

SPRINKLER PERMITS

This bulletin addresses permitting options available to fire protection trades contractors and related administrative processes for fire sprinkler permit applications, for building other than one and two family dwellings.

The City has become aware of a significant number of projects in which sprinkler work is proceeding in advance of obtaining the required permit. This is not an acceptable practice and trades persons or registered professionals engaged in such activity do so at considerable risk.

If work proceeds without permit, the City may at their discretion, singly or in combination:

- Order the owner to apply for a permit and apply additional fees for work without permit;
- Require a comprehensive testing and investigation, by a third party review at the owners' cost;
- Require removal and/or correction of all work without permit;
- Issue an order to stop sprinkler work, or to cease work throughout the site; or
- Take other measures as deemed necessary to ensure the safety of the public.

It is noted that in many cases, sprinkler permits are applied for late in the construction process, so that a permit cannot reasonably be issued prior to the commencement of work. This often appears to be a consequence of the design-build contracts process in which a Fire Protection Engineer or Record (FPER) is not engaged until well after the issuance of a building permit.

APEGBC's "Guidelines for Fire Protection Engineering Services for Building Projects", identifies the general expectation for registered professionals providing fire protection engineering services. This guideline identifies two scenarios for compliance, which is an option that does not exist for other disciplines. This is problematic as the City's permit process and the Letters of Assurance did not originally intend that there be a division between the Engineer of Record (EOR) and the fire protection designer which these guidelines allow.

The City has attempted to work within the structure of these guidelines, yet there is growing evidence that designs and drawings are often not well coordinated or are of poor quality. This arrangement leaves the EOR or Fire Protection Engineer or Record (FPER) with too little time to coordinate, or they are forced to rely too heavily upon design or reviews by others. This has on occasion resulted in significant last minute revisions during construction to address items that could have easily been resolved at the outset had the FPER been involved earlier.

BUILDING PERMIT SUBMISSION

In order to address this condition and to improve design coordination, where sprinkler work is proposed for a project other than a one or two family dwelling, the City will as of January 01, 2017, require that an application for sprinkler trades permit be submitted with or shortly following the building permit application, as is typical of the building mechanical and electrical trades permits. Performance specifications by the Mechanical Engineer of Record will

not be required. Sprinkler drawings, calculations, professional schedules, etc. are no longer required at building permit phase, as they will instead be collected as part of the subsequent trades permit application. It is expected that the required information necessary to demonstrate building by-law compliance and coordination of the Fire Department access and response be provided on the permit drawings in accordance with Book I - Division C of the VBBL.

If the sprinkler design cannot reasonably be prepared by the time of permit issuance, then a design specification may be accepted at the City's discretion, if prior to building permit issuance the following is provided:

1. The owner provide a letter that:
 - a. Commits to providing a sprinkler trade permit application within 60 days of building permit issuance¹,
 - b. Identifying the name of the Fire Protection Engineer and Contractor, and
 - c. Confirming no sprinkler work will be done one site prior to sprinkler permit issuance; and
2. A letter of commitment from the Fire Protection Engineer of Record indicating they have been retained and are working on the detailed design.²

Certified Professional projects shall follow the same model excepting that for staged permits, the FPER providing detailed design services must submit their detail design of subgrade work prior to the issuance of a Foundation to Grade stage permit.

TRADES PERMIT SUBMISSION

In a further effort to ensure permits are be effectively issued, persons undertaking sprinkler work in the City of Vancouver should be aware of the options for permitting at their disposal. A contractor may (subject to the specifics of their project):

- Elect to apply for a standpipe permit in advance of the full sprinkler permit - which will allow the contractor to install main piping runs, the fire protection water service, and ancillary equipment.
- Make permit applications for their project in discreet sections - provided this is supported by the specifics of the design and adequate oversight (i.e. Certified Professional Projects).
- The contractor may choose to make more than one permit application provided that the system can reasonably be divided into discreet scopes of work (i.e. Parkade) that do not interfere, rely upon, or invalidate the design assumptions and hydraulic calculations of other areas of work.
- A special sprinkler permit process exists where in which inspectors can review plans for simple³ tenant improvements in which sprinkler head additions and relocations do not exceed twenty heads.

¹ Where exceptional circumstances require, an extension may be granted by the City upon receipt of a written request prior to the conclusion of the 60 days term.

² Detailed design of the fire sprinkler system refers to drawings, calculations, and specifications of sufficient detail and clarity for the City to assess compliance with the specific provision of NFPA 13, and for a fire protection trades contractor to estimate costs, coordinate, and install the sprinkler system.

³ Simple projects refer to those projects consisting of add and relocated sprinkler heads within one Building Permit project area, and no hydraulic design changes (i.e. no changes of hazard classification, special protection, alternative solutions, etc.).

Additional information can be found at on the City website: <http://vancouver.ca/home-property-development/fire-sprinkler-permit.aspx>

(Original signed by)
K. Lau, P.Eng., CP
Building Policy Engineer

(Original signed by)
P. Ryan, M.Sc., P.Eng.
Chief Building Official
Director, Building Code and Policy

Appendix A: Revised Regular Building Permit Process

