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BULLETIN 2007-10-EL

October 27, 2007

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## DISCONNECTING MEANS AND OVERCURRENT PROTECTION FOR A FIRE PUMP

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This bulletin is intended to clarify the requirements of Rule 32-206 of the CEC, Part I - 2006.

### **BACKGROUND:**

Rule 32-206(1) requires that a dedicated circuit breaker "**specifically approved for fire pump service**" must be installed between the service box and a fire pump transfer switch or a fire pump controller. This requirement was introduced to the CE Code for consistency with NFPA 20.

However, Article 6-3.2.2.2 of the NFPA 20 **only** mandates use of "**a listed fire pump controller, a listed fire pump power transfer switch and a listed combination fire pump controller and power transfer switch**". It does not require use of a circuit breaker "**specifically listed**" for such application.

When the S/C on Section 32 had considered recommendation of this requirement, certification experts were consulted to ascertain that necessary changes to the CSA standard C22.2 No. 5 will be made - to ensure that the standard covers specific design and construction provisions for a circuit breaker "**specifically approved for fire pump service**". The S/C on Section 32 was further advised that certification of such equipment will be made available on interim basis via a Technical Information Letter (TIL) until additional requirements for such circuit breaker to be "**specifically approved for fire pump service**" are introduced in the circuit breaker standard. As a result, Rule 32-206(1) has been adopted by the TC on the CEC, Part I.

However, it now appears that no certification program exists for such circuit breaker, and that it is impossible to obtain a circuit breaker marked as being "**specifically approved for fire pump service**" in accordance with the CSA standard. In light of the inconsistency between requirements of the installation Code and provisions of equipment standard an emergency proposal was submitted to Section 32 S/C to amend Rule 32-206 as follows:

### **(A) To amend Rule 32-206 to read:**

#### **32-206 Disconnecting means and overcurrent protection (see Appendix B and Appendix G)**

- (1) *No device capable of interrupting the fire pump circuit, other than a circuit breaker, labeled in a conspicuous, legible, and permanent manner identifying it as the fire pump disconnecting means, shall be placed between the service box and a fire pump transfer switch or a fire pump controller.*
- (2) *The circuit breaker referred to in Subrule (1) shall be lockable in the closed position.*

### **(B) To amend Appendix B Note on Rule 32-206 by replacing the wording of the first line on Page 415 with the following wording:**

#### **Rule 32-206**

"The intent of this Rule is to allow only a circuit breaker lockable in the closed position and identified as fire pump disconnecting means to be installed upstream from the fire pump controller in a normal..." *(No change to remainder of Note)*

**RULING:**

The proposed amendment under no condition constitutes reduction of electrical and fire safety, as NFPA 20 does not require such disconnecting means with overcurrent protection to be "**specifically listed**" for fire pump service. Therefore, in order to clarify the application of Rule 32-206 the following criteria must be used for design and installation of a disconnecting means and overcurrent protection devices for a fire pump in the City of Vancouver (see attached diagram):

1. **Any circuit breaker approved in accordance with the CSA standard C22.2 No. 5. is deemed to be acceptable for installation under Rule 32-206(1) provided that applicable criteria of Subrules (3), (4) or (5) are met.**
2. **The circuit breaker referred to in item 1 above must be identified as the fire pump disconnecting means and must be lockable in the closed position.**

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Attachment

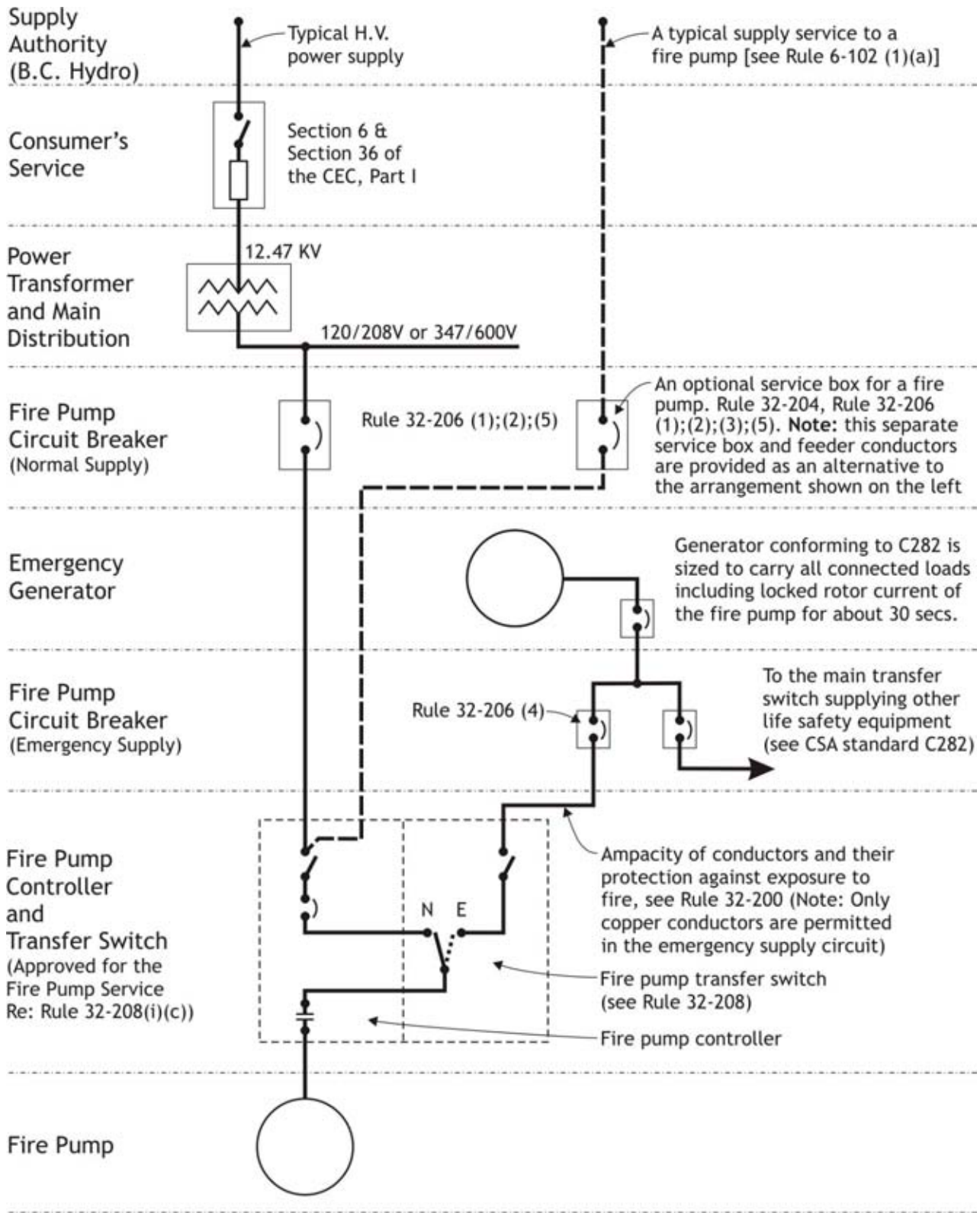


Diagram of Fire Pump Installation