## FIRE PREVENTION AND BUILDING SAFETY COMMISSION Department of Homeland Security

# Written Interpretation of the State Building Commissioner

Interpretation #: CEB-2020-22-2009 IEC-334.12(B)(4)

### **Building or Fire Safety Law Interpreted**

675 IAC 17-1.8, 2009 Indiana Electrical Code, Article 334.12 Uses Not Permitted (B) Types NM and NMS (4) In wet or damp locations.

### Issue

Whether the prohibition on the use of NM and NMS cable in wet and damp locations extends to wiring runs located within exterior wood framed cavity walls, and which feed flush-mounted exterior fixtures, devices, and disconnects.

## Interpretation of the State Building Commissioner

The Article 334.12(B)(4) prohibition on the use of NM and NMS cable does not apply to wiring runs located within exterior wood framed cavity walls, and which feed flush-mounted exterior fixtures, devices, and disconnects.

#### Rationale

Article 334.12(B)(4) makes one statement – that NM and NMS cable may not be used in wet or damp locations. "Wet" and "damp" locations are both specific, code-defined terms:

Location, wet. Installations underground or in concrete slabs or masonry in direct contact with the earth; in locations subject to saturation with water or other liquids, such as vehicle washing areas; and in unprotected locations exposed to weather.

Location, damp. Locations protected from weather and not subject to saturation with water or other liquids but subject to moderate degrees of moisture. Examples of such locations include partially protected locations under canopies, marquees, roofed open porches, and like locations, and interior locations subject to moderate degrees of moisture, such as some basements, some barns, and some cold storage warehouses.

The space within wood-framed exterior cavity walls is an environment that clearly does not fall within the definition of "wet" areas. It is neither underground, nor is it in concrete slabs or masonry in contact with earth. It is not exposed to weather, and it is not subject to saturation with water or other liquids, unless other building components have failed, or have been misapplied or incorrectly installed, none of which are conditions from which Article 334.12(B)(4) is intended to protect.

Neither is this location an environment that falls within the definition of "damp" areas, for the following reasons:

1. The environment at issue in this interpretation is that of the cable itself, and not the fixtures, fittings, switches, and devices it feeds; if those devices are located in wet or damp environments, they have their own required water- and moisture-resistant properties that are intended to protect the enclosed construction (including the cable feeding the device). Article 334.12(B)(4) refers solely to cable locations, so it follows logically that the only damp environment being considered is that of the cable itself, and not the devices it feeds.

2. According to the interested person in this request, the only space in which the cable is present is within the confines of the building's exterior envelope system; it is never exterior to the building. All required weather and moisture protection is provided by the exterior envelope system, and not by the cable or any other building materials enclosed within that system. The spaces in which the cable is present only become "subject to moderate degrees of moisture" in the event the envelope system fails in whole or in part. The code generally does not require water- or moisture-resistant properties in interior building materials if their only exposure to effects of weather occurs through catastrophic failure of the other materials and components that are required to protect them.

3. The examples provided in the definition provide a clear indication of the code's intent – they are all locations which, by their nature, are either 1) open or exposed to a general environment that can be reasonably expected to be moist or damp from time to time, while still being out of direct weather or water exposure; and 2) those regularly exposed to typical interior moisture sources. These example locations are

not those that become damp only when other building systems fail.

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