

Requirements for Verification of Fire Alarm Systems

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Background:

The BC Building Code (BCBC) requires that installations of fire alarm systems in buildings must conform to ULC Standard S-524. This article also states that upon completion of the installation, each fire alarm system must be verified to ensure its satisfactory performance. This procedure must be done in conformance with ULC Standard S-537. The BCBC also requires fire alarm and voice communication systems shall be installed in conformance with CAN/ULC-S524-M “Standard for the Installation of Fire Alarm Systems”, and tested in conformance with CAN/ULC-S537-M. “Standard for the Verification of Fire Alarm Systems”, to ensure satisfactory operation.

CAN/ULC-S537 provides requirements for a verification procedure and for a verification report. The preface of this Standard indicates that the verification procedure described therein must be conducted by an organization other than the installing contractor and that the verification must be carried out by qualified personnel in the employ of an organization acceptable to the authority having jurisdiction.

This standard requires the conformance of the fire alarm system components with the installation requirements of ULC S-524, and must be included in the verification procedure.

These requirements of the CAN/ULC S-537 mean that qualified persons involved in a verification procedure must have sufficient technical knowledge of fire alarm system components, their function and performance, and must have necessary electrical qualification for evaluating conformance of these devices with installation provisions mandated by the ULC S-524 and Section 32 of the Canadian Electrical Code, Part 1.

Acceptance:

The following are acceptance criteria for work performed under permit in the City of Victoria for organizations involved in verification of fire alarm systems:

1. All verifications are intended to be 3rd party reviews where the installing contractor and the verification provider are not employees of the same company.
2. A qualified person(s) employed by an ULC listed manufacturer of a FAS. Presently (in accordance with section 4(1)(e) of the BC Electrical Safety Regulation) employees of an electrical equipment manufacturer are deemed to be “qualified” for the purpose of doing electrical work of “commissioning” of the equipment supplied by that manufacturer. **
3. A Professional Electrical or Fire Protection Engineer (P.Eng) registered with the APEGBC who is not involved in the installation of the fire alarm system.
4. A Certified Technologist (ASTTBC) in the Electrical Technology area who in addition has successfully completed a full set of the CFAA courses for verification of fire alarm systems.
5. A qualified person employed by a fire alarm service company, provided this person possesses sufficient documentation indicating a successful completion of relevant factory training on fire alarm equipment and possesses a provincial certificate of qualification to do electrical work on alarm systems.

Notes:

1. All verification reports are permitted to be signed only by qualified persons employed by verification organizations accepted by the City of Victoria for this purpose.
2. When a FAS is connected to an acceptable central station, an ULC Certificate “Central Station Fire Protective Signaling Service” must be completed as a part of the verification report.
3. A qualified person is deemed to be a person in the employ of the verification organization (proof of qualification-training courses and relevant fire alarm and electrical certificates, etc., is required).
4. Acceptance of technicians employed by these manufacturers is based on the fact that these technicians have respective factory training and relevant electrical qualifications.

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