting facility throughput, and recommended using actual quantities of products to estimate VOC emissions. Permit 0050052-002-AO, issued October 15, 2002, and Permit 0050052-003-AO, issued November 2, 2007, limited the facility to a throughput resulting in less than 23.1 tons/year VOC emissions, and required emissions tracking based on actual quantities of products or constituents used. These permits referenced permit AC03-213241 which stated, in the facility description section, that VOC emissions are controlled at a rate of 23.1 tons per year, based on a production throughput of 552,000 gallons/year and an emission factor of 1% of VOC emitted per ton of product produced. This method of limiting VOC emissions by limiting facility throughput is carried forward into this permit. Permit AC03-213241 limited annual production throughput to 552,000 gallons per year which equates to a VOC emissions limitation of 34.8 tons/year, based on the VOC emission factor for paint manufacturing given in AP-42, Table 6.4-1.