Draft/Proposed Title V Air Operation Permit Renewal
Permit No. 0330006-022-AV

APPLICANT

The applicant for this project is Armstrong World Industries, Inc. The applicant's responsible official and mailing address are: Mr. Russell E. Johnson, Plant Manager, Armstrong World Industries, Inc., 300 South Myrick Street, Pensacola, Florida 32505-8064.

FACILITY DESCRIPTION

The applicant operates the Pensacola Facility, which is located at 300 South Myrick Street in Pensacola, Escambia County.

This existing facility manufactures acoustical ceiling tiles using mineral wool, perlite, starch and paper as the main raw materials. In addition to those raw materials, the plant utilizes "broke" in the form of reclaimed process waste (trim material, dust and scrap board) and recycled post-consumer ceiling tiles. These materials are mixed with water to form a slurry that is then formed, dried, embossed, cut, painted and packaged into a variety of ceiling tile products. The facility includes a number of emissions units that can be grouped into five major categories: activities controlled by wet scrubbers; perlite expanding; board drying; activities controlled by baghouses; and, activities not subject to specific emission limits (unregulated, insignificant). The facility is subject to Compliance Assurance Monitoring (CAM).

A small gas-fired package boiler (8.4 MMBtu/hr) was added at the plant in 2010 to generate more steam for the forming process. It was classified as an insignificant activity in Permit 0330006-019-AV but became regulated under 40 CFR 63 subpart DDDDD (National Emissions Standards for Industrial, Commercial, and Institutional Boilers and Process Heaters). It has been assigned emissions unit (EU) number 082 in this permit renewal.

Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

PROJECT DESCRIPTION

The purpose of this permitting project is to renew the existing Title V permit for the above referenced facility.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Renewed Title V Air Operation Permit issued June 18, 2010
Title V Air Operation Permit Revision issued July 6, 2011
Application for a Title V Air Operation Permit Renewal received November 3, 2014
Notice of Intent to Issue Air Permit issued January 29, 2015
Public Notice Published **Month day, year**

PRIMARY REGULATORY REQUIREMENTS

Title III: The facility is identified as a major source of hazardous air pollutants (HAP) due to emissions of formaldehyde (H095) and triethylamine (H179).

Title V: The facility is a Title V major source of air pollution in accordance with Chapter 62-213, Florida Administrative Code (F.A.C.).

PSD: The facility is a Prevention of Significant Deterioration (PSD)-major stationary source of air pollution in accordance with Rule 62-212.400, F.A.C. because the facility has a potential-to-emit greater than 250 tons per year of CO.

NSPS: The facility does not operate units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.

NESHAP: The facility does operate units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63, specifically subpart A (General Provisions), subpart HHHHH (Miscellaneous Coating Manufacturing), and subpart DDDDD (Industrial, Commercial, and Institutional Boilers and Process Heaters).

CAIR: The facility is not subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C.

CAM: Compliance Assurance Monitoring (CAM) applies to EU 003, EU 009, EU 010, EU 011, EU 012, EU 014, EU 050, EU 054, EU 055, EU 056, EU 080 and EU 081. The listed emissions units are subject to CAM for the regulated emissions of particulate matter, which are controlled by scrubbers, with the exception of EU 080 and EU 081, which are controlled by baghouses.

PROJECT REVIEW

This is a renewal of Title V Air Operating Permit 0330006-018-AV, effective June 18, 2010, and incorporates construction permit No. 0330006-020-AC, to replace two existing PM control devices with two new venturi scrubbers in EU050. This renewal is being concurrently processed with construction permit No. 0330006-023-AC to reduce PM testing frequency on several emissions units as authorized by permit 0330006-007-AC. Permit 0330006-019-AV revised Title V Permit 03300006-018-AV to incorporate construction permit 0330006-017-AC which authorized replacement of worn out components of the two existing perlite expanders. Project 0330006-021-AV was for adding two air knives on the PIF (Prime and Intermediate Finishing) Press Line associated with EU010 (Scrubber No. 6) but was determined to be exempt from air construction permitting.

Facility wide construction permit 0330006-007-AC superseded and replaced all previously issued construction permits, including AC17-128287 issued July 6, 1987 for a number of sources associated with the FMS process and including a NSR/PSD review (PSD-FL-117). Specific conditions A.5., B.6., and C.6. of Permit 0330006-007-AC state that the permittee may request a reduction in the frequency of PM testing for any specific emission unit provided the permittee has demonstrated that the particular emission unit has emissions less than 50% of the permitted maximum, and has established surrogate compliance parameters including but not limited to visible emissions, water flow, and pressure drop. Scrubber 3 (EU003), Scrubber 6 (EU010), Scrubber 2 (EU011), Scrubber 7 (EU012), Scrubber 9 (EU054), Scrubber 55 (EU055), and Scrubber 8 (EU056), have all had PM test results less than 50% of the permitted maximum for the last five years.

Permit 0330006-020-AC authorized Scrubbers 53 and 54 for EU050 in 2013. Rules 297.310(7)(a)3. and 297.310(7)(a)4.b., F.A.C. only require annual PM testing for an emissions unit with potential PM emissions of 100 tons per year or more. Potential emissions for EU050 are 36.29 tons PM per year. Due to Rule 297.310(7)(a)(3) and previous test results, Scrubber 53 and Scrubber 54 PM testing frequency was reduced to once every permit renewal.

All of the scrubbers have surrogate compliance parameters contained in the CAM Plan. Scrubber 4 (EU009) and Scrubber 5 (EU014) have established compliance parameters but do not have PM test results less than 50% of the permitted maximum for the past five years. The facility can possibly reduce the operating rate limit and/or retest to try to achieve a reduced PM testing frequency on Scrubber 4 and Scrubber 5 in the future.

Additional changes that were made as part of this renewal include reformatting, replacement of TV-6 with new Appendix TV, streamlining of EU sections by moving common conditions to the new appendices, etc.

Potential Emissions, TPY (excluding insignificant activity emissions)								
Activity	**PM**	**CO**	**SO2**	**NOx**	**VOC**	**Form.[1] (HAP)**	**TEA[2] (HAP)**	**Total HAP**
Regulated Units	179.68	982.19	0.32	52.52	15.54	12.66	N/A	12.66
Unregulated Units	10.13	14.40	0.11	17.62	33.26	0.43	3.07	4.27
Facility Total [3]	189.80	996.58	0.43	70.14	48.80	13.09	3.07	16.93

1 Form. = Formaldehyde
2 TEA = Triethylamine (data based on historical material usage)
3 Facility total = estimated potential emissions except for insignificant activity emissions

CONCLUSION

This project renews Title V air operation permit No. 0330006-018-AV, which was issued on June 18, 2010. This Title V air operation permit renewal is issued under the provisions of Chapter 403, Florida Statues (F.S.), and Chapters 62-4, 62-210 and 62-213, F.A.C.