Canadian Standards Association
Mississauga, Ontario
To the Part I Committee

Subject No. 2822 Chair: M. Anderson Date: January 22, 2004

Title: Clarification of Fire Pump Circuit, Rule 32-212

Submitted by: A. Tsisserev of City of Vancouver on June 24, 1998.

Proposal:

1. Renumber existing Rule 32-212 as Subrule (1).

2. Add a new Subrule (2) to read as follows:

(2) For the purpose of Subrule (1), a fire pump circuit is defined as the circuit supplied from an electrical transfer switch to a fire pump equipment as described in Rule 32-206.

Reasons for Request:

To clarify the intent of Subrule 32-212(1). New Subrule (2) will explain that the extent of a "fire pump circuit" is defined as a circuit from a dedicated fire pump transfer switch to a fire pump equipment. This clarification is essential in situations where a separate service box permitted by Rule 32-204 is not provided for a fire pump and a fire pump feeder is supplied from the building main distribution bus. In many cases rating of the main bus might exceed 1000 A for 347/600 V power supply or exceed 2000 A for 120/208 V supply. As a result such main distribution has to be provided with ground fault protection in conformance with Rule 14-102. The latter condition might create a perception of a conflict with Rule 32-212. New Subrule 32-212(2) will clarify that such a conflict does not exist, as long as a "fire pump circuit" starts from the fire pump transfer switch, which provides a power supply to the pump from a normal or emergency source.

Chair's Comments: I agree with this proposal.

Subcommittee Deliberations: I believe we have a consensus. There were eight members in favour of the proposal, including two with comments and one member against. The comments are as follows:

1. Connection of a fire pump electric feeder circuit to a building main distribution bus does not meet the NFPA 20 requirements. Question can NFPA 20 be overruled?
2. I agree with the proposal, but there may be confusion where no transfer switch is used.

3. If applied as written we could see a large installation where an emergency generator could have GFCI protection.

In answer to the first comment, NFPA 20 electrically is not the enforceable document so this comment is rendered non- germane.

Comment no. 2, under the National Building Code, electrical power to a fire pump must be supplied by a generator via a transfer switch. Therefore, the fire pump circuit is proposed to start from an electrical transfer switch.

Comment no. 3, was from the negative commenter and its interesting to note, this commenter is in support of the intent of the proposal. So to answer the negative commenter, this type of installation is not common and could be dealt with on an individual basis, I don't agree with the reword of the rule suggested.

Subcommittee recommendation: To accept the proposal.

Chair's Comments (Second Round): At the June 2003 meeting of the Part I Committee, this Subject was returned to the Subcommittee for further consideration.

Part I's direction was as follows:

- to change the title to "Ground Fault Protection(see Appendix B & G)" to meet the intent of the rule; and
- move the proposed Subrule to an Appendix B Note since the proposal is more of a clarification of the rule.

In discussion with the submitter these changes are acceptable.

Subcommittee Deliberations: Six of the eleven members responded in agreement and although there was a poor submissions of voters, there was a clear consensus.

Subcommittee Recommendation: To accept the proposal.