PERMITTEE:
Carpenter Co.

FINAL PERMIT No.: 1050192-011-AV
PROJECT: Expandable Polystyrene Products Manufacturing & Flexible Foam Manufacturing and Fabrication Facilities

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MGN/jlm

Section I. Facilities Information.

Subsection A. Facilities Description.

The three emission units at the PSD major facility are identified as the Expandable Polystyrene Products Manufacturing Facility (Emission Unit No. 001), the Flexible Foam Manufacturing and Fabrication Facility (Emission Unit No. 002), and a Calcium Carbonate Storage Silo (Emission Unit No. 003).

Emission Unit No. 001: The expanded polystyrene products manufacturing facility receives expandable polystyrene beads, which typically contain "as received" a maximum of 7.0% by weight of pentane. The "as received" pentane content of the beads is typically approximately 91% of the "as manufactured" content of the beads and pentane is a volatile organic compound (VOC). The beads, which may include previously expanded beads, are injected into a Expander at a typical total raw bead maximum input rate of 12,000 lbs./hr. (calculated as a daily average). Inside the expander, steam from the natural gas fired boiler, having a maximum heat input rate of less than 10 MMBTU/hr., is used to expand the polystyrene to approximately 1/8" diameter. (Note, the boiler is an insignificant emission unit pursuant to Rule 62-213.430(6), F.A.C.) The expanded polystyrene is then discharged through a fluidized bed to storage bags. After aging in the storage bags to stabilize the now called "prepuff" is transferred to up to two (2) molds (Shape Mold PROMASS 1515 and/or IDRO Block Mold), which may include recycled expanded polystyrene. The typical total combined maximum input rate (inclusive of recycled expanded polystyrene) to the two (2) molds is 15,000 lbs./hr. (calculated as a daily average) where steam from the boiler is used to further expand the prepuff/beads and fuse them together into a block/billet/shape form. The blocks/billets/shapes are then transferred from the molds to a storage area for aging and stabilization. After aging and stabilization has taken place, the blocks are then cut into specific dimensions for shipment. Pentane emissions are exhausted as follows: