STATEMENT OF BASIS

Title V Air Operation Permit Renewal
PROPOSED Permit No.: 0310072-020-AV
Renewal of Title V Air Operation Permit No.: 0310072-014-AV

APPLICANT

The applicant for this project is United States Gypsum Company. The applicant's responsible official and mailing address are: Mr. Mike Favo, Plant Manager, United States Gypsum Company, Jacksonville Plant, 6825 Evergreen Avenue, Jacksonville, FL 32208.

FACILITY DESCRIPTION

This facility consists of a manufacturing plant for the production of gypsum wallboard. Gypsum ore is received at the plant by ship or barge and unloaded into stockpiles. Gypsum ore is then conveyed to the crushing and conveying system. Crushed ore is dried and then conveyed to the landplaster system where the crushed gypsum is further ground in the Raymond mills. The finely ground and dried gypsum (known as landplaster) is conveyed to the stucco production area where the landplaster is introduced into calcining kettles which by indirect heating drives off the chemically bound water from the landplaster which turns it into a product called stucco. Stucco is then dry mixed with other additives and introduced to the pin mixer where water is added to the mix. The liquid stucco mix is then introduced between two sheets of paper (or glass mat) in the wallboard forming machine to form wallboard. The wet wallboard is dried on the conveying line at the wallboard dryer, cut, end-trimmed and stacked for distribution.

The facility also consists of a joint treatment compounds manufacturing operation using the major raw materials calcium carbonate, perlite, clay, and mica. These materials are delivered by railcar and stored in silos (EU Nos. 101 through 105). Raw materials from these silos are processed through the Wet and Dry Premixer System (EU 106) where the dry raw materials are mixed in dry premixers and then transferred to wet mixers where liquid additives are added to produce a paste. The paste proceeds from the wet mixers to the Joint Treatment Pail Fill Stations. Small quantities of other dry raw materials are added to the Dry Premixers from the Joint Treatment Bag Dumpstation (EU 107). These final products are shipped out for consumer use and are not used to manufacture wallboard. There are no crushers or grinding operations associated with the production of joint treatment compounds and this operation is not connected by conveyor to the crusher, screening operation nor grinding mills in the wallboard manufacturing operation, therefore the EUs (101-107) associated with the manufacture of joint treatment compounds are not subject to the provisions of New Source Performance Standards (NSPS), 40 Code of Federal Regulation (CFR) 60, Subpart OOO, Standards of Performance for Non-Metallic Mineral Processing Plants.

Emission Unit (EU) ID Nos. 006, 007, 039, 042, 058, 066, 077, 094, 097, 098, 099, 100, 108, and 109 are temporarily down, but expected to operate in the future. Therefore, the required compliance tests under Title V Air Operation Permit No. 0310072-017-AV for these emission units have not been completed for this renewal. The facility will complete testing within 60 days after the initial startup of each emission unit. A report indicating the results of the required initial testing for each unit will be submitted to the Compliance Authority.

PROJECT DESCRIPTION

This permit is to renew Title V Air Operation Permit No. 0310072-014-AV and to incorporate the terms and conditions of Title V Air Operation Permit Revision No. 0310072-017-AV and Air Construction Permit No. 0310072-018-AC.

RELATED DOCUMENTS

Title V Permit Renewal Application received August 10, 2011
Title V Air Operation Permit No. 0310072-014-AV
Title V Air Operation Permit Revision No. 0310072-017-AV
Air Construction Permit No. 0310072-018-AC

PRIMARY REGULATORY REQUIREMENTS

The facility is subject to the provisions of New Source Performance Standards (NSPS), 40 Code of Federal Regulation (CFR) 60, Subpart OOO, Standards of Performance for Non-Metallic Mineral Processing Plants, and Subpart UUU, Standards of Performance for Calciners and Dryers in Mineral Industries, 40 CFR 60, Subpart A, General Conditions, and Particulate Matter (PM) Reasonably Available Control Technology (RACT) requirements. The facility is currently minor for Prevention of Significant Deterioration (PSD) regulations by the establishment of a facility-wide emission limit for PM and VOC of less than 250 tons per year each. The facility has established a facility-wide emission limit for hazardous air pollutants (HAP) of less than 10 tons per year for any single HAP and less than 25 tons per year for total HAPs classifying it as a Synthetic Minor Source of HAPs.

Compliance Assurance Monitoring (CAM) applies to Emissions Unit Nos. 039 (No. 5 & 6 Calcining Kettles), 048 (Rotary Rock Dryer), 057 (No. 7 Calcining Kettle), and 096 (No. 4 MBR Calcining Kettle).

The control technology description and monitoring approach for each emissions unit subject to CAM is the same and summarized as follows:

PM emissions are controlled by one baghouse, except in the case of EU 048 which is controlled by two baghouses. The effectiveness of the baghouses are evaluated with an annual stack test and opacity measurements from the baghouse stack. The pressure differential in inches of water will be monitored continuously and recorded daily. Visible emissions from the dust collector's exhaust will be monitored weekly using EPA RM 22 or similar observations.

Based upon the Title V air operation permit renewal application received August 10, 2011, this facility is not a major source of HAPs.

PROJECT REVIEW

This project is to renew Title V Air Operation Permit No. 0310072-014-AV and to incorporate the terms and conditions of Title V Air Operation Permit Revision No. 0310072-017-AV and Air Construction Permit No. 0310072-018-AC. Additionally, the names of EU Nos. 99-100 were corrected, i.e., changed from Hurst Boilers to Cleaver Brooks Boilers.

The following changes from Air Construction Permit No. 0310072-018-AC were incorporated:

1. Increased the synthetic gypsum throughput from 50 to 100 tons per hour (TPH) for Emission Unit (EU) No. 093, Synthetic Gypsum Feed System.

2. Increased the maximum process rate from 20 to 30 TPH for EU 103, Joint Treatment Mica Silo.

3. Increased the maximum process rate from 20 to 35 TPH for EU 104, Joint Treatment Clay Silo.

4. Increased the maximum process rate from 20 to 30 TPH for EU 106, Joint Treatment Premixer System.

5. Increased the maximum process rate from 0.5 to 1.0 TPH for EU 107, Joint Treatment Bag Dump Station.

6. Removed the applicability of 40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants for EU Nos. 101 through 107 (production of joint treatment compounds).

CONCLUSION

This project renews Title V Air Operation Permit No. 0310072-014-AV, which was issued on April 12, 2007. This Title V Air Operation Permit Renewal is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210 and 62-213and 214. In accordance with the terms and conditions of this permit, the above named permittee is hereby authorized to operate the facility as shown on the application and approved drawing(s), plans, and other documents on file with the Permitting Authority.

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