

Logan, Lyndy (DLI)

From: Hunter, Dean (DLI)
Sent: Tuesday, October 28, 2025 8:30 AM
To: Logan, Lyndy (DLI)
Subject: FW: Section 695.7 language

FYI- Dean

From: Randy Klossner <randy.klossner@ci.stpaul.mn.us>
Sent: Friday, October 17, 2025 12:04 PM
To: Hunter, Dean (DLI) <dean.hunter@state.mn.us>; Trevor Turek <tturek@mplsjatc.org>
Cc: Hunter, Mark (DLI) <mark.hunter@state.mn.us>
Subject: RE: Section 695.7 language

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Thanks, Dean,

That all makes sense to me. I appreciate you digging in to it.



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From: Hunter, Dean (DLI) <dean.hunter@state.mn.us>
Sent: Thursday, October 16, 2025 2:47 PM
To: Randy Klossner <randy.klossner@ci.stpaul.mn.us>; Trevor Turek <tturek@mplsjatc.org>
Cc: Hunter, Mark (DLI) <mark.hunter@state.mn.us>

Subject: Re: Section 695.7 language

Importance: High

Think Before You Click: This email originated outside our organization.

Hello Randy, and Trevor,

I wanted to circle back after reviewing the language in Section 695.7 regarding fire pump supply conductors.

Here's how I interpret the requirement: If you're in agreement with this position, I'd like to propose clarifying the revision at our next meeting.

First off, Randy — thank you for raising the question!

The 2-inch encasement with engineering approval, or the 5-inch encasement, applies only to fire pump conductors routed through the building. Upon closer review of the code language, encasement is not required for cables and raceways considered outside the building. Therefore, if the conductors are installed below a 2-inch slab, they are still classified as outside the building and would be permitted.

The Code-Making Panel (CMP) removed the reference to 230.6 from section (A)(1) because it was redundant; that provision already applies generally. The second sentence of (A)(1) clearly states:

“Where supply conductors cannot be physically routed outside of buildings, the conductors shall be permitted to be routed through the building(s) where installed in accordance with 695.7(A)(2)(d)(1) or 695.7(A)(2)(d)(2).”

This is where the 2-inch and 5-inch encasement requirements are specified.

Sorry- I didn't have the question off the top of my head – I didn't mean to create any confusion. 😞

695.7 Power Wiring.

Power circuits and wiring methods shall comply with the requirements in 695.7(A) through 695.7(J), and as permitted in 230.90(A) Exception No. 4; 230.94 Exception No. 4; 240.13; 268.91; 240.4(A); and 430.31.

(A) Supply Conductors.

(1) Services and On-Site Power Production Facilities.

Service conductors and conductors supplied by on-site power production facilities shall be physically routed outside a building(s) and shall be installed as service-entrance conductors in accordance with 230.9 and Article 230 Parts III and IV. Where supply conductors cannot be physically routed outside of buildings, the conductors shall be permitted to be routed through the building(s) where installed in accordance with 695.7(A)(2)(d)(1) or 695.7(A)(2)(d)(2).

Exception: The supply conductors within the fire pump room shall not be required to meet 695.7(A)(2).

(2) Feeders.

Fire pump supply conductors on the load side of the final disconnecting means and overcurrent device(s) permitted by 695.5(B) or conductors that connect directly to an on-site standby generator shall comply with 695.7(A)(2)(a) through 695.7(A)(2)(d).

- a. *Independent Routing.* The conductors shall be kept entirely independent of all other wiring.
- b. *Associated Fire Pump Loads.* The conductors shall supply only loads that are directly associated with the fire pump system.

- c. *Protection from Potential Damage.* The conductors shall be protected from potential damage by fire, structural failure, or operational accident.
- d. *Inside of a Building.* Where routed through a building, the conductors shall be protected from fire for 2 hours using one of the following methods:
1. The cable or raceway is encased in concrete with a minimum thickness of 50 mm (2 in.) measured from each point on the surface of the cable or raceway, and the installation provides a 2-hour fire rating as documented by a licensed professional engineer qualified in such designs with the documentation available to the AHJ upon request..
 2. The cable or raceway is encased in concrete with a minimum thickness of 127 mm (5 in.) measured from each point on the surface of the cable or raceway.
Informational Note: See Fire Protection Research Foundation Report FPRF-2018-16, "Fire Resistance of Concrete for Electrical Conductors," for information about concrete fire resistance.
 3. The cable or raceway is part of a listed fire-resistive cable system.
Informational Note No. 1: See UL 2196, *Fire Test for Circuit Integrity of Fire-Resistive Power, Instrumentation, Control and Data Cables*, for one method of defining a fire-resistive cable system.
Informational Note No. 2: See UL *Guide Information for Electrical Circuit Integrity Systems* (FHIT) for identifying the system and its installation limitations to maintain a minimum 2-hour fire-resistive rating.
Informational Note No. 3: The listing organization provides information for fire-resistive cable systems on proper installation requirements to maintain the fire rating.
 4. The cable or raceway is protected by a listed electrical circuit protective system.
Informational Note No. 4: See UL 1724, *Fire Tests for Electrical Circuit Protective Systems*, for one method of defining an electrical circuit protective system.
Informational Note No. 5: See UL *Guide Information for Electrical Circuit Integrity Systems* (FHIT) for identifying the system and its installation limitations to maintain a minimum 2-hour fire-resistive rating.
Informational Note No. 6: The listing organization provides information for electrical circuit protective systems on proper installation requirements to maintain the fire rating.

Exception No. 1: Cables and raceways installed underground shall not be considered to be inside the building.

Exception No. 2: The supply conductors located in the electrical equipment room where they originate and in the fire pump room shall not be required to have the minimum 2-hour fire separation or fire-resistance rating unless otherwise required by 700.10(D) of this code.

Take care~

Dean

Dean Hunter

Assistant Director / Chief Electrical Inspector

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