July 18, 2024 **Bulletin 2024-004-BU/FI**

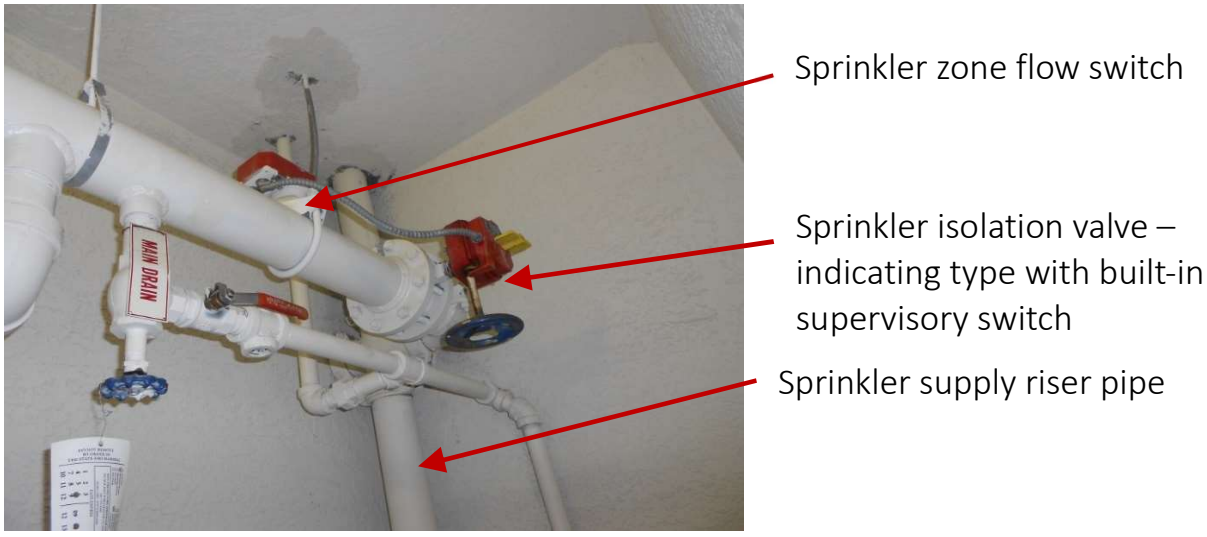
Sprinkler System Isolation Valves

Effective 1 year from the date of enactment, on July 9, 2025, the Vancouver Fire By-Law requires the addition of isolation valves for each floor of sprinklers in buildings with residential and care occupancies (other than houses), if they are not already installed.

Background

Many sprinkler systems installed before 1999 may have been designed without isolation valves for each storey. Each time a sprinkler activates, the entire sprinkler system must be shut down for repairs. Meanwhile the entire building is left unprotected against another fire. This was the case at a building in 2022 where the sprinkler system was shut down for repairs after having successfully extinguished a fire 3 days earlier. The sprinkler system was still shut down, when the 2nd fire occurred and grew out of control, resulting in the deaths of two persons trapped in the fire.

As the result of that fire, the Fire By-law has been amended to mandate the addition of sprinkler isolation valves. If a fire occurs and is subsequently controlled or extinguished by the sprinkler system, the sprinkler system could be shutdown only to the floor where the fire occurred. Sprinkler protection for the remainder of the building would be maintained, while the sprinkler system awaits service to be restored to full operating condition.



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Requirements

a) Except for houses, every *building* equipped with a sprinkler system and that contains:
   - a *residential occupancy*,
   - a *care occupancy* with individual *suites*, or
   - a *care occupancy* containing sleeping rooms not within a *suite,*

   will be required to install sprinkler system isolation valves for each floor, if they have not already been installed.

b) Sprinkler system isolation valves for each *storey* must be indicating valves with built-in supervisory switches and shall be installed in accordance with the *Building By-law*.

c) The sprinkler system isolation valves must be electrically supervised by the fire alarm system. This means that if any floor isolation valve is closed, the fire alarm system will be triggered to emit an audible and visible trouble signal at the annunciator panel.

d) If the existing fire alarm system is incapable of electrically supervising the isolation valves, then the isolation valves must be chained and padlocked in the correct position until the fire alarm system is replaced at which time the sprinkler isolation valves must be electrically supervised by the fire alarm system.

   The keys to the padlocks must be kept in a secure location, such as at the fire alarm panel, and copies retained by the building manager. In case of emergency when the isolation valve must be closed, and a key is not readily available, the chain or padlock may be cut off with bolt cutters.

e) Sprinkler flow switches (and related test apparatus and drain piping) are not required with the installation of sprinkler system isolation valves unless the fire alarm system is replaced with a new fire alarm system to properly annunciate the zone of sprinkler activation.

f) A sprinkler permit will be required for the work.

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