



Engineering Division

Wayne Goodwin | Commissioner of Insurance

September 17, 2013

Mr. Robert Sullivan
Technical Services Manager
cfiFoam, Inc.
P.O. Box 10393
Knoxville, TN 37939

Subject: 2012 North Carolina Energy Conservation Code - Compliance For Commercial and Residential Building Walls with respect to filling concrete masonry units cores with integral insulation

Dear Mr. Sullivan:

Thank you for meeting with Mr. Dan Dittman and me on Wednesday, September 11. Following up with your request, I am providing the following information.

The 2012 North Carolina Energy Conservation Code (2012 NCECC) allows the contribution of the thermal insulating performance of concrete masonry unit (CMU) cores filled with integral insulation to be considered when determining energy code compliance for commercial building wall assemblies. This is allowed for the prescriptive method when determining code compliance using the U-value method in Table 502.1.2. There is also a special case allowed for crediting integral insulation in the CMU cores when using Table 502.2(1), note c. Credit of thermal insulating performance of CMU cores filled with integral insulation is also allowed under Section 507 "Total Building Performance Alternative" for commercial building walls. Lastly, the NC Comcheck compliance program also provides a path to compliance with the 2012 NCECC for commercial buildings. The NC COMcheck allows selection among many types of CMU wall construction assemblies, including CMU cores filled with integral insulation. An option is also available in COMcheck for entering calculated U-values for a CMU wall assembly with insulated cores. Any of these methods are acceptable.

The 2012 North Carolina Energy Conservation Code (2012 NCECC) allows the contribution of the thermal insulating performance of concrete masonry unit (CMU) cores filled with integral insulation to be considered when determining energy code compliance for residential building wall assemblies. This is allowed for the prescriptive method when determining code compliance using the U-value method in Table 402.1.3. Also, credit of the thermal insulating performance of CMU cores filled with integral insulation is also allowed under Section 405 "Simulated Performance Alternative" for residential building walls. Lastly, the NC REScheck compliance program also provides a path to compliance with the 2012 NCECC for residential buildings. The NC REScheck allows selection from among several CMU wall construction assemblies, including CMU

cores filled with integral insulation. An option is also available in REScheck for entering calculated U-values for a CMU wall assembly with insulated cores. Any of these methods are acceptable.

Please contact me if you have additional questions. It was certainly my pleasure to meet you and discuss the elements of the 2012 NCECC.

Respectfully,

A handwritten signature in cursive script, appearing to read "Billy G. Hinton, Jr.", written in black ink.

Billy G. Hinton, Jr., PE

cc: Mr. Mike Page, PE
Mr. Dan Dittman, PE