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(Revised)

VOLUNTARY UPGRADE OF EXISTING FIRE ALARM SYSTEMS IN BUILDINGS

This Bulletin clarifies the application of the Vancouver Building By-Law (VBBL) with respect to a voluntary upgrade of an existing fire alarm system (FAS) in a building.

Background:

When a FAS is required to be installed in a building, all applicable provisions of the VBBL must be met. These provisions include the requirements of subsection 3.2.4, Article 3.2.5.20 and Subsection 3.2.6 of Division B of the VBBL. This also means that the components of a fire alarm system must be installed in conformance with the CAN/ULC S524 and that the wiring methods must comply with Section 32 of the Canadian Electrical Code (CEC, Part I).

Application of the Voluntary Upgrade of Fire Alarm Systems:

When a stand alone voluntary upgrade of an existing fire alarm system is contemplated by a building owner and where the scope of work does not include other work in conjunction with the voluntary upgrade, the following options should be considered by an applicant:

1. When a modification of (or addition to) an existing FAS is undertaken, all modified or added components must be compatible with the existing FAS, and these components must be installed in accordance with the ULC S524 and wired as required by the CE Code. These added or modified components must conform to the applicable provisions of Subsection 3.2.4 and 3.2.6 of Division B of the VBBL. Building and electrical permits are required for such work and upon completion of the installation the modified/added components of the FAS must be verified according to Bulletin 2000-021-EL.
2. When an existing FAS is completely replaced by a new fire alarm system, the new fire alarm system must meet provisions of the VBBL, CEC and ULC S524. Such work must be done under respective building and electrical permits, and upon completion of the installation the entire FAS must be verified in conformance with the CAN/ULC S537.
3. If a FAS upgrade is limited only to the replacement of existing field devices (detectors, audible/visual devices, annunciators/control units or manual stations) without altering existing wiring and existing outlet boxes, then such work is considered to be a straight replacement of the electrical equipment. In this case, the intended work must be undertaken upon the issuance of an electrical permit (no building permit is required) and a complete verification of the FAS would be required in conformance with CAN/ULC S537.

Where one of the above options is contemplated for a voluntary upgrade, it is recommended that the proponent of such a proposal should discuss the extent of the application of the VBBL with the Chief Electrical Inspector, with respect to the intended work. The proponent should also be aware that all existing VBBL equivalencies, accepted for the building which are related to the building FAS, must not be compromised by the intended FAS upgrade.

Notes:

- a) Where a building permit is required under the provisions of options 1 or 2 above, the building permit will be processed through the Enquiry Centre and issued at the inspections counter without any formal plan review, provided that the entire scope of the intended work is limited to a stand alone voluntary FAS upgrade. In these cases, three sets of electrical plans and corresponding B1 and B2 letters of assurance, sealed and signed by a P.Eng. responsible for the FAS design will be required as part of the application submission to the City.
- b) Where a fire safety plan is required to be provided as a part of the voluntary FAS upgrade or where a new annunciator/CACF is intended to be installed or where the existing annunciator/CACF is intended to be relocated, the fire safety plan and/or the location of the annunciator will be subject to the review and acceptance by the VF & RS prior to the issuance of a building permit.
- c) Where site inspections under the above referenced building and electrical permits reveal any unsafe and/or hazardous condition within the building, then these unsafe and/or hazardous conditions will need to be rectified before the permits are finalized.
- d) Where a voluntary upgrade of the existing FAS is included in the scope of other work within the building alterations, additions, change of use, etc., then the provisions of this bulletin do not apply and the applicant must follow the established process in order to obtain a building permit.

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