FIRE PREVENTION AND BUILDING SAFETY COMMISSION Department of Homeland Security

Written Interpretation of the State Building Commissioner

Interpretation #: CEB-2022-39-2020 IRC-N1102.4.1.1

Building or Fire Safety Law Interpreted

<u>675 IAC 14-4.4</u> 2020 Indiana Residential Code Section N1102.4.1.1 Installation. The components of the building thermal envelope as indicated in Table N1102.4.1.1 shall be installed in accordance with the manufacturer's instructions and the criteria indicated in Table N1102.4.1.1, as applicable to the method of construction.

Table N1102.4.1.1 Excerpt for Insulation Installation Criteria for Walls:

- Cavities within corners and headers of frame walls shall be insulated by completely filling the cavity with a material having a thermal resistance of not less than R-3 per inch.
- Exterior thermal envelope insulation for framed walls shall be installed in substantial contact and in continuous alignment with the air barrier.

Issue

Whether Section N1102.4.1.1 of the 2020 Indiana Residential Code (IRC) requires unfaced fiberglass batt insulation to be covered by other materials when installed in basement exterior wall assemblies.

Interpretation of the State Building Commissioner

Section N1102.4.1.1 of the 2020 IRC does not require unfaced fiberglass batt insulation to be covered by other materials when installed in basement exterior wall assemblies unless the insulation manufacturer's written installation instructions require it.

Rationale

Section N1102.4.1.1 of the *2020 IRC* names two specific installation criteria for insulation products. The first is that they be installed in accordance with the product manufacturer's instructions. The second is that they be installed according to the criteria indicated in the applicable portion of Table N1102.4.1.1, which lists installation requirements for both air barrier and insulation products, in a variety of installation locations and conditions. Since the request focused on insulation products installed at walls, that is the portion of the table considered in this interpretation.

The first requirement – for the insulation to be installed in accordance with its manufacturer's instructions – appears throughout the code in reference to a variety of materials. No conditions are attached to this statement, and as such we must take it literally – that for the code to require covering of the insulation, the insulation manufacturer's written installation instructions must direct the installer to cover the insulation. The covering of the insulation must be unequivocally required by the instructions – recommendations for covering, or conditional statements (e.g., "cover the insulation for best practices," or "cover the insulation to qualify for warranty") do not constitute an unequivocal instruction. Without such a direct, unconditional instruction to carry out a task, that task is not considered required by the product's or the material's installation instructions.

The second requirement – the information contained in Table N1102.4.1.1 – names two specific tasks when installing wall insulation: that it completely fills the cavities, and that exterior insulation in framed walls be installed in substantial contact and continuous alignment with the wall's air barrier. Neither of these requirements calls for the covering of exposed insulation in the interior.

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